

Energy to make everything possible

ACTIVITY REPORT
2016/2017

7 keys
to the
future
➔

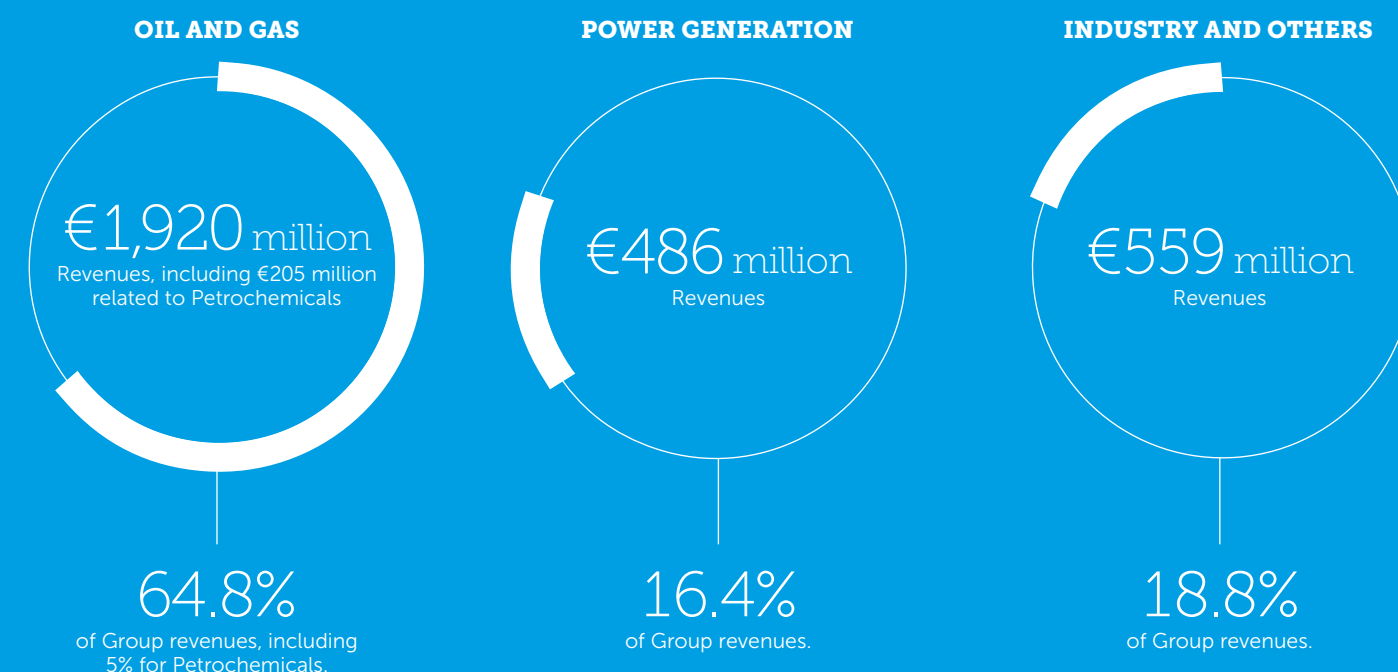
Energy to make everything possible...

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What is the relationship between oil and gas wells in extreme environments, latest-generation power plants, bold architectural projects and high-performing mechanical engines? Vallourec. As a world leader in its markets, Vallourec supplies tubular solutions that make possible all of its customers' projects, even the most complex. In 2016, the Group implemented a comprehensive transformation plan that optimizes its industrial footprint and increases its competitiveness while maintaining the high safety and quality standards that make it world-renowned. —

... 7 keys to the future

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 "IT IS A MESSAGE OF CONFIDENCE IN THE FUTURE THAT WE SEND TO ALL OUR STAKEHOLDERS WORLDWIDE." —

€280 million
 in savings achieved under the cost reduction plan during 2015-2016

€1 billion
 capital increase completed in 2016



— MAKING **THE FUTURE POSSIBLE...**

● **PHILIPPE CROUZET** /
 CHAIRMAN OF THE VALLOUREC MANAGEMENT BOARD

Vallourec is establishing a new industrial footprint, a new organization. How is it going?

— The new organization has two objectives. The first is competitiveness. We need to optimize our new production routes resulting from the plan announced and implemented in 2016. This means being able to choose the most competitive route for our customers and for the Group at all times by considering all parameters, from plant loading to costs, delivery times and exchange rates. It is the central Technology & Industry department that now allocates production in close and transparent cooperation with the regions. Its mission is also to stimulate and support the regions to improve their industrial and technological performance.

The second objective is growth. Over the past two years, we have focused on adapting our industrial facilities and reducing our costs. Today, we devote more time and resources to finding new growth paths, increasing the value of our offer, expanding it, developing new solutions and entering new terrains for the benefit of the entire Group. There, too, a central Development & Innovation department drives a transversal approach, stimulating cooperation between the regions, which are on the front lines of the commercial battlefield, in contact with customers. Transparency, sharing and confidence are the levers of the new Vallourec.

The recovery in the US is providing a live test of the new organization. How is it progressing?

— In the United States, the sharp decline in demand was amplified by a massive destocking by distributors. The rebound is equal to the amount of the drop. In six months, our capacities have returned to a level close to saturation. ➔

Let's talk economic climate. Is it recovering or not?

— There's a recovery, unquestionably. The recovery is strong, but geographically centered in the United States, in the areas of unconventional oil and gas exploitation. And that's where we are expecting the recovery. The crisis has mobilized the whole industry to improve operating performance and oil prices have returned to a level which is now sufficient to ensure profitability in these regions. This is not yet the case for the heavier and more complex deep offshore and onshore projects. However, production cuts and the rebalancing of supply and demand suggest a return to investment.

The sector has undergone a profound restructuring in the United States. How can all the skills be found to restart?

— The sector cut more than 300,000 jobs in the United States in 2015 and 2016, but the speed of the recovery is generating a return of skills. By fall 2017, the sector will have recovered a large portion of its workforce. In the US, we have maintained our skill base, even during the lowest point. In Europe, we have reduced our capacities, but preserved our R&D budgets and key technology skills, while continuing to innovate and to look beyond the cycle.



— “WE ALL NEED A POSITIVE BOOST, OUR TEAMS AS WELL AS OUR CUSTOMERS.”



Some of the recovery in demand is temporary, of course, and we are completing the American offer with an offer from Brazil, where the difficult market leaves capacity available, and even from Europe. This exercise validates two strategic choices: doubling the capacity of the Youngstown plant and establishing new production routes to meet global demand.

In China, what is Tianda's biggest stake?

— This is probably the boldest project in Vallourec's transformation. We know Tianda very well, having become a shareholder in 2010. We know and have validated the quality of their equipment and their attractive production costs. In 2016, we took complete control of this company under very attractive financial conditions. So, where is the audacity? The challenge is to raise Tianda's standards to the Group's premium entry level without losing its competitive advantage, by gradually changing behaviors and installing our best practices in terms of safety, quality and maintenance.

In Europe, what is the future for premium?

— Small, well-valued and short-term delivery runs remain the prerogative of Europe for oil and gas as well as for niche and specialty markets in industry and power. The core of R&D in all business lines also remains in Europe, especially in France for oil and gas, and in Germany for power and industry. Although the crisis has affected our customers' priorities, innovation remains a growth engine for

Vallourec. We are working on new products and services associated with our tubes in a approach sought by our customers and considering the total cost of ownership.

In this accelerated transformation, what has been the most difficult? And what are you most proud of?

— The hardest part has been to fight on all fronts at once, to adapt production very quickly and at the same time to launch an in-depth transformation in the medium term. You have to ask employees to make efforts and be creative when business is halved. It was the most difficult part, but we did it and everyone contributed. I am most proud of convincing the teams and the shareholders to follow us in this industrial and financial challenge with a short timeline. We responded to it without blemish and without delay. Even the toughest decisions were executed on time, without penalizing our customers and in keeping with our commitments to our employees who were most affected. Everyone shares in this pride.

In its communication campaign, Vallourec promises to make the impossible possible. Is it true?

— We all need a positive boost, our teams as well as our customers, and we decided that it would come from within Vallourec. This campaign says: more than ever, Vallourec is capable of meeting your technical challenges, enabling you to achieve your most impossible projects and your wildest dreams. Today, Vallourec is ready to produce the best for less and to surpass new frontiers. It is a message of confidence in the future that we are sending to all of our stakeholders around the world, faithful to the pioneering spirit of Vallourec. —



WITH FULL CONFIDENCE —

• VIVIENNE COX / CHAIRMAN OF THE SUPERVISORY BOARD

We did so much in 2016, and some things were really daring. We announced major transformations in February and completed everything in December.

Starting with the refinancing of the Group. We restored the balance sheet, notably by raising €1 billion, thanks to the confidence of two major shareholders: Bpifrance, the investor, and NSSMC, the industrialist. For Vallourec, having a manufacturer's confidence is a key sign.

The rebalancing of production throughout the world has been a colossal project. It involved various and complex decisions, such as closing production lines, particularly in Europe, or merging two factories in Brazil and buying

a company in China, with consequences for employees and customers. All this was achieved in just nine months, each time trying to limit the impact on employment.

The new organization gives Vallourec the flexibility to meet the new demands of our customers and will enable us to adapt extremely quickly to the next cycle changes, which we know there will always be in the oil and gas industry.

Vallourec announced it and Vallourec did it. Proof that shareholders and employees, customers, regions and all of our other stakeholders are right to trust Vallourec. And their confidence drives us toward the future. —



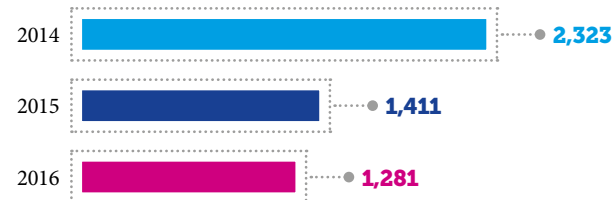
“VALLOUREC ANNOUNCED IT AND VALLOUREC DID IT.” —

— FINANCIAL RESULTS

In 2016, Vallourec continued to evolve in a challenging market environment, marked by continued major reductions in oil companies' investment programs as a result of the sharp drop in oil prices. In response to this situation, Vallourec deployed an ambitious transformation plan during the financial year and realized a capital increase of approximately 1 billion euros. —

Production shipped

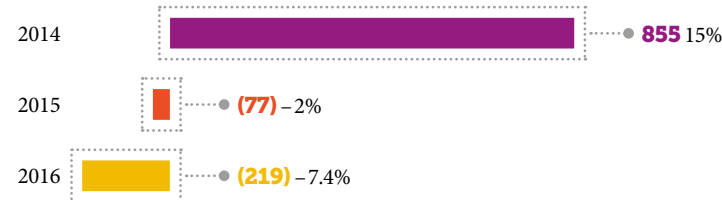
in kt



In 2016, volumes decreased by 9.2% compared to 2015.

Gross operating income and margin

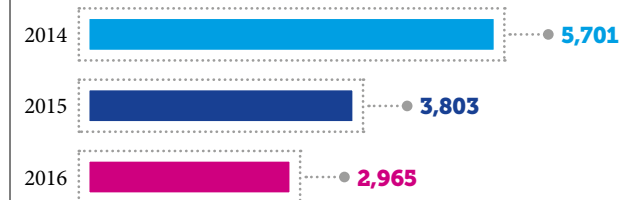
in € m and % of sales



Gross operating income was -219 million euros, mainly due to lower sales and as a consequence of the industrial margin. Despite the good adaptation of the costs, the decline in activity led to industrial inefficiencies due to low plant loads.

Revenues

in € m



The Group's revenues decreased by 22.0% (-21.2% at constant exchange rates) mainly due to the deterioration in prices in the EAMEA⁽¹⁾ and the United States (negative price/mix of -12.0%) and lower volumes (-9.2%).

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

Net income, Group share

in € m



Net income, Group share was a loss of 758 million euros in 2016, compared to a loss of 865 million euros in 2015. In 2016, the Group recorded restructuring and asset impairment charges lower than in 2015 (respectively 111 million euros and 71 million euros in 2016, mainly related to the strategic initiatives of the transformation plan announced on February 1, 2016, compared with 101 million euros in restructuring charges and 296 million euros in impairment losses in 2015).

Net debt

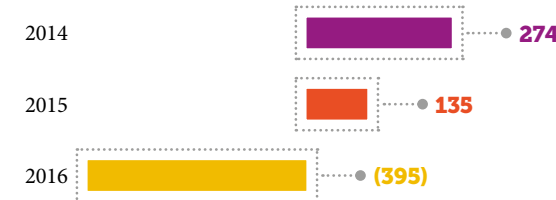
in € m



As of December 31, 2016, the Group's net debt amounted to 1,287 million euros, a decrease of 232 million euros compared to the end of 2015, representing a consolidated debt-to-equity ratio of 34.1% compared to 50.0% at the end of 2015. With the capital increase of 951 million euros, net debt decreased in 2016.

Free cash flow

in € m



Free cash flow was -395 million euros. Net cash provided by operating activities was -399 million euros. Working capital requirements decreased by 179 million euros, while gross industrial investments amounted to 175 million euros, compared with 268 million euros in 2015.

Distribution of revenues

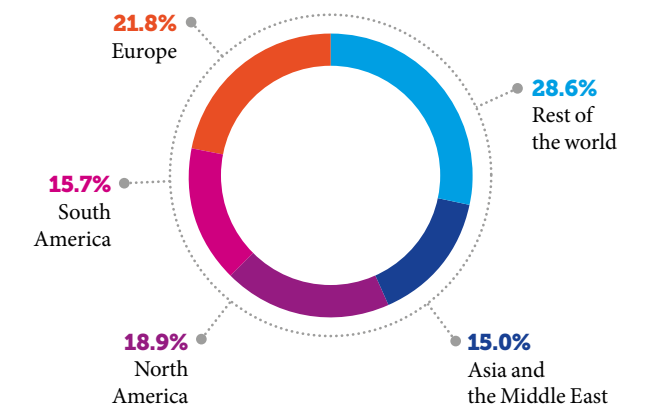
by activity in 2016



In 2016, Oil and gas revenues amounted to 1,791 million euros, down 24.1% compared with 2015. The Oil and gas activity accounted for 60.4% of revenues compared with 62.1% in 2015. Petrochemicals, at 129 million euros (-37.1%), accounted for 4.4% of revenues. Industry and others revenues decreased by 17.6% to 559 million euros. The Power generation activity, which recorded a decrease of 13.1% compared to 2015, to 486 million euros, accounted for 16.4% of the Group's revenues.

Distribution of revenue

by geographic area in 2016



In 2016, sales declined in almost all geographic areas where the Group operates. In the United States, it was affected by lower volumes and a negative price/mix effect. In the EAMEA area, the slightly positive OCTG(1) volume effect, associated with tenders awarded by national oil companies, was more than offset by low price levels in the region. At the same time, international oil companies continued to reduce their investments. In Brazil, Group operations suffered from Petrobras' investment cuts and an unfavorable macroeconomic environment.

(1) OCTG: Oil country tubular goods.

— SHAREHOLDERS' SECTION

Financial agenda (Tentative schedule)

APRIL 26, 2017
First Quarter 2017 results

JULY 26, 2017
Second Quarter 2017 and
First Half 2017 results

NOVEMBER 9, 2017
Third Quarter 2017 and
first nine months 2017 results

The Vallourec share

Listed on Euronext Paris Eurolist (compartment A). Admitted to the Deferred Settlement Service

Code ISIN ASDR:
FR0000120354 (ticker: VK)

Code ISIN ADR:
US 92023R2094 (ticker: VLOWY)

Indices : SBF 120, Next 150, FTSE4Good, Ethibel Sustainability Index (ESI)

Market capitalization at December 31, 2016:
2.95 billion euros

Dividend

Vallourec's dividend policy, approved by the Supervisory Board at its meeting of April 17, 2003, targets the distribution of an average of 33% of consolidated net income, Group share over the long term. Given the negative result for the year 2016, it will be proposed at the General Shareholders' Meeting of May 12, 2017 not to pay a dividend for fiscal year 2016. The average payout rate of the past five years (2012-2016) amounted to 24.7%.

Shareholders' contact

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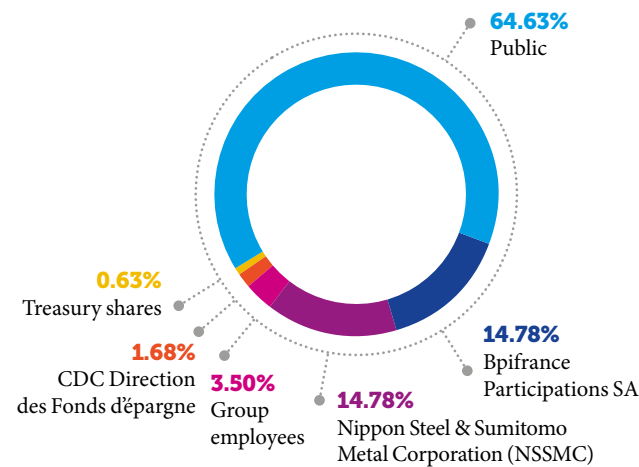


"OUR 2016 CAPITAL INCREASE WAS A SUCCESS. IT HAS CONTRIBUTED TO RELAUNCHING POSITIVE MOMENTUM, STRENGTHENING OUR FINANCIAL STRUCTURE, STABILIZING OUR SHAREHOLDING AND FINANCING OUR TRANSFORMATION PLAN." —



OLIVIER MALLET / CHIEF FINANCIAL OFFICER AND MEMBER OF THE MANAGEMENT BOARD

Shareholding structure at December 31, 2016



In 2016, Vallourec proceeded with a capital increase of approximately 1 billion euros in order to strengthen its balance sheet and finance its transformation. The funds were raised through a financial instrument (mandatory convertible bonds) reserved for Bpifrance Participations and NSSMC, and an increase in capital with preferential subscription rights for shareholders. This increased the holdings of Bpifrance Participations and NSSMC in Vallourec's capital to approximately 15% each. As of December 31, 2016, individual shareholders held approximately 18% of the capital.

— CSR, COMMITMENTS THAT MAKE A DIFFERENCE

The large-scale transformation carried out by Vallourec goes hand in hand with the confirmation of its commitment to social and environmental responsibility. —

€3.3 million

devoted to actions to benefit local communities



850

suppliers engaged in process to evaluate their CSR performance



4.5/5

Vallourec's average rating from its main customers for the quality of its services



506,451

hours of professional training (source: LMS)



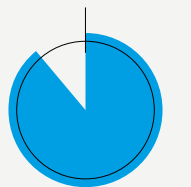
Divided by 10

accident frequency rate with and without lost time (TRIR) divided by 10 between 2008 and 2016



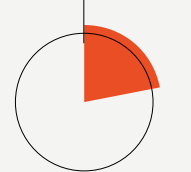
89%

of production from ISO 14001 certified sites



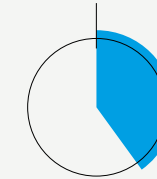
22%

of women managers



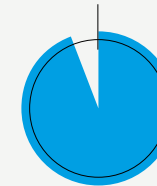
40%

of energy consumed from renewable sources



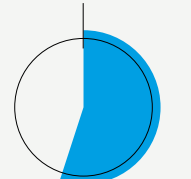
94.4%

of waste recycled



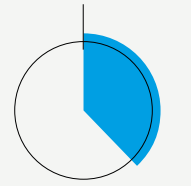
53%

of steel produced from recycled scrap



38%

of production from ISO 50001 certified sites



— **A COMMITTED GOVERNANCE**

Management Board —



Philippe Crouzet
Chairman of the Management Board



Olivier Mallet
Chief Financial Officer

Executive Committee —

Alongside Philippe Crouzet and Olivier Mallet



Philippe Carlier
Senior Vice President, Technology & Industry



Nicolas de Coignac
Senior Vice President, North America



François Curie
Vice President, Human Resources



Stéphanie Fougou
General Counsel and Group General Secretary



Édouard Guinotte
Senior Vice President, Middle East/Asia



Didier Hornet
Senior Vice President, Development & Innovation



Alexandre Lyra
Senior Vice President, South America



Jean-Pierre Michel
Advisor to the Management Board



Hubert Paris
Senior Vice President, Europe/Africa

Vallourec's governance is composed of a Supervisory Board and a Management Board. The Management Board provides management direction, while the Supervisory Board oversees this direction as the representative body of the shareholders. The Executive Committee implements the strategy defined by the Management Board. —

Supervisory Board —

Composition at February 28, 2017

Chairman

Vivienne Cox
Director of Pearson Plc and GlaxoSmithKline Plc

Vice Chairman

Pierre Pringuet
Vice Chairman of Pernod Ricard, Director of Iliad, Avril and Cap Gemini and Chairman of AFEP

Members

Maria Pilar Albiac-Murillo
Vice President of Products and Innovation of the Excellence Market of Philips

Philippe Altuzarra
Chairman of the Supervisory Board of La Redoute and Director of Altuzarra LLC

Cédric de Bailliencourt
Chief Financial Officer of Groupe Bolloré, Permanent Representative of the Compagnie du Cambodge to the Supervisory Board of Banque Hottinguer and Director of the Musée national de la Marine

Olivier Bazil
Director of Legrand, Michelin and Château Palmer

Bpifrance Participations represented by Alexandre Ossola

Vice President of Operations and Member of the Executive Committee of Mid & Large Cap de Bpifrance, Head of Automobile Futures Funds managed by Bpifrance Participations

Laurence Broseta⁽¹⁾
International Director and Member of the Executive Committee of Transdev, Director of Thalès, Administrator of Transdev Group subsidiaries

Pascale Chargrasse
Business Development Manager, Valinox Nucléaire, representing employee shareholders

José Carlos Grubisich
Chairman of Eldorado Brasil Celulose SA and Director of Halliburton

Henri Poupart-Lafarge
Chairman and CEO of Alstom

Alexandra Schaapveld
Member of the Supervisory Board of Société Générale and Bumi Armada Berhad

(1) At its meeting of February 17, 2016, the Supervisory Board co-opted Laurence Broseta as a member of the Supervisory Board to replace Michel de Fabiani, who resigned, with effect from the April 5, 2016 meeting of the Supervisory Board and for the remaining term of her predecessor's term of office, i.e., until the Shareholders' Meeting called in 2018 to approve the financial statements for fiscal year 2017. Shareholders ratified the appointment of Laurence Broseta at the Annual General Shareholders Meeting of April 6, 2016.



7 keys to the future

Confident in the approaching rebound, Vallourec is actively reinventing itself. Discover how everything becomes possible. —

The first signs of recovery

A look at the factors contributing to the untenable situation of the world's oil and gas ecosystem for the past two years and the first signs of market rebalancing. —

It is the price that is the key of the global oil market. In the summer of 2014, the price of a barrel fell by 70% in the space of a few months, from \$100 to \$30 per barrel, causing a dizzying drop in investments throughout the sector. At the origin of the sudden drop in crude oil prices was a combination of several phenomena. The global economic crisis struck large fossil fuel consuming industries. The rise of alternative energies amplified the movement. But politics is the primary factor in this oil crisis, one of the most severe in history, according to experts.

THE SHALE REVOLUTION

— The new situation appeared 10 years ago with the emergence of shale hydrocarbons, known as “unconventionals”, in the United States. The revolution began with shale gas for which production intensified to the point of causing

falling gas prices. Beginning in 2011, operators turned to highly profitable shale oil deposits.

This is how the United States gained its energy independence; the move to become an energy exporter followed. Losing a customer was already a major problem for OPEC, but seeing a competitor emerging clearly threatened the cartel. At the end of 2014, despite global overproduction, OPEC leader Saudi Arabia refused to freeze production, believing that it could subdue US oil shale production for which the cost of extraction was overestimated. The price of a barrel fell below \$30, forcing about 100 small US producers into bankruptcy and severely weakening the business model for many others. Of the 1,850 drilling rigs in the US landscape at the peak of activity, only 400 rigs⁽¹⁾ remained active in the first quarter of 2016. But unconventional production resisted, its true costs well below estimates,

OPEC AGREEMENT IS A SIGN

— Founded in 1960, OPEC brings together 13 oil-exporting countries from the Middle East, including Saudi Arabia, Africa, including Algeria, South America, such as Venezuela, and Asia. Its main objective is to regulate the price of crude oil by coordinating the production by its members of around 30 to 40 million barrels per day, which represents a little more than a third of the world's production. The agreement, concluded November 30, 2016 and valid for six months, reflected the consensus among member countries to limit production and allow prices to rise again.

NEW PETROLEUM MODEL CHANGES THE SITUATION

— All players in the oil sector have taken advantage of the crisis to considerably improve their operational efficiency by simplifying the design of their projects and even exploration techniques. In

and US production rebounded with more than 650 rigs in action as of the end of 2016 and more than 800 as of the end of March 2017.



37.3%
OPEC's share of global oil production in 2016

the United States, new rigs are able to drill faster, resulting in more wells, as well as further horizontally. Lower costs for petroleum services have enhanced the model. Now, above \$45 a barrel for shale oil, and \$55 to \$60 for offshore production, cash flows are restored and investments are resuming. The American production of shale oil has re-emerged on top. Projects started before 2014 have gone into production, companies are relaunching simple projects such as offshore satellite fields and major producers are once again moving to deep-water areas.

URGENT, DEPLETION

— Natural depletion is gradually reducing the production from fields. According to the International Energy Agency (IEA) forecast, “the decline of existing conventional deposits is equivalent to losing Iraq's current production every two years.”

Combined with the reduction of investments, 5 million barrels a day may soon be gone. Meanwhile, demand for oil will continue to grow by about 0.4% per year until 2040, when the planet is expected to consume 103.5 million barrels per day, compared with 92.5 million barrels per day in 2015, according to the IEA's most likely scenario. Conventional projects have long cycles.

In order to ensure a balance between supply and demand, oil producers must restart their investments in exploration and production as soon as possible, at the risk of having to invest much more to meet demand or bringing about a new imbalance in the market in a few years. The whole ecosystem is on the move and Vallourec is ideally placed to support the oil producers as the recovery approaches. —

(1) Rigs: drilling rigs.



Find more information on vallourec.com

KEY FEATURES —

PETROLEUM AND GAS PRODUCERS

INTERNATIONAL OIL COMPANIES (IOC)

— Eight Majors, with ExxonMobil in the lead, as well as BP, Chevron and Total, they invest in complex fields, such as offshore, and are often involved through refining and distribution.

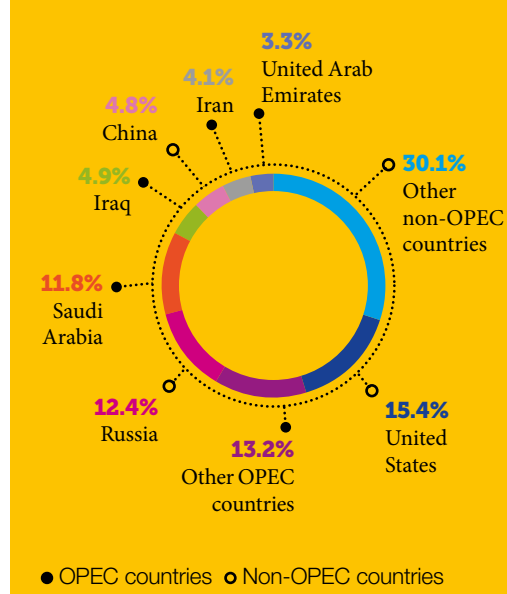
NATIONAL OIL COMPANIES (NOC)

— Linked to a state, which is a shareholder, they develop the oil and gas market in their country, such as Petrobras in Brazil, Pemex in Mexico, Saudi Aramco in Saudi Arabia, and contribute to local economic development. Some national companies exploit complex fields and operate internationally like the major companies. This is the case of the Norwegian company Statoil, which operates fields in extreme conditions, both in the North Sea and in the Arctic.

INDEPENDENTS

— Many companies that are very active in the United States, often family-run but also publicly traded, are exploring their own fields or resuming the exploitation of both conventional and non-conventional fields that are not profitable for major companies.

MAJOR PETROLEUM PRODUCERS IN JULY 2016



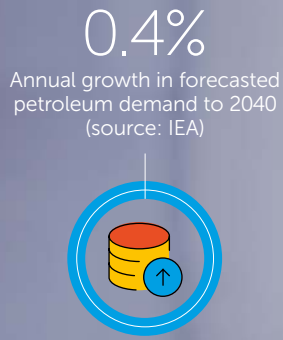
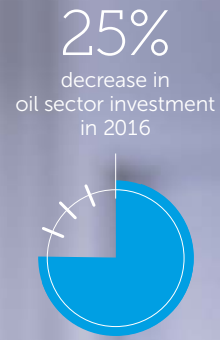
Source : L'Usine Nouvelle, October 20, 2016.

TOP 3 OIL PRODUCING COUNTRIES

They each produce more than 10 million barrels per day and account for one third of world production.

- ➔ Saudi Arabia, which represents one third of OPEC.
- ➔ The United States, where production is drawn from unconventional hydrocarbons.
- ➔ Russia, boosted by its large investments and reserves. —

PHILIPPE CARLIER
SENIOR VICE
PRESIDENT,
TECHNOLOGY
& INDUSTRY



DIDIER HORNET
SENIOR VICE PRESIDENT,
DEVELOPMENT
& INNOVATION



— WE ARE IDEALLY PLACED TO REBOUND.

Coordination. Two transversal departments are now driving the industrial and commercial strategy around the world. Interview with Philippe Carlier, Senior Vice President for Technology & Industry (T&I), and Didier Hornet, Senior Vice President for Development & Innovation (D&I). —



Find more information
on vallourec.com

You lead two global departments. What is your key mission?

• — The Technology & Industry department is continuously improving Vallourec's cost base and competitiveness by creating sources of structural savings for the new industrial structure. The other major objective of the T&I department is to open new production routes, optimizing the allocation of orders between the world's regions. • — The Development & Innovation department stimulates Vallourec's growth across all of its product lines. Above all, this means anticipating the needs of our customers and offering them

innovative solutions by accelerating time to market.

In your view, what is Vallourec's best asset?

• — Our regional industrial bases place Vallourec teams closer to our customers, their projects and their needs. And our ability to innovate, determinedly preserved, allows us to always go further in supporting them through coherent global development. • — Our best asset is to combine and optimize our historic and new industrial bases. Having an optimized regional industrial footprint adapted to a local and global strategy is the best guarantee of agility and performance.

North America is restarting, and fast. This is an opportunity to test the new organization. How is it progressing?

• — Demand is indeed very strong, because it is twofold: in addition to the rising demand from oil and gas operators, there is a restocking of tubes by distributors. There are already more than 800 rigs in operation, twice as many as at the lowest point in May 2016, and today's rigs are performing better. All this accelerates short-term demand for tubes. • — In the United States, the industrial structure remains focused on the variations in activity. At the height of the crisis, we fell to 20% use, i.e., 1 day of activity in 5, but we preserved the skills, which allowed us to re-build the teams in a very short time. To meet the current demand, we use the most competitive route by looking for additional production in Brazil, where we have available capacity.

What is the future of Europe?

• — Europe is refocusing on the European market and on its strengths for high-end and small-scale production. Europe has two exclusive advantages: it masters the entire range and is Vallourec's historical knowledge base. European T&I experts support the regions on specific issues through process communities. Europe has lower volume but maintains the top spot for high value-added products, serving the global system.

What's happening in Vallourec's other activities, Power generation and industry?

• — These activities have different cycles. The Power generation

sector is driven by growth in emerging countries where Vallourec remains well-positioned. The coal-fired power projects in China on the power generation side, the extended life of reactors and the construction of new nuclear power plants in Asia offer new prospects. Industry activity, which covers mechanical, construction and automotive, is linked to GNP and experiencing low growth. It represents 18% of Vallourec's revenues. We are maintaining plant load rates with achievements of which we are proud. Vallourec serves the machine tool industry, which contributed to the fame of German industry, for example, and has helped produce iconic structures such as the umbrellas of Mecca and the Paris-Orly footbridge.

What is your biggest challenge in 2017?

• — We will create a transversal commercial and industrial approach. Ensuring the overall optimization of sites that do not have the same industrial maturity and deploying Vallourec's quality and safety standards everywhere will be the major challenges of the Technology & Industry department. • — Our challenge is to optimize our offers by product line throughout the different regions and, of course, through innovation. We focus on the operational efficiency of our products for our customers to improve their competitiveness, and solutions that push the limits of the possible to be ready for the day complex projects restart. —

Strategic geographic positions

The rebalancing of production capacity is completed. Vallourec's new industrial footprint features equivalent capacities in four regions. Each serves its markets through routes optimized for cost and time, from production to delivery. —

IN 2016
Adapting the organization to the decline and then recovery in activity and gain market share.

IN 2017
Logistics optimization and return to profitability.

IN 2016
Merger of Vallourec Tubos do Brasil and Vallourec & Sumitomo Tubos do Brasil.

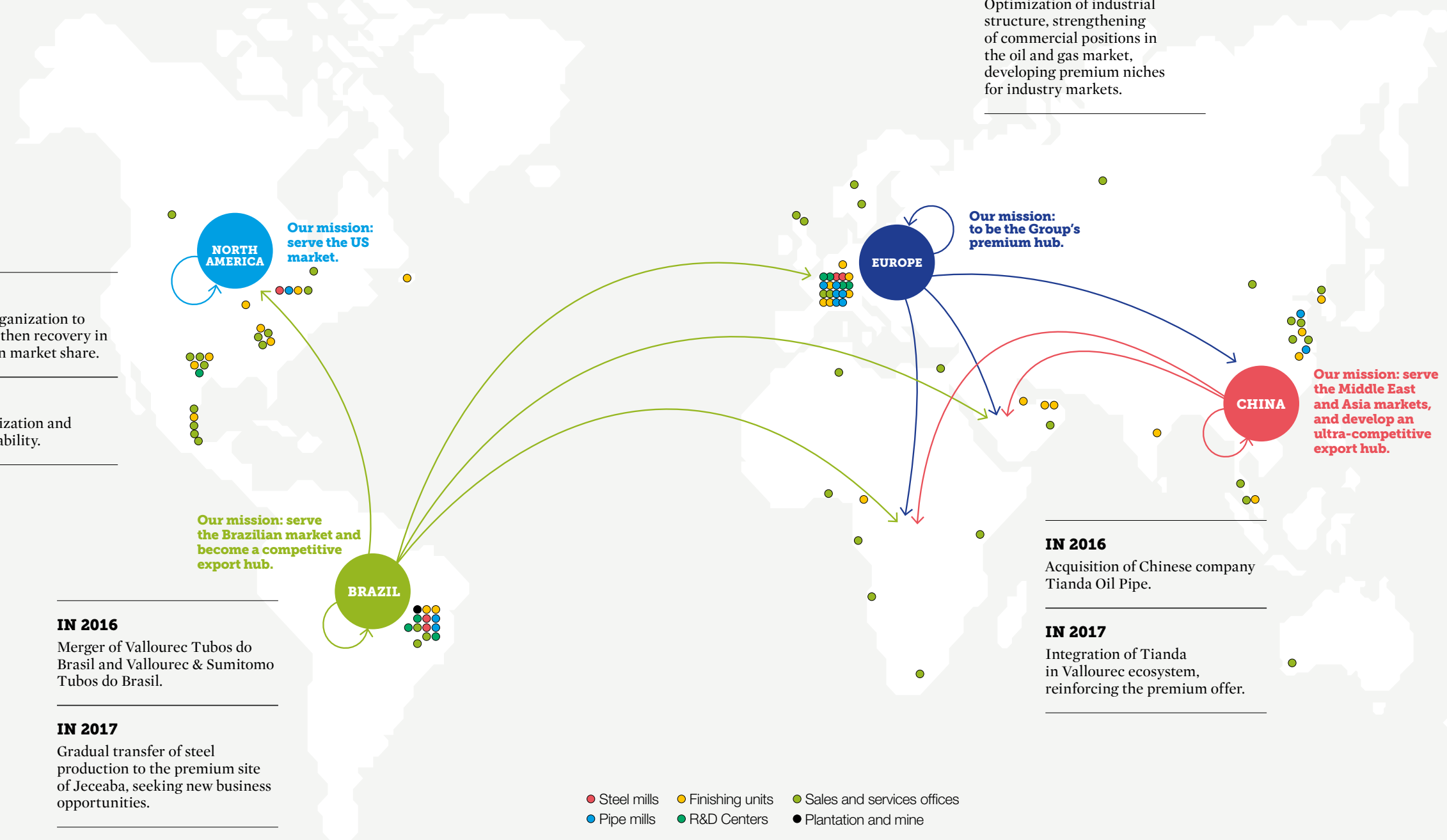
IN 2017
Gradual transfer of steel production to the premium site of Jeceaba, seeking new business opportunities.

IN 2016
Scaling European units to the accessible global market.

IN 2017
Optimization of industrial structure, strengthening of commercial positions in the oil and gas market, developing premium niches for industry markets.

IN 2016
Acquisition of Chinese company Tianda Oil Pipe.

IN 2017
Integration of Tianda in Vallourec ecosystem, reinforcing the premium offer.



4 REGIONS
4 x 25%
of rolling capacity

A look back at the highlights

of the transformation with the directors of four major regions. —

BRAZIL — ONE STEEL MILL READY TO GO FULL SPEED

The oil crisis has not spared Brazil. Our Oil and gas activities, which account for 60% of Vallourec revenues in Brazil, were heavily impacted, like those of our main customer Petrobras. To optimize the competitiveness of our sites and enhance the effectiveness of our organizations, we decided to merge the two Brazilian entities into one, named VSB for Vallourec Soluções Tubulares do Brasil. Vallourec owns approximately 85% of the new entity, in partnership with NSSMC and Sumitomo. As part of this merger, we are gradually

transferring steel production from Barreiro Belo Horizonte to the modern Jeceaba plant. In 2018, the blast furnaces and steel mill of Barreiro will close permanently. We have not concealed that this will have a social impact. Unions and employees have also welcomed our transparency. We are committed to finding the best solutions possible for each employee. Project groups involving teams from both entities are refining the integration process. They will transform Vallourec Brazil into a highly competitive platform, which will be a key part of Vallourec's rebound. —

NICOLAS DE COIGNAC / SENIOR VICE PRESIDENT, NORTH AMERICA



UNITED STATES — VALLOUREC TAKES PART IN THE RECOVERY

In the US, momentum has revived, particularly in oil shale. From 400 rigs in mid-2016, the level of 650 was reached in late 2016. Operators and distributors replenished their stocks at the same pace. Our priority is to manage this rebound, which is as sudden as the decline in early 2015. This means training teams needed to increase the capacity of our plants and deliver products that always meet the quality requirements and deadlines of our customers. The North America region has largely contributed to the cost reduction efforts undertaken by Vallourec. The working groups have proposed more than 1,000 actions that today have resulted in efficiencies that have increased speed and sharply reduced our working capital needs. With our business partners, we also spent a lot of time getting closer to our customers to understand their challenges and new expectations. Together, we have optimized our product and services to ensure their loyalty and win new customers. In a market that will certainly require much more agility and responsiveness, all efforts during the past two years are paying off. —

ALEXANDRE LYRA / SENIOR VICE PRESIDENT, SOUTH AMERICA



CHINA — A HIGHLY COMPETITIVE PRODUCTION HUB

In 2016, Vallourec acquired Tianda, Chinese manufacturer of seamless tubes. Tianda has two plants. The first, in Chuzhou, employs 1,100 people and its high-end mill has a capacity of 500,000 tons. The other, in Tongcheng, has 600 employees and production of 90,000 tons. The first advantage of Tianda is its cost structure, adapted to ultra-competitive markets. The second is that we have learned to work with local teams since 2011, which has enabled us to qualify Tianda with major customers such as ADCO, Kuwait Oil Company, Total and Shell. This highly competitive production center will enable us to win or regain markets inaccessible to European mills and in which competitors, especially from China and Russia, have emerged. One example: to meet Total's competitiveness requirements and secure the entire contract, we are combining VAM® connections and Tianda pipes for entry-level premium products while preserving the European route for the advanced premium part. With Tianda, Vallourec offers its customers a response that is both competitive and qualitative. The challenge is to fully integrate Tianda within Vallourec and establish the Group's safety and quality standards. —

ÉDOUARD GUINOTTE / SENIOR VICE PRESIDENT, MIDDLE EAST AND ASIA



EUROPE — SOURCE FOR VERY HIGH-END RANGE

The market accessible from Europe has narrowed considerably in recent years due to competition from low-cost countries, including China, and the addition of local production capacity. Exports from Europe are limited to approximately 1 million tons annually of essentially high-end products. By adding domestic needs, the global accessible market is around

3 million tons for an installed production capacity of more than 6 million tons, thus, a structural overcapacity of 50%. Vallourec has adapted to this situation. In two years, the Group has reduced operations from 1.5 million to 700,000 tons and its order book in Europe is becoming very high-end. Our rolling capacities have been concentrated on the German sites of Mülheim and Rath, making it possible to cover all customer needs in terms of dimensional ranges and volume. French sites, central to the high-end strategy, concentrate on tube finishing. The most sophisticated products in our portfolio will use heat treatment capacities and finishing by the French entities, which have the most modern equipment and the most advanced expertise. —

HUBERT PARIS / SENIOR VICE PRESIDENT, EUROPE AND AFRICA



The new competitiveness offer

900 employee initiatives, most of which are now fully implemented, in all countries, all divisions and on all issues: cost, cash, business strategy, customer service and innovation. The Valens plan, designed and implemented to structurally optimize the Group's cost base, is a success in terms of both results and mobilization. —

UNITED STATES HOUSTON CHALLENGING THE ROUTINE

For nearly 30 years, two water pumps fed the tube quenching circuit, regardless of their diameter and thickness. Adopting a Lean Six Sigma approach, meetings, studies and trials, the Sheldon Road teams managed to make it work with a single water pump, while preserving the mechanical properties of the tubes. A crucial discovery when you consider that each pump consumes more than 10% of the plant's electricity bill. An additional benefit is the simplified maintenance of only one pump running. "It was a long process," says Ed Zambuto, project manager, but its impact justifies it: electricity savings from the water supply represents \$118,000 per year, not including maintenance. —



Eduardo and José control the flow of electricity used by Vallourec's heat treatment line in Houston (Texas, United States).

UK PROUD OF THE COUPLINGS' UNIT

How to make the couplings' unit more streamlined and safer? This is the question asked by the Vallourec Oil & Gas UK team. After two weeks of diagnosis, ideas came together and experimentation began. The central idea was that a more compact design of the workshop accelerates workflows and promotes teamwork by bringing the positions closer together. A year later, the results speak for themselves: a drastic 72% reduction of product inventory, a 33% improvement in handling risk and a 16% gain in productivity. Not to mention the visual improvement of the workshop, where the employees are now proud to receive visitors. —

(1) Threaded connectors.



The couplings' unit in Bellshill (Scotland).



"THE VALENS PLAN MOBILIZED VALLOUREC AT ALL LEVELS. IT ENABLED US TO CHALLENGE THE WAY WE THINK AND WORK. WE COUNT ON THIS NEW MINDSET TO STRENGTHEN OUR OPERATIONAL IMPROVEMENT PRACTICES." —

VINCENT REIGNIER / MEMBER OF THE PROJECT VALENS STEERING COMMITTEE



GERMANY BALANCING THE LINE

At the Rath (Dusseldorf) plant, finishing is a delicate exercise. On a single line, products follow and require different transformations in 8 to 12 steps, with a significant impact on the composition of the operating teams. The challenge: balancing the line. After a detailed analysis, the foreman and team leaders redefined the manufacturing sequences, moved machinery and trained staff to the new process. The two stages of inspection, visual and magnetic particle, were combined and assigned to the same people. The result: €540,000 saved per year, a significant reduction in downtime, more flexible order processing and increased customer satisfaction as well as a new mindset enabling the idea to be extended to other production lines. —

Thomas, Axel and Christian (left to right) in search of the best solutions to balance the production line.

**BRAZIL
BELO HORIZONTE
BEYOND THE CRISIS**

The context of general uncertainty in Brazil has not prevented mobilization of the Belo Horizonte teams. Three years of in-depth analysis of the spare parts store by a multidisciplinary group produced savings of €270,000 per year. A look back on their method. Analysis of the 10 largest expenditure positions pointed to the inductive sensors (which detect the passage of the tubes). A technology developed with suppliers increased longevity and halved the consumption from the inductors. Position 2: hydraulic system components are now maintained with pure oil with the purchase of a filtering machine, which has reduced consumption by 80%. New production rules now allow better control of consumption and the material costs indicator has been added to dashboards, enabling vigilance and the competitiveness gain to be maintained. —



**INDONESIA
HISTORY OF OIL**

Saving \$60,000 per year just by changing the quality of hydraulic oil makes common sense. The new oil costs less (27%), lasts longer (750 hours against 500) and employs local suppliers. A point of pride for the teams that reinforces Vallourec's image as a responsible Indonesian company in Indonesia. —



Teams of PT Citra Tubindo (PTCT) in Indonesia.



The team in charge of the project in Belo Horizonte (Brazil).



Team meeting for Romain and Sébastien in the Drilling unit in Aulnoye-Aymeries, France.

**FRANCE
PRODUCING CHEAPER
AND BETTER**

This is the challenge of the Drilling unit in Aulnoye-Aymeries. Until now, non-destructive testing of pipes was performed manually on the pipe-ends and via a machine, leased by its manufacturer on the pipe-body of the tubes. The obsolescence of the machine combined with the leasing costs drove the teams to overhaul the line. The design of appropriate equipment, the purchase and reconfiguration of the unit provided net savings of more than €100,000 per year and put an end to manual testing. The result: improved ergonomics and safety and rigorous testing in line with current and future requirements. —

**BRAZIL
BELO HORIZONTE
MATERIAL LIFE**

For over a year, 10 employees from Vallourec Soluções Tubulares do Brasil maintained hot rolling mills to extend the life of their critical modules. "The challenge was the size," says maintenance manager Marcelo Fontan. "The technicians were responsible for changing the design of certain original manufacturer parts while preventing parts breakage, a risk that would have resulted in significant production losses." Maintenance, operations, technical engineering and workshop teams worked hand in hand with the manufacturer to change the bearings, review materials of pins and padding, and optimize the lubrication circuit. The result: an extended life for critical modules of six to nine months, without major investments. This represents a savings of almost €450,000 per year. —



Fatih, Detlef and Avgoustinos at the plant in Düsseldorf-Reisholz in Germany.



The drilling products team around Eldefonso in Dubai (United Arab Emirates).



**GERMANY
PUSHING THE LIMITS**

The large diameter tubes shipped mainly to China must have an outer surface finishing by grinding or machining. To speed up the process, a method known as “fast turning” was developed and adopted for most of the tubes. Except for the finest small diameter tubes, which tended to oscillate during the turning and demanded the use of a more expensive method. The team from the Reisholz pipe mill decided to develop a process dedicated to this range. The equipment was sized with the engineers of the tool shop and produced by a subcontractor. After a validation phase for machine parameters for these new dimensions and improving the time to implement the process, the goal was reached. The method of rapid turning is widespread today and generates about €220,000 in savings per year. A successful coordination between heat stretching engineers, the tool shop team and turning operators, plus the supplier, helped to shape the best possible solution. —



**UNITED ARAB EMIRATES
DUBAI
100% VALUE ADDED**

The initial goal was to save money. The end result is a production efficiency gain plus a gain of comfort for operators. In between, there was a long reflection on the layout of the assembly line that ended with a reorganization of the equipment. The moving closer of the external grinding and sizing allows the operator to perform both actions without moving. Bringing together stabilization stations and internal machining converted the line from three to two positions. “We were concerned about the crisis and its potential impact on our region, so we tried to remove non-value added activities on the line,” says production manager Eldefonso Baguilat. —

4/7

Dynamic and customized innovation



“OFFERING SOLUTIONS OF VALUE TO OUR CUSTOMERS WHICH GO BEYOND THEIR EXPECTATIONS — THIS IS VALLOUREC’S INNOVATION ROADMAP.” —

● SYLVIE DUBOIS-DECOOL / HEAD OF INNOVATION



Differentiate. Useful and open innovation that quickly transforms an idea into a solution is the approach of the new Vallourec. Interview with [Sylvie Dubois-Decool](#), Head of Innovation. —

The crisis has affected everything except Vallourec’s innovation budgets. Why?

— From the beginning of the crisis, Vallourec has chosen to preserve its capacity for innovation by maintaining budgets at a high level. Innovation is an essential factor for differentiation and for all players in the oil and gas sector to exit the crisis. →

— FLAGSHIP INNOVATIONS: SOLUTIONS, SERVICES AND ADVANCES FOR TOMORROW



CLEANWELL®: request the Dry 2 version

This non-polluting, factory-applied coating on the threaded connections replaces the storage and running compounds, ensuring perfect sealing connections while effectively protecting against galling and corrosion. Result: a reduced environmental footprint, increased productivity on rig estimated at 10% of the value of each tube and reduced risk for operators of 30% to 50% by the removal of cleaning and lubrication operations. —

10%
Savings of the value of each tube used for deep offshore well casings.



Geothermal: 5,000 meters underground in Bavaria

Vallourec delivered nearly 1,500 tons of OCTG tubes for Holzkirchen geothermal power plant in Bavaria. This project involves the drilling of two wells about 5,000 meters deep; one to bring 140°C thermal water from the pre-Alps to the surface, the other to re-conduct the cooled water in the calcareous layer. Tubes supplied by Vallourec to consolidate the wells are resistant to temperatures above 180°C and external pressure of up to 743 bars. A growth driver at the heart of Vallourec's expertise. —

10,000 t/year
of CO₂ avoided thanks to the Holzkirchen geothermal plant.



One Stop Shop: oil and gas all-inclusive offer

From the Netherlands to Abu Dhabi, from Vitória (Brazil) to Batam (Indonesia), and from Africa to North America, Vallourec has developed services hubs integrated closer to customer operations. The One Stop Shops concentrate the associated services across the value chain for a range of drilling, OCTG and pipeline projects: inventory management, coating, welding, testing, inspection and repair, and shipping to meet deadlines and at the lowest cost. All to reduce non-productive tasks and the TCO⁽¹⁾ of customers. —

(1) Total cost of ownership.

5
spoolbases of TechnipFMC operated by Serimax.



Cleverscan: High-precision alignment

"Clever" refers to software and "scan", the measuring device. This tool is revolutionizing the welding of different diameters of pipes. Its software accurately and quickly measures pipe ends, enabling optimization of the selection, the order and the pipeline connections. This innovation from Serimax, the subsidiary specializing in premium welding solutions, has been successfully deployed on an assembly base in Texas, in Kazakhstan to find the best sequencing for hundreds of pipes and in the North Sea, where simulations were used to identify and remove non-compliant tubes. —

720
points for checking tube alignment (Hi-Lo).

— A HACKATHON SHOWS THE INTEREST IN WORKING WITH START-UPS.



OPEN INNOVATION NEW COLLABORATION

To innovate faster, we are developing industrial partnerships and work with start-ups in new areas for Vallourec, such as digital to better serve our customers, augmented reality to enhance our industrial grade and artificial intelligence. A hackathon⁽¹⁾ has shown the interest in working with start-ups. A project with engineering or business school students enabled us to share a vision with younger generations. Choosing well and diversifying partnerships is a key success factor for innovation. —

(1) Creative digital marathon.

→ **Are premium tubes and high technology, major themes of Vallourec's research, still priorities?**

— Of course. Making our customers' most complex projects possible remains a research priority for Vallourec. We continue to develop high-tech products at costs as competitive as possible. The second innovation theme focuses on operational efficiency, essential in the context of lower oil prices. We are looking for solutions to reduce our customers' "TCO" (Total cost of ownership) and improve the profitability of their projects as well as solutions to reduce time to implementation and ensure reliability and easy operation. We capitalize on digital tools together with our Chief Digital Officer to achieve these goals.

Opening new markets and new business models is the third area of innovation for Vallourec and the newest. We achieved our first success in geothermal, for example.

The market is restarting. Customers are in a hurry. How do you innovate usefully?

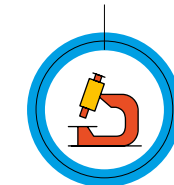
— To innovate closer to market needs, we start with the customers

and their expectations. We work together with teams, thinking "solution", beyond the performance of the tubes. We have developed a method based on collaborative innovation workshops. After developing a thorough understanding of the value chain, 15 people from marketing, R&D, sales and production identify high-stake challenges and imagine innovative and differentiating solutions. This implies questioning current practices and starting from the initial needs of our customers. Whenever possible, we involve customers in these approaches, enabling better mutual understanding of our respective constraints, more precise targeting of the issues and more effective execution.

How do you quickly innovate and transform?

— In our industry, it takes three to five years to go from idea to market. To reduce this time, we are working in project mode and we test the hypotheses as soon as possible. We have defined milestones for timing the progress from concept to industrialization and each step is validated by an ad hoc committee. The goal is to

Nearly **500** researchers and technicians in the Group in 2016



accelerate the marketing of our solutions.

To raise ideas internally, Vallourec has launched an innovation challenge. What has it produced?

— From the beginning, we tried to involve all teams in the innova-

tion workshops. We increased awareness of the issues and trained them in creativity tools using real cases. In 2016, the first innovation challenge, open to all, represented the next step. The theme was ambitious: a reduction of 30% in customer costs. 30 very good ideas emerged from all divisions. We submitted the most promising to employees and a judging panel to vote. 900 voters elected an innovation and another was selected by the judging panel. Both teams received a budget to develop their project. The other 28 ideas were reviewed by the management with a good portion continued in project mode. In the end, this challenge has been a success as seen by the number and quality of ideas generated and because it helped make innovation everyone's business. —

The long-term commitment of a major industrial company

If almost everything has changed in two years at Vallourec, industrial excellence has remained the goal and a source of pride for all. Safety, Quality, Lean, CSR⁽¹⁾: Vallourec focuses on standards for the benefit of all stakeholders. —

SAFETY THE VALLOUREC CULTURE

Neither the decline in activity nor the engagement in competitiveness initiatives have distracted teams from safety indicators. In 2016, Vallourec had no serious accidents and the accident rate with and without lost time fell from 3.3 to 2.61. But the rate of lost-time accidents deteriorated from 1.24 to 1.41, a gap that has been the subject of a detailed analysis and generated corrective measures. In Brazil, the safety program *Safe Start* is followed to the letter despite the context of crisis in the country and a merger affecting both plants. The record of Jeceaba is exemplary. It identified the top 10 risks and displays an updated risk pyramid monthly. At a glance, employees and visitors

can measure existing dangers and what is being done to reduce them. In 2017, most Group plants continue to focus on a key issue: how to avoid putting your hands on the product to avoid risk of accident? —

1
The objective of accident rate with lost time (LTIR) in 2018



(1) Corporate social responsibility.



Verification of tubes marking at a storage area in Brazil.

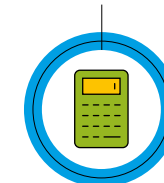
QUALITY AMBITION 360°

Quality is a customer satisfaction issue mobilizing teams more than ever. It is measured primarily by the number of customer complaints, which trigger a root cause analysis to identify and stop them one by one. The process started three years ago is bearing fruit. In one year, the number of claims was again halved, falling from 40 complaints per month in 2015 to 21 in 2016. In Brazil, in the auto business, there is still room for improvement to meet the high standards expected by manufacturers. Another decisive issue, the visual aspect of tubes (no marks, integrated thread, readable mark-

ing) was the subject of a detailed improvement plan for visual inspection benches, ranging from the presence of line faults to the ergonomics of workstations to clarifying of control standards. —

€30 million

is the amount saved on production costs since 2014 through Six Sigma



HOW NORTH AMERICA RESTARTS WITH THE BEST STANDARDS —

● **JUDSON WALLACE /**
YOUNGSTOWN
PLANT MANAGER

WHAT IS VALLOUREC'S OPERATIONAL EXCELLENCE FOR YOU?

— That our products meet or exceed our customers' expectations for quality and delivery and Vallourec's safety, quality and cost standards. Here, it also means continuing the steel tradition that is the pride of Youngstown employees and their families.

PRODUCTION UNITS ARE RESUMING AFTER MONTHS OF REDUCED ACTIVITY AND EMPLOYEE DEPARTURES. HOW DO YOU ENSURE VALLOUREC'S QUALITY AND SAFETY STANDARDS?

— During the crisis, we managed to retain most of the qualified employees by giving them positions that were less qualified or that had been subcontracted. We were able to re-hire many employees who had departed with the crisis. That's why we were able to scale up relatively quickly. New employees receive extensive training in their job and each is sponsored by an experienced operator, who monitors and responds to their questions before they become autonomous on their machine.

SO, WILL VALLOUREC STAR MAKE THE IMPOSSIBLE POSSIBLE?

— Vallourec Star is a great place to work and the employees make it so. We have great employees, ready to overcome anything to meet the demands of our customers. We are very flexible and adaptable to changes in our environment and the changing needs of our customers. This often allows us to make the impossible possible and, in any case, to make the things that matter to our customers possible.



LEAN EVERYONE INVOLVED

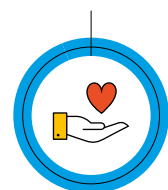
Vallourec is continuing to step 2 of lean management, which aims to involve everyone to be more responsive in dealing with problems at their level and to capitalize on learning through production standards. In late 2016, the process was started in all plants and efficiency gains are being achieved in the most advanced cells. In 2017, the deployment is continuing to bring all employees to this level and Vallourec is extending to the maintenance function without delay. From the systematic cleaning of the chips on the machines,

to the reporting of vibration failure indicators, to the construction of a range of measures to monitor equipment over time and to analysis of increasingly complex faults, this wave of collective vigilance targets a 30% reduction of the most critical equipment maintenance costs. —



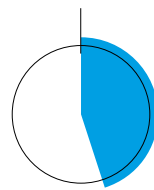
€3.3 million

spent on activities to benefit local communities



45%

of Group purchases are made locally



In Brazil, Vallourec supports local communities through sports, cultural and economic programs.

— **CSR: ANOTHER MEANS OF VALLOUREC EXCELLENCE**

THE “REN”, SUBJECT OF COMMERCIAL EXCELLENCE

– The issue of the energy transition led most major groups to revisit their operations. Vallourec decided to review this topic from the customer angle and to engage through its offer. Based on customer CSR expectations and commitments, the Group focuses its research on solutions that promote the development of renewable energy and energy efficiency. Thus, foundations for offshore wind turbines, carbon capture and storage technologies, geothermal, solar alternatives, tidal, biomass and hydrogen are opening new medium-term prospects.

THE MAJOR CHALLENGE OF WATER

– Water is the main resource used in Vallourec production processes. It is used for cooling tools and products as well as the removal of some production waste. Water samples taken by plants decreased from 7.83 million m³ in 2014 to 5.67 million m³ in 2016, a decrease

of 28% due to site efforts. Of the four integrated sites in Brazil, the United States and France, the internal water recycling rate amounted to 98.1%. Finally, the overall impact of the use of the resource, taking into account the level of “water stress” in the basins in which the Group operates, is very limited.

INVOLVING SUPPLIERS

– In 2016, Group purchases amounted to €2.22 billion, of which about 45% were local purchases, representing a large number of skilled jobs and strengthening local industry. Of 850 suppliers involved in Vallourec’s evaluation process, 320 completed it by producing a progress plan. In 2016, this monitoring program enabled treatment of 14 identified risks by Group global suppliers and showed that 38% of assessed suppliers have implemented a Business Ethics charter. The monitoring campaign on the use of “war minerals” from certain African countries involved 4,000 suppliers worldwide in 2016 and found no disputed cases.

SUPPORTING COMMUNITIES

– Local entities have full autonomy to take actions deemed appropriate. In Brazil, economic development, cultural and sporting programs provided benefits to the supported populations. In 10 years, the duration of schooling increased from 5.6 years to 8.8 years and the insertion rate in employment rose from 45% to 53%, with an increase in family income of more than 70%. In Indonesia, more than 8,000 people benefited from programs supported by Vallourec in 2016, including educational and medical assistance, financing of sports and cultural facilities and protection of the environment. In total, Vallourec’s support to local authorities totaled approximately €3.3 million in 2016 (€3.8 million at constant exchange rates), despite the decline in site activities and resources. —



Find more information on vallourec.com

Vallourec's spirit

The feeling of belonging among Vallourec employees will always make a difference. Their commitment, individually and collectively, and perseverance to get the company out of the crisis are about to pay off. Vallourec is ready to resume its leadership with them and through them. —

A PERIOD OF CONCERN

— The violence of the cycle, the decline in activity and the transformation plan has affected the morale of teams around the world, especially for young employees unaccustomed to the cyclical nature of the oil sector. Throughout the year, in chat meetings, on-line and offline, the top management has continued to listen, talk and explain the adaptation work in progress and respond to questions from employees.

EXEMPLARY MANAGEMENT

— The rebalancing of capabilities and cost optimization have

imposed cuts in the workforce and organizational redesign impacting teams throughout the world. They have affected about 850 people in France and 800 in Germany. Everything was conducted in full transparency vis-à-vis employees and through a constructive dialogue with social partners. Vallourec offered personalized support measures and privileged reclassifications within the Group while seeking solutions across the employment areas. This was the case of the three French sites Saint-Saulve, Déville and Cosnesur-Loire. Vallourec worked with a company specializing in site

conversion scenarios and helped to identify all opportunities by involving local officials. The personal commitment of Vallourec leaders was welcomed. The peaceful conduct of the most sensitive transformations and the quality of the solutions found are commensurate with the challenge.

PRESERVING SKILLS

— The challenge of restructuring was to preserve the range of expertise that makes Vallourec a reference partner. The Group closed no site or plant in Europe and activated its expertise devel-



ETHICS +

The new version of the Code of Ethics reinforces the Group's commitment to the fight against corruption and respect of competition rules and integrates new procedures. Training for employees exposed to these risks continued in 2016 in Dubai and Germany, and more than 5,000 employees completed the online course accessible to all. —

opment programs in all areas. As a result, 300 experts from key professions were individually monitored and have a personal plan for transmission of their knowledge. Despite budgetary restrictions, Vallourec University continued to develop and implement training programs in strategic areas of expertise such as key account management, lean management and innovation.

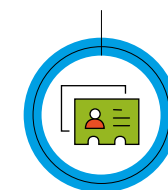
INVOLVING MANAGERS

— How to ask the teams to fully engage in a never-ending crisis? For Vallourec, the solution is clear: it ➔

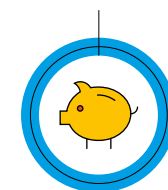
Vallourec teams meet customers on the Aberdeen, Scotland, test platform.



300 business experts individually monitored



~ 10,000 employees subscribed to Value 16, the 9th employee shareholding plan





THE SECOND LIFE OF THE SAINT-SAULVE STEEL MILL

After months of negotiations with the Region, with the unions and with Asco Industries, the solution is called "Ascoval". The company, 60% owned by Asco Industries, a leader in long specialty steel, and 40% by Vallourec, integrates the 320 employees of the mill and was launched with a planned workload of 275,000 tons per year secured by two shareholders. The French industrial sector consolidates in the heart of Valenciennes. —



is up to managers to explain choices transparently and to provide daily support. To share upstream strategy, the 2016 managers' forums led the Management Board to meet with managers of all countries for an immersion into the center of the transformation. The French and German forums dissected the planned halving of capacities in Europe. Managers of North America held discussions with two major producers of shale oil. In Dubai, managers sought ways to increase cooperation with Total. At the China and Korea forum, Tianda executives were present. The Singapore forum welcomed

Technip while in Brazil, teams from Barreiro in Belo Horizonte and Jeceaba met for the first time under the new unified banner, Vallourec Soluções Tubulares do Brasil.

RECOGNITION

— In 2016, the ninth global employee shareholding plan, "Value", was opened to employees from 11 countries, representing approximately 95% of the Group. About 10,000 people signed up, or 54% of the eligible workforce, a strong sign of collective confidence. Employees now hold a 3.5% stake in Vallourec. The constancy of the shareholder policy and its success



Find more information on vallourec.com

WOMEN @VALLOUREC —

— This network of women, open to all Vallourec employees, is dedicated to reflection on the place of women in the Group and proposed actions to promote gender diversity, a driver of performance and innovation. Launched on March 8, 2017, the network is destined to become a place of innovative exchange.

— "PROMOTING GENDER DIVERSITY IS AN ACT OF LEADERSHIP. WITH WOMEN@VALLOUREC, WE ARE COMMITTING TO TRULY DYNAMIC COLLECTIVE PROGRESS."

● **STÉPHANIE FOUGOU** / VALLOUREC GENERAL SECRETARY AND PRESIDENT OF WOMEN@VALLOUREC

despite the difficult environment earned Vallourec the Grand Prix Euronext FAS[®] IAS in 2016.

COMBATIVENESS

— With the horizon clearing and the new organization being finalized locally and taking hold globally, Vallourec reaffirms its values. The collaboration is strengthened between sites and countries and with customers to go further than yesterday and further than competitors. It took audacity to buy a Chinese company with a different culture of quality and safety and customers, and to raise it to Vallourec standards without losing

competitiveness. Confidence, again and always, in the industry recovery, in the return of exciting projects and in the ability of Vallourec to seize opportunities.

(1) French federation of associations of employee and former employee shareholders.

Vallourec demonstrates its confidence

Making the impossible possible, realizing the most complex projects and the wildest dreams of its customers, that is Vallourec. The campaign "We make the impossible possible" communicated Vallourec's enthusiasm for the sector worldwide, with supporting evidence. Examples. —



STORY#1 – POWER GENERATION CREATING EXTRAORDINARY STEEL

To increase the efficiency of a power plant while reducing CO₂ emissions requires operating temperatures over 600°C and materials at 180 bar pressure. Vallourec responded to the challenge for Fortuna, the combined cycle gas turbine power plant built by Siemens in Düsseldorf. The experience of Vallourec engineers and more than 100,000 hours of testing made possible the creation of the new generation VM12-SHC steels and a world record: 85% overall efficiency of natural gas as fuel and equally extraordinary savings of CO₂. —

1 million
tons of CO₂ per year by 2025



STORY#2 – SERVICES VALLOUREC'S SUPPORT WITHOUT LIMITS

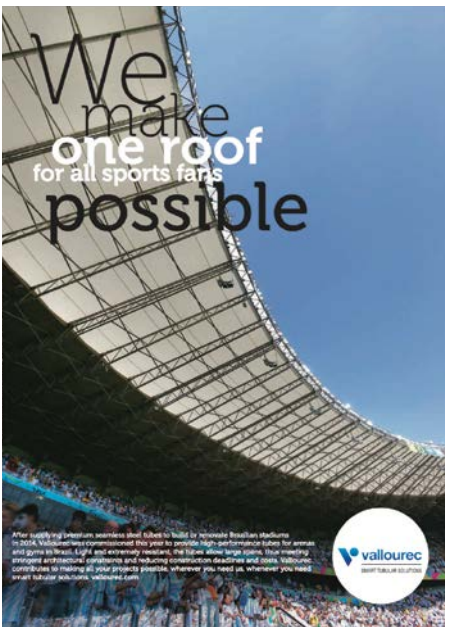
In the oil industry, where the supply chain is a puzzle, Vallourec provides support from plants to wells. Its specialists optimize flows, define storage areas, manage inventory levels and prepare shipments, all through just-in-time manufacturing. On oil rigs, technicians inspect connections before installation, validate torque values and respond within hours in case of breakdown, including by helicopter. The 11 Vallourec service centers located closer to customers worldwide and the expertise of its teams make it possible to reduce customer costs and ultimately the resumption of its major projects. —

5% to 10%
of the total cost of tubes saved
by offering Vallourec services



STORY#3 – OFFSHORE GHANA ODYSSEY SHARED IN DEEP WATERS

The TEN project operated by Tullow Oil Plc, 60 km off the Ghanaian coast, is impressive for its size as well as for its complexity. The reservoirs are spread over 500 km² at a depth of 1,000 to 2,000 meters where up to 24 wells are connected. Vallourec did not flinch before this exceptional project. It co-developed as part of a group of suppliers, a customized integrated offer to include products, services and project management. A highlight in the assembly shop near Caen: 15,000 tons of tubes were pre-assembled and welded in 24-meter sections, representing hundreds of kilometers of products delivered in a continuous flow to supply a bold underwater infrastructure. —



STORY#4 – INDUSTRY TUBES FOR A MAJOR EVENT

Vallourec's premium tubular solutions were chosen to build or renovate nine major stadiums in Brazil. The maintenance bridge of Maracanã stadium in Rio de Janeiro is by Vallourec, for example. But it is in the roofs of stadiums that the Vallourec difference truly stands out. To renovate the roof of the second largest stadium in the country, teams designed and patented a competitive and agile solution. The roof was built in just 90 days and avoided the removal of 2,000 seats. The result: the capacity of 67,000 seats was retained as well as the original design and all stadiums were ready for the 2014 World Cup – and a date with the entire planet. —

30%
lighter structures designed with
Vallourec high-performance tubes



**STORY#5 – NORTH SEA
UNMATCHED UNDERWATER CONNECTIONS**

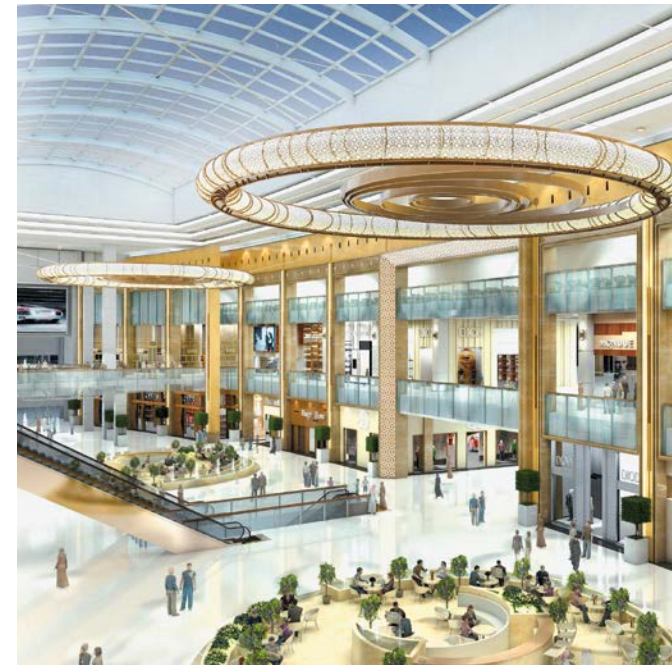
Umbilicals transport neither oil nor gas. They consist of fine tubes, electrical cables and optical fibers, and connect seabed equipment to the surface control station. Vallourec provides the fine tubes that transport fluids. In 2016, the Glenlivet gas field north of Scotland was the site of the first field trial: 132 km of pipes assembled successfully. A solution that opens the field of offshore possibilities and has already been selected for the Vandumbu field in Angola. —



**STORY#7 – NIGERIA
THE LARGEST FPSO VESSEL
IN THE WORLD**

Total's Egina project encompasses the impossible. Located 130 km from the coast of Nigeria at a depth of 1,750 meters, it requires a customized infrastructure. The FPSO vessel is over 330 meters long, 61 meters wide and 34 meters high to handle its production equipment (200,000 barrels/day), storage (2.3 million barrels) and unloading. Vallourec supplied more than 1,700 tons of tubes for the construction of the FPSO, more than 250 different items from French, German and Brazilian plants. 24,000 tons of premium offshore linepipe, rigorous project management and significant local content (team building, expertise, maintenance and support) complete this project, a source of added value for all. —

200,000
barrels produced daily on the FPSO vessel



**STORY#8 – WORLD
EVERYWHERE WHERE
IT IS MORE BEAUTIFUL,
MORE IMPRESSIVE,
MORE INNOVATIVE,
MORE USEFUL...**

In the heart of Paris, Vallourec's "haute couture" tubes support the Canopée des Halles 15 meters above the ground. Under a steel arc overlooking the city, the Paris-Orly footbridge connects the airport to the business district and the Grand Paris of tomorrow, with 800 tons of lightness. At the foot of the Giza Pyramids, 1,340 tons of MSH Vallourec profiles are supporting the architectural marvel of the great Egyptian Museum. For the Mall of Qatar, Vallourec orchestrated the order of 475 tons of profiles from multiple vendors and the delivery of the entirety, including premium services, of course! Fine grain FineXcell® steel tubes ensure the durability and safety of the most amazing works. They are the ribs of the giant parasols that protect pilgrims in Mecca from the sun, and the supporting structure of the New York Wheel, the largest Ferris wheel in the world. —



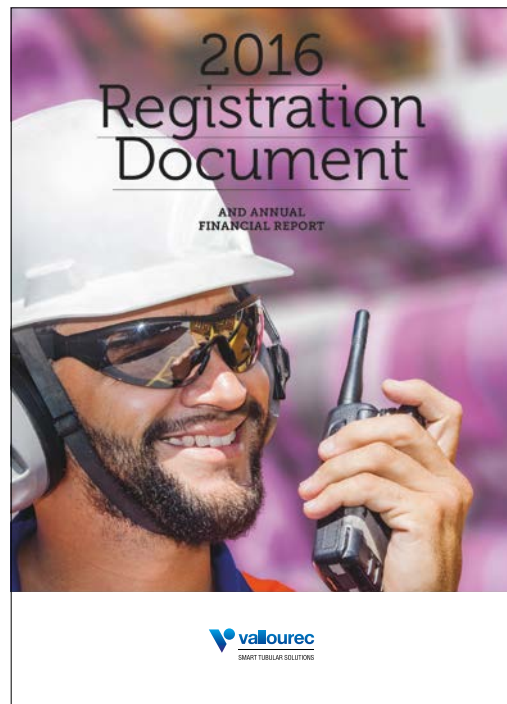
**STORY#6 – INDIA
INDIA'S FIRST
ULTRA-SUPERCritical
POWER PLANT**

The Indian utility National Thermal Power Corporation (NTPC) has big plans: it plans to install 128 GW of power capacity by 2032, compared with 47 GW today. The central state of Madhya Pradesh is the first ultra-supercritical power plant built in India by an Indian company. It chose Vallourec for its mastery of innovative tubes and its support of the project from the beginning. Trust that makes possible this decisive path by India toward energy and environmental performance. —

1,500
tons of P92 steel tubes

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Registration document



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