

**FORM 6 - K**

**SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**Report of Foreign Private Issuer  
Pursuant to Rule 13a - 16 or 15d - 16 of  
the Securities Exchange Act of 1934**

**As of 30 April, 2020**

**TENARIS, S.A.**

(Translation of Registrant's name into English)

26, Boulevard Royal, 4th floor  
L-2449 Luxembourg  
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or 40-F.

Form 20-F  Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12G3-2(b) under the Securities Exchange Act of 1934.

Yes  No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-\_\_\_.

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The attached material is being furnished to the Securities and Exchange Commission pursuant to Rule 13a-16 and Form 6-K under the Securities Exchange Act of 1934, as amended. This report contains Tenaris's 2019 Sustainability Report.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: 30 April, 2020

Tenaris, S.A.

By: /s/ Cecilia Bilesio  
Cecilia Bilesio  
Corporate Secretary

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# Sustainability Report

2019



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# Chairman's Letter

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Since we published our 2019 annual results in February, the world has changed completely. The rapid spread of the COVID-19 virus and the measures adopted to contain it have precipitated a global crisis that is unprecedented in the speed and severity with which it has affected the economy and our everyday lives. The recovery from this crisis will take time and will hasten change in many fields.

The impact on the energy sector is particularly severe and there will be a lasting impact on trade, travel and the way we interact with each other. Never before have we seen demand for energy collapse so much and so fast, driving prices in the US down to levels unseen in the past.

Oil and gas companies will struggle to maintain financial sustainability through this unforeseen chain of events, and investment in exploration and production will be reduced to a level comparable only to that of the 1999 crisis. It is difficult to foresee the timing of the recovery in the oil demand, and the extent of the structural changes that the sector will go through.

Over the next two years, the sustainability of our operations will be tested as never before. Our sales and our level of operations will be deeply affected, while the competitive environment in which we operate will be transformed in a way that today is difficult to anticipate.

In the long term, the world will resume a growth path, and the need for a reliable supply of energy will be essential for recovery. While we need to be prepared for the future, we also need to act swiftly and resolutely in facing the challenges of today.

We are focusing on four main lines of action:

First, we are taking comprehensive measures to protect our people by assuring a safe working environment that will allow a gradual return to production when conditions allow in the countries where we operate. We are testing the temperature of all persons who enter our facilities, providing appropriate protective gear, fully disinfecting common areas several times

a day, ensuring that social distancing rules are respected and using home working where possible. Whenever someone is detected as having potential symptoms, they are immediately isolated and sent home or for medical treatment.

Second, we are acting rapidly to ensure the financial stability of the company. We have closed industrial facilities and introduced furlough schemes to reduce operating costs. We are downsizing our fixed cost structure, reducing salaries at all levels, redoubling our focus on working capital management, and reducing or postponing all investments except those essential for the long-term sustainability and positioning of the company. In this context, we are also proposing to limit this year's dividend to the interim distribution we made earlier in November.

Third, as we have done in past crises, we are supporting our communities, where the everyday lives of families and neighbours have been deeply affected. We are using our global capabilities, including our regional offices in China, to strengthen local health providers with the supply of medical equipment, protective gear and infrastructure as well as providing critical support for affected persons. A USD 6 million fund has been established for this purpose.

Fourth, we are doing all we can, with the resilience and ingenuity of our people, to fulfil our commitments and strengthen our relationships with customers and suppliers. They will be essential for our future and they should feel that we are at their side during this period.

With the current reality in front of us, our achievements in 2019 may seem somewhat distant, but they have contributed to providing a solid platform from which to confront this crisis and prepare for the market recovery ahead. I will, therefore, briefly summarize the most relevant of these.

We have strengthened our positioning in two key markets for the future. The acquisition of IPSCO in the United States gives us more local production capabilities, including a steel mill,

with a wider range of products and geographical reach. This will strengthen our Rig Direct® service strategy, reducing lead times and improving service efficiency.

In the Middle East, we strengthened our position in Saudi Arabia through the integration of Saudi Steel Pipe, while in Abu Dhabi, we successfully won a long-term contract valued at USD 1.9 billion to supply the majority of ADNOC's OCTG requirements over the next five years.

We are making investments in digital technologies to transform the efficiency of our operations and provide customers with digital integration efficiencies under our Rig Direct® program. These investments are contributing to lower industrial and supply chain costs and closer collaboration with key customers.

Our safety indicators have improved significantly over the past two years, with the lost time injury frequency rate halving to an annual average of 1.1 lost time accidents per million manhours worked. No fatal accident has been recorded this year. This reflects both a constant management focus over the years, and the cultural change we have been able to extend to our 45 facilities around the world.

As we look at the global climate agenda, we look forward to leading the steel industry's response to the challenge. Today, we have relatively low levels of CO<sub>2</sub> emissions compared with our competitors, but we recognize the immensity of the "net zero" challenge. This will require collaboration across our entire industry value chain and has become a key focal issue on our agenda.

Over the past year, we have invested in particulate emissions collection systems to improve air quality at our steel mills in Argentina and Mexico. In other parts of our industrial system, such as our Bay City mill, we already have industry-leading emissions levels. Investments such as these improve working conditions for our employees and minimize the environmental impact of our operations on our communities.

In December, seven years after the inauguration of our Roberto Rocca Technical School in Campana, the first group of 50 students graduated. In a moving ceremony, we reflected on the importance of raising educational standards and providing opportunities to the aspiring young. Our educational programs are designed to make a difference at all levels throughout our communities.

We worked hard through the year to maintain the strength of our balance sheet. On sales of USD 7.3 billion, our free cash flow margin was 16% as we reduced working capital by over USD 500 million. At year end, our net cash position had risen to USD 980 million. Even after the acquisition of IPSCO following the close of the year, we still have a positive net cash position at the end of the first quarter of 2020.

As we face this new crisis, which will change many aspects of our industry, we are taking the steps necessary to strengthen our position as a leader in the eventual recovery.

During these most difficult times, I would like to give special thanks to our employees, who are showing exemplary solidarity and resilience as well as a capacity to act fast throughout the world. I am proud of them. I would also like to thank our customers, suppliers and investors for their ongoing support.

Sincerely,

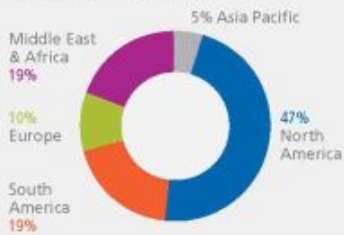


Paolo Rocca  
April 29, 2020

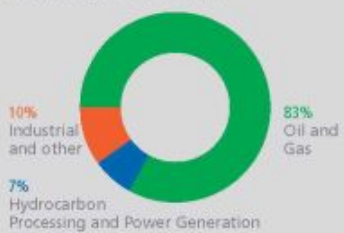
# Global Organization

At December 31, 2019

## SALES BY REGION



## SALES BY MARKET



## TOP CUSTOMERS

- |                       |                     |                           |
|-----------------------|---------------------|---------------------------|
| ADNOC                 | ENI                 | Pemex                     |
| Chevron               | Equinor             | Pioneer Natural Resources |
| ConocoPhillips        | ExxonMobil          | Saudi Aramco              |
| Continental Resources | ONGC                | Shell                     |
| Ecopetrol             | Pan American Energy | YPF                       |

## SERVICE AND DISTRIBUTION NETWORK IN

**30**  
COUNTRIES







**INTEGRATED QUALITY (ISO 9001:2008) AND HEALTH, SAFETY AND ENVIRONMENT (ISO 14001 - OHSAS 18001) MANAGEMENT SYSTEMS**

- Manufacturing Centers
- Service Centers
- R&D Centers
- Commercial/Administrative Offices

# Sustainability in Tenaris

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Tenaris is a leading global manufacturer and supplier of steel pipe products and related services for the world's energy industry and other industrial applications. Our customers include most of the world's leading oil and gas companies, and we operate an integrated network of steel pipe manufacturing, research, finishing and service facilities with industrial operations in the Americas, Europe, the Middle East, Asia and Africa.

Although our operations are largely focused on serving the oil and gas industry, we also supply pipes and tubular components for low-carbon energy applications such as geothermal wells, waste-to-energy (bio-energy) power plants, hydrogen storage and refueling stations, and wind farms.

Through an integrated global network of manufacturing, R&D and service facilities, and a team of 23,000 people worldwide, we work with our customers to meet their needs in a timely manner, observing the highest levels of product performance and reliability.

Our core values of safety, health, environment, quality and transparency guide our daily activity. They are clearly reflected in our QHSE policy ([www.tenaris.com/en/sustainability/](http://www.tenaris.com/en/sustainability/)), which, together with our Code of Conduct ([www.tenaris.com/en/sustainability/governance-and-ethics/](http://www.tenaris.com/en/sustainability/governance-and-ethics/)), is embedded in all aspects of our business processes. Now in its sixth edition, this report reflects how those values translate into concrete indicators of our performance. Its preceding publication, the Health, Safety and Environment (HSE) report, was first published in 2009 presenting information dating back to 2004.

Tenaris is a long-term project that goes back over six decades. Since we opened our first mill on the banks of the Parana River in Campana, Argentina, in the early 1950s, our prime objectives have been to grow alongside the communities where we work and live, to give our employees opportunities for professional development, to minimize our environmental footprint, and be a reliable partner for our customers.

Tenaris is a signatory of the United Nations Global Compact, a commitment to translate Ten Principles deriving from the Universal Declaration of Human Rights into daily business activity. Tenaris's Human Rights Policy pledges to conduct all company operations in a manner that is consistent with human rights principles.

We believe the steel industry and Tenaris can and must play an important role in addressing the planet's growing concerns about climate change. The industry has joined efforts to report and take action on reducing CO<sub>2</sub> emissions, with Tenaris playing a leading role in these initiatives. In 2018 and 2019, worldsteel named Tenaris a Sustainability Champion for "leading the way in creating a truly sustainable steel industry and society" in relation to its work in 2017 and 2018.

Today, Tenaris uses the least CO<sub>2</sub>-intensive steel production route for its steelmaking operations, and is evaluating technologies and strategies that could potentially reduce its carbon emissions to meet global goals, including the Paris Agreement. We allocate a significant part of our capital investments to improving safety, reducing the environmental impact of our operations, and advancing educational standards and opportunities in our communities.

At the same time, we acknowledge that climate change poses clear and present risks for our operations, as well as opportunities. We also understand that as an industry leader, we need to develop and incorporate the best technologies available into our operations to address those risks and improve our competitiveness as a supplier to our customers.

Our Health, Safety and Environment, and Quality Management systems are designed according to the latest versions of the ISO 14001, ISO 9001, and OHSAS 18001 standards. Today, 94% of our production sites are working under management systems certified according to these Health, Safety and Environment standards.



A signatory to the World Steel Association's Sustainability Charter and Policy, Tenaris has also been recognized as a Steel Sustainability Champion.

### Our reporting, in context

Tenaris is committed to strengthening a corporate culture of integrity, transparency and rational decision-making. We aim to disclose and communicate transparently all issues that can affect, either positively or negatively, our stakeholders, both internal and external to our organization.

This report has been prepared taking into account the guidelines established by worldsteel, the UN Global Compact and the Global Reporting Initiative (GRI). Please see the GRI Content Index in the annex at the end of this report.

We have identified, evaluated and prioritized those topics that can materially impact our ability to achieve our objectives in a sustainable manner in accordance with the aforementioned guidelines and our own risk assessment. The indicators we present in this report have been carefully selected to show the most relevant aspects of our performance in the areas of Economics; Health and Safety; Environment; Innovation and the Value Chain; Human Resources; Community Relations; and Governance, Risk and Compliance.

Material topics have been defined covering our whole value chain, from the sourcing process, product manufacturing and delivery of services, up to the end use of our products. They also include information gathered through our stakeholders' network as well as our internal strategy and objectives.

We consider it relevant to highlight how our actions are contributing to the achievement of the Sustainable Development Goals defined by the UN in 2015, as shown in the table overleaf.

This report has been approved by our board of directors on April 29, 2020, as part of our 2019 Annual Report, and sets out the non-financial information required to be disclosed as part of the company's reporting requirements in accordance with Luxembourg law.<sup>(1)</sup>

<sup>(1)</sup> Article 1730-1 of the Luxembourg law of August 10, 1915, on commercial companies, as amended, and Article 68 and 68bis of the Luxembourg law of December 19, 2002, on the commercial and companies register and on the accounting records and annual accounts of undertakings, as amended.

## Health and Safety

### → RESOURCES

- Code of Conduct for Suppliers.
- Risk-minimization throughout the supply chain.
- Contractor safety management.

### → PROCESSES AND ACTIVITIES

- Safety-oriented culture.
- Reinforcement of safety leadership.
- Accident prevention initiatives focusing on behavior.
- Catastrophic risk evaluation.
- Health protocol to ensure fit-to-work level.

### → OUTPUTS

- Committed workforce to ensure a safe and healthy working environment.
- Safe processes, products and services.



## Environment

### → RESOURCES

- Code of Conduct for Suppliers.
- Risk-minimization throughout the supply chain.
- Use recycled steel scrap and carbon-efficient energy sources.

### → PROCESSES AND ACTIVITIES

- Decrease of CO<sub>2</sub> intensity.
- Efficient use of energy.
- Responsible use of water and maximized recycling rates.
- Efficient use of materials and co-products.

### → OUTPUTS

- Minimized environmental footprint in operations, products and services.
- Maintained license to operate: long-term relationships with our communities.
- Product stewardship: environmental product declarations.
- Circularity and material efficiency for products and co-products.



## Innovation

### → PROCESSES AND ACTIVITIES

- R&D initiatives to make production processes more efficient and reliable.
- Innovation for product development.
- Use of digital technologies for industrial, supply chain and customer integration.

### → OUTPUTS

- Investment in R&D to manufacture high quality products with increased reliability.
- Development of Dopless<sup>®</sup> technology and Rig Direct<sup>®</sup> service model that contribute to a safer workplace with reduced environmental footprint.
- Development of PipeTracer<sup>®</sup> to allow pipe-by-pipe identification and digitalization of technical specifications.





## Human Resources

### → RESOURCES

- Recruitment of employees from different cultures and backgrounds, fostering diversity.

### → PROCESSES AND ACTIVITIES

- Continuous training of employees.
- Career development based on merit.
- Promotion of all forms of diversity at the workplace.
- Code of Conduct.

### → OUTPUTS

- Empowered workforce, engaged in the development of the industry.



## Community Relations

### → RESOURCES

- Promotion of local institutions.
- Establishment of technical schools and teacher training materials.

### → PROCESSES AND ACTIVITIES

- Strengthening technical education standards in local communities and support local students to develop their skills.
- Engagement of employees in volunteering initiatives in our immediate and broader communities.

### → OUTPUTS

- More learning opportunities and better educational results for local communities, from elementary to higher education, with a focus on technical education.
- Preservation of our community identity and heritage through artistic and cultural initiatives.



## Governance, Risk and Compliance

### → RESOURCES

- No use of conflict minerals.
- Code of Conduct for Suppliers.
- Risk-minimization throughout the supply chain.
- Prevention of forced labor and child labor.
- Promotion of local suppliers, fostering the development of local value chains.

### → PROCESSES AND ACTIVITIES

- Code of Conduct, Policy on Business Conduct and Code of Ethics.
- Critical Risk Committee.
- Business Conduct Compliance Program to foster ethical and transparent conduct.
- Anti-bribery procedures.
- Climate Action Program.

### → OUTPUTS

- Development of long-term relationships with customers and vendors, promoting transparency and economic growth.



# Economic Overview

We report on our operational and financial performance in the rest of our annual report ([ir.tenaris.com/financial-and-sustainability-reports/reports](http://ir.tenaris.com/financial-and-sustainability-reports/reports)). Here we have included our main financial indicators and the distribution of economic value generated.

In 2019, our sales declined 5% compared with 2018, reflecting lower levels of drilling activity in Canada and the USA and lower sales in the Middle East and Africa following an exceptional level of line pipe sales for East Mediterranean gas pipelines in 2018. During the year, we strengthened our local content and our position in the Saudi Arabian market through the integration of Saudi Steel Pipe; we set up a joint venture with Severstal to build a welded pipe mill in Russia, and strengthened our position in the U.S. market with the acquisition of IPSCO, completed in January 2020.

Despite lower demand in key markets, we maintained operating margins and cash flow at a level able to support strategic investments in strengthening our market position and industrial system, including investments to improve our safety and environmental performance, while maintaining dividend payments to shareholders. Shareholders' net income, however, decreased 15% for the year, reflecting a decline in operating income and lower returns on our investment in Ternium.

With a free cash flow margin for the year of 16% of sales, we ended the year with a net cash position on our balance sheet of USD 980 million, after paying USD 484 million in dividends and USD 133 million for our investment in Saudi Steel Pipe.

## Financial indicators

	2015	2016	2017	2018	2019
In USD millions (except otherwise stated)					
Net sales	6,903	4,294	5,289	7,659	7,294
Operating income	166	(59)	335	872	832
EBITDA	1,219	596	943	1,536	1,372
EBITDA margin - %	18%	14%	18%	20%	19%
Net income attributable to owners of the parent	(80)	55	545	876	743
Equity attributable to owners of the parent	11,713	11,267	11,482	11,783	11,989
Cash flow from operations	2,215	864	(22)	611	1,528
Capital expenditures	1,132	787	558	349	350
Research and development expenditures	89	69	64	63	61
Dividends	521	484	484	484	484
Net financial position	1,849	1,441	647	485	980
Return on equity - %	-1%	0%	5%	8%	6%
Return on capital employed - %	2%	-1%	3%	8%	7%
FCF Margin - % of net sales	16%	2%	-11%	3%	16%



Economic value generated and distributed 2019







Using technologies such as virtual reality to learn tasks, seen here for overhead crane operators, offers a near-world experience without any level of physical risk, allowing us to train employees efficiently.

### Capital expenditure

In 2019, our capital expenditures amounted to USD 350 million, in line with those of the previous year. Investments were mostly concentrated in the automation and digitalization of our industrial processes, as well as in improving safety and environmental issues, product differentiation and competitiveness.

This year, a key focus was on reducing the environmental impact of our operations on our communities, and investments were made in improving air quality at our steel shops. A new dust collection system was installed at Tamsa in Mexico, while a significant investment was made in expanding the dust collection system at Siderca in Argentina scheduled for completion in 2020.

Additionally, we have made major investments in new non-destructive controls as well as in controls to expand our product and pipe trading capabilities in several plants.

These investments will boost the competitiveness of our industrial system in addition to improving working conditions to meet more stringent quality and HSE requirements.

### Key indicators

#### Capital expenditure

In USD millions







Tenaris's values act as a road map, establishing culture, ideals and goals, which are reinforced through regular interaction between supervisors and their teams.



# Health and Safety

## → Our commitment

To improve health and safety, aiming to achieve zero injuries and occupational illnesses throughout our industrial system.

## → Our objectives

- Consolidate a strong health and safety-oriented culture, assessing and controlling risks, adapting tasks to people and people to their responsibilities
- Achieve a Lost Time Injury Frequency Rate target below 1, including contractors
- Ensure that 100% of our employees, including contractors, are fully fit for work

## → Our actions

Our core values of safety, health, well-being and care for the environment are embedded in our mission to achieve sustainable quality and transparency throughout our daily activities. In 2019, approved capital expenditure projects in the area of safety accounted for 18% of the total of the company's approved projects, while 8% was earmarked for environment.

As part of the company's Industrial Transformation Plan, we have prioritized risk reduction, improving working conditions in terms of indoor air quality and ergonomics within the context of our Health Management System, and reducing our overall environmental footprint.

50%

**REDUCTION**  
LOST TIME INJURY  
FREQUENCY RATE  
COMPARED  
WITH 2017

USD

42

**MILLION**  
INVESTED IN  
HEALTH AND SAFETY  
IN 2019

55,000

**SAFE HOURS**  
HELD

6,000

**SUPERVISORS**  
RECEIVE WEEKLY SAFETY  
UPDATES TO SHARE WITH  
SHOP FLOOR EMPLOYEES





During the major maintenance plant shutdown and repairs at Tansa in 2019, safety prevention activities were reinforced with the engineering team.



Changing a safety culture means securing the commitment of everyone involved at all levels. This means that Management needs to be closer to the line, as this is where the most relevant incidents occur. Everybody has to have the same level of awareness of safety at our facilities, from directors down to operators, including contractors.”



Antonio Caprem  
Chief Industrial Officer



## Safety: essential to our routine

Safety is our number one priority. As stated in our Quality, Health, Safety and Environment Policy ([www.tenaris.com/en/sustainability/](http://www.tenaris.com/en/sustainability/)), the health and safety of the people working at our facilities and using our products and services is of paramount importance to us. Tenaris is oriented towards creating and sustaining a safety culture capable of delivering zero accidents.

We believe that all accidents and work-related injuries and illnesses can and must be prevented. Thus, we are constantly implementing initiatives to raise awareness and ensure full compliance with procedures, standardizing practices and technologies to minimize exposure to health and safety risks.

One of our most relevant achievements in 2019 has been the improvement in our safety indicators, with significant reductions in the Lost Time Injury Frequency Rate (LTIFR) which fell to 50% of the level it was at two years ago, even as activity at our industrial facilities has increased.

### Transformation for life

In 2017, the company launched its Three-year Industrial Transformation Plan, which includes a strategy to establish a resilient safety culture focused on people's behavior, requiring the hands-on involvement of leaders at all levels, as a strong safety performance engaging workers is only sustainable if driven by management.

Putting safety at the heart of industrial growth and transformation has meant investing efforts in training and communications, including a Safety Leadership course held for over 800 Shift Leaders, to improve risk management, awareness and communication. Some 50,000 hours of specific training have been given in the last two years, with a direct positive impact on safety indicators.

As most incidents and accidents are the result of unsafe behavior when executing work-related tasks, we are using the observations recorded in our database, which tracks incidents, accidents, anomalies and unsafe behaviors, as input for company-wide communications campaigns. These include the weekly mailing of infographics about a given incident, translated into 10 languages, to 6,000 employees around the world.

The new approach to safety has also involved redesigning the Working Instructions detailing the steps involved in each task undertaken at the mill. We have reviewed over 1,700 risk analyses all over the world, leading to an increase in operator involvement and adding new features such as critical element checklists. With the Engineering department, work has focused on evaluating and reducing potential risks in the workplace, such as tasks involving work at height, confined spaces, exposed areas, and the movement of cranes and vehicles, as part of a major USD 40 million worldwide investment plan.

We have actively taken part in benchmarking activities with other industrial companies, and we have been recognized on several occasions for groundbreaking safety-oriented initiatives and concrete results by worldsteel.

“

The infographics provide shift leaders with a tool to help them discuss, analyze and ponder what happened in the mills with their teams. They can identify the risks described, discuss what should have been done to mitigate them, remind people to follow the rules, and propose practices to prevent specific safety events from recurring.”



Giovanni Brembilla  
Global Health & Safety Director

Finally, we have been revisiting processes with contractors to help them offer their own personnel the same training as Tenaris employees receive, the best way of ensuring that a single safety culture is shared among everyone working with the company.

**Communications**

The systematic communication of safety issues on the shop floor plays a key role in keeping safety awareness and alertness high. This year we developed a series of communications pieces for over 5,000 people at our operations in different countries, from Safety Updates and posters to videos, including over 60 different weekly newsletters and 16 monthly safety infographics and animations to raise awareness and share lessons learned.

Shop floor and site communication routines are an established practice, with structured meetings involving workers and contractors held by managers, coordinators and supervisors, complementing our successful company-wide Safe Hour program introduced in 2012.

We are also members of the World Steel Association’s safety groups with other leading steel producing companies, developing guidelines for safety management in different areas.

We continue to develop the Process Safety Management program focusing on design and engineering at facilities, equipment maintenance, ensuring effective alarms and control points, and reinforcing procedures and training as part of a disciplined approach to personnel certification. This program dovetails with another on Catastrophic Risk Analysis to detect and prevent unexpected events with a serious impact on our people, facilities or the environment. So far, we have completed the evaluation phase and defined a series of mitigating actions, currently at the implementation stage.

**Safety programs include contractors**

We include all contractors working at our sites in the Tenaris Safety Management System to ensure our prevention programs are truly effective. In 2019, we introduced a new IT tool to record and monitor key contractor indicators such



**SAFE HOUR: ROUTINES FOR IMPROVEMENT**

The Safe Hour routine, a weekly opportunity for managers and workers to chat about safety issues, highlighting safe and unsafe behaviors and conditions, continues to be one of the mainstays of our safety culture drive in the mill. These are dialogues focusing on exchanging ideas and points of view to promote a real understanding of safety issues, enshrining the company’s commitment to ensuring the safety of our personnel.





A Tenaris employee uses a remote control device to operate overhead cranes, minimizing risks by keeping at a safe distance from the operation.



A USD 27 million investment in improving our capture and emission treatment system at our Tamsa steel shop has not only resulted in more sustainable steelmaking processes but also better air by reducing fugitive emissions within the facilities. We've increased productivity and improved conditions for all our colleagues at the steelworks.”



Luca Benigni  
Senior Director of Engineering,  
Tamsa



Safe Hours are an opportunity to review the tasks scheduled and discuss safety behaviors and possible risks, reinforcing the company's safety regulations and keeping people out of harm's way.





as performance, working hours, fit-to-work level and safety scores with the aim of getting our contractors to comply with the same safety standards as our employees.

## Health and well-being

Tenaris's comprehensive occupational health program enshrines the company's commitment to providing a healthy workplace, with equipment and technologies to ensure the quality of working life, good health and the well-being of its workforce.

The Health Management System foresees periodic workplace monitoring and risk analysis instances to evaluate and control a range of activity-related factors with the potential to affect employee health, including chemical, biological, physical, ergonomic and psychological risks.

Our Threshold Limit Values (TLVs) define corporate procedures and guidelines to maintain acceptable levels of

indoor air quality, noise and vibrations in accordance with the strictest international standards.

### Improving air quality

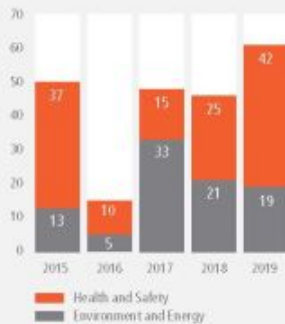
We reviewed the risk assessment for all Tenaris varnishing areas, analyzing the paint used in order to design appropriate technical control measures for new paint to protect worker health. At the Tamsa mill in Mexico, investments in technology have reduced fumes from the steel-making process, resulting in improved indoor air quality and overall environmental conditions at the plant. The process is currently being applied at Siderca and should be completed later this year.

The results of our health monitoring program prompted a renewed approach to employee health management, including the creation of a health protocol to ensure that all employees get periodic medical check-ups and are certified as fit to work with no long-term health risks arising from work-related activities.

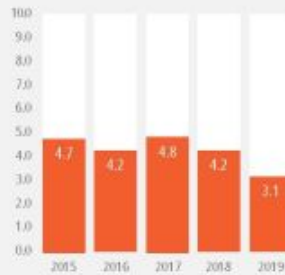
## Key indicators

### Investment in Health, Safety and Environment

In USD million

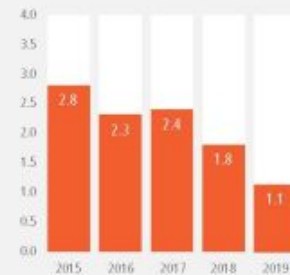


### Injury Frequency Rate



Methodology: Number of accidents with and without lost days (not including First Aid) per million hours worked (includes employees and contractors).

### Lost Time Injury Frequency Rate



Methodology: Number of accidents with lost days per million hours worked (includes employees and contractors).



# Environment

## → Our commitment

To reduce our environmental footprint within our communities and value chain, working with our partners and peers to address the climate change challenge and meet global targets for CO<sub>2</sub> emissions reduction.

Steel is an essential material for our daily lives, used everywhere and for a variety of products, yet steelmaking is a highly energy-intensive process and produces significant quantities of different kinds of emissions, the most relevant being particulates and carbon dioxide. The social, financial and physical risks of climate change and the global challenge of reducing greenhouse gas emissions are driving steel industry leaders, including Tenaris, to find new solutions for reducing their footprint by improving energy efficiency and using new technologies to meet the global objective of achieving a low carbon society.

New technologies and practices bring benefits that are both economic and environmental, from materials recycling as part of the circular economy, to harnessing cleaner energy. Achieving greater energy and material efficiency, increasing scrap recycling and employing natural gas as a bridge fuel on the way to renewables and new technologies, such as hydrogen, are best achieved with an ongoing industry commitment to working together.

As an industry leader, Tenaris believes that its responsibility to reduce the environmental impact of its activities is also an opportunity to embrace innovation and technological change, engaging its partners in the value chain to add their efforts to achieve a cleaner future.

1.18

TN CO<sub>2</sub> EMISSIONS /  
TN STEEL

70%

RECYCLING  
CONTENT IN  
OUR STEEL

98.4%

MATERIAL  
EFFICIENCY  
AT STEELMAKING  
SITES

18%

REDUCTION  
IN WATER WITHDRAWAL  
VS 2018 VALUES





Environmental protection is part of our mission, vital for sustaining our business in the long term and our license to operate. This is what guides our actions and reinforces our role as producers of a more sustainable steel.”



Carolina Bengochea  
Global Environmental Director

## Energy and climate action

### → Our commitment

To reduce the intensity and overall level of our CO<sub>2</sub> emissions by using energy resources efficiently, implementing best available technologies, and using carbon-efficient sources of energy.

### → Our objectives

- Increase the efficiency of energy use
- Reduce the intensity of CO<sub>2</sub> emissions by implementing the best available technologies at our facilities
- Provide products and services which contribute to minimizing emission levels

### → Our actions

World steel production accounts for around 8% of greenhouse gas emissions from the use of fossil fuels, making the reduction of CO<sub>2</sub> emissions an urgent priority for the industry. The key actions focus on optimizing energy and material efficiency by increasing the use of steel scrap and developing innovative technologies to cut emissions:

Our steel is based mostly on recycled steel, which also applies to the Koppel steelmaking facility we acquired in January 2020. We work continuously to improve our energy, material efficiency and emission levels, as well as studying different actions and investments to further reduce our footprint.

At Tenaris, we have achieved recycling content levels of 70% in our steel by using electric arc furnaces to recycle steel scrap, while our ironmaking process in Argentina is based on Direct Reduction, fueled by natural gas, to-date the cleanest method of producing steel from iron ore.

### A more environmentally-responsible operational model

Aware of the contribution made by steel to global CO<sub>2</sub> levels, but also its role in building the infrastructure housing the communities where we operate, Tenaris is committed to reducing emissions and achieving greater energy efficiency throughout its operations.

To increase the use of scrap in the steelmaking process, the company is evaluating different alternatives and innovative solutions for application at different sites.

Other initiatives being pursued include ways of optimizing water, natural gas and electricity use, as well as the introduction of LED lighting, complemented by employee training and awareness programs, new procedures and guidelines, infrastructure modifications, and systems modelling to identify further opportunities for improvement.

Tenaris has joined worldsteel's "Step Up Program", designed to support the steel industry in its approach to more environmentally responsible operational models by benchmarking operating technologies, and has implemented a range of actions to improve efficiency at its mills focusing on the use of raw materials, energy input, yield, and maintenance.



A CO<sub>2</sub> awareness session for operations, engineering and supply chain employees was held to understand the scope of possibilities available to decrease CO<sub>2</sub> emissions.

### Reducing CO<sub>2</sub> emissions

Tenaris has been recognized by the World Steel Association's Climate Action Program for complying with CO<sub>2</sub> emissions reporting requirements over the last ten years, essential input for the data collection program forming part of the steel industry's global approach to climate change.

For 2018 and 2019, we calculated CO<sub>2</sub> emissions in relation to electricity use, based on factors reflecting the local conditions in the countries where we operate, and the particular situation of our sites according to whether we use our own power plants or local electricity sources.

The CO<sub>2</sub> emission intensity from our four sites with steel-making processes, was 1.18 tn. CO<sub>2</sub> / tn. of cast steel in 2019, almost 2% lower than 2018. This is well below the global steelmaking weighted average reported by the World Steel Association. Total emissions amounted to 3.4 million tons of CO<sub>2</sub>, 14% lower than in 2018, reflecting a lower level of production in addition to the lower emission intensity level. These values include scope 1 (direct), scope 2 (upstream related to electricity) and scope 3 (upstream related to raw material) emissions. Excluding scope 3 emissions, total emissions from these four sites were 2.2 million tons of CO<sub>2</sub>.

In Mexico, a new combined cycle natural gas-fired power plant began operations in 2017, with a lower emission factor than the national system, which is supplying 95% of the electricity needs of our Tamsa site. In Argentina, we have been using a gas-fired combined cycle power plant, temporarily stopped in 2019, but, for comparative purposes, we maintained the emission factor for this plant rather than the local electricity supply, which has a lower emission factor due to Argentina's low-carbon energy mix based on gas, hydroelectric and nuclear sources.

In Italy, our gas-fired combined cycle plant provides steam for district heating supplying the local community in addition to electricity to run our Dalmine facility.

Taken as a whole, our welded and seamless pipe production activity, which not only takes place at our steelmaking sites but also at other facilities, has total CO<sub>2</sub> emissions (scope 1 and 2) of 2.7 million tons in 2019, compared to 2.9 million tons in 2018. The fall reflects a lower level of production, while emission intensity remained stable at around 0.80 tons CO<sub>2</sub> per ton of steel pipe.

### Environmental Product Declaration

In 2018, Tenaris re-certified a number of Environmental Product Declarations (EPD) stating the performance of certain products in environmental terms based on their Life Cycle Assessment. The latest EPDs measure the impact of steel pipe on air emissions, energy use, climate change, the recovery of co-products, and water use. The EPD for OCTG pipe was calculated for an average ton of seamless OCTG pipe from Dalmine, Siderca, Silcotub and Tamsa: this Tenaris EPD was the first one of its kind published for seamless OCTG pipes.

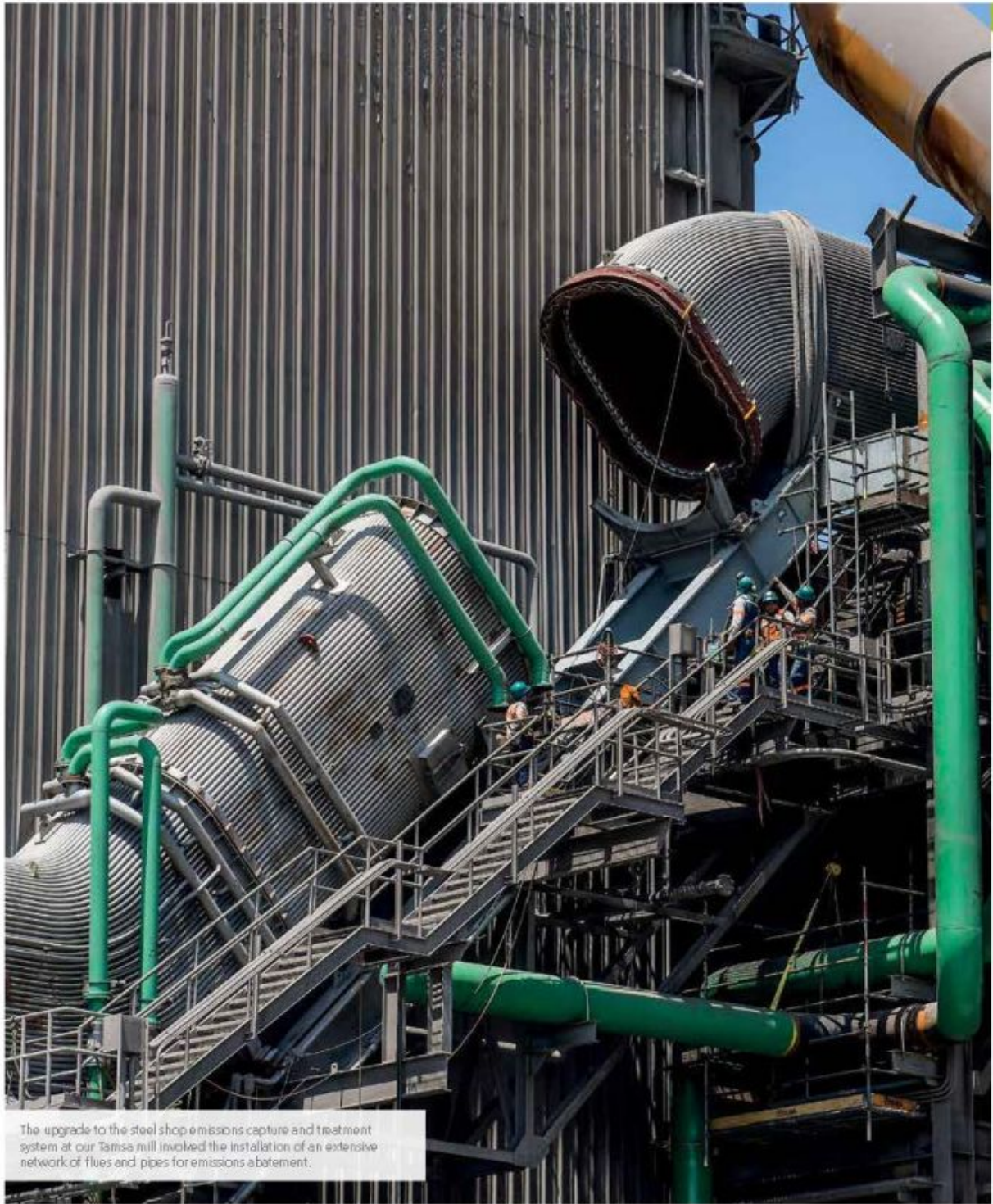
The latest OCTG EPD shows that the product's Global Warming Potential indicator has improved by 7% compared with the previous year's score. These metrics, and those of two other EPDs for line pipe and steel structural solutions, show that over 60% of the company's GHG emissions are from upstream processes, and 30% from pipe manufacturing, while transportation only has a limited impact on the overall total. This information serves to steer our main actions towards improving the consumption and type of raw materials we use, and achieving efficiency in the steelmaking process.



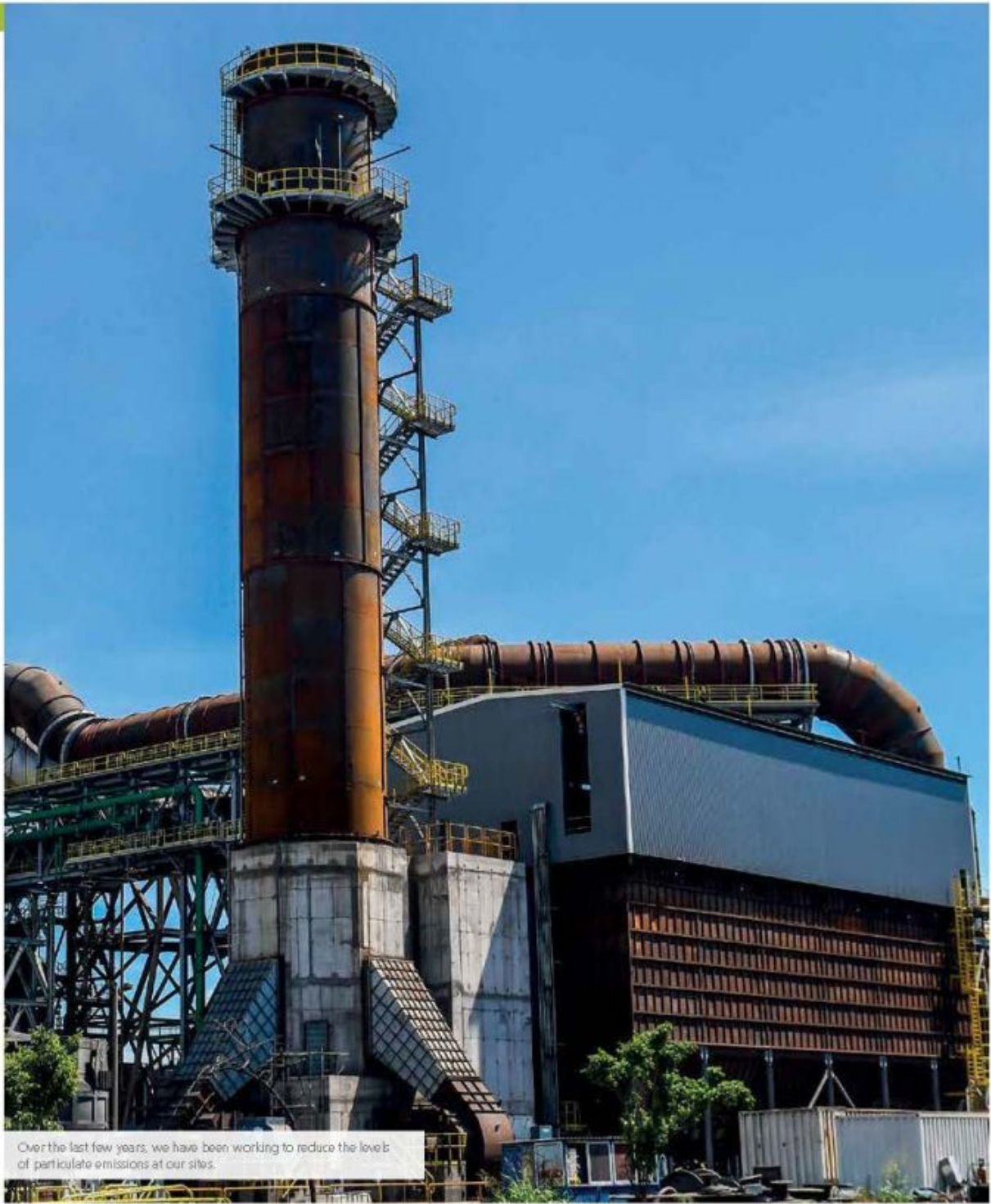
### GREEN STEEL WORKSHOP

Tenaris's mill in Dalmine, Italy, was chosen by the European Steel Technology Platform (ESTEP) as one of the hosts for the *Green Steel by EAF* two-day workshop on sustainability in the steel industry in November 2019. The event drew representatives from the steel industry, technology companies and research institutes to discuss scrap management, decarbonization, energy efficiency, and the circular economy. The focus was on using electric arc furnaces (EAF) in steel production to reach CO<sub>2</sub> reduction targets and a "Carbon Neutral" economy by 2050.





The upgrade to the steel shop emissions capture and treatment system at our Tamese mill involved the installation of an extensive network of flues and pipes for emissions abatement.



Over the last few years, we have been working to reduce the levels of particulate emissions at our sites.





Our emissions capture and treatment system project is part of our commitment to develop a long-term sustainable business as it meets the three key criteria: environmental, social and economic.”



**Emireth Hernández**  
Regional Manager for Environment,  
Mexico

## Air quality

### → Our commitment

To minimize emissions, contributing to good air quality in the communities where we operate.

### → Our objectives

- Comply with local and internal emissions requirements, monitoring activities to measure performance
- Eliminate fugitive emissions from steelmaking processes

### → Our actions

The steelmaking process generates emissions from particulate matter and other pollutants; we have thus established corporate procedures setting limits on stack emissions and monitoring requirements. Internal limits have been defined according to the best technologies available to improve processes beyond local legal compliance levels, as not all countries where we produce have the same requirements.

#### Reducing steel shop emissions

Over the past year, we have invested USD 27 million in our Tamsa facility in Mexico to upgrade the capture and treatment system for steel shop emissions, adding new filters and enhanced extraction capabilities.

A further investment of USD 18 million is ongoing at our Siderca facility in Argentina to improve our capture capabilities and install a new filter system.

The continuous monitoring of our steel shop stacks shows that particulate material emissions have fallen consistently over the last few years, thanks to better systems introduced to control treatment systems, and to the investments we have made. Values fell from 100 g/ton of product in 2016 to 40 g/ton in 2018, and to 33 g/ton in 2019 as a weighted average value for our four sites. These achievements bear witness to our commitment to reducing our environmental footprint, ensuring healthy working conditions and cleaner air for both employees and the communities where we operate.

We recently launched a 5-year investment program in Argentina and Mexico to reduce the emission of volatile organic compounds (VOC) from varnishing and painting activities in regions where we use higher proportions of solvent-based products.

This involves not only a change in the chemical products used, but also the modification of our production lines thanks to an investment plan covering the next 5 years. Siderca has begun the change of two out of seven lines, planned for implementation by mid-2020; Bay City has started operating a thermal oxidizer for its water-based varnishing line after a USD 1.2 million emissions-reducing investment, while Tamsa is following the same path.

With the Siderca and Bay City modifications already made, we expect to see a 16% reduction in VOC emitted per year for pipe varnishing operations compared with 2017 data.

## Circularity and materials efficiency

### → Our commitment

To implement circular economy concepts throughout our industrial system.

### → Our objectives

- Maximize recycling rates at our facilities
- Maximize scrap availability and use
- Reduce the amount of materials sent to landfill by recycling, reusing and revalorization

### → Our actions

As a permanent resource, steel is fundamental to achieving a circular economy: it can be recycled infinitely without losing any of its properties, a way of saving iron, energy, coal and other materials, producing less CO<sub>2</sub> emissions, and preventing useful material from ending up in landfill as waste.

#### Recycling scrap

Our life-cycle approach to scrap recycling helps to minimize the environmental footprint of our operations, also one of the main opportunities the steel industry has to reduce CO<sub>2</sub> emissions, based on current technology. Scrap can be made into new steel as closed material loop recycling, avoiding the production of primary steel. We trust that governments in the countries where we operate will recognize these benefits and allow steel scrap recycling to occur efficiently by avoiding its classification as a waste stream.

As a whole, steel produced at our sites in Dalmine, Siderca, Silcotub and Tamsa, has a recycled content of 70% calculated according to ISO 14021 standards. These values are only possible due to the use of electric arc furnaces (EAF), permitting recycled scrap to maintain its steel quality characteristics.

The recycled content value is a weighted average taken for the four sites based on steel bar production, with higher values achieved by our European sites Dalmine and Silcotub: Tamsa combines hot briquetted iron with scrap, while Siderca

combines locally-sourced steel scrap with direct reduced iron produced on site using natural gas to provide the metal charge necessary for operations. Differences in processes and raw materials arise from local availability and scrap market conditions. During 2019, we consumed 2,300,000 tons of recycled steel scrap at our plants.

#### Material management

Our overall level of material efficiency at our steelmaking sites reached 98.4% in 2019, higher than the steel industry average of 96.3% reported by worldsteel for 2018. We reuse and recycle residue and co-products to cut waste: during 2019, counting all our production sites, we reduced the amount of waste sent to landfill from 12% of our total amount of residues and co-products, to 10%. This small variation is nonetheless encouraging as we operate in many different countries with different realities, and reflects the many actions undertaken by each region to reduce waste and increase recycling. Slag, the major waste co-product, is reused and recycled in a number of areas such as building materials, fillers, road surfacing, and concrete.

At Dalmine, we are investigating a new way to process ladle slag to minimize emissions and improve product quality to allow for further recycling. Scale is reused in the cement industry, as are co-products from the Siderca direct reduction plant. We continue to invest in research to improve internal and external recycling for different residue streams.

Our Silcotub site has joined an EU-financed project to evaluate and test different residues and alternative raw materials to feed the electric arc furnace. The project will be ongoing for the next four years with different partners, looking to find ways to further work with the EAF to achieve circular, low-emission steel.

We continuously work to develop Reduce, Recycle, Reuse (3R) initiatives throughout our sites and offices, from campaigns to encourage a paperless workspace, reduce single-use plastics or use biodegradable materials instead of plastics, to thread protector recycling, thus increasing opportunities for circularity in our industry.



Scrap recycling is fundamental to reducing carbon emissions in steelmaking today.

## Recycling

2,300,000

TONS  
OF SCRAP

80,000

TONS  
OF SCALE

MORE THAN

350,000

TONS  
OF SLAG

21,000

TONS  
OF IRON

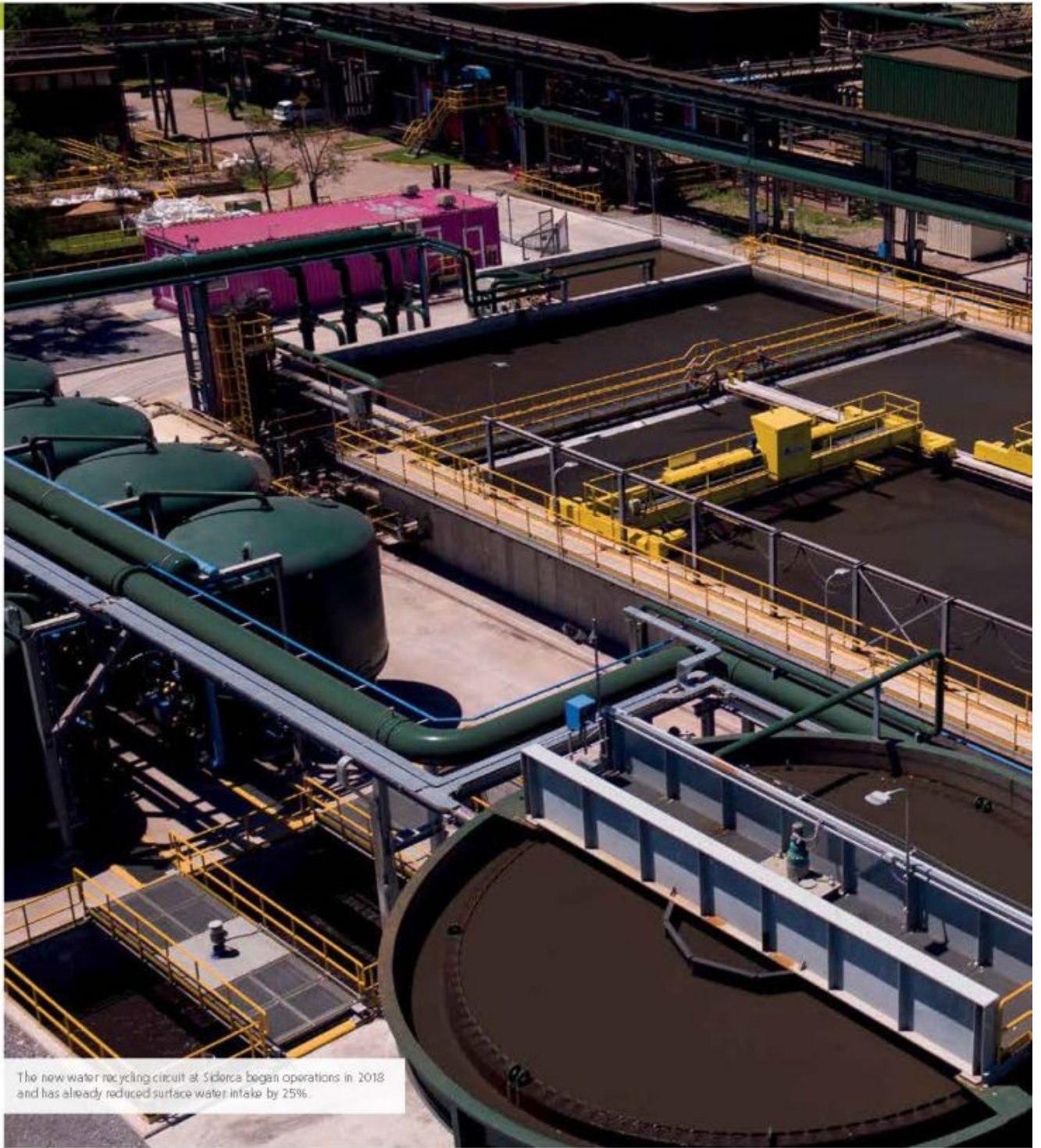
7,000

TONS  
OF WOOD

2,000

TONS  
OF PLASTIC





The new water recycling circuit at Siderca began operations in 2018 and has already reduced surface water intake by 25%.





## Water management

### → Our commitment

To ensure the responsible management of water.

### → Our objectives

- Minimize water intake in water-scarce areas where we have water-intensive operations
- Meet water-discharge quality targets
- Implement the best water-management technologies for new lines

### → Our actions

Water of all types plays a major role in steel manufacturing processes, although very little of it is consumed, being reused or returned to source; often, water that is recycled back into rivers and other sources is cleaner than when extracted. Tenaris is fully aware of its responsibility for managing water resources, and is constantly evaluating how best to conserve and reuse water.

#### Improving use and management

We have evaluated water-stress levels in those areas where we have operations, focusing efforts on facilities requiring high water-use rates for steel seamless pipe making, rolling and heat treatment, given that processes for welded pipe and finishing plants require much less water.

Most of our intensive water-use facilities lie in areas of low or medium water-stress risk, where we have put into place systems which recycle high percentages of water.

We permanently monitor effluent discharge in line with local and internally-mandated standards.

In the United States, our Bay City mill works with a 95% water-recycling rate system, while blowdown is treated at the local wastewater treatment facility. This concept is also being applied at our new seamless pipe processing facility in Colombia to recycle all the water used with no industrial discharge.

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The Bay City seamless pipe mill in Texas, U.S., was designed to achieve stringent environmental performance standards in terms of nitrogen oxide air emissions, particulate materials, volatile organic compounds and also CO<sub>2</sub> emissions, and has qualified as a minor source of emissions. The mill reuses 95% of its water consumption, and the remainder is treated and sent to a local wastewater treatment plant.

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On average, some 75% of the water we use comes from surface water and 20% from subsurface, and the remainder comes from local networks. At Siderca in Argentina, 95% of our intake comes from surface water as the site was specifically designed to work off an open water circuit on the shores of the Parana River. However, as part of our drive to reduce our impact on the environment by changing the way we manage water resources, our Siderca rolling mill invested in a new water recycling and treatment circuit to recycle and reduce intake which began operating at the end of 2018, leading to an overall 25% reduction in surface water intake. Siderca continues to invest in upgrading its water-management systems.

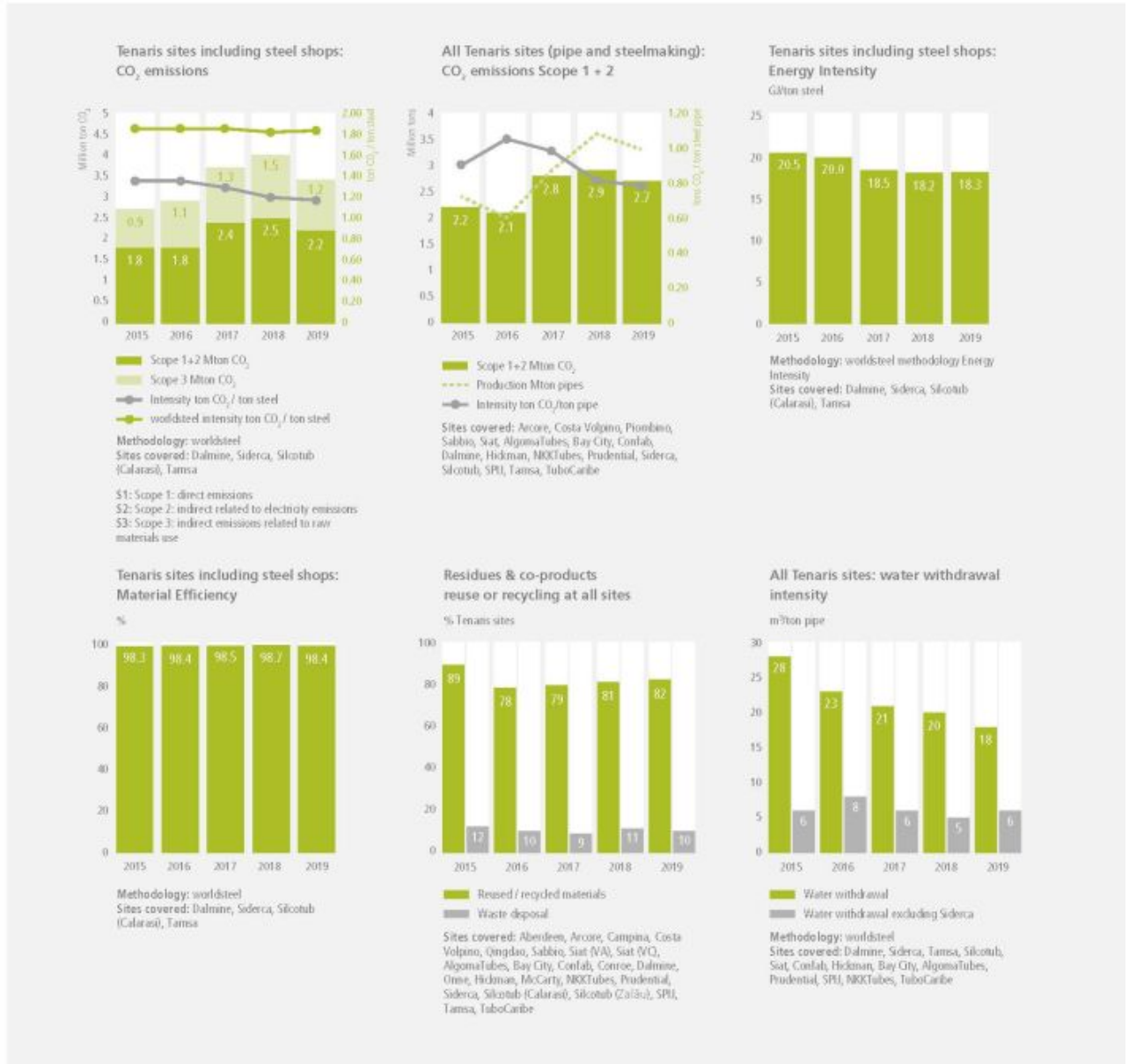
Reducing our water footprint is not only about our sites but also our products: our Dopeless® connections do not need to be cleaned with water while running in the field, whereas standard "dope" threads need 10-20 liters of water per connection.

#### Biodiversity and habitat restoration in Piombino

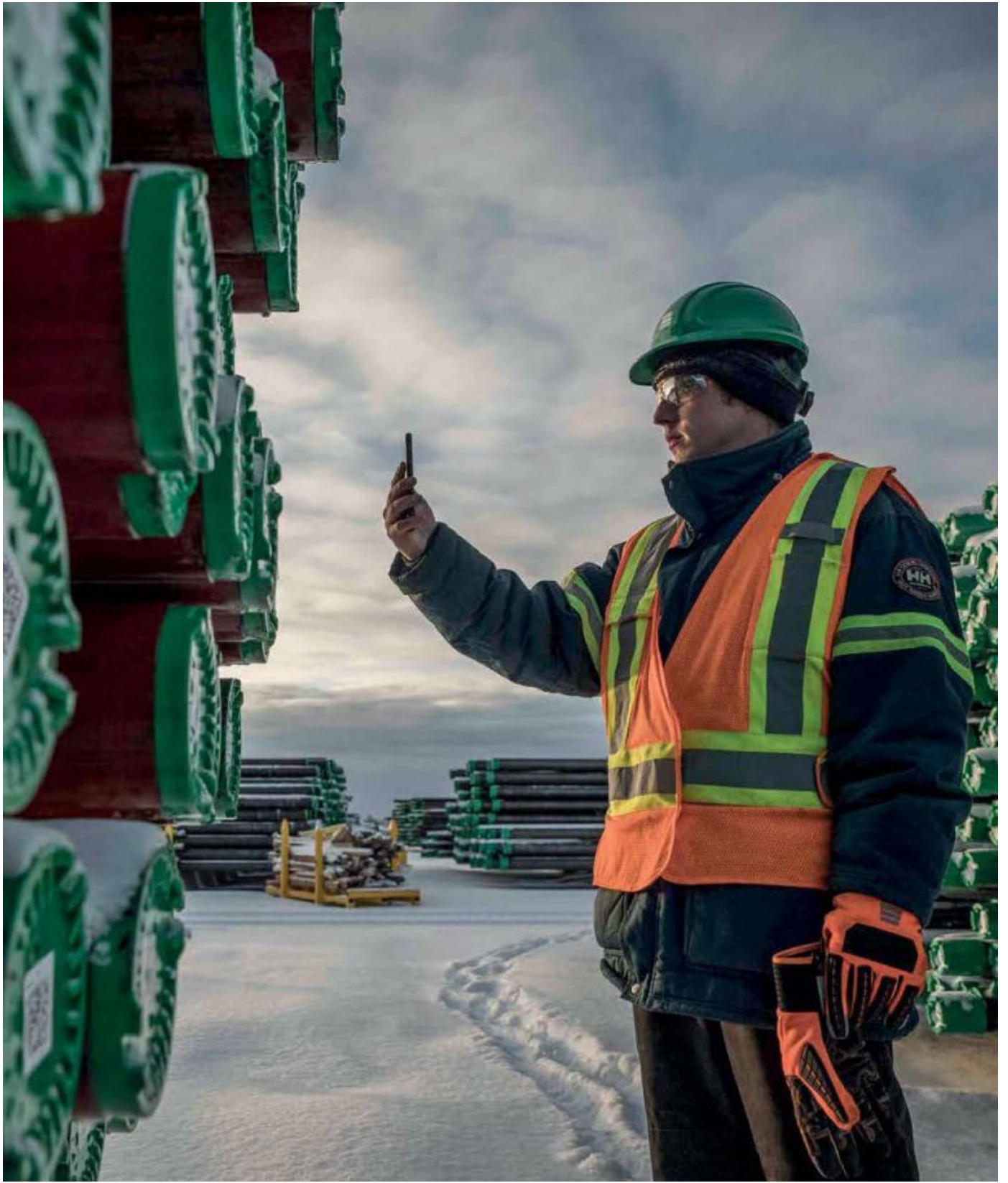
In Italy, at our Piombino industrial site, we remediated two existing landfills, reclaiming two areas of about 25,000 m<sup>2</sup> and planting several endemic species in the area, followed by periodic monitoring.

The rewilding project, which began in summer 2016, has created two fresh water wetland areas attracting dozens of rare endemic botanical specimens, the right habitat for many animals typical of the Tuscan coastal area. The last animal census included sightings of some 50 different bird species, wild mammals and dozens of amphibians and insects.

# Key indicators









# Innovation and the Value Chain

## → Our commitment

To offer customers product and service solutions to enhance safety, efficiency and reliability, and to minimize our environmental footprint through the supply chain.

## → Our objectives

- Develop and improve our product and service portfolio
- Increase the efficiency and reliability of our production processes to meet the needs of our customers with industry-leading technology and sustainable manufacturing
- Shorten the supply chain, leveraging digital technologies and our global and local infrastructure, to reduce costs and environmental impact, at the same time promoting local industrial development

## → Our actions

Tenaris is committed to meeting the needs of its customers for industry-leading products and services for a wide range of applications which also address safety and environmental concerns. We are constantly developing innovative solutions and setting higher standards in terms of efficiency so that we can contribute to sustainable practices, ranging from ensuring well integrity for oil and gas operations, to offering highly reliable tube components for use in airbags, and – more recently – highly machined materials for use in large hydrogen storage vessels.

Our products are manufactured in accordance with the most stringent industrial standards. Under ISO 9001 and API Q1 specifications, the Tenaris quality management system guarantees the reliability of both our products and the processes involved in the manufacturing operation. This ensures that our products comply with customer requirements throughout the value chain, from the acquisition of raw materials to the delivery of the final product.

USD

61

**MILLION**  
INVESTMENT  
IN R&D IN 2019

450

**RIGS**  
SUPPLIED UNDER THE  
RIG DIRECT® MODEL  
WORLDWIDE IN  
DECEMBER 2019

360

**PEOPLE**  
WORKING  
IN R&D

4,734

**PEOPLE BENEFITED**  
FROM PROPYMES  
ASSISTANCE PROGRAM



We are very pleased that, here in the Middle East, ADNOC has recognized the value that we can bring with Rig Direct® solutions. We work closely with ADNOC staff and management, contributing to safer and more efficient operations.”



**Benwar Berzinji**  
Commercial Vice President,  
Middle East, North Africa & India

## Innovation as a foundation for growth

Innovation has always been intrinsic to Tenaris's growth and business strategy. Traditionally, we have focused on product development, more recently, we have been devoting equal attention to employing digital technologies and process innovation to streamline our business processes and ways of working with our customers, as well as in our manufacturing facilities.

In 2019, we invested USD 61 million in R&D, reaching a total of USD 392 million over the last five years. We carry out Research and Development activities with a global team of 360 people in R&D centers in Argentina, Italy, Japan and Mexico, coordinated from our main technology office in Amsterdam. Our product developers and researchers work closely with our technical sales teams, who have first-hand knowledge of customer needs on the ground.

### Unmatched range of premium connections

The key differential setting Tenaris apart in premium connections is its range of TenarisHydril Wedge connections and its environmentally-friendly Dopeless® technology. TenarisHydril Wedge connections offer advantages in terms of running efficiency and high operational torque, compared with more standard premium connection performance features.

Since acquiring Hydril in 2007, we have expanded the range of our Wedge connections beyond the original Series 500 connections to include Series 600 connections, designed for the most complex offshore drilling applications. Currently, we are introducing Series 400 connections designed for increased efficiency in shale drilling applications.

Our Dopeless® technology simplifies pipe handling and running while minimizing the environmental footprint at the well: no dope is necessary for storage or running, and there is no need to use water to clean the thread for inspection activities.

Also over the past year, we have expanded our range of connectors used to anchor conductor and surface casing strings to the wellhead in mainly offshore applications. As a complement to our high performance TenarisHydril BlueDock® range of connectors, we developed the recently introduced EasyDock™ for less demanding shallow water and onshore applications.

When we first introduced our BlueDock® connectors for use in Brazil's deepwater wells some 10 years ago, we became the first pipe-maker to provide a completely integrated pipe and connector offer for complex offshore applications. Now, these connectors are increasingly being used in complex deepwater applications around the world based on their proven fatigue-resistance performance.



Investment in industrial efficiency has also included the use of automation for repetitive tasks to make manufacturing processes safer and healthier for workers.

### Unique quality control for safer airbags

Automotive suppliers require absolute reliability for high performance tubular components used in airbags so as not to compromise on safety. As a leading supplier in this market segment, Tenaris has developed a complete range of products to comply with the most demanding specifications.

Recognizing that the non-destructive testing (NDT) process is critical, we developed the VITRIS™ robotic system as an innovative approach to automate the NDT process, making use of different and complementary NDT methods to improve overall detection performance and reduce false alarms. This system is unique in the market, and provides enhanced quality assurance for a critical component of airbags used by the automotive industry.

### High-strength large steel vessels for hydrogen storage

Although hydrogen has long been recognized as a potential alternative to decarbonizing certain industrial and transportation activities, the cost of producing and using hydrogen, either from natural gas or renewable energy, has hindered its development. However, as these costs have recently been falling, hydrogen is increasingly being considered for various applications.

Tenaris has developed an optimized chemical composition and thermomechanical process to produce large-diameter seamless cylinders for hydrogen storage, with outstanding mechanical properties and fatigue resistance. In collaboration with Sandia National Labs in the U.S., Tenaris undertook a research study to acquire an in-depth understanding of the interaction between





Tenaris is constantly seeking to improve the reliability and performance of its products: our quality management system and its testing requirements play a key role in achieving this.



hydrogen and carbon steels in a high-pressure hydrogen atmosphere (1,000 bars). This study allowed us to understand precisely the degree to which hydrogen embrittlement affects fatigue properties, a critical factor in storage station design.

### **Rig Direct®: digital integration and lower environmental impact**

Tenaris is leading a transformation of the way that the oil and gas industry, particularly in North America, has traditionally been supplied with its well casing and tubing requirements. With our Rig Direct® service, we partner with our customers throughout the lifecycle of their drilling projects, shortening the supply chain from the mill to the well, making sure we produce only the products they need, when and where they are needed. By reducing lead times and inventories, we also reduce the environmental impact with less material produced and scrapped.

We are increasing customer integration and the efficiency of our Rig Direct® service through the use of digital integration tools. Our Rig Direct® portal is a web-based platform that aims to streamline business processes by connecting Tenaris and its customers within a dedicated digital space. Here, we manage areas such as product dispatches, monitoring trucks travelling from Tenaris service yards to customer rig sites, and invoicing. Rig Direct® increases the transparency of all administrative aspects from call-out to delivery invoicing.

Our PipeTracer® tool is a unique tracking and traceability application allowing operators to identify each Tenaris pipe with its individual quality characteristics on-site using mobile devices. This means that both operators and Tenaris have access to all relevant technical pipe information, avoiding both the need to perform manual pipe measurements and the risk of duplicating inspection services, which in turn reduces handling, errors and workload, thus making operations safer and more efficient.

We complement our supply chain and digital integration services with professional technical support, ranging from the selection of materials in well planning, to on-site assistance to promote well integrity.

In the past two years, we have added 12 new service centers and yards at strategic locations near our customers' operations around the world to support our Rig Direct® service. The acquisition of IPSCO Tubulars in the U.S. has allowed us to complement our operations in the south with a greater presence in the north of the country, bringing us closer than ever before to our customers and enabling us to respond more quickly to their needs while reducing our total energy footprint.

### **Implementing Industry 4.0 technologies in our production processes**

At Tenaris, technological innovation is a key aspect of our industrial system. Over the last years, we have started the digital transformation of our manufacturing centers by incorporating new working methodologies based on design thinking.

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Our newest production center in Bay City, Texas, is the world's most advanced pipe production facility, featuring digital, automation and machine learning technologies. We are now gradually implementing these technologies in the rest of our production facilities.

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In terms of industrial digitalization, Tenaris has been working on the application of artificial intelligence and data analytics in our production processes, robotics and predictive analytics. Our Connected Factory project, for example, utilizes advanced analytics to create real-time data models to optimize energy consumption, reduce reworks and predict manufacturing defects. This project will itself transform the way we use data in our industrial management, offering multiple opportunities to improve efficiency and increase competitiveness.

To further improve operational safety, we have been using video analytics, asset and people location, drones, telemetry and pedestrian detection systems. For digital workforce development, our teams have been developing robotic process automation including pipe counters, digital assistants and wearable technologies.



## Strengthening local supply networks

While many companies have sought to globalize their supply chains, at Tenaris, we have been strengthening our local value chain, providing support to help suppliers in countries where we operate, achieve and maintain competitiveness by adopting global quality, safety and environmental standards.

### **ProPymes: sustaining local suppliers**

In association with our sister companies Ternium and Tecpetrol, we have developed the ProPymes program to support SMEs working in our value chain in Argentina and other countries.

The idea is to help them build sustainably and globally competitive operations by providing them with industrial assistance and training programs, ranging from using automation technology and optimizing industrial facilities, to new HSE protocols and HR management strategies.

Through ProPymes, Tenaris supports over 900 enterprises in Argentina by developing training programs based on sharing knowledge and best practices to meet the needs of SME managers and employees. In 2019, 4,734 people benefited from 285 programs, breaking the yearly record and totaling 1,857 programs since the program's inception in 2002.

Leveraging on the Technical Gene program supported by Tenaris (see the chapter on Community Relations), which provides secondary schools with support for infrastructure and equipment, teacher training, and school administration as well as on-the-job internships to help develop technical secondary education, ProPymes facilitates the development

of future generations of engineers and technicians prepared to work in industry. In 2019, the Propymes Technical Gene Program impacted 1,074 students, providing 873 hours of training.

The ProPymes Institutional Assistance program provides expert strategic advice to owners and managers, aimed at ensuring a level playing field in their local markets. We use our network to help them reach out to potential customers worldwide, fostering investments in productivity to increase capacity by using low-cost financing programs. We help them optimize processes, logistics and layout, support product development through our Industrial Research Center, and work with them to implement and improve QHSE systems.

### **Assuring quality and ethical standards**

Working with Exiros, a specialized procurement company whose ownership we share with our sister company, Ternium, we carry out a rigorous selection process to ensure that all our suppliers meet the standards enshrined in our QHSE policy and Code of Conduct, and comply with local laws and regulations in force. We require all our partners in business to observe the same high standards we follow internally governing ethical behavior, legal compliance, and health, safety and environmental responsibilities.

We know that more efficient processes and systems decrease the demand for materials and reduce manufacturing costs; while more responsible HSE practices also lead to cost savings by increasing productivity. We conduct supplier HSE audits and work with them to manage long-term risks and help them stay ahead of the curve when it comes to future regulatory change in these areas.

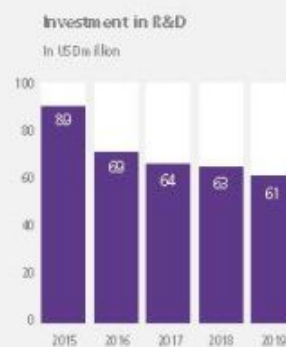




The audits allow us to categorize our service suppliers according to the HSE risk level of their activities. Since 2012, we have audited around 75% of the 1,463 active service suppliers classified as high HSE risk suppliers, which is a prior requisite for the award of a service contract. A further 900 non-high risk suppliers have also been audited to assess their HSE performance. The audit is based on a standard self-assessment process designed by Tenaris specifically for suppliers wishing to provide services to Tenaris. During 2019, 394 new audits were performed, and improvement plans conducted when gaps were detected.

Tenaris purchases most of its supplies through Exiros. In December 2019, Exiros had a total of 33,830 registered suppliers, of which 15,959 were active during the year, with 12,958 supplying Tenaris. Exiros has a quality system certified under ISO-9001 standards.

## Key indicators



## Tenaris suppliers by country (\*)

Country	Local suppliers	Suppliers from abroad	Total suppliers
Argentina	2,088	456	2,544
Brazil	1,252	154	1,406
Canada	906	216	722
Chile	1	-	1
China	151	23	174
Colombia	527	197	724
Indonesia	185	83	268
Italy	1,294	247	1,541
Japan	176	23	199
Kazakhstan	2	39	41
Mexico	1,480	444	1,924
Nigeria	128	66	194
Romania	861	394	1,255
Saudi Arabia	236	106	342
Uruguay	12	106	118
USA	1,278	227	1,505
Total	10,177	2,781	12,958

(\*) 79% of our suppliers are local.



# Human Resources

## → Our commitment

To foster a respectful working environment by engaging and motivating our people to be considerate and creative, aligning career development with business goals.

## → Our objectives

- Embed sustainability values through transparent and effective processes, helping employees shape their professional careers
- Encourage continuous learning and feedback through concrete tools
- Respect and promote diversity in all its forms, focused on gender, generation and culture

## → Our actions

Tenaris embraces diversity as a prerequisite for a more inclusive and equitable workplace, where different and contrasting opinions and perspectives come together to solve problems and achieve goals. Ethnic, gender, racial and cultural diversity are intertwined in the company's DNA, reinforcing its unique approach to growth and globalization.

With a workforce drawn from different cultures, tolerance, open-mindedness and adaptability are a reality in the office and on the factory floor, as employees are actively encouraged to cooperate in maintaining an environment respectful of each other's differences.

**2.7**  
MILLION HOURS  
HOURS OF TRAINING  
DELIVERED IN 2019

**93**  
NATIONALITIES  
REPRESENTED IN  
OUR TEAM

**95%**  
SUPERVISORS  
RECEIVED UPWARD  
FEEDBACK

**91%**  
PARTICIPATION  
IN LAST ENGAGEMENT  
PULSE SURVEY  
(DECEMBER 2019)





Employees acquire new skills through extensive training, with this team successfully threading premium connections on Corrosion Resistant Alloys at Qingdao for the first time.



It is our responsibility to ensure our teams have the proper tools, knowledge, experiences, and motivation to develop and grow.”



Paola Mazzoleni  
Chief Human Resources Officer

### Rules for organizational health

The Tenaris Code of Conduct prohibits unlawful discrimination in employment relationships, granting all people the right to apply for a position in the company, or to be considered for a new post on the criteria of merit, without arbitrary discrimination.

The company's Human Resources Policy champions equal opportunities by ensuring that hiring, promotion, transfer, notice periods, dialogue, rights and protection, as well as other employment decisions are taken without regard for race, color, religious belief, gender, age, disability, national origin or sexual orientation. Compensation and remuneration are based on each person's duties, personal performance, competence and behavior.

Tenaris is subject to the UK Modern Slavery Act 2015. In February 2020, the Board of Directors approved the company's annual Slavery and Human Trafficking Statement (see [www.tenaris.com/en/sustainability/governance-and-ethics/](http://www.tenaris.com/en/sustainability/governance-and-ethics/)).

Our people, their enthusiasm, ideas, efficiency and skills, are our most valued asset, drivers for innovation which is the precursor for business growth. As a global industry leader, we face a world dynamic tempered by economic uncertainty, technological disruption and trade conflict: nurturing the competence and determination of our teams is more important than ever before to unlock a more sustainable future.

In Human Resources, two principal areas of activity dovetail to ensure that employees are truly empowered to pursue their personal development objectives, and that these accompany the company's overall business strategy. We have crafted online training and development plans offering opportunities for people to shape their growth path within the company, from technical workshops to international management programs. In parallel, we hold surveys to provide constant feedback and evaluation, giving us the input needed to maintain a healthy workplace.

### Training and empowerment

#### Sharing knowledge and building networks

For Tenaris, a vital part of motivating employees is the specialized training offered at all levels to match people's development goals, from mill operators to senior management, ensuring that we are cultivating the internal expertise and knowledge needed to face future market challenges. Customized training, partnerships with academia, and performance evaluation programs are continuously fine-tuned to draw out individual talent and creativity, putting employees at the heart of these so that they can shape their own learning and professional development.

Front and center of our training efforts is TenarisUniversity, which is responsible for knowledge management and organizing the training materials used throughout the company. A powerhouse for knowledge development at all levels, it deepens people's understanding of and commitment to corporate values, and is responsible for organizing and developing our highly popular international leadership and management development programs - TenarisUniversity Induction Camp, Management Development Program, Advanced Management Program, Leadership Program.

In line with the company's innovative shift towards employee empowerment, the TenarisUniversity model was upgraded in 2018 to complement the prevalent prescriptive learning, giving employees more opportunities to manage their own knowledge acquisition process with a wide range of material, videos and e-learning at their disposal.

The 2018 model introduced the Degreed platform and phone app in line with the company's approach to promoting behaviors such as personal initiative, independence and accountability. Just in 2019, nearly 50,000 training hours were logged on the new on-line platform.





The Global Industrial Workshop recognized the crucial role played by factory floor employees, responsible for driving and guiding our operations on the shop floor at both our mills and service centers:



“Oh man, it was amazing! Just to be chosen for this opportunity was amazing! And to be recognized for what we do here, at Tenaris Bay City!”

**Tinell Dolton**, Operator, Bay City

“It was the first time I traveled to another country.”

**Artemio Rodriguez**, Operator, Tarma.

“At a personal level, this will be an unforgettable experience.”

**Cosmin Galea**, Technical Leader, Silcotub.

“More than a work experience, it’s a life experience.”

**Porfirio Gonzalez Rodriguez**, Technical Leader, Tarma.

### Increasing participation on the factory floor

As part of the drive to increase the participation and empowerment of factory-floor employees, in September 2019, our Bay City mill hosted the company’s first-ever Global Industrial Convention for hourly workers and technical leaders, a week-long course for 66 shop-floor employees from seven countries who shared work successes and challenges with company technical leaders. They also engaged in highly technical discussions about materials, equipment and processes while touring the mill, which is Tenaris’s most technologically-sophisticated plant to-date.

These initiatives were complemented by the gradual extension of our Employee Opinion Survey (EOS) from our managerial and administrative employees to our factory floor workers in Argentina, Canada, Kazakhstan, Saudi Arabia and the USA over the past year and a half. We are greatly encouraged by the willingness of our factory floor employees to participate and actively contribute to improving the way we are working and managing our industrial system.





I'm personally passionate about the concept of Engagement, which is about bringing out our best version of ourselves at work. And as the manager of a talented team and HR professional, I want to know how we as supervisors can have a positive impact on our team's engagement.”



**Dana Barbara**  
Senior Director, Talent Attraction  
and Development

## Feedback and engagement

The company's performance management process has evolved over the past years into one which promotes the development of a continuous feedback culture centered on permanent dialogue to focus on people's personal goals and growth opportunities. Employees are encouraged to provide upward feedback on their supervisors as well as on collaborators and supervisors from other areas other than their own with whom they have worked on projects and initiatives during the year. This year, we have also urged them to have more frequent feedback sessions with their supervisors to discuss their development needs and options as well as their objectives.

These initiatives are complemented by our Employee Opinion Survey (EOS) process, held on a biennial basis with the last one conducted in 2018. To reinforce the engagement of our employees and ensure a regular dialogue between our managers and their teams to address concerns and suggestions, we initiated a series of six-monthly "pulse" surveys. The pulse surveys ask specific questions about people's engagement and their opinions of their area's work priorities; their answers give managers the opportunity to shape action plans for their teams and area to drive further engagement.

We have now had three pulse surveys since the 2018 EOS, each with a high level of participation and showing significant employee satisfaction. In the last pulse survey, the participation rate was 91%, with 85% expressing satisfaction with the company as a place to work.

These processes form part of a comprehensive and consistent value proposition deployed at local and global levels to support the three pillars of our corporate culture: awareness, accountability and independence. Each instance is about identifying team and individual needs with a view to helping management design and apply corrective solutions.

### Attracting top candidates in every location

As Tenaris continues to grow in new regions, attracting, developing and retaining the talent needed by the company is crucial. A major element of the company's drive to retain talent has been the Career Opportunities Portal, listing not only positions currently open but also encouraging employees to proactively seek growth opportunities, promoting internal job rotation to enrich their professional profiles.

To recruit the best profile for each position and ensure that any potential unconscious bias in hiring decisions is overcome, Human Resources has incorporated validated methods to locate candidates who identify themselves with our company values and demonstrate a passion for working in this industry. The new tools streamline the selection process by using performance prediction markers to gain objectivity and reduce unconscious bias on the basis of internal benchmarking studies.

Our efforts to recruit and retain talents and match the right profile for the positions available within the company, together with actions on promoting employee engagement are somehow reflected in the relatively low employee resignation rate, which in 2019 fell to 4.8% for salaried employees and 3.7% as a whole across the company.

“ Our professors used case studies to deliver their academic knowledge on psychology, strategy and leadership, complemented by senior Tenaris executives who shared their experiences so we could combine theoretical knowledge with practical experience for use in real-life situations.”



**Mandy Jia**  
Senior Human Resources Manager,  
China, participant in the Advanced  
Management Program

## AMP: THE CHANCE TO PARTNER WITH ACADEMIA FOR GREATER INSIGHT

The tiered international management programs developed by TenarisUniversity in association with academia and centers of excellence, such as Rice University in the U.S. and the International Institute for Management Development (IIMD) in Switzerland, continue to be sought after by our senior professionals as they pursue the latest developments in management know-how.

The latest edition of the week-long Advanced Management Program was held in December at Rice University in Houston for 52 global senior managers, and centered on giving them the tools

to drive organizational change in the company as they rise in their careers. Classes were given by prominent industrialists and academics, the Rice professors from the Jones Graduate School of Business, and Tenaris experts.

As a leadership-building initiative, the focus was on how to make the most of market opportunities and digital transformation from a strategic perspective by learning how to drive innovation, creating efficiencies for both the company and its customers.



# Key indicators

## Total hourly and salaried employees

In thousands of people



## Salaried employees by gender

In thousands of people



## Managers by gender

In number of people



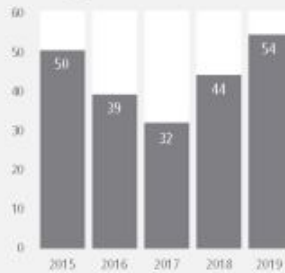
## Employee participation in TUIC, MDP, AMP and LP courses

Participants per course

Year	TUIC	MDP	AMP	LP
2015	180	56	52	35
2016	145	123	-	42
2017	65	54	104	40
2018	133	113	48	38
2019	183	105	52	39

TUIC: Tenaris University Induction Camp  
MDP: Management Development Program  
AMP: Advanced Management Program  
LP: Leadership Program

## Total training hours per salaried employee



## Total training hours per hourly employee

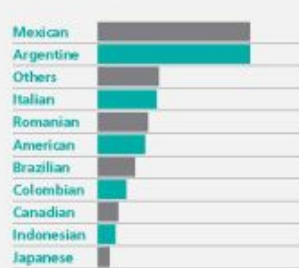


## Resignation rate



Percentage of salaried employees resigning from the company in previous 12-month period.

## Employees by nationality



## Managers by nationality







# Community Relations

## → Our commitment

To drive growth and development in the communities where we work and live, promoting a culture which rewards merit and encourages enterprise, as much academic as in terms of personal effort.

## → Our objectives

- Contribute to improving all levels of education in our immediate and broader communities, with a focus on technical education
- Help preserve our community's identity and heritage
- Encourage creativity and innovation through culture
- Foster integration through voluntary work

## → Our actions

Our community program reflects over seven decades of industrial tradition worldwide, with a special focus on Latin America. The principle guiding our work is that an industrial project like ours can only be sustainable if community and industry grow together.

We focus our community action on three main areas: education, culture and volunteer work. Our eight global strategic programs are locally implemented, taking into account the particularities of each community where we operate: Roberto Rocca Technical Schools, Technical Gene, AfterSchool Program, Merit Awards, Roberto Rocca Education Program, Film Festivals, Photo Library, and Volunteers in Action.

We believe that education is the key to prosperous community growth and have developed educational programs covering the entire school cycle, from elementary to higher level, helping children to fulfil their potential and become active contributors to society. In 2019, 70% of our USD 11.7 million Community Relations budget was invested in education.

As a multi-cultural and multi-lingual company, we enrich and broaden people's cultural horizons in the communities where we work, fostering diversity and inclusion by promoting cultural activities. We also encourage our employees to volunteer for community activities aimed at helping those in need with a special focus on refurbishing schools, as a way of cultivating pride and integration in our communities.

USD

11.7

MILLION  
COMMUNITY  
INVESTMENT  
IN 2019

USD

8.1

MILLION  
INVESTMENT  
IN EDUCATION  
IN 2019

27,594

BENEFICIARIES  
OF OUR GLOBAL AND  
LOCAL EDUCATION  
PROGRAMS

224,365

BENEFICIARIES  
OF OUR GLOBAL  
AND LOCAL  
CULTURAL  
PROGRAMS



On my industrial internship in my last year, my job was to check the time errors on the machines. Everybody congratulated me on how well I did. I learned to work independently.”



Estefania Heidenrich  
Graduating student ETRR,  
class of 2019

## Education at all levels

### Developing high standards of technical education

The Roberto Rocca Technical Schools program (ETRR, for its acronym in Spanish), which operates purpose-built schools, was launched to educate high school students from our communities using innovative teaching methods and the latest technology in both classroom and laboratory. The schools, named after one of the company’s founders, dedicated to promoting technical education and enterprise, offer students different levels of scholarships, depending on their needs.

The first School, inaugurated in 2013 in the city of Campana, Argentina, has a capacity of 420 students while our sister company Ternium opened a second technical school in 2016, which now has 384 students in the town of Pesquería, Nuevo León, Mexico.

In 2019, both schools saw their first classes graduate after seven years of study in Argentina and three years in Mexico. Many of these students are the first in their families to finish high school and go on to university.

Like their peers in European countries, ETRR students in Campana receive 1,300 hours of teaching per year, as well as 200 hours of industrial internships.

In order to help students develop Industry 4.0 skills, in Campana we adapted the Project Based Learning teaching methodology to encourage them to think in different ways, fostering innovation and teamwork, as well as other personal abilities including critical thinking and communication skills. In 2019, we trained 25 teachers to use this methodology, students produced 220 projects they subsequently exhibited, putting some into practice to benefit their local communities. Our groundbreaking robotics curriculum was taught to children aged between 11 and 18, and we had students competing in the Argentine National Robotics League.

We believe that academic excellence is fostered by gifted teachers who are truly committed to both students and community. In 2015, the ETRR pioneered a comprehensive teacher performance assessment system, involving student surveys, on-the-ground class observation, and school committee evaluation. The ability to benchmark and guide improvement is a key feature of our teacher development plan which rewards performance, attendance, the use of technology and training. During 2019, 91 teachers were evaluated, and 3,251 training hours provided as part of their continuous development. Teachers at the school also led community projects building furniture for a local library and training other teachers in robotics.

As creativity and self-expression are vital to our students’ all-around development, we organized the second Literary Contest for the Roberto Rocca Technical School Network as part of our literary activity program. The winning pieces were presented at the International Book Fair in Monterrey, Mexico.

### Strengthening technical education community-wide

The Technical Gene program provides support for infrastructure and equipment, as well as teacher training, school management and on-the-job training internships for high-school students, sharing teaching and learning practices and concepts developed in the Roberto Rocca Technical Schools program. It offers high-school students from our local communities the opportunity to develop Industry 4.0 skills using specific tools to guide their learning. In addition to infrastructure and equipment, the focus is on training students, developing technological projects and bringing schools closer to industry, an approach including on-the-job internships.





An end-of-year event at the Porolissum Gymnasium School in Zalău, Romania, for the participants of our AfterSchool program which helps develop socio-emotional skills and STEMI competencies.

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Launched in 2006, Technical Gene now runs in 9 countries and 12 communities, involving 3,500 people. Industrial internships at Campana, Zalău, Dalmine and Pindamonhangaba: 179 students from 9 high schools completed more than 23,344 training internships hours in our mills in 2019.

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In Italy, we implemented the industrial internships scheme for the first time at our Dalmine industrial facility for 47 students who completed 110 hours each, while in Campana, a maths project was launched to improve skills among 616 students and 22 teachers at six technical high schools.

In Campana, over 200 students from technical schools built eight smart bus stops for the community to improve safety conditions for users, including data screens, WiFi, USB plugs and an anti-panic button.

#### **Starting at a young age**

The After School Program (ASP) was designed for communities with considerable school dropout rates. Last year, in the 7 countries hosting the program, 1,257 children aged between 6 and 12 enrolled in these activities, up from 1,114 the previous year. Focused on STEM subjects (Science, Technology, Engineering, Maths), the ASP offers primary school children extra hours of quality education four days a week to encourage them to commit to learning and further their personal development in the longer term.



During 2019, we strengthened the AfterSchool model with new maths content and related Project Based Learning methodologies. After just one year, the results showed students had improved their maths level from that of a low level at a low performing school to the equivalent of a medium level at a mid-performing school, amounting to the progress of an entire year. Pupils not only improved their maths abilities but also developed other life skills and a sense of purpose after attending the program for several years: 84% of students reported improvements in their perseverance abilities, 83% that they had sharpened their critical thinking, and over 75% said they were keen to pursue STEM careers.

Last year was the 10<sup>th</sup> anniversary of our AfterSchool program in Blytheville, Arkansas, the original inspiration for the global initiative subsequently improved and revamped for implementation in six countries.

### Encouraging educational excellence

Launched in 1976 in Argentina, the Merit Awards program was initially designed to benefit the children of employees but has long since been extended to the wider community. It focuses on stimulating academic performance and commitment among high-school students living in Tenaris communities. In 2019, we awarded 1,606 scholarships to outstanding students in nine countries, 411 more than in the previous year, and have launched a pilot project for eligible students to apply online for the Awards in Romania and Brazil.

The Roberto Rocca Education Program awards fellowships and scholarships to promote engineering and applied sciences studies

at undergraduate and graduate level in countries where we have a major presence. In 2019, the program funded 15 fellowships for students studying for their PhDs at universities outside their country, and 417 scholarships for undergraduate students at universities in their home countries. We also reinforced our relationships with universities based in the UK, The Netherlands and Germany: we have two PhD fellows currently carrying out their industrial practices at our R&D centers, and received five visits from other PhD fellows, held three webinars and are pursuing quarterly follow-up activities with each one.

## Culture and tradition

### Opening up new horizons and remembering our origins

For Tenaris and its sister companies in the Techint Group, art and culture are a source of innovation as well as a means of celebrating diversity and exploring humanity. The cornerstone of our cultural activities is our association with PROA, which, in addition to its activities in the community in Buenos Aires, provides us with invaluable expertise and experience to guide us in the selection and development of content in our global arts programs. In 2019, Tenaris earmarked 23% of its community budget for cultural activities in eight countries.

In 2019, together with the PROA foundation, we organized 16 Film Festivals in five countries: Argentina, United States, Colombia, Uruguay and Romania, attracting a total of 11,990 people to 53 screenings. This was also the first year we held Film Festivals in Montevideo, Uruguay and Blytheville, U.S.

Our Community Relations programs help the people in the communities where we operate to develop their potential, by making the most of education and culture.



Roberto Rocca  
Technical Schools  
Network



Technical  
Gene



Merit  
Awards



Roberto Rocca  
Education  
Program



AfterSchool



Volunteers  
in Action



Film  
Festival



Photo  
Library

“

I'm very proud to receive this award, and I hope that it will inspire excellence in many more students in Batam.”



Galuh Intan  
Merit Awards, Indonesia

In Italy, staff at the Fondazione Dalmine, which opened in 1999 next to our mill in Bergamo, work to compile and preserve the historic heritage of our industrial facilities around the world. The archive not only holds exhibitions, but also houses thousands of objects and memorabilia telling the story of the last hundred years of industry in the region.

The Fondazione Dalmine per le Scuole program (Dalmine Foundation for Schools), offers elementary and high school students hands-on workshops to study the region's past and present: over 4,300 students took part in 2019.

At our photo libraries in Campana, Pindamonhangaba, Veracruz and Montevideo, we collect and preserve photographic data recording the history of the locations and communities where we operate, under the guidance of the PROA Foundation.

Tenaris is the main sponsor of the contemporary art foundation PROA in Buenos Aires, Argentina, and also supports the Galleria d'Arte Moderna e Contemporanea (GAMeC) in Bergamo, Italy. The GAMeC in Bergamo where Tenaris has its Dalmine mill opened in 1991 in the grounds of a 15<sup>th</sup> century convent and hosts a wide variety of local and international exhibitions.

## A BEACON OF CULTURAL EXCELLENCE

Founded in 1996, the PROA Foundation regularly invites internationally renowned artists to display and discuss works that foster critical thinking and creativity. Fully supported by Tenaris and its sister companies, the building was revamped in 2008, part of the drive to renovate the La Boca district as a cultural hub in Buenos Aires. PROA runs school educational programs based on its current art shows, as well as workshops and other activities open to the general public. Last year PROA welcomed 105,300 visitors, held four major international exhibitions and coordinated art labs and workshops as part of PROA 21.

PROA also conducts educational programs for schools based on its shows, as well as workshops and other open-door activities for the community.







## Volunteering: making a difference

### Volunteers in action

We are committed to making a difference and strengthening a sense of pride in belonging to the communities where we operate. Tenaris employees and their families regularly volunteer to improve local school infrastructure, joining students, their relatives, school teachers and neighbors in this initiative. In 2019, a total of 1,659 volunteers in 10 countries joined efforts to transform schools, putting in 10,956 hours of volunteer time. The activities involved 971 Tenaris employees working together with members of the local community to refurbish school buildings, lead classroom readings and share vocational talks to students in schools in vulnerable areas, not only an opportunity to improve infrastructure but to strengthen personal relationships.

### Bridging the gaps

For almost three decades, Toni Ruttiman, who is a constant source of inspiration for us at Tenaris, has worked to unite communities, helping to bring together the lives of more than two million people in Latin America and in South East Asia, by building suspension bridges with collaboration from those who then benefit from them. So far, he has built 835 bridges in 13 countries, with support from Tenaris which has donated 2,043 tons of material to his singular, but far-sighted mission.

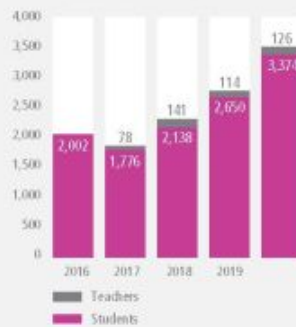
# Key indicators



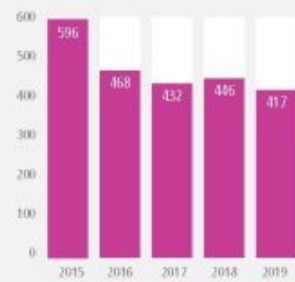
**Investment in the community**  
In USD million



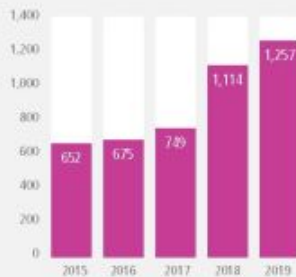
**Technical Gene**  
Students and teachers involved



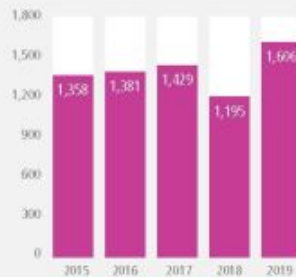
**Roberto Rocca Education Program**  
Students involved



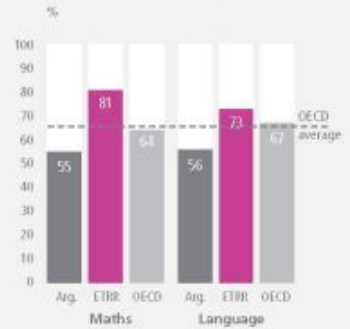
**AfterSchool program**  
Students involved

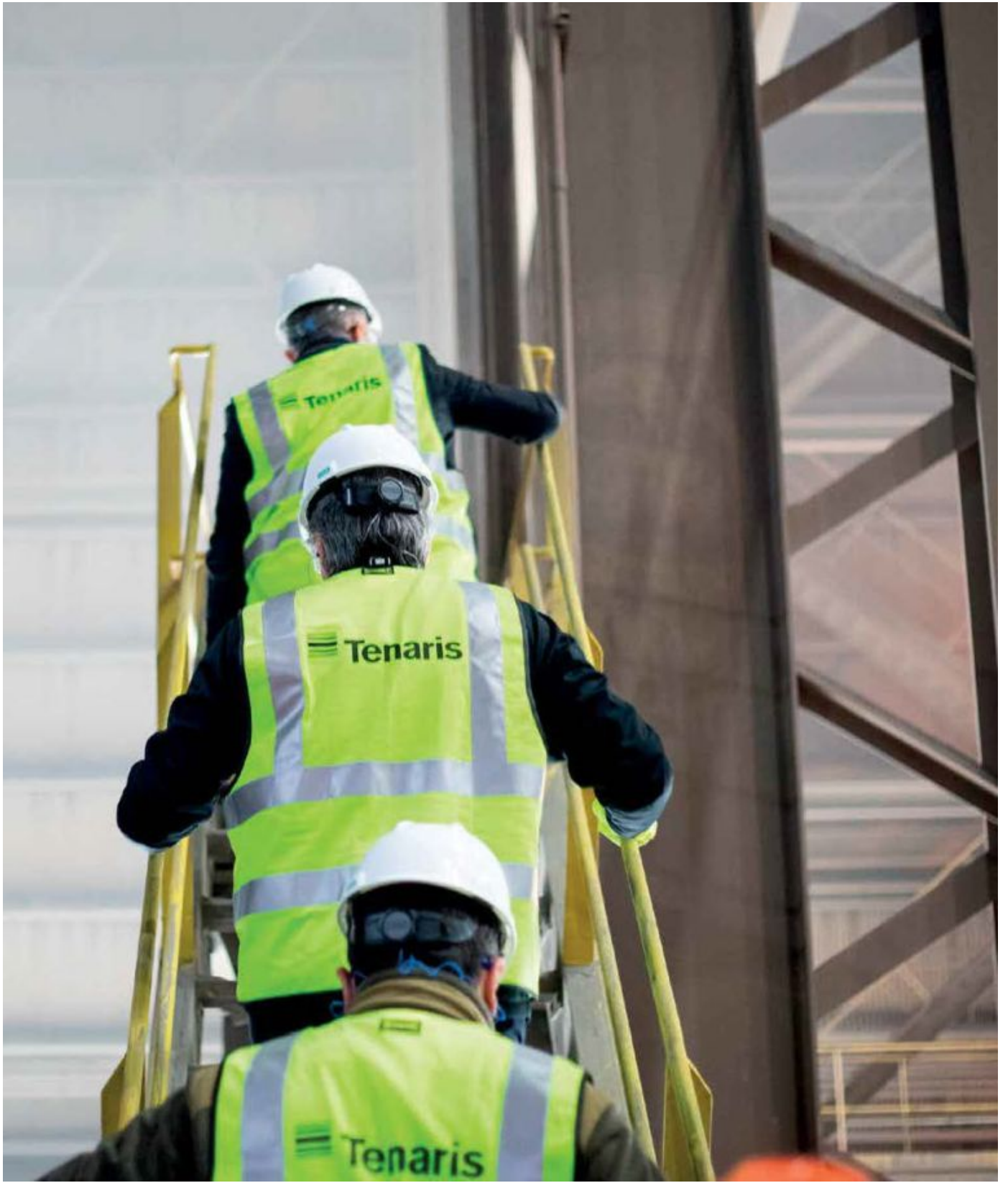


**Merit Awards program**  
Students involved



**Roberto Rocca Technical School (ETRR) performance PISA tests**







# Governance, Risk and Compliance

Tenaris is a company established in 2001 in Luxembourg to consolidate the Techint Group's pipe and tubes business. In addition to controlling 60.45% of the shares in Tenaris, the Techint Group has controlling interests in Ternium, the leading steel producer in Latin America; Tecpetrol, an oil and gas company; Techint, an engineering and construction company; Tenova, supplying equipment and technologies for iron and steel and mining; and Humanitas, a research hospital network in Italy.

The company's shares trade on the Italian Stock Exchange and the Mexican Stock Exchange, and in addition, the Company's ADSs trade on the New York Stock Exchange. Responsibility for the management of the company lies with its board of directors, currently comprising 11 directors, of which five qualify as independent directors under applicable U.S. securities regulations, and four qualify as independent under the company's articles of association. Our Chairman and CEO is Paolo Rocca, the grandson of the founder of the Techint Group.

The company's board of directors has an audit committee currently consisting of four independent members. Their charter sets forth, among others, the audit committee's purpose and responsibilities, including oversight responsibilities related to the integrity of the company's financial statements; the effectiveness of the company's system of internal control, risk management and internal audit over financial reporting; and the independence and performance of the company's external auditors. In addition, the audit committee is required to review material transactions with related parties in order to determine whether their terms are consistent with market conditions or are otherwise fair to the company and/or its subsidiaries.

For further details of our corporate governance, including our board of directors, audit committee, senior management and major shareholders, please refer to our Annual Report at [ir.tenaris.com/financial-and-sustainability-reports/reports](http://ir.tenaris.com/financial-and-sustainability-reports/reports).

## Risk management


As part of our commitment to sound corporate governance, Tenaris has established a process of risk identification and management. At the helm of the process is our Critical Risk Committee (CRC), tasked with assisting the board of directors, the audit committee and the CEO with the oversight and monitoring of risks, the development of mitigating actions, and the monitoring of action plans.

Risks are identified and managed by management. The CRC facilitates the identification and assessment of critical risks, the development of mitigating actions, and the monitoring of action plans. Critical risks are escalated through existing reporting lines and decisions are not dissociated from other management decisions.

The CRC focuses on risks considered critical to the company's assets, operations or reputation. We have categorized risk factors according to the potential area impacted, the likelihood of their occurrence and the severity of eventual impact. The main risks we have identified include major accidents that could be caused by natural disasters, cybercrime and climate change.

We manage climate-related risks and opportunities in an integrated way involving different areas of the Company. Our Environmental and Industrial teams continuously analyze the environmental impact of our operations and define and implement mitigation actions, including research and development on production processes, capital expenditures and operating practices. Additionally, our Planning and Commercial teams also review the potential impact of climate change on the business of our oil and gas customers and consequent demand for our products and services.

Regarding climate change, as well as minimizing our own emissions, we have drawn up actions to raise awareness and



foster a broader industry response. These include cooperating with local governments on rational policies to help achieve the United Nations Sustainable Development Goals, raising business awareness. Being proactive in efficient energy management and CO<sub>2</sub> mitigation, we continue to participate in global steel industry actions.

More recently, the CRC has focused its attention on the main actions and mitigation plans to tackle the consequences of the global coronavirus pandemic and ensure business continuity. It is also focusing on the financial impact on the company of a collapse in demand for its products, including the cancellation of existing orders, following the collapse in oil prices in the wake of the coronavirus pandemic.

#### **Business Conduct: committed to Compliance**

Tenaris is committed to building a corporate culture of transparency and integrity based on ethical behavior and compliance with law. Our Code of Conduct is the cornerstone of this effort. Since it was first published in 2003, it has been reviewed periodically to bring it up to date with the latest trends, and new provisions have been introduced when necessary. In addition, a Policy on Business Conduct was introduced in 2012.

The current Code of Conduct, updated in 2018, includes explicit language on the protection of data privacy, the promotion of fair and transparent economic competition, and the strengthening of a respectful workplace environment, in particular, respect for human and labor rights: no form of abuse, coercion, discrimination or slave labor are tolerated in our activities.

In addition, we have adopted a code of ethics for financial officers which applies specifically to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and is intended to supplement the Company's code of conduct.

During 2019, Tenaris senior management members were required to retrain and certify their compliance with the Code of Conduct and the Policy on Business Conduct.

Tenaris's Business Conduct Compliance Officer (BCCO) is responsible for implementing the Business Conduct Compliance Program aimed at identifying and mitigating corruption risks, managing third-party risk and fostering a culture of compliance, ethical behavior and transparency.

The company regularly issues, renews and validates its codes, policies, procedures and standards aimed at ensuring anti-bribery compliance, in keeping with national laws against corruption and bribery, and other international laws such as the U.S. Foreign Corrupt Practices Act (FCPA), the UK Bribery Act and the 1997 OECD Convention on Combating Bribery of Foreign Public Officials.

Tenaris's Business Conduct Compliance Program is a single, risk-based approach to how the company develops structures and implements anti-bribery compliance and adherence to ethical business, inherent to interaction with public officials, governmental entities, communities, other public and private corporations, business partners and third-party employees.

The Business Conduct Compliance Program develops a variety of preventive actions within the following ten core compliance areas: Risk Assessment and Planning, Normative Framework, Advising and Guidance, Communications, Training, Certifications, Third Parties, Monitoring and Audit, Discipline and Remediation, and Benchmarking and Profession.

Tenaris understands that high standards of integrity and transparency can only be achieved by setting common rules among its employees, officers and directors but also among the third parties with which it interacts during the course of business. Since commitment and compliance of such common rules by Tenaris's suppliers becomes essential for securing Tenaris's goals and expectations on ethical, transparent and rightful behavior, Tenaris has developed a Code of Conduct for Suppliers applicable to suppliers and their respective employees, officers, directors or authorized representatives, in all dealings and transactions involving Tenaris. Diligent and consistent compliance with the provisions of the Code



of Conduct for Suppliers will be considered for the selection, retention and evaluation of suppliers.

These activities are based on regular risk evaluations to identify and focus on critical factors and best practices, with a view to developing and applying them with special attention paid to education and risk prevention.

During 2019, Tenaris updated ten compliance and ethics-related internal norms, and trained 1,064 employees in person worldwide. Training nurtures Tenaris's compliance culture and raises awareness to help in taking reliable decisions and to prevent bribery, corruption issues or any other actions disregarding company controls. We also trained 320 third-party employees based in high-risk countries.

The company regulates and standardizes its processes to evaluate, select and hire representatives or associated persons, such as commercial intermediaries, customs agents, permitting assistants, advisors and/or law firms. Procedures include the regulation of due diligence processes, internal authorization controls and standard provisions to ensure third-party commitment to following Tenaris's anti-bribery and anticorruption policies.

Tenaris believes that the effective involvement and responsibility of each employee, every day, is critical to the pursuit of an ethical culture. As part of the Business Conduct Compliance Program, we promote awareness-raising activities and communicate relevant guidelines, policies and procedures throughout the organization, through newsletters, flyers, banners, stories and notices published on our intranet, as well as management meetings and other educational materials aligned with industry best practices. In 2019, we issued 76 Business Conduct Compliance communications items with a global reach within the company.

Regular monitoring and audit activities are performed to verify compliance and to gauge our response capacity worldwide.

## Remuneration Policy and Report

In the past year, Luxembourg issued the Luxembourg Law of August 1, 2019, (amending the Luxembourg Law of May 24, 2011) ("the Shareholders' Rights Law") on the exercise of certain rights of shareholders in general meetings of listed companies, which transposes EU Directive 2017/828 of the European Parliament and of the Council of May 17, 2017, (amending Directive 2007/36/EC) regarding the encouragement of long-term shareholder engagement in listed companies within the Member States of the European Union.

In compliance with the Shareholders' Rights Law, the Company's board of directors will consider at its meeting to be held on April 29, 2020, a Compensation Policy setting forth the principles and guidelines for purposes of determining the compensation payable to the members of the Company's board of directors and the managing director or chief executive officer and a Compensation Report describing the compensation paid to directors and the chief executive officer for the performance of their duties during the year ended December 31, 2019. In accordance with the Shareholders' Rights Law, the Compensation Policy and the 2019 Compensation Report, both of which will be available on the Company's website, will be submitted to the non-binding vote of the shareholders at the next general meeting of shareholders of the Company to be held on June 2, 2020.

The Compensation Policy reflects Tenaris's values, considering the characteristics of the industry where it operates. The directors and chief executive officer play a key role defining the Company's corporate strategy, and are often faced with critical decisions affecting the Company's present and future. Its Compensation Policy seeks to:

- attract, motivate and retain individuals of caliber and experience;
- encourage long-term decision making;
- align compensation with performance and shareholders' return;
- ensure maximum transparency.

In this way, Tenaris seeks to continue encouraging long-term shareholder engagement.



## Compliance Line

Tenaris has a Compliance Line available 24/7 to allow employees, customers, suppliers and other interested parties to report any conduct contrary to the Code of Conduct or its principles. The Compliance Line operates according to the procedures designed by our Internal Audit function under the direct supervision of our Audit Committee. All information reported through the Compliance Line is regarded as strictly confidential to the extent allowed by applicable legislation.

In 2019, complaints had a substantiation rate of 46% and led to disciplinary actions, including dismissals and terminating commercial relationships. The reports have also helped to improve the Company's internal control environment. Although complaints can be anonymous, in 75% of cases the complainants identified themselves.

Tenaris Compliance Line is available in nine languages and reports may be submitted in person, online, by email or through our toll-free numbers accessible in 34 countries.

## Human Rights

Tenaris is committed to conducting operations in a way consistent with human rights principles by fostering and promoting respect for the fundamental rights and dignity of people.

Our Human Rights Policy was introduced in 2009 and amended in 2018. The Policy states that Tenaris acts in compliance with the Universal Declaration of Human Rights, the principles articulated in the International Labor Organization's Declaration of Fundamental Principles and Rights at Work and the United Nations Global Compact, and all human rights laws, rules and regulations applicable in the jurisdictions where it conducts its business. Tenaris is also subject to the UK Modern Slavery Act 2015.

Much of the information included in this report expresses our commitment to help our employees and business partners understand and carry out activities in accordance with these principles. They include respect for human freedom and dignity, the prohibition of child labor, forced labor and

discriminatory behavior, and the recognition of people's rights to freedom of association and collective bargaining.

Ours is a long-term industrial project, where we are sure that the only way to succeed and prosper is to build long-lasting relations with all our stakeholders, including our employees, investors, customers, contractors, suppliers, as well as the communities where we operate and the industry where we belong.

As part of our risk assessment of suppliers, commercial intermediaries, representatives and other third-party contractors, we have: (i) adopted a due diligence review to verify that third-party contractors comply with essential human rights regulations and have not infringed any applicable laws regarding slavery, forced or child labor; (ii) included in our general terms and conditions for the purchase of goods and services, a commitment by third-party contractors to comply with applicable laws, rules and regulations on human rights, including a prohibition of all forms of slavery, forced labor or child labor; and (iii) implemented a code of conduct for suppliers based on United Nations recommendations, which contemplates a specific section concerning "Labor and Human Rights."

The Code of Conduct for Suppliers applies to all of Tenaris's suppliers, and its acceptance (or where applicable, the acceptance of equivalent standards) is a condition for entering into any contractual agreement to provide goods or services with Tenaris.

In 2020, Tenaris will assess the need for a new training program for our procurement department personnel directly involved in reviewing and monitoring due diligence responses provided by suppliers and third parties.

Our company values and respects the cultures and traditions of the communities in which it works, and actively works to take into account the health, safety, environment, human rights and economic well-being of those communities in all its operations.

In February 2020, the board of directors approved the company's annual Slavery and Human Trafficking Statement, available on [www.tenaris.com/en/sustainability/governance-and-ethics/](http://www.tenaris.com/en/sustainability/governance-and-ethics/).

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# Sustainable Performance Indicators

Indicator	Unit	2017	2018	2019
<b>PRODUCTION</b>				
Cast steel	Million tons	2.9	3.3	2.9
Seamless pipes	Million tons	2.3	2.8	2.6
Welded pipes	Million tons	0.5	0.8	0.7
<b>SAFETY</b>				
Investment in Health and Safety	USD million	15	25	42
Investment in Environment and Energy	USD million	33	21	19
Injury Frequency Rate	Ratio	4.8	4.2	3.1
Lost Time Injury Frequency Rate	Ratio	2.4	1.8	1.1
<b>ENVIRONMENT</b>				
<b>CO<sub>2</sub> emissions from sites with steel shops</b>				
Scope 1 emissions	CO <sub>2</sub> million tons	1.51	1.72	1.55
Scope 2 emissions	CO <sub>2</sub> million tons	0.86	0.74	0.67
Scope 3 emissions	CO <sub>2</sub> million tons	1.32	1.50	1.20
Intensity	Ton CO <sub>2</sub> /ton cast steel	1.28	1.20	1.18
<b>CO<sub>2</sub> emissions from all sites</b>				
Scope 1 emissions	CO <sub>2</sub> million tons	1.71	1.99	1.78
Scope 2 emissions	CO <sub>2</sub> million tons	1.08	0.95	0.88
Intensity	Ton CO <sub>2</sub> /ton pipe	0.97	0.82	0.81
<b>Water withdrawal</b>				
Water withdrawal	Million m <sup>3</sup>	59.3	72.5	59.5
Intensity of water withdrawal at all sites	m <sup>3</sup> water/ton pipe	21	20	18
Intensity of water withdrawal excluding Siderca	m <sup>3</sup> water/ton pipe	6	5	6
Estimated water consumed at all sites	m <sup>3</sup> water/ton pipe	4	3	3
<b>Co-products and waste</b>				
Material efficiency at sites w/steelshops	%	98.5	98.7	98.4
Residue & co-products reuse or recycle at all sites	%	78.7	81.2	81.7
Waste disposal at all sites	%	9.3	11.4	10.3
<b>HUMAN RESOURCES</b>				
<b>Total hourly and salaried employees</b>				
Salaried	Thousand people	6.7	7.0	7.4
Hourly	Thousand people	14.9	15.9	15.8
Total	Thousand people	21.6	22.9	23.2
<b>Salaried employees by gender</b>				
Male	Thousand people	5.1	5.4	5.7
Female	Thousand people	1.6	1.7	1.7

Indicator	Unit	2017	2018	2019
<b>Managers by gender</b>				
Male	No. of people	955	974	1,008
Female	No. of people	112	119	125
Total	No. of people	1,067	1,093	1,133
<b>Training</b>				
Training hours per salaried employee	Hours per salaried employee	32	44	54
Training hours per hourly employee	Hours including on-the-job training	84	89	121
Training hours per hourly employee	Hours excluding on-the-job training	40	33	43
<b>Resignation rate</b>				
	% salaried LTM	4.9	5.0	4.8
<b>Employees by nationality</b>				
Mexican	People	5,317	5,803	5,592
Argentine	People	5,394	5,584	5,542
Italian	People	2,091	2,151	2,149
Romanian	People	1,874	1,861	1,823
American	People	1,555	1,902	1,732
Brazilian	People	1,378	1,287	1,372
Colombian	People	995	1,081	1,045
Canadian	People	838	950	705
Indonesian	People	505	555	616
Japanese	People	410	400	401
Others	People	1,248	1,393	2,223
<b>Managers by nationality</b>				
Argentine	%	37	38	38
Italian	%	17	17	16
Mexican	%	15	16	16
American	%	7	6	5
Brazilian	%	5	4	5
Romanian	%	4	4	4
Canadian	%	3	3	2
Colombian	%	1	2	2
Japanese	%	2	2	2
Indonesian	%	1	1	1
Others	%	8	7	9



Indicator	Unit	2017	2018	2019
<b>COMMUNITY</b>				
Education investment	USD million	6.0	7.4	8.1
Other community investment	USD million	3.5	4.3	3.6
Total community investment	USD million	9.5	11.7	11.7
Technical Gene	No. of students	2,138	2,650	3,774
Technical Gene	No. of teachers	141	114	126
Roberto Rocca Education Program	No. of students	432	446	417
After School Program	No. of students	749	1,114	1,257
Merit Awards Program	No. of students	1,429	1,195	1,606
<b>ECONOMIC AND FINANCIAL</b>				
Net sales	USD million	5,289	7,659	7,294
Operating income	USD million	335	872	832
EBITDA	USD million	943	1,536	1,372
EBITDA margin	% of net sales	18	20	19
Net income attributable to owners of the parent	USD million	545	876	743
Equity attributable to owners of the parent	USD million	11,482	11,783	11,969
Cash flow from operations	USD million	(22)	611	1,528
Capital expenditures	USD million	558	349	350
R&D investments	USD million	64	63	61
Dividends	USD million	484	484	484
Net financial position	USD million	647	485	960
Return on equity	%	5	8	6
Return on capital employed	%	3	8	7
FCF Margin	% of net sales	-11	3	16

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