

# VALUE FOR THE FUTURE

Sustainability Overview 2018



A year of sustainable growth at Prysmian Group

**Prysmian**  
Group

Committed  
**TO THE FUTURE**



**S**ustainability has always been a priority for Prysmian Group. And with the integration with General Cable, we have now multiplied our efforts, as our responsibility for people and the environment has increased. Sustainability is also an integral part of our business, because cable technology is a key component of the world's power transport and telecommunications infrastructure. A continuous dialogue with our stakeholders helps us define the most important sustainability issues, such as multiculturalism, diversity and equal opportunities along with respect for human and workers' rights.

This is the third year we have adopted the Sustainability Report as a consolidated disclosure of non-financial information, with specific reference to environmental, social and staff-related issues, respect for human rights and the fight against bribery and corruption. In this document – which is prepared in accordance with the GRI Sustainability Reporting Standards – we reported our efforts in several fields, from the protection of the environment and health and safety at work, to business ethics and integrity.

Being sustainable also means having the capability to generate lasting value over time. The economic value generated by the Group, including the General Cable contribution, amounted to €10,240 million in 2018, with investments totalling €285 million, which came from high-tech and high added-value areas of the business, such as optical fibres and cables, and submarine cables for power transmission. In addition, the Research & Development function, which has more than 50 partnerships with universities and international research institutes, received €105 million worth of capital spending.

Prysmian Group also continued to work with international NGOs in projects to help develop local communities through the donation of cables. Positive performances in the social, environmental and business areas during the year have enabled the Group to perform well in main international sustainability assessments, including the Dow Jones Sustainability Index and the Carbon Disclosure Project.

**Valerio Battista**  
CEO of Prysmian Group

# Creating value, **SUSTAINABLY**

**\_ With the Sustainability Report now in its eighth edition, we aim to inform all our stakeholders about results we achieved over the past year that go beyond doing business responsibly and reach out into the wider and deeper realm of the social, environmental and human development issues that the Group is committed to.**

**W**ith the integration of General Cable, the responsibility Prysmian Group has for the health of the communities and environments in which it operates has grown. We are facing this challenge with determination: we are equipped with a new Code of Values, which were identified by listening to our people and by sharing the principles and cultures of the two integrated companies.

Being sustainable means having the capability to create value for communities and societies that is lasting over time. The concept of sustainability and of responsible growth permeates the shared culture of both Prysmian Group and General Cable, and is being streamed

through the different brands under which we operate around the world. Prysmian Group brand is an important lever for value creation and is the pillar of the multi-brand strategy that includes the commercial brands Prysmian, Draka and General Cable. These are among the strongest and most respected brands in the industry, with highly complementary products and services able to satisfy customer needs all over the world, while always being in compliance with the most rigorous quality and environmental sustainability standards.

Sustainability is also about continuously innovating. With the integration of General Cable, Prysmian Group gave birth to a global R&D powerhouse, whose

solutions help the growth of the business in a more effective, efficient and more sustainable way.

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**Sustainability stands out as a key focus of our company. Bringing together the cultures of Prysmian Group and General Cable, we identified a new code of values and forged a new model to **DRIVE** the Group and its stakeholders towards the future with **TRUST** and **SIMPLICITY**.**

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# Vision

**Prismian Group believes in the effective, efficient and sustainable supply of energy and information as a primary driver in the development of communities.**

We don't just want to be good for business. We want to do business responsibly. That's why our values are so important to us. The things we do and the way we approach them are an opportunity to show our pride in our work.

# Mission

**Prismian Group provides its customers worldwide with superior cable solutions based on pioneering technology and consistent excellence in execution, ultimately delivering sustainable growth and profit.**

Thanks to a well-established reputation in terms of performance and innovation, the Group is able to foster profits and sustainable growth. Our main aim is to be chosen by our customers for reliability and transparency in relationships. This is why we attach great importance to our values. Our working methods and our approach are a tangible sign of the passion and expertise we put into everything we do.

# Values

**The new Code of Values of Prismian Group is aimed at helping different people in different situations deal with issues in different parts of the world.**

## TRUST

Create an environment of trust that exploits diversity and collaboration, where people are empowered to make decisions with integrity.

## DRIVE

Lead the industry evolution, combining our ability to develop our people and our business in a clear direction while anticipating customer needs.

## SIMPLICITY

Simplify everything we can, focusing on high value-generating activities and timely decisions to boost company results. Focusing on what really matters, with efficiency, agility and responsibility.

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# CREATING VALUE FOR THE FUTURE

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Sustainability at Prysmian Group is the commitment to promoting a business model that integrates economic, social and environmental responsibility in all aspects and activities.







# Main achievements of 2018

ECONOMIC  
VALUE

**€10,240 M**

Economic value generated and distributed

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## Ranking confirmed

Carbon Disclosure Project

## Ranked in

Dow Jones Sustainability Index

## Ranking confirmed

ESG Bloomberg Index

INDICES

## LEED Platinum

certification awarded to Milan headquarters

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**53%**

YES employee participation

**41,000**

Applications received for graduate programme

almost **38,000**

hours of training provided  
by the Prysmian Group Academy

PEOPLE

## Investments in HSE

Around **€13 million** from Prysmian Group,  
and around **€3 million** from General Cable

**95% PG - 30% GC**

production sites certified ISO 14001

**78% PG - 30% GC**

production site certified OHSAS 18001

ENVIRONMENT

**66%**

recycled waste

more than **50%**

of drums reused

# STRONG COMMITMENT

## inside and outside the Group

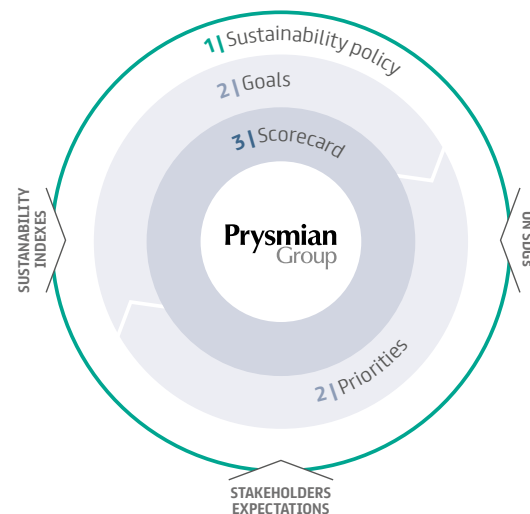
**\_ Sustainability is the commitment to promoting a business model that integrates economic, social and environmental responsibility in all aspects and activities. Our strategic approach involves listening to, and actively involving all the Group's internal and external stakeholders, with constant attention to the evolution of the global and industry trends. We combine this with the ability to think about the future with a sense of responsibility towards the environment and society by promoting a business model based on the concept of shared values.**

**T**he strength of this approach lies with the constant monitoring of the Group's sustainability performance along the entire value chain. The aim is to not only assess performance ex-post, but also to develop a proactive attitude in decision-making processes and anticipate and seize new opportunities.

— We proactively act in the decision-making processes to anticipate and seize new opportunities.

### STRATEGIC PRIORITIES

Since 2016, the Group's sustainability strategy has included the following: strategic priorities; a set of qualitative-quantitative key performance indicators measuring progresses; medium-long term targets; and actions updated annually based on results achieved. When mapping sustainability priorities for 2030, Prysmian Group considered all 17 Sustainable Development Goals (SDGs) as defined by the United Nations. The Group also considered requests from major International Sustainability Indexes (Dow Jones Sustainability Index, FTSE4GOOD, CDP, Bloomberg ESG) – as well as the needs and expectations of the Group's stakeholders, which are mapped each year through engagement initiatives. The strategy and the identified priorities will also be applied to the General Cable perimeter.





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**€10,240 M**

economic value  
Prysmian Group + General Cable

#### **CREATING AND INVESTING VALUE**

In 2018, the economic value generated by the Prysmian Group – including the General Cable contribution – amounted to €10,240 million. Investments totaled €285 million, and were primarily from high-tech and high added-value business, such as optical fibres and cables, and submarine cables for power transmission. The Research & Development function, which has more than 50 partnerships with universities and international research institutes, received €105 million worth of investment. The Group boasts a portfolio of over 5,600 patents.

## MAJOR AWARDS achieved worldwide



*Prysmian Group headquarters, Milan (Italy)*

The Group plant of Slatina, Romania, the largest optical cable manufacturer in Europe, received a special award from the Joint Audit Cooperation for high sustainability performance.

The Milan Headquarters of Prysmian Group has received the LEED (Leadership in Energy and Environmental Design) Platinum certification, which is the reference standard that classifies every aspect of a building's construction in accordance with its environmental sustainability.

Prysmian Central America and Caribbean was authorised by Procomer, the body responsible for promoting Costa Rica export products and services, to use the "Essential COSTA RICA" mark, which is synonymous with excellence, innovation, sustainability and social progress.

## Strategic approach through the Sustainable Development Goals (SDGs)



**A**  
Facilitate the deployment of accessible energy and innovation in telecommunications and infrastructure

- 1 Develop **innovative products** and solutions that support the sustainability of telecommunication energy infrastructures.
- 2 Boost the sale of high quality, reliable, affordable and **"green" products and services**.
- 3 Contribute to the universal dissemination of energy and telecommunications **via reliable and accessible infrastructures**.
- 4 Facilitate **access to clean energy**, via the development of solutions for the producers of renewable energy and support for the research into sustainable technologies.

**KPI**  
% of annual revenues from "Low carbon products"



**B**  
Pursue responsible consumption of natural resources and sustainable supply chain

- 5 Pursue the efficient and **sustainable use of energy and natural resources** by reducing consumption and the issue of greenhouse gases, while minimizing the generation of waste and promoting the recycling and reuse of materials.
- 6 Promote **sustainable business** practices between own suppliers and business partners.

**KPI**  
% of reduction in the emissions of greenhouse gases  
% of total waste recycled  
% of suppliers assessed on specific areas exposed to sustainability risk



**C**  
Contribute to the development of people and communities reference

- 7 Participate and contribute to the **socio-economic development** of the communities in which the Group operates through the adoption of an appropriate Corporate Citizenship and Philanthropy policy.
- 8 Deliver **ethical behavior, protect workers' rights and diversity**, develop a healthy environment for work, training and the professional growth.
- 9 Develop effective, **transparent and responsible communication with stakeholders**.




**KPI**  
No. of sustainable projects supported via the donation of Prysmian cables.  
% of satisfied workers  
% of women executives

# SUSTAINABILITY SCORECARD

The Sustainability Steering Committee requires us to set quantitative targets to achieve sustainability goals – a best practice through which sustainability performance is assessed. A “nice to have” is that this also increases the company ratings in many ESG Indexes. The Sustainability Scorecard is an immediate and clear tool to communicate the Group sustainability objectives, performance and commitments to stakeholders.

The Group changed its perimeters in June 2018 and is updating the Sustainability Scorecard to include General Cable and to further adapt any relevant indicators.

The following table shows performance as of December 31, 2018 – and is limited to the former Prysmian Group perimeter.

	GOAL	PERFORMANCE INDICATORS	BASELINE 2016	2017 PERFORMANCE	2018 PERFORMANCE	2020 TARGET
<b>A</b> 	A.1	Percentage of product families covered by the carbon footprint measurement	0%	5% <sup>1</sup>	60%	<b>100% (as 2018)</b>
	A.2	Percentage of recyclable production materials purchased during the year that support the circular economy	80%	85%	86%	<b>Maintain</b>
	A.3	Percentage of annual revenues from low carbon products	38% <sup>2</sup>	37%	37%	<b>40%</b>
<b>B</b> 	B.1*	Percentage reduction in the emissions of greenhouse gases (Scopes 1 and 2)	683,562 tCO <sub>2</sub> eq	-5,0%	-3.7%	<b>-15%</b>
	B.1.1*	Emission intensity index: • Power cables • Telecom Cables • Optical fiber	0.38 0.002 0.0028	0.33 0.002 0.0023	0.34 0.001 0.0022	
	B.2*	Percentage reduction in energy consumption	6,261,714 GJ	+1.1%	+6.6%	<b>-4.5%</b>
	B.2.1*	Energy Intensity Index: • Power cables • Telecom Cables • Optical fiber	3.40 0.021 0.044	3.38 0.020 0.035	3.41 0.018 0.036	
	B.3	Percentage of waste recycled	30%	50%	66%	<b>40%</b>
	B.4	Percentage of drums reused during the year	40%	> 40%	> 50%	<b>Maintain</b>
	B.5	Percentage of total expenditure covered by the assessment of sustainability practices	50%	55%	55%	<b>60%</b>
	B.6	Percentage of suppliers assessed on specific areas exposed to sustainability risk	0% of mica suppliers	20% of mica suppliers	20% of mica suppliers	<b>100% of mica suppliers</b>
	B.7	Number of sustainability audits carried out based on risks in the supply chain	0	5	7	<b>20</b>
	<b>C</b> 	C.1	Number of working hours donated in 4 year of voluntary activity	0	40	1,160 <sup>3</sup>
C.2		Number of sustainable projects supported via the donation of cables	1 project in the year	1 project	several projects in 2018	<b>Maintain</b>
C.3		Percentage of key managerial positions covered during the year by internal promotions	85%	Above 80%	90%	<b>Maintain</b>
C.4		Percentage of satisfied workers (with Engagement index greater than 5 out of 7)	60%	52%	80% <sup>4</sup>	<b>70%</b>
C.5		Percentage of women executives	6%	6.4%	10.8% <sup>5</sup>	<b>12%</b>
C.6		Frequency rate (IF) Lost day rate (IG)	IF: 2.6 IG: 53.6	IF: 2.35 IG: 58.4	IF: 2.04 IG: 62.30	<b>IF: 2.2 IG: 45</b>

## DIALOGUE WITH STAKEHOLDERS

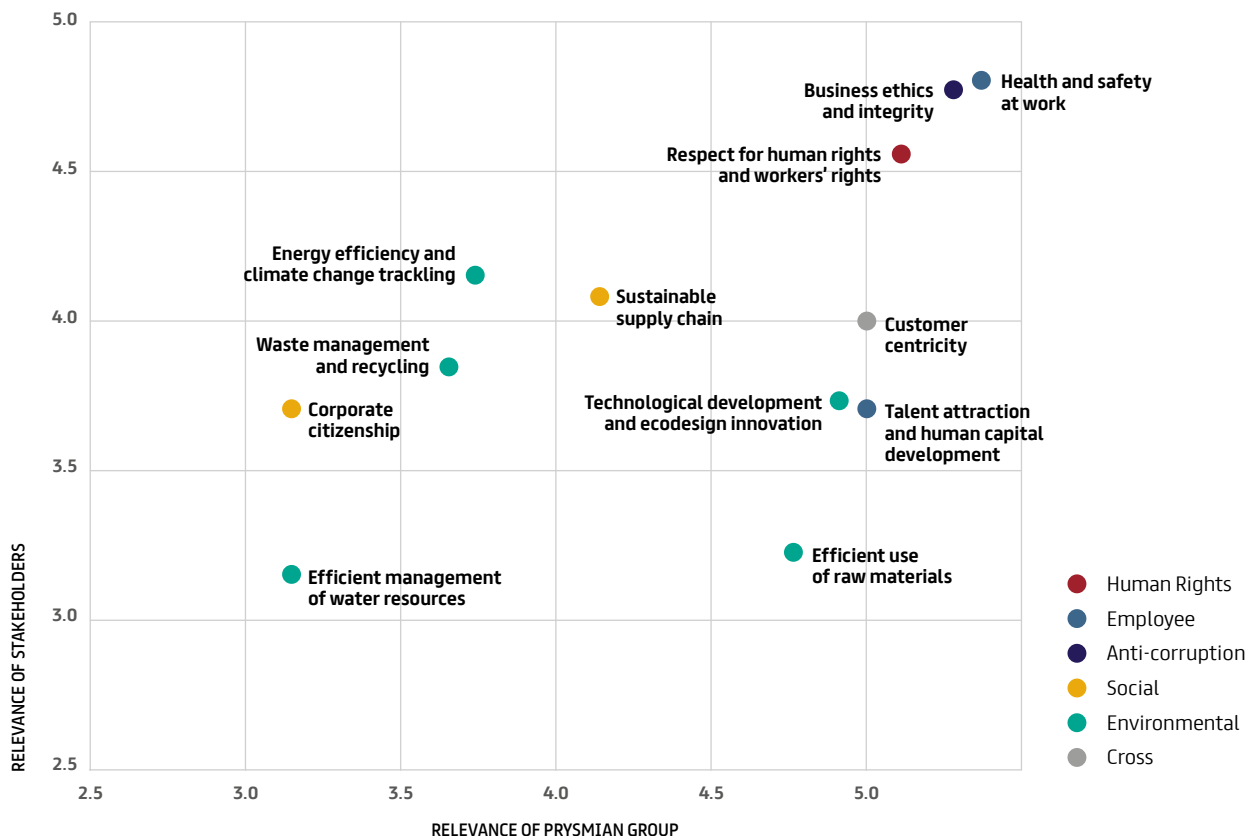
The sustainability strategy of Prysmian Group is marked by the interaction with internal and external stakeholders in order to understand their needs, interests and expectations, as well as to anticipate changes and identify emerging trends. Stakeholders have been identified, divided into broad categories, and then categorised so they can receive the correct external cues that lead to product and process innovation and improvements in reputational risk management. The goal is to also inform, sensitise and engage them, so they are able to better identify the Group's needs, problems and expectations.

## Materiality analysis

Following the acquisition of General Cable in 2018, Prysmian Group launched a process to update and re-focus the materiality analysis to identify the most significant sustainability issues. In particular, we proceeded to review the results of the 2017 analysis, obtaining a materiality matrix that was leaner and more focused on those issues and related GRI disclosures, and of greater relevance to the Group and its stakeholders.

The process first involved re-evaluating and rewording the issue universe through the analysis of internal and external sources, and the direct involvement of the top management through special interviews. Next, some issues were eliminated on the basis of the outcomes. The redefined list of significant issues has subsequently been evaluated throughout a process undertaken by the top management. This assessment resulted in the updated materiality matrix.

## 2018 MATERIALITY MATRIX



1 The percentage is calculated on the number of plants that have provided information on the energy required in the production process per km of cable.  
 2 The baseline calculation (2016) for this indicator was made according to sales estimates and forecasts. The 2016 value with actual revenues is therefore 38% (differing from the 39% previously published). Furthermore, the calculation of the percentage is influenced by the change in the price of copper, which does not reflect the real trend of the volumes produced.  
 3 The data considers the entire perimeter of the Prysmian Group (including the former General Cable), because data cannot be provided only for the legacy Prysmian Group.  
 4 Ibid.  
 5 Ibid.  
 \*2018 perimeter in line with 2017.

# AN APPROACH FOUNDED UPON ETHICS AND RESPONSIBILITY



Prysmian Group and General Cable identified a new Code of Values after exploring the shared culture in-depth.







# THE NEW CODE

## of values

\_ Our culture is about values. So when Prysmian Group and General Cable started the integration journey, they began by bringing together the two cultures under a new Code of Values. This process involved listening to people within the two companies to learn their business and their role in the world economy and society.

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"Diversity represents a distinctive element of our new company and is a tangible strength for Prysmian Group"

*Fabrizio Rutschmann*

Chief HR and Organization Officer at Prysmian Group



**F**abrizio Rutschmann, Chief HR Officer at Prysmian Group – and Maura Nespoli, Chief of Global Talent Acquisition, Talent Management and People Development – recall that it was a challenging task, successfully crowned with the identification of the three Prysmian values **DRIVE**, **TRUST** and **SIMPLICITY**, which are now being spread through the global Group.



**Fabrizio Rutschmann**  
Chief HR and Organization  
Officer at Prysmian Group



**Maura Nespoli**  
Chief of Global Talent  
Acquisition, Talent  
Management and  
People Development  
at Prysmian Group

**In-depth knowledge of both cultures** — The process started with gaining an in-depth knowledge of the culture of the two companies, first at a meeting of 450 executives in Milan, followed by an extensive global survey of 1,500 employees and a workshop attended by 250 professionals from both organisations. The ‘bottom-up’ process created a full understanding of the specific characteristics of both cultures, with General Cable emerging as a business more focused on customers and people-care, while Prysmian was marked by its concentration on effectiveness and efficiency. The commitment of both companies to listening to the voice of their people enabled the clear identification of the three new values.

Drive represents attention **Meaningful values** — to the client, to people, and an orientation towards innovation. Simplicity means the capability to achieve our goals in the most straightforward and effective fashion. Trust is entrusting people: a global organisation has to give its people trust, in order to establish and maintain an efficient structure.

**Keys to deal with different issues** — The three values are not a set of priorities but rather ‘inspirational’ values that serve as keys to help deal with issues for different people in different situations in different

parts of the world. The three values are the starting points for the ‘leadership model’ shaped by Prysmian Group, with the goal of providing effective guidance for implementing value-consistent behaviours in the everyday working life.

“The leadership model is the incarnation of **The tangible strength of diversity** our values in the daily life of our company,” explains Fabrizio Rutschmann: — “It is organised along six principles, with two lines of behaviour for each value.” Maura Nespoli adds: “Applying the model will build a bridge in terms of behaviours between where we are today and our aspirational values”. He continues: “Diversity represents a distinctive element of our new company and is a tangible strength for Prysmian Group, given our diversified business and geographical reach that covers almost the entire planet. So we have made it a key part of the model, underlining its ability to strengthen collaboration and cooperation.”

# PRINCIPLES SHARED with all stakeholders

**\_ Our principles of ethics and responsibility are about doing business and creating value, following and complying with the highest standards of integrity and transparency, while always regarding the health of people and communities as a top priority.**

## **INVESTING IN HEALTH AND SAFETY.**

Prysmian Group shares this approach with all its stakeholders with specific regard to three main issues. The first is occupational health and safety, meaning investing in workers' health and safety by introducing management systems aimed at reducing the number of accidents and occupational diseases, as well as developing training programmes on health and safety in accordance with local laws and regulations.

## **HIGHEST MANAGEMENT STANDARDS.**

The Group is committed to a business management model based on the highest standards of ethics and integrity and compliance with laws, regulations, anti-bribery policies and procedures, and anti-competitive conduct.

## **POLICY FOR HUMAN RIGHTS.**

Last, but certainly not least, there is the respect for human and workers' rights. The Group's policies and procedures on human rights include the ban of child labor and forced labor, the respect for freedom of association and collective bargaining, and health and fair wages in the workplace – including the due-diligence process being carried out by Prysmian Group.

All these actions and policies allow human rights risks to be identified and assessed in order to ensure full compliance.

## **THE CHARTER OF RIGHTS AND MORAL DUTIES.**

The Code of Ethics is Prysmian Group's Constitutional Chart. It identifies rights and moral duties that define the ethical and social responsibilities of each participant in the company. The Code establishes the principles for all to follow, consistent with the vision and mission of the Group. It also acts as a veritable guide to daily behavior, playing a strategic role as a tool for preventing irresponsible or illegal conduct by those who work in the name and on behalf of Prysmian.

## **A LIVING AND EVOLVING CODE.**

The Code of Ethics lives and evolves with the development of the business in the competitive world, and is always open to receive and accept requests for legality and propriety expressed by any of Prysmian Group's stakeholders. The Code complies with international best practices and adopts the principles embodied in the UN Universal Declaration of Human Rights and the Fundamental Conventions of the International Labour Organisation.

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The Code of Ethics is  
**Prysmian Group's  
Constitutional Chart.**

It identifies rights and moral  
duties that define the ethical  
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# THE VIRTUOUS CIRCLE of corporate governance

**\_ In order to create sustainable long-term value and produce a business that acts with integrity and ethics, we have implemented an effective and efficient corporate governance of sustainability. This system of governance complies with legal and regulatory framework, to ensure we can effectively manage risk and assess all related issues.**



#### **UPGRADING CONSTANTLY.**

Prysmian Group keeps its corporate governance system constantly in line with latest recommendations and regulations, adhering to national and international best practices, while ensuring all business transactions are carried out in an effective and transparent manner.

#### **IMPLEMENTING THE CODE.**

In 2018, Prysmian undertook several initiatives to implement the recommendations of the Corporate Governance Code. The Sustainability Steering Committee – chaired by COO Andrea Pirondini – promotes a culture of sustainability, launches and oversees projects or programmes, monitors objectives, and ensures the effective communication of commitments and results achieved. Furthermore, a special committee has been created with the specific task of promoting diversity and inclusion within the Group.

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**The Sustainability Steering Committee launches and oversees projects or programmes ensuring thus the effective communication of commitments and results achieved.**  
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 Prysmian Group keeps its corporate governance system constantly in line with latest recommendations and regulations, adhering to national and international best practices  
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**Integrity first at Prysmian Group and General Cable: Whistleblowing and HelpLine** Prysmian Group invites all the stakeholders to report any real or apparent violations of the law, the Code of Ethics, or of ethical standards, so that they can be examined and dealt with appropriately. In order to create the necessary confidentiality, security and ease of reporting, a Whistleblowing Policy was adopted to offer the possibility of reporting any incorrect behavior and alleged illicit activities that might occur.

The management of confidential or sensitive information and data is not just a compliance issue: it's also a security one, and a business priority. Prysmian Group's **Data protection at Prysmian Group.** personal data protection programme is based on the development of a 'data centric' model, a record of processing activities, and the definition of an updated governance model, designed to comply with GDPR requirements. The programme also includes communication and training to increase awareness about the GDPR and the steps taken by Prysmian to ensure compliance with the regulation.

The confidentiality and public disclosure section of General Cable's Code of Ethics explains that disclosure or the use of confidential information obtained about companies **And privacy at General Cable.** is or is considering — doing business with, is prohibited. In 2018, General Cable implemented the new European regulations tied to GDPR across its entire perimeter and provided web-based training for approximately 800 employees.

REPORTING VIOLATIONS	Prysmian Group	General Cable June - December 2018
	Total number of claims received through Whistleblowing channel	38
Confirmed claims received through Whistleblowing channel	11	3
of which of anti-corruption	-	-
of which covering other topics	11	3

General Cable has adopted a helpline to preserve the Group's culture of integrity. All stakeholders are encouraged to not only report concerns, but also to raise questions. The helpline is available 24/7 in all of General Cable's languages. Through the helpline, questions or concerns can be raised openly or anonymously, and if allowed by local law, via the Internet, by email or by phone.







# INVESTING IN SUSTAINABILITY

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There is a great opportunity to create and develop new products, processes and services, while consuming less and delivering more to the benefit of communities and the environment.

# A key driver for INNOVATION AND INVESTMENTS

**\_ Sustainability is directly correlated to innovation and investments. It represents a great opportunity for the Group to create and develop new products, new processes, and new services, while consuming less resources and enhancing efficiency and effectiveness.**

**A**ndrea Pirondini, Chief Operating Officer at Prysmian Group, believes that when it comes to sustainability it's not just an issue of complying with rules and regulations or sustaining the cost of being environment friendly, but rather about seizing a great opportunity to invest in innovation and developing new products and services that benefit the business, the customers, all stakeholders, the environment, and the safety and welfare of people and communities across the world.

#### **A BOOST FROM THE INTEGRATION WITH GENERAL CABLE.**

The integration with General Cable gave us the opportunity to build on this approach. "We adopted General Cable's 'zero and beyond' approach to safety, because when it comes to safety, there's always space for improvements" Pirondini explains. The goal is not only increasing the safety of Prysmian Group's operations, but also creating products which minimise the installation and operation risks for customers. "By reducing the CO<sub>2</sub> footprint of our activities, promoting circularity in

the use of resources and materials – both in our production processes and overall operations – and in helping customers reduce their impact on the environment. That is our way of implementing the 'reducing waste' industrial mantra," Pirondini adds.

#### **A TENDERING REQUIREMENT.**

In Prysmian Group's vision, environmental performance is increasingly becoming a tendering requirement, which is why measuring the economic side of sustainability is seen as a priority.

— **The goal is not only increasing the safety of Prysmian Group's operations, but also creating products which minimise the installation and operation risks for customers** —



**Andrea Pirondini**  
Chief Operating Officer  
at Prysmian Group

— **€285 M**

Prysmian Group's  
gross investments  
in 2018

## *Capital spending rose to €285 million*

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Gross investments rose to €285 million in 2018 from €257 million, mainly due to the consolidation of General Cable. Another major investment was the construction of a new state-of-the-art cable-laying ship, which called for a total investment in excess of €170 million. This will consolidate Prysmian's "turnkey" approach with "end-to-end" solutions. 2018 also saw the Group complete the assets of the Yixing plant, creating a centre of excellence in China to service the entire Far East area.

In the Telecom side of the business, the Group has almost completed investments begun in 2017 to create a vertical production structure in the optical fibre plant in Claremont (North Carolina), increasing spinning capacity to meet the growing demand for fibres. Also in Europe, optical fibre production is being paralleled by growth in the optical cables business, and in particular, the Slatina plant, which is witnessing the completion of the second step of increased production capacity for optical cables. In the Operations vertical, a pilot project called 'Fast Track' in Calais has been completed, and Prysmian is now preparing for further implementations in other plants. This system is a first step in the path towards the digitalisation of manufacturing processes under Industry 4.0.



## MASTERS OF product innovation

**\_ Prysmian and General Cable share a rich history of successfully developing flagship products and brands in the global wire and cable industry. The combined company now offers the broadest portfolio in any part of the world. They have now worked on several groundbreaking product innovations, increased capacity in 2018. Here just a few examples of the most significant.**



We accomplished activities related to 3-core cables **SUBMARINE** with aluminum conductors with the **CABLES** — completion of RTE 220 kV AC Type Tests, while also successfully completing the RTE 220 kV AC Type Test of 3-core cables with bimetallic joints. We also developed an innovative, lighter 3-core cable, which will allow installation at greater water depths. Development projects up to 600 kV DC extruded technology proceeded as per planning, with the use of XLPE and P-Laser as insulation materials.

We made significant progress in **TERRESTRIAL** both the qualification of XLPE, **CABLES** — and proprietary P-Laser systems for 525 kV HVDC applications. We also defined suitable technological parameters and produced multiple prototypes for extensive internal evaluations. Thanks to P-Laser technology, the system can now operate at a higher conductor temperature of 90°C. In addition, we made technological advancements in China's Yixing Plant by producing prototypes to qualify a XLPE 500 kV AC cable system, and began production of 220 kV cables for Singapore Power.

**OVERHEAD LINES** E3X Technology is the utility industry's first heat dissipating overhead conductor innovation, featuring a thin, durable coating applied to the surface of any overhead conductor.

Intense product development and **INDUSTRIAL MARKET** improvement continued, including the successful switch to new lead-free variants for Crane, Mining, Wind and Rolling Stock of all the proprietary compounds formulations for MV insulations.

**AUTOMOTIVE MARKET** We implemented the Automotive Ethernet, using twisted pair cables of 100 Mbit/s. Preparations for the next step up to 1 Gbit/s are currently underway.

We successfully developed **ELEVATORS CABLES** the first copper-based solution for Cat5e-complaint ethernet inside travelling cables.

We developed two important new **PRYSMIAN ELECTRONICS** products. The first is designed to implement the "Pry-Cam Gate" technology, while the second, completed in 2018, is the new GUI for the monitoring system.

2018 saw the launch of our new FlexRibbon™ products, reaching up to 6,912 **OPTICAL CABLES** optical fibres to offer increased functionality to data centres. Designed to maximise fibre density and duct space utilisation, Prysmian's MassLink™ with FlexRibbon™ technology products compact the maximum fibre count into the smallest cable possible.

**CONNECTIVITY** We focused on products that enable full fibre-to-premises connections in multi-dwelling unit applications (MDU). We also



launched a number of additional customer termination boxes, including the CTB Lite, 4f Hybrid CTB and the unroller termination box.

We began work on new types of fibres that allow Spatial Division **OPTICAL MULTIPLEXING (SDM)**, a unique **FIBRES** multiplexing technology able to cope with capacity demand that is growing at an exponential rate.

Stainless steel with aluminum coating technology has been consolidated in up to **OPGW & SPECIALS** 96 fibres, while the monotube aluminum extruded technology has been further reinforced.

The Single-Pair-Ethernet (SPE), originally developed for application in the automotive environment, **MULTIMEDIA SOLUTIONS** is now deployed in structured cabling, **(MMS)** contributing the additional benefit of Ethernet interoperability.

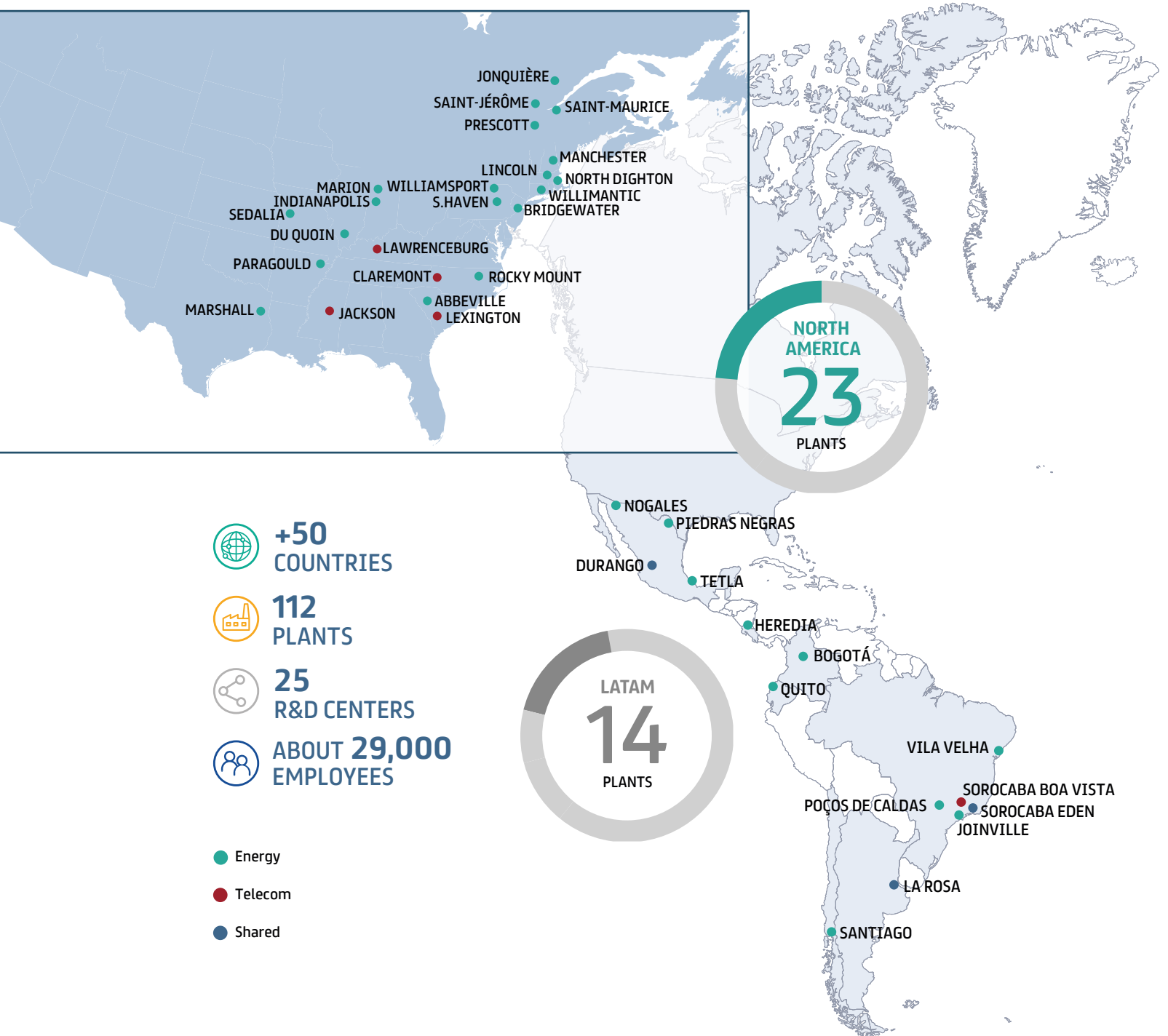
**DATA COMMUNICATION CABLES** A new generation of small diameter 10 Gig Category 6A cables was introduced in 2018 for our North America customers.

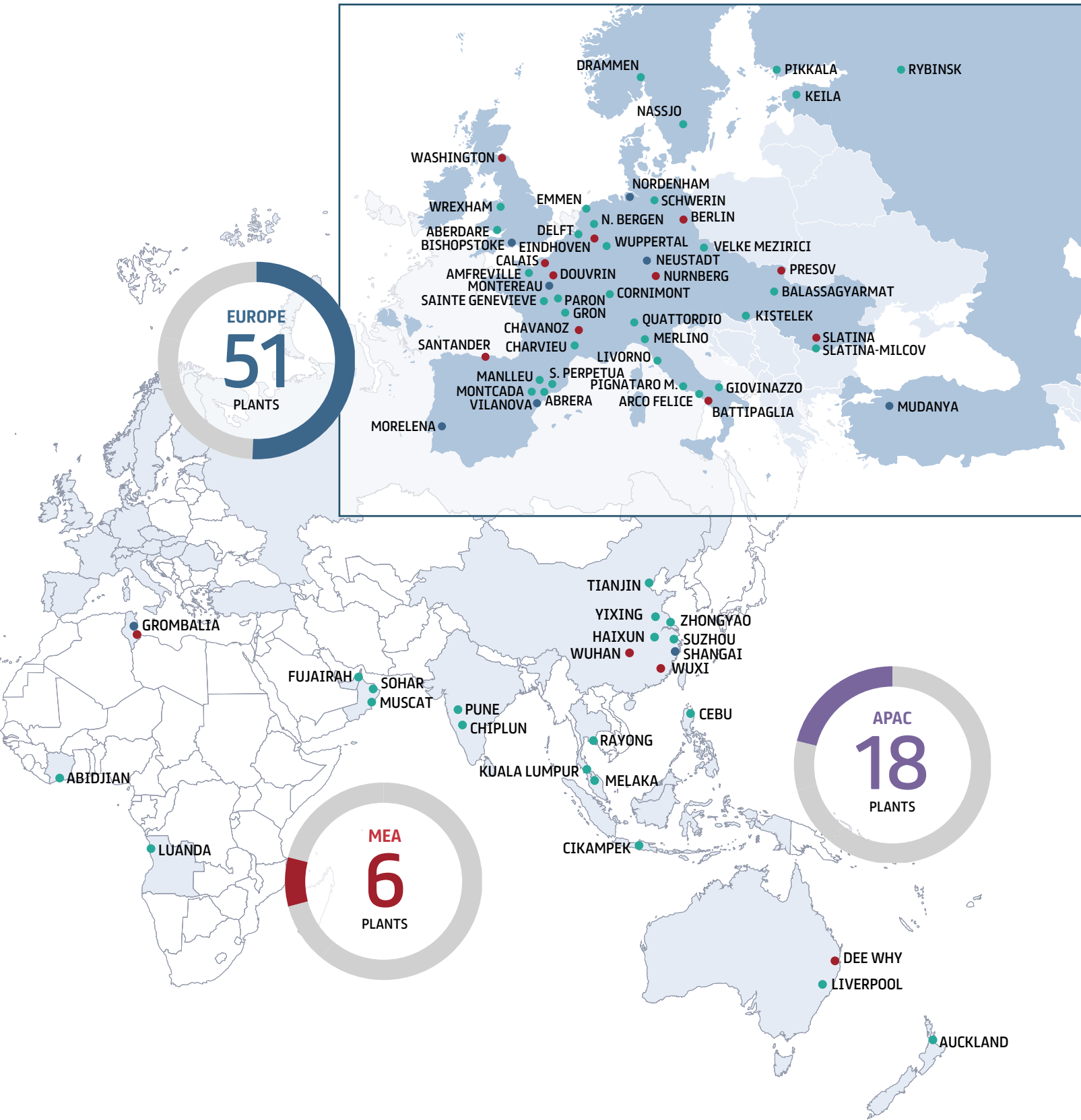
## *Investing in innovative materials*

The main results achieved in 2018 in this strategic field include:

- › Industrialisation of the full MV disconnectable joint completed in France
- › Development of materials for MV and HV accessories
- › Insulating compounds for HV accessories without lead
- › New sheathing material for the oil and gas market.
- › Patented masterbatch to be used with the LV XLPE
- › Icephobic coatings
- › Antimicrobial coatings for flexible rubber cords
- › Studies with the University of Salerno on polypropylene materials
- › Development of a method to study the decomposition of mica glass tapes at high temperatures
- › Research into a new optical fibre coating formulation based on a sustainable material
- › Studies on polyamides to understand the use of bio-based polymers.
- › Evaluation of nanocarbon forms, including carbon nanotubes (CNTs) and graphene
- › Development of icephobic coatings that can delay requirements.

\_ Prysmian Group's manufacturing operations are highly decentralised, with 112 factories in more than 50 countries after the integration with General Cable. This enables us to react in good time to the various requests from world markets thanks to the geographical distribution and capabilities of the various plants.





# THE PERVADING THOUGHT OF INNOVATION

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The integration of General Cable has created a global R&D powerhouse, capable of shaping the entire industry with innovations that deliver on the world's future energy and communication needs.







# A global innovation **POWERHOUSE**

\_ **Srini Siripuraru, Chief Research & Development Officer at Prysmian Group,** explains how the merger of General Cable has created a global R&D powerhouse. **One that carries the responsibility of shaping the wire and cable industry with innovations that will deliver on the future energy and communication needs of our communities.**



**Srini Siripuraru**  
EVP and Chief Research  
& Development Officer  
at Prysmian Group

—  
We are focused on innovations that lower energy and water consumption and reduce greenhouse gases, with the aim of generating an efficient innovation ecosystem in close collaboration with our customers, suppliers and top universities across the globe.  
—



**P**rysmian Group's commitment to innovation and development of environmentally-friendly new products stems from the conviction that this is the only way to guarantee economic sustainability over the long-term. That's why the Group constantly maintains a focus on new product ideas that increase the efficiency and reliability of the transmission of power and information while lowering the total cost of ownership of solutions for customers.

#### **GENERATING AN EFFICIENT INNOVATION ECOSYSTEM.**

Siripurapu explains: "We are equally focused on process technology innovations that lower energy and water consumption and reduce greenhouse gases in our manufacturing facilities. The aim is to generate an efficient innovation ecosystem in close collaboration with our customers and suppliers and with top universities across the globe. Our goal is to develop differentiated products and solutions that add value to our customers and are sustainable to the environment."

#### **DESIGN TO COST TO IMPROVE SUSTAINABILITY.**

Sustainability is a pervading thought for the Prysmian Group, not only for product and process innovation, but for continuous cost-reduction programmes called 'Design to Cost'. "Under this programme", Srini tells us, "engineers on our research and development team apply sustainable principles across every aspect of the R&D function- from cable design, manufacturing, and technical support, to cutting-edge innovation. We continue to invest in digital tools that enable efficient collaboration across our worldwide R&D community that focuses on ready electronic access to critical know-how, be it on our materials, designs or technical experts, all with the singular focus of being the most efficient we can be in serving our customers and protecting the environment."



**€105 M**

total investments on Research, Development and Innovation during 2018

**€18 M**

cost savings obtained through **1,000 projects** via the **Design to Cost** program

## ECO-FRIENDLY design processes

\_ Prysmian Group has created an innovation ecosystem made up of different stakeholders who act together and make constantly increasing efforts to abate the environmental impact of cables and manufactured services for the global market. They do this through an effective network of universities, research centres, suppliers and final customers, who provide to the Group with a complete set of information and insights, which we use to improve and grow our social responsibility.





**Carbon Footprint** With a focus on life cycle assessment for the existing product portfolio, the additional functionality for the calculation of CFP and recyclability index in CA has been activated in two steps within all the perimeter of the Group factories. The cables' eco-datasheet is now produced and delivered to customers, with a focus on those who are particularly sensitive to sustainability issues.

**New products introduction** New Products Introduction (NPI) is tracked through a vitality tool that measures revenues generated from new products introduced in the last three years as a portion of total revenues of all products for the Group. General Cable has had an established NPI vitality tool for the past ten years based on Sopheon's Accolade system. At the end of 2018, the NPI vitality improved to 11.1% for the combined perimeter, compared to just 8.9% for legacy Prysmian in 2017.

**Afumex Line and CPR** Growing volumes and sales have been gained in this segment of the T&I European market, where safety and environmental issues are the main drivers for innovation. Interest for CPR extension outside the T&I market are clear and probably irreversible, due the growing trend to increase the value proposition of the products in view of enhanced safety and sustainability.

**Lead-Free EAM Insulation** Innovative and eco-sustainable insulation system for MV cable, able to provide similar or better performances with respect to actual state of the art filled insulation materials for flexible MV cables (EPR insulation). The developed solution is lead-free EAM insulation, formulated with an alternative elastomer.

**E3X Technology** With the merger of General Cable, Prysmian Group has the most comprehensive product offering in the area of Power Distribution and Power Transmission systems. For those using overhead lines, a breakthrough solution has been developed and actively introduced in the market, based on an innovative coating applied to the surface of the standard OHL, which is able to increase the heat dissipation and the efficiency of the transmission line.

**17 FREE halogen-free cables** We completed important development in North America on our communication cables made with low smoke and zero halogen materials. The 17 FREE line of Riser communication cables, including Cat 5e, Cat 6 and Cat 6A, does not contain halogens, which significantly reduces the density of the smoke.

**Fibre densification in Optical cable** We have reached the outstanding result of 6,912 fibres in a single cable, thanks to the innovative Flexribbon technology developed in recent years and now successfully taken to market. FO cables with reduced dimensions and lower weight produce undisputable advantages for the TLC operators, but also for the environment, due to the intrinsically reduced CFP content in terms of materials usage.

## PATENTS AND TRADEMARKS: a strategic asset

\_ As a key part of its business and its commitment to sustainability, in 2018, Prysmian Group continued to protect its extensive portfolio of patents and trademarks, particularly in relation to its strategy of growth in high-tech market segments, while continuing to increase its patent assets, especially in segments with higher added value and in support of the significant investments made in recent years.

### *Protecting intellectual property from cyber-attacks*

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The increasing spread of internet-based technologies that allow the transfer and sharing of sensitive information through virtual spaces leads to vulnerable IT situations that Prysmian Group cannot ignore. Exposure to potential cyber attacks is due to several factors, including the necessary global distribution of IT systems, the holding of high value-added information – such as patents, technological innovation projects, as well as financial and strategic plans not yet disclosed to the market – with consequent economic, patrimonial and image damages. To deal with these risks, the Group IT Security Department, in collaboration with the Risk Management function, periodically carries out specific assessments aimed at identifying any vulnerabilities in our IT systems at a local and central level.

**5,627**  
patents  
worldwide

including patent applications undergoing evaluation covering

**854**  
inventions

---

**PROJECTS  
& ENERGY**  
**294**  
inventions

**TELECOM**  
**560**  
inventions

**1,105**  
trademarks  
owned

The **most important products**, typically involving **specific characteristics or a specific production process**, are **protected by trademarks** that allow them to be identified and guarantee their uniqueness.

As of 31 December 2018, the Prysmian Group owned 1,105 trademarks, with **5,167 registrations** in the various countries in which it operates, covering the names and logos of its companies, activities, products and product lines.



# AN OUTSTANDING NETWORK of partnerships with the academic world

\_ Over time, Prysmian and General Cable have established a world-class network of collaborative relations with over 50 major universities and research centres around the world. These collaborations are strategic for Prysmian Group, because they support cutting-edge technological research and allow the adoption of state-of-the-art innovations in all areas relevant to the wire and cable industry.



## Italy

Politecnico di Milano, Università degli Studi di Milano, Genova, Salerno, Palermo e Padova



## USA

National Electrical Energy Research & Application Center, National Science Foundation High Voltage and Temperature IUCRC, Northwestern University, Rice University, Purdue University, University of Cincinnati, University of Illinois at Urbana Champaign, Ohio University, Georgia Institute of Technology, University of South Carolina, University of Central Florida, Electric Power Research Institute, Oak Ridge National Laboratory, Argonne National Laboratory, Nokia Bell Lab



## Canada

University of Quebec at Chicoutimi



## Spain

Universitat Politècnica de Catalunya



## Brazil

Centro de Pesquisa e Desenvolvimento em Telecomunicações, Universidade de São Paulo



## India

National Chemical Laboratory, Infosys Advanced Engineering Laboratory



## France

University of Lille 1, Nokia Bell Labs, Cailabs, CEA



## Germany

University of Applied Science Südwestfalen



## Holland

Technical University of Eindhoven



## China

Shanghai TICW



## UK

PA Consulting



## Norway

Norner



# CREATING AND COLLECTING NEW IDEAS

In addition to its world-class R&D structure, Prysmian Group is exploring ways of growing new ideas that could lead to the creation and launch of a new product or process. To this purpose, Prysmian Group has launched the Corporate Hangar initiative, with the goal of encouraging innovation while maintaining the Group's efficiency and capacity to meet customer needs.

Prysmian Group has innovation in its DNA, and is always eager to anticipate customer needs, as well as those within the changing energy grids and telco sectors. The goal is to meet these needs with impactful, sustainable innovation – and so, in 2017, Prysmian Group co-founded Corporate Hangar, a place where we identify, develop and implement promising ideas without interfering with the successful business model of the Group.

This unique collaboration follows a three-phase business model. In the first phase – the 'Fly-In-Zone' – Corporate Hangar collects ideas from Prysmian Group employees, as well as from customers and stakeholders, and then transforms these ideas into structured business plans while supporting the realisation of pilot projects, together with those who had the idea. Once an idea has proven its market potential, it leaves the 'Hangar' and enters the 'Runway', where ideas are commercialised through the creation of a dedicated start-up called PRIA (Prysmian Innovation Accelerator).

Once the PRIA has reached the minimal critical scale, it enters the 'Cruise' phase, where Prysmian Group takes over to boost revenues by integrating the new venture into existing Prysmian businesses. In all three phases, the Group maintains total control over the innovation activities: intellectual property rights of all Corporate Hangar activities are held by Prysmian Group.

According to Prysmian Group CEO Valerio Battista, there is only one way to fuel innovation: "We have to think about new products as well as innovative processes and technologies to stay ahead of competition." That's why Prysmian Group decided to leverage on its best asset – its people – and involve them in the creation process. In 2019, Prysmian and Corporate Hangar will launch their first innovation contest as a pilot project: a call for ideas from the worldwide Prysmian Group community.

—  
We have to think about new products as well as innovative processes and technologies to stay ahead of competition.

*Valerio Battista*  
CEO of Prysmian Group







# A STRENGTH FOUNDED ON PEOPLE

—  
A history of success based on the excellence of  
Prysmian Group employees, who have been leading players  
in the achievement of extraordinary results.

# A history of success **BUILT UPON PEOPLE**

**\_ For over more than 140 years, the Group has built its history and successes on the excellence of its employees, who have achieved extraordinary results thanks to their ability to pass down their values, experience and company loyalty to younger colleagues, generation after generation.**



## **ATTRACTING AND RETAINING TALENT**

Since 2012, Prysmian has implemented several recruitment policies that have encouraged diversification of the offer portfolio, not only with 'spot' job offers, but also with programmes for attracting and integrating talent.

### ***Build the Future – the Graduate Program***

is an international programme for the recruitment and induction of new graduates with high-potential profiles in various functions and areas. In 2018, it attracted around 41,000 applications and led to the recruitment of 46 young graduates. It led to the recruitment of another 50 new graduates in 2019.

### ***Make It***

is a programme aimed at identifying engineers from other sectors to cover highly challenging key roles within the Group's most important factories. In 2018, it attracted around 7,000 applications and led to the recruitment of 22 young engineers.

### ***Sell It***

aims to further the growth and development of the sales force. In 2018, it attracted around 7,000 applications and led to the recruitment of nine salespeople with 3-5 years of experience.

## DEVELOPING LEADERSHIP AND TECHNICAL SKILLS

The Prysmian Group Academy is organised into three distinct but synergistic schools: The School of Management, the Professional School, and the Digital School.

*The School of Management* is established by Prysmian in partnership with SDA Bocconi and a network of ten major international Business Schools. It welcomed 710 participants over six years and issued 439 diplomas, with continuous ambition for growth in 2019. Particularly noteworthy are The Induction Program, which involved 31 participants from 13 countries in 2018; and the Women Leadership Program, which is devoted to the development of female leaders.

*The Professional School* is organised into function academies and centres of expertise, which includes a R&D Academy dedicated to training in the USA; and a Human Resources centre, which offers courses in

skill consolidation to help manage the processes of recruitment, training and development. The School has trained over 1,500 employees in six years with the involvement of more than 200 experts. There are plans to involve the same number in 2019. In 2018, The Professional School delivered courses focused on supply chain, which involved more than 40% of Prysmian purchasing personnel worldwide.

*The Digital School* is a key project within Prysmian Group Academy. In 2018, a new technological platform was launched to support the Digital Academy, comprising a social networking tool called "JAM", which is intended to help create a community among school participants.

The School of Management and the Professional School programmes together provided a total of almost 38,000 hours (net of the Digital Academy e-learning courses).

# 28,615 employees

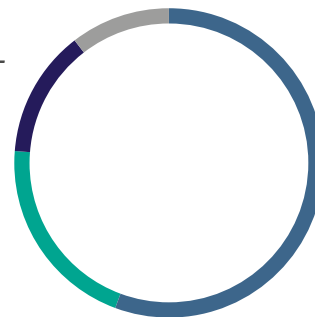
following the merger with General Cable, as of 31 December 2018

WHITE COLLAR **28.6%**  
BLUE COLLAR **71.4%**

TYPE OF CONTRACT  
**95.9%** permanent

## GEOGRAPHICAL DISTRIBUTION

- **56.7%** EMEA
- **19.3%** North America
- **13.8%** LATAM
- **10.1%** APAC



AGE GROUP  
**16.5%** <31 y/o

**54.5%** between 31 and 50

**29%** >50 y/o

## EXCELLING IN DIGITAL COMMUNICATION

For the fourth year running, the Prysmian Group website has ranked in the Top 10 of the prestigious Webranking Italy 2018, the research that assesses the digital transparency of the 111 largest Italian listed companies. The company has also reached the Top 10 in the 22nd edition of the European league table. Both results were achieved in the 'Industrial Goods and Services' sector chart.

### SURFING THE WAVE OF AI

Prysmian Group launched its first chatbot – 'Blu Bot' – by combining the AI skills and expertise from Softec with the Conversate digital platform. It aims to facilitate the company's communication with its 29,000 employees in the areas of HR, IT and communications. Prysmian Group employees across various continents helped fine-tune the chatbot by conversing with it 24-hours a day, thus enabling Blu Bot to quickly learn and enhance its knowledge.

### SELECTED IN LINKEDIN AWARDS

Prysmian Group was one of the three finalists in the 'Best Employer Brand with 1,000-10,000 employees on LinkedIn' category in the Italy LinkedIn Talent Awards, which is an exclusive programme aimed at celebrating the success of companies in Italy in the talent acquisition and employer branding space.

over **120,000**  
in followers



## OVER 9,200 ALREADY SAID YES

—  
Towards the end of 2013, Prysmian Group launched the Your Employee Shares plan, a share ownership scheme open to all employees.



**YES** Your Employee Shares

**Prysmian Group**

*I said yes!*

**Join the YES Program**

Shared values, united goals, a collective trust.

**Bruna Chitoni**  
Milan Headquarters, Italy  
Communications

Currently active in 28 countries, it allows members to purchase shares on favorable terms with the goal of encouraging employees to become stable shareholders, thus making them owners of part of the business in which they work. The target audience is around 1%. In 2018, there were three purchase windows.

Over the years, the Your Employees Shares (YES) plan has proven to be a real success, chosen by more than 9,200 employees: approximately 53% of the entitled company population became shareholders, with 1.6 million shares owned by employees. The shareholders meeting of April 2018 approved an extension of the plan until 2021, with the inclusion of General Cable from 2019.

—  
**9,200**  
employees

**≈53%**  
of the company  
population became  
shareholders

## BUILDING ON THE VALUE of diversity

**\_ One of the new values of the Prysmian Group – Trust – legitimises the focus on diversity as a key driver of its future growth and business development in the coming years. The Group has adopted a global Diversity and Inclusion Policy, and is currently developing a number of supporting initiatives in this area.**

**T**he portfolio of activities started in 2017 was consolidated in 2018 and continued into 2019, and includes: the Global Diversity Recruitment Policy, which promotes diversity in all programmes of the School of Management and offers training on the topic of unconscious bias, which is delivered through the Digital Academy; and the Women Leadership Program, now in its third edition, which focuses on gender pay gap analysis and offers a mentoring programme for female talent.

### **WARRANTING HEALTH AND SAFETY AT WORK.**

Prysmian Group has always been committed to ensuring the integrity, health and welfare of workers is safeguarded in every workplace. The Group has a Health, Safety and Environment Policy that guarantees compliance with good management practices to ensure a safe workplace. Furthermore, the Group adopts the OHSAS 18001 health and safety management system, which is followed by all the productive entities. In 2018, the Group's commitment to health and safety was assured via the coordination of central and local activities under the guidance of the HSE function.





### NO SUPPLIERS AT ETHICAL RISK

Whenever a contract is awarded, the supplier must accept and sign the Group's Code of Ethics, in full awareness of the related rights and obligations. In 2018, there were no audits on suppliers categorised as high-risk.

### TAKING PART IN GLOBAL INDUSTRY LIFE

As the global leader in its industry, Prysmian Group holds memberships to the world's principal and most strategic global trade associations, including Europacable, Norstec, Medgrid, the FTTH Council and Wind Europe.



### *Citizenship and philanthropy policy*

To better contribute to the socio-economic development of the communities in which it operates, the Group has adopted a Corporate Citizenship and Philanthropy Policy to identify all activities that can help satisfy the needs of the communities, in line with the Vision, Mission, Values and the Code of Ethics and Policies put in place by the Group.

In 2018, approximately €200,000 was donated to local communities in cash and in-kind form to support a number of initiatives across the world, from Italy to France, to Norway, to North America. This includes the MediCinema project at Niguarda Hospital, and the Leonardo da Vinci Museum project – both of which are in Milan.

# COMMITTED TO A HEALTHY PLANET

—  
Prysmian Group is helping the world go greener and accompanying the shift towards renewable energy while improving its own environmental performance.





# Helping the world GO GREENER

**\_ The shift towards renewable energy marks an increase in global efforts to make sustainability a reality. Prysmian Group is fully committed to renewable and sustainably-sourced energy: its state of the art cables and systems help wind turbine manufacturers around the globe harness the true potential of this natural power source. Prysmian Group also offers a full range of quality solar and photovoltaic products, renowned for their easy installation, reliability and longevity attributes while complying with all major international standards.**

**Exploiting the power of the wind** — Prysmian Group is increasingly helping renewable industry partners by offering and delivering premium quality products and systems for wind turbines, proven in the field with long-lasting and trouble-free performance. In some cases, as with Germany – among the countries most committed to developing an alternative, wind-based power generation structure – Prysmian acts as a partner and an enabler, accompanying the journey towards sustainability of the entire energy system. Prysmian Group's cables and systems used in wind turbine and tower operations are supporting the work of turbine manufacturers, contractors and developers by providing a range of cables, accessories and services for all wind power generation applications – from the generator, to the grid.

**Milestone achievements** — Applying many years of expertise and global capabilities, Prysmian Group offers one of the world's most

proven and comprehensive product ranges for wind power generators in the world.

Its leadership is founded upon being a strategic partner to important developers, as well as to the biggest transmission system operators involved in the



development of the offshore wind industry. The Group recently achieved a number of offshore wind farm and subsea connection milestones, including the BorWin2 project in the North Sea, which is the first 800 MW

connection to offshore wind parks and the largest VSC system in the world; SylWin1, the highest-ever rated system for VSC technology with a power rating of 864 MW operating at the highest commercially available voltage level of  $\pm 320$  kV DC and IFA2, a  $\pm 320$  kV DC interconnection to connect Tourbe in France to Chilling in Hampshire, UK.

Most recently, Prysmian Group secured a contract from French TSO Réseau de Transport d'Électricité for the 220 kV HV export lines for the first three French offshore wind farms – Fécamp, Calvados and Saint-Nazaire. In addition to this, the Group recently added new cable connections for offshore wind farms and turn-key projects to supply and install submarine inter-array cable systems. This includes the development of submarine links for Hornsea Project Two in the UK – the world's biggest offshore wind farm – and the inter-array cable system for the Wikinger offshore wind farm, located within the West of the Adlergrund cluster in the German Baltic Sea.



## *A partner of choice for solar solutions*

---

In addition to wind, Prysmian Group's commitment to both innovation and sustainability through the development of renewable energy sources includes solar energy. The Group offers a full range of quality solar and photovoltaic products, renowned globally for their easy installation, reliability and longevity, and for complying with all major international standards.

The Group's technologies are hard at work across the sector, supporting the operations of contractors, developers, grid operators, PV panel makers, PV power generation system integrators and even entire solar parks. In recent years, Prysmian Group has supplied components and services to worldwide solar installations – from residential installations, to large-scale utility projects. The total equipment supplied exceeds a generation capacity of 40 GW.

# REDUCING WATER CONSUMPTION and waste, worldwide

## PARON, France

consumption of water reduced thanks to the **REPLACEMENT OF THE COOLING EQUIPMENT** in the process water line.

## BALASSAGYARMAT, Hungary

non-hazardous waste reduced thanks to the **GREATER REUSE OF WASTE** from the production of PVC compounds.

## GRON, France

significant decrease in water consumption obtained through **BETTER DAILY MONITORING** and renewal of certain equipment items on the cable insulation line.

## QUATTORDIO, Italy

well water consumption reduced after **IMPROVEMENTS TO THE PIPE NETWORK**.

## LA ROSA, Argentina

**NEW WATER TREATMENT PLANT** installed, leading to reduced water consumption.

\_ In 2018, Prysmian Group continued its efforts and initiatives aimed at reducing water consumption in several countries across the globe while constantly abating the amount of hazardous and non-hazardous waste generation.

### CHARVIEU, France

actions successfully put in place to reduce waste through the **INCREASED RECYCLING OF PVC WASTE.**

### DURANGO, Mexico

**STAFF TRAINED TO SEPARATE RESIDUES** and use materials more effectively to reduce waste generation.

### CLAREMONT, U.S.A.

reduction of waste solvents destined for disposal, thanks to better training aimed at **MORE EFFICIENT SOLVENT USE.**

### ROCKY MOUNTAINS, U.S.A.

**REUSE OF STEMS INCREASED TO 40%**, reducing the amount to be allocated for disposal.

### NORTH DIGHTON, U.S.A.

reduced volume of used oil to be disposed of through **BETTER MAINTENANCE AND MINIMIZING OF LOSSES.**

### SCHUYLKILL HAVEN, U.S.A.

**USE OF SOLVENTS PARTIALLY REPLACED** with water-based detergent baths.

## CONTINUOUSLY IMPROVING energy performance

**\_ The issue of energy consumption is a key part of our effort to protect the environment and safeguard the planet – and is one that has always been a crucial monitoring and leverage area at Prysmian Group.**



**I**n 2018, the Group carried out 11 new energy diagnoses in its European and non-European operating units. The aim was to gain an ever-more complete, reliable and updated data base on energy consumption and its distribution, and to extend energy efficiency initiatives to an ever-larger number of units. The Energy Audit Plan was upgraded by the HSE function at the end of 2018, including the 2019-2020 period for the European operations of the recently acquired General Cable.

In addition, the Mudanya plant in Turkey and the General Cable Nordenham plant in Germany have consolidated energy management and consumption monitoring through the implementation, certification and maintenance of an energy management system compliant with the ISO 50001:2011 international standard. Similarly, periodic energy audits have been conducted in the Group's five other German plants, where the SGE has long been ISO50001-certified.

—  
**A complete, reliable and updated data base on energy consumption to extend energy efficiency initiatives to an ever-larger number of units**  
—





### Relamping with led and smart metering

During 2018, the Group continued the operational phase of two projects: 'Relamping with LED' and 'Smart Metering', both of which related to the replacement of conventional lighting fixtures with LED lamps and the introduction of systems to measure consumption at the production units. Concrete results and future developments included:

- > Installation and testing of the consumption monitoring systems in five Italian production units.
- > Gradual extension of the monitoring systems of Group-level consumption, based on experience already gained in the Italian units with the Smart Metering project.
- > Completion of the supply, installation and testing of LED lighting in a further three Italian operating units.
- > Evaluation of energy and economic savings achievable through the Relamping with LED project in Asian and British units.
- > Targeted inspections in the four British production units and the preparation of requirements for new lighting systems.
- > Selection of a general contractor to design and install LED lighting systems in two Asian and four British units.

### NEW PILOT PROJECTS

Using the Smart Metering system installed in the Italian units, Prysmian Group will analyse power consumption and performance in lighting systems, and assess the areas of improvement where future actions can be planned and implemented to improve efficiency. New pilot projects have already been selected, based on criteria such as payback time of the investment, extent of the energy savings achieved, potential for repeating the project in other Group sites, and the presence of incentive schemes nationally.

### Drafting the standard for power cables

In 2018, Prysmian Group continued to participate in various working parties and associations, including Europacable, Orgalime, ANIE and AICE, and the IEC Maintenance Team that is drafting the standard environmental declaration for power cables. This approach represents an opportunity to improve operational policies and practices, and agree, develop and measure all operational units in matters relating to environmental performance, and health and safety in the workplace.

### *Calculating the carbon footprint of individual cables*

**In 2018, the Group further refined and extended its Common Analysis platform, which allows calculation of the carbon footprint of individual cables.** Work has been completed on the definition, revision and systematisation of the factors in greenhouse gas emissions arising from the production chain of materials that are assembled to form the cables. Information on consumption in cable manufacturing processes has been collected and systematised. The processes will be further improved with an even more carefully measured collection of data. To this end, the HSE function has provided targeted emission values and related impact coefficients between global warming and of materials and processes.

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