

Environment

Prysmian and the environment

The Group strives actively to safeguard and protect the environment and conserve natural resources, in order to create sustainable value for the benefit of both the organisation and our stakeholders.

The Group's commitment to safeguarding the environment and conserving natural resources is expressed not only by the intrinsic characteristics of our products, but also by how our production systems are managed. In particular, the prevention and reduction of their environmental impact is achieved, for example, by the efficient use of natural resources, the optimisation of logistics flows and the responsible management of waste. Prysmian worked hard during the year to enhance our performance on environmental matters. Additionally, considering the aspects deemed significant at Group level, the Health, Safety & Environment function (also "HSE") worked with other business functions to establish the HSE objectives for the period to 2020, and plan the actions required each year in order to make steady progress towards these goals.

The HSE function has further consolidated the scope of its activities at various levels within the Group – corporate, country or region, business unit or production unit – centralising activities and coordinating the work of the local HSE functions. Application of the Health, Safety and Environment policy, the Operating Procedures and the Group's Technical Standards was maintained and extended to additional operating units. The effectiveness and proper application at local level of the health, safety and environment rules were also checked periodically, with support from a Group-level audit team.

Furthermore, significant variables and indicators were again monitored regularly to check the effectiveness of health, safety and environment activities, including compliance with health and safety at work standards, energy consumption, waste management, water usage and greenhouse gas emissions. In particular, with reference to the last mentioned, the Group has strengthened the process of collecting energy consumption data in order to track both "direct" emissions (deriving from production processes) and "indirect" emissions (deriving from the energy purchased). This system of monitoring and reporting enabled the Group to participate in 2016, once again, in the Carbon Disclosure Project (CDP), Climate Change section. The CDP is an international initiative that seeks to contribute to the pursuit of the objectives agreed in the Kyoto Protocol regarding the global reduction of greenhouse gas emissions.

Further developments in this area will be made possible by considering the outcome of the energy audits carried out in 2015 and 2016 at a number of European factories, deemed representative, in order to identify actions to improve energy efficiency and reduce greenhouse gas emissions. Work is well advanced on the implementation of tools for assessing and managing the environmental impact of products and, in particular, their carbon footprints.

About 160 inspections for certification purposes were carried out at the various factories during the year, of which about 12% were carried out by experienced Prysmian personnel. The other inspections were performed by auditors from external certification agencies.

Significant events during 2016 included the investment of about 8 million euro in health, safety and environmental activities.

In addition to training initiatives, Prysmian has continued to manage various activities including active participation in various working parties and on association committees, such as Europacable's ECOE Committee, Orgalime's "Substances Task Force", ANIE's Environment Committee and AICE's environment working party, and the IEC Maintenance Team that is drafting the standard environmental declaration for power cables.

The approach to integration adopted represents an opportunity to improve and, in this light, operational policies and practices for the management of the environment, health and safety by all operating units will be further developed and agreed. In this regard, the Prysmian Group uses quali-quantitative parameters to monitor environmental performance and health and safety in the workplace.

The environment and safety management system was established centrally from the start, in order to guarantee uniformity throughout the Group via the coordination provided by the Corporate HSE function. In particular, HSE involvement in defining the preventive and corrective actions applicable at Group level, and in checking effectiveness at local level, has contributed to the maintenance and consolidation of the HSE system and to the creation of a team of HSE-qualified auditors within the Group.

Future developments will include further strengthening of the "central coordination" concept, with a view to transforming the environment and safety management system into a "multi-site" model that is certified by the Corporate Head Office in accordance with an annual audit plan. This change will maximise the efficiencies and synergies released by the revised system, especially in terms of improved performance and lower costs. In this context, the new Milan headquarters will be certified as a specific operating unit resulting, therefore, in its immediate inclusion in the multi-site model as the Head Office.

Among the common initiatives, the HSE function identified two projects – "Relamping with LED" and "Smart Metering", relating respectively to the replacement of traditional lighting with LED bulbs and the introduction of systems for the measurement of consumption at production units – to be pursued from 2016 onwards.

The HSE function activated the "Relamping with LED" project during 2016, giving priority to a number of operating units that have already had an energy audit, and has commenced the preparatory work. In order to ensure a consistent approach within the Group, the HSE function has distributed guidelines to all local organisations on the replacement of traditional lighting with LED bulbs. In addition, Prysmian has selected a partner for the performance of certain preliminary work, which includes checking adoption of the guidelines with reference to local legislative requirements and preparing technical specifications. Following this work, suppliers will be selected for the design and installation of the first LED lighting systems during 2017.

As a result of this project, electricity consumption will be reduced together with the operating costs of the lighting installations; depending on location, the estimated savings range from 10% to 70% of the current consumption for lighting purposes. LED technology has, in fact, a various advantages over traditional lighting sources, such as energy saving, an average life that is 6 times longer than traditional bulbs, easy maintenance and relatively rapid recovery of the initial investment.

In addition, during 2016 a number of pilot projects were launched at production units considered representative within the Group, in order to carry out a more detailed and specific analysis of energy consumption, considering the production, plant engineering and maintenance needs of each location, the types of supply, any existing restrictions and climate data. The objective is to determine if there are any plant engineering or operational solutions that would reduce energy consumption and the emission of pollutants.

November, energy efficiency month in Italy

The Group decided to participate actively in the initiatives carried out in Italy during November, which was labelled energy efficiency month. The Prysmian Group responded to this invitation in order to increase employee awareness about the importance of energy efficiency, by explaining the results of current and future projects at Group level and promoting new action on the topic of energy saving.

This campaign, promoted by the Ministry of Economic Development and implemented by the national agency for new technologies, energy and sustainable development (ENEA), involved institutions and companies in events intended to raise public awareness of the need to stop wasting energy. Our participation included seminars and work to analyse and reduce energy consumption and greenhouse gases, as well as adoption of the Smart Metering project. This project was launched with the preparation of Prysmian Guidelines that will be circulated to all local organisations in early 2017, in order to introduce systems for the measurement of consumption that will facilitate reporting on consumption and the savings made, as well as optimise the use of energy via the effect of constant monitoring. Smart Metering is a system based on sensors with a wireless interface that monitors energy consumption and facilitates the storage of data, so that aggregated data can be used subsequently.

MANAGEMENT SYSTEMS

During the year, the Prysmian Group continued work to coordinate the Group's HSE management systems by:

- extending OHSAS 18001 certification of the safety management system to an additional 5 locations, and ISO 14001 certification of the environmental management system to one additional location;
- upgrading the ISO 14001 and OHSAS 18001 certifications of Prysmian Power Link (the organisation that installs HV terrestrial and submarine cables), by extending their field of application to the design and supervision of production and by combining the ISO 14001 and OHSAS 18001 audits into one programme;
- adopting an integrated auditing system (two additional factories compared with 2015);
- using the official certification agency at factories previously certified by other agencies. In particular, during 2016, 4 factories changed to the official agency for ISO 14001 certification (regarding environment management systems) and 2 changed in relation to OHSAS 18001 certification. This change has helped to coordinate the management systems, with the periodic checking of the Group's HSE procedures by the external agency and the involvement of HSE in defining and agreeing the corrective actions to be taken at the various Group factories, 91% and 73% of which were, respectively, ISO 14001 and OHSAS 18001 certified at the end of 2016. These percentages take account of the new certifications mentioned above (5 additional locations with OHSAS 18001 certification and 1 with ISO 14001).

LIFE CYCLE ASSESSMENT

Implementation of the Life Cycle Assessment methodologies continued during 2016, with a particular focus on the carbon footprint aspects. The methodology chosen was to create an automatic assessment system that, by combining environmental information about materials and processes with the design data for the

various families of cable, determines their environmental impact in carbon footprint terms. Accordingly, the collaboration between HSE and R&D has been consolidated, with a view to bringing together the two types of information. The system will therefore enable rapid assessment of the carbon footprint of various types of cable, considering both the production of their raw materials and all the stages and processes in their manufacture, starting from within Prysmian to the final storage of the cable. The definition of the automatic assessment system will be completed during 2017, leading to the launch of a second phase involving initial practical use of the system in order to identify specific categories of cable for priority attention.

Restart of the Guatapé hydroelectric plant

Prysmian Mexico has successfully completed a massive recovery task – coordinated with two South American customers, Empresas Publicas de Medellín (EPS), a Colombian public utility, and Mexico's Federal Electricity Commission (CFO) – relating to the restart of the Guatapé hydroelectric plant. This plant, on Columbia's largest dam, supplies about 4% of the country's electricity. A fire seriously damaged many installations in February 2016 and, as a result, it was also found necessary to replace the 230kV cables previously supplied by Prysmian to EPS, but never installed. Acting as a mediator between customers from different countries, Prysmian facilitated transfer of the required cables between EPS and CFO. Given the great urgency of the operation, the transportation was organised using two Ukrainian aircraft. The recovery efforts, completed in June 2016, involved over 100 persons counting EPS employees and Prysmian professionals.

Pikkala factories open to visitors

A number of guided tours of the Prysmian factories in Pikkala (Finland) were arranged in September 2016, enabling many local residents to make contact with the business and understand better the work carried out by the Group in their country. In particular, the visitors – including many children – were able to find out how cables are designed and produced, and learn about the importance of safety in the workplace. The Pikkala factory is considered to be of great strategic importance to the Group, to the extent that it was chosen to hold the meeting with stakeholders scheduled for February 2017.

Alert! Not all cables are the same...

Prysmian Turkey's advertising campaign, launched in 2012 and now in its fourth edition, focuses attention on a different product each time. The objective for 2016 was to increase consumer awareness about cables for photovoltaic installations. Working together with Prysmian Germany, the Turkish division participated at the Solar Energy and Technology Exhibition – Solarex Istanbul at the Istanbul Exhibition Centre, where the impact of environmental factors on cables was discussed and consumers were helped to understand the risks associated with choosing the wrong cables.

COMMITMENTS FOR THE FUTURE

With reference to the HSE policy and use of the HSE management system, in recent years Prysmian has launched various initiatives intended to use resources efficiently and reduce the environmental impact of production processes at a number of factories (e.g. replacement of lighting systems, recycling of SF6,

awareness campaigns about the consumption of energy). These initiatives have generated various benefits in both environmental and cost reduction terms. In order to proceed in a systematic and orderly manner, the activities already started have been included within a Group project entitled *Energy Efficiency and Carbon Reduction*, which is coordinated centrally by the Corporate HSE function in order to:

- report increasingly precise and reliable data and information, at Group level, about consumption and greenhouse gas emissions;
- define improvement objectives, particularly in relation to the reduction of energy consumption and greenhouse gas emissions at Group level, involving Corporate and all other levels of the organisation in planning the initiatives and activities necessary in order to meet the commitments made;
- propose and launch energy efficiency initiatives consistent with the regulations (e.g. Directive 2012/27/EU on Energy Efficiency), the specific campaigns promoted at national level and, more generally, the commitments accepted at the Paris Conference on Climate Change COP 21;
- select and coordinate the specific projects to be implemented by the Group's operating units, in order to comply with Prysmian's commitments with regard to sustainability, while calibrating carefully the effort required with reference to local operating needs.

Interesting results have emerged with reference to the possible introduction of co-generation systems and review of the re-phasing logic for electrical installations. In order to increase the number of concrete results, these studies will be extended to additional operating units within the Group during 2017.

Based on the experience and positive results obtained following the energy audits carried out in prior years, during 2017 Group HSE will plan and coordinate further energy diagnostics, in order to obtain a database and information for the launch of similar efficiency improvement projects at other operating units within the Group.

With regard to management systems, the Prysmian Group plans to obtain additional OHSAS 18001 certifications and to obtain both ISO 14001 and OHSAS 18001 certifications for the Milan headquarters..

MAIN INITIATIVES TO LOWER ENVIRONMENTAL IMPACT

Power Cables

A process for the recovery and re-use of waste copper found in the sludge generated from the production of wire rod has been introduced in Rayong (Thailand). This process separates the sludge from the recoverable copper that, once collected, can be recycled as a raw material in the smelting process. Before implementing this process, a feasibility study was carried out to ensure that the recovered copper would not degrade the quality of the wire rod. Activation of this recycling process has therefore reduced the weight of the copper sludge, resulting in disposal of just that fraction of the sludge remaining after the copper has been separated out.

The water cooling plant has been replaced at Kistelek (Hungary), thus reducing the quantity of R422d refrigerant gas (a greenhouse gas).

The quantity of fluorinated gases has been reduced at the Slatina plant (in Romania) by replaced a number of refrigeration units with one centralised device. This device also reduces gas leaks and the necessary maintenance work. Action to improve the efficiency of water consumption has also been completed at this factory. This work, which commenced in 2014, had two distinct phases: initially, repair of the levelling systems for the water tanks (to avoid accidental discharges); subsequently, efforts concentrated on retaining the industrial water (including the cooling water for testing activities) within the recirculation circuits for a longer period, thus reducing the water replacement frequency. All these actions were carried out by the factory's Technical services, under the supervision of the HSE function. Lastly, the percentage of waste sent for recycling was increased during 2016 via a procedure that involves storing the waste for two days, so that the portion to be recycled can be separated from the rest.

Numerous improvements in the waste sector have been made at Gron (France), largely with regard to waste compounds, solvents that generate hazardous waste, packaging and water consumption. In particular, the water recirculation circuit has been improved.

Water consumption at Prysmian Berlin has been reduced by optimising the cooling system for certain process lines.

Action has been taken at Giovinazzo (Italy) to reduce the amount of waste compound disposed, by recovering and re-using waste polymers; in addition, water consumption has been optimised by repairing losses in the recirculation circuit for the waters used in insulation line processes.

Lastly, work has been carried out to reduce water consumption in North Dighton (USA) and Nieuw Bergen (Netherlands), by making improvements to the steam generator and a new water cooling system.

Accessories

The Slatina factory (Romania) has reached an important milestone by sending 100% of all waste generated for recycling.

Telecom Cables

In Nuremberg, Prysmian Germany has worked to reduce water consumption by installing wider diameter pipes in the water return circuit, thus avoiding excessive filling (and consequent overflows), especially during periods of heavy rain. This, together with the overflow control system, has reduced the need to replace the cooling waters used for processing purposes, as a specified volume of water can now be maintained in the circuit at all times.

PRESENTATION OF ENVIRONMENTAL DATA²⁵

Among the matters common to all operating units, Prysmian has selected those that are significant not only in environmental terms, but also in terms of its responsibilities towards employees and local communities, and as a competitive factor that contributes value to the Group. These aspects are considered significant and this Report presents indicators showing their importance:

- energy consumption, obtained as the sum of all energy sources used in manufacturing and service activities;
- water consumption, which is significant due to the large volumes needed for cooling in the various production cycles;
- hazardous and non-hazardous waste, with a potential impact on various environmental factors and very considerable importance in the assessment of process efficiency;
- ozone-depleting substances which, although small in amount, are present in almost every production unit, in order to prevent leakages and reduce their potential atmospheric impact;
- greenhouse gas emissions (GHG), primarily linked to the use of sources of energy and, to a very limited extent, to the use of greenhouse gases at certain stages of production;
- efficiency in the use of raw materials, given the intensive use of valuable metals, such as copper and aluminium, as an essential part of most production processes, as well as the amount of scrap generated.

Based on assessments and past experience, the Group does not report on the following aspects, which are considered to be less significant:

- waste water originating from cooling systems, if not contained within a closed-circuit system and if not requiring special treatment;
- atmospheric emissions generated by production processes, which are not especially significant in most cases.

Further details about the performance indicators and the scope and methods of reporting are available in the Attachments to this document.

²⁵ This data also includes estimates made using the best available methodologies.