

Prysmian and the environment

Commitment to safeguarding the environment and conserving natural resources is essential for the creation of sustainable value by the Group, 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.

Considering the environmental aspects deemed significant at Group level, Prysmian's Health, Safety & Environment function (also "HSE") worked with other business functions to establish the HSE objectives for 2015, which were endorsed by the Board of Directors. These objectives - and, where possible, the related numerical targets - were communicated to all country and business managers at an update seminar held in 2015.

During the year, the HSE function 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.

Once again, significant variables and indicators were 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 2015, once again, to the Carbon Disclosure Project (CDP), which 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 during 2015 at a number of European factories, deemed representative, in order to identify actions to improve energy efficiency and reduce greenhouse gas emissions. Methodologies are also being defined with a view to assessing the environmental impact of products and especially their carbon footprints, at the design stage.

About 160 inspections were carried out at the various factories during the year, including certification audits and certification maintenance audits, about 25% of which were carried out by experienced Prysmian personnel, while the rest was performed by auditors from external certification agencies. On top of this, 17 energy audits were conducted and internal auditors also visited various locations to check on specific matters. Territorial external agencies carried out periodic inspections too.

Significant events during 2015 included the investment of about 10 million euro in health, safety and environmental activities, a large part of which (about 3 million euro) was dedicated to the FOS "tri-generation" plant at the Battipaglia factory. This plant is estimated to have saved about 2,000 TOE in 2015 compared with 2014²⁵.

In addition to various training initiatives, Prysmian has managed and completed numerous other 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, 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 beginning, 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.

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 4 locations;
- using the official certification agency at factories previously certified by other agencies. In particular, during 2015, 16 factories changed to the official agency for ISO 14001 certification (regarding Environment Management Systems) and 4 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 63% of which were, respectively, ISO 14001 and OHSAS 18001 certified at the end of 2015. These percentages take account of the new certifications, following the extension of OHSAS 18001 Safety Management System certification to an additional 4 locations.

²⁵ TOE: Tonnes of oil equivalent. This data was estimated by reference to constant production levels, assuming that output in 2014 was the same as in 2015. With respect to the forecast made last year, the conversion coefficient used for the calculation has been updated in compliance with the relevant current legislation. The data considers the energy consumed at source in order to supply the Italian grid.

LIFE CYCLE ASSESSMENT

In order to achieve a more systematic analysis of the environmental impact of cables and other products, including in particular their carbon footprint, during 2015 the Group launched a project to apply Life Cycle Assessment (LCA) methodologies to the design tools used to define products, in terms of the materials to be assembled and the processing cycles required. For this purpose, HSE informed R&D managers and representatives about certain fundamental concepts that underpin the techniques for assessing the environmental impact of products, and then worked with IT managers to find the most suitable ways to apply them to the above design tools. The next stage of the preparatory work will consider materials and processes involved in more detail.

WORLD ENVIRONMENT DAY

On the 5th of June 2015, the Prysmian Group participated in the World Environment Day (WED) for the first time. WED is the main tool used by the United Nations to focus the attention of the public and political decision-makers on the global environment. The objective of the event is to pose environmental questions from a human standpoint, giving individuals the chance to play an active, leading role in achieving sustainable development. Various Prysmian locations organised initiatives in this light, ranging from plantings and gifts to employees who use eco-sustainable transportation, to efforts to save on the use of lighting. In particular, 52 factories took part in 17 countries, being Argentina, Australia, Brazil, China, France, Italy, the Netherlands, Russia, Turkey, Sweden, UK and factories in Asia – Indonesia, Malaysia, Thailand, Philippines, Singapore as well as the Milan headquarters.

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 to 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. However Prysmian has felt the need to continue in a more systematic and coordinated manner, focusing above all on the improved reporting at Group level of consumption and greenhouse gas emissions. The first concrete step in this direction was taken in 2015 by conducting 17 energy audits at European factories, in accordance with the requirements of the European Energy Efficiency Directive 2012/27/EU. These audits, which will be repeated periodically in future, were carried out at 16 selected factories, deemed representative of the various types of Prysmian production, and at the R&D laboratories in Milan.

The work, performed by experienced external auditors in coordination with the HSE function, identified areas for improvement at each location together with the related energy efficiency improvements to be made.

The HSE function has analysed the results of the energy diagnoses and classified the proposed work as follows:

- Common initiatives: applicable to all Group locations, to be scheduled for all countries/regions over the next 3-5 years, on the basis of established priorities, via central projects coordinated by the corporate HSE function;
- Local initiatives: to be scheduled and managed directly by the individual production units;

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- Future initiatives or developments: to be considered and including in forthcoming HSE plans at Group level.

Among the common initiatives, the HSE function has decided to coordinate centrally the project to replace the traditional lighting at factories with LED bulbs. This project will be launched during 2016, starting at the factories designated as priority locations by the HSE function. As a consequence, electricity consumption will be reduced together with the operating costs of the lighting installations. LED technology has, in fact, 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.

With regard to Management Systems, the Prysmian Group plans to implement six new OHSAS 18001 certifications in 2016, as well as one ISO 14001 certification.

MAIN INITIATIVES TO LOWER ENVIRONMENTAL IMPACT

Power Cables

A factory scrap reduction programme in Cebu, Philippines, during 2015 has drastically reduced the volume of non-hazardous waste mixture (37% reduction in the quantities disposed per tonne of product, compared with 2014). The main efforts were made on the extrusion lines, linking the results with a series of bonuses for those who achieved scrap reductions.

At the Delft factory, the Netherlands, there were significant reductions in the quantities of spent oils (37% reduction in quantity per tonne of product compared with the previous year) and spent emulsions (23% reduction per tonne of product compared with 2014). A consultant has also been appointed to optimise the management of process oils. In addition, improvements in the maintenance of the conduits for the drawing lines have reduced emulsion losses, which were disposed of as waste in previous years. Again in 2015, the steam generator was replaced by new one that, by requiring less water, generates lower emulsion losses (also previously disposed of as waste).

At the Gron factory, France, there was a marked decrease in the spent solvent sent for disposal (about a 54% reduction in quantity per tonne of production in 2015 compared with the previous year). This decrease was made possible by replacing the use of solvents with other washing methods and materials including, specifically, electric brushing and washing with hot water and detergent.

At the North Dighton factory, United States, there was a major reduction in water consumption (35% decrease in consumption per tonne of product compared with 2014) following replacement of the heat recovery system.

The consumption of water per tonne of product also fell at the Sorocaba energy plant, Brazil (down 24% compared with 2014). This achievement was assisted by the automation of the water supply system for the tower, which has resulted in avoiding overflow losses that need to be replaced. Previously the water level was topped up manually.

Again in Brazil, the reduction in water consumption at the Vila Velha plant (58% decrease per tonne of product in 2015 compared with 2014) was due to reusing the same tank of water for multiple product immersion tests.

The condition of water used in the test tank deteriorates with use. For this reason, unfortunately, additives must be purchased to extend its useful life, which means that even more tests can be carried out.

At the Santa Perpetua factory, Spain, the quantity of water used per tonne of product was reduced by 27% compared with the previous year, due to:

- a steam recovery system;
- the improved water treatment, enabling the circuit valves to be kept closed for longer, thus increasing the reuse of water and reducing consumption;
- improvements in the osmosis membrane operating conditions at the water treatment plant, resulting in a reduced quantity of discharges.

Lastly, at the Slatina factory, Romania, a reduction in the packaging sent for disposal (47% decreased in quantity per unit of product) was due to more massive reuse previous to disposal.

Telecom Cables

At the Calais factory, France, the consumption of water per km of product was reduced by 36% in 2015 compared with 2014. This was primarily achieved by improved supervision of the functioning of the technical plant and better preventive maintenance of key plant equipment (filters, pumps etc.), but also by keeping a daily record to monitor water consumption.

At the Nurnberg factory, Germany, electricity consumption per tonne of product fell by 19% in 2015 compared with the previous year. This was made possible by replacing the dryers and reducing the losses from the compressed air system.

The use of a new type of ink that fixes better at the Washington factory, United Kingdom, reduced the need to clean with solvents and the consequent dispose of them, thus cutting by 76% the quantity of waste solvents compared with the previous year.

Telecom operating unit at the Slatina factory, Romania, also benefited from the drastic reduction in packaging sent for disposal observed at Energy unit.

Optical Fibre

In 2015, at the Eindhoven factory, the Netherlands, there was a marked increase in the quantity of germanium-based waste sent for recycling. The recycling of this chemical element commenced in 2009, as a result of combined efforts with the local supplier of raw materials and vegetable fibre.

This action is particularly meaningful, since germanium is a precious substance and its recycling therefore falls within the factory's sustainability programme.

Additionally, two new operational flows have increased by almost 40% the volume of germanium recycled: the first flow consists of scrapped fibres that are processed in order to extract the germanium; the second flow, on the other hand, uses the PCVD (Plasma Chemical Vapour Deposition) process to separate a substance that is collected in order for the germanium to be recovered at the premises of our suppliers.

The recycling yield from these two flows is expected to improve further, and another flow will be explored in the near future.

At the same location, 25,713 kg of optical fiber on bobbins were sent for recycling in 2015.

PRESENTATION OF ENVIRONMENTAL NUMBERS

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 to the value of 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 gases emissions, primarily linked to the use of energy sources 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 of 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 generated 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.