

SUSTAINABLE DEVELOPMENT:

ALSTOM'S SOCIAL RESPONSIBILITY

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The Content of the Annual Financial Report is identified in the summary table with the help of this pictogram

This section presents Alstom's sustainable development strategy, action plans and achievements as well as environmental, social and societal information as requested by Article 225 of the law No. 2010-788 dated 22 July 2010, so-called "Grenelle II", and as per the Decree No. 2012-557 dated 24 April 2012 related to the obligations for companies on transparency in environmental and social matters.

SUSTAINABLE DEVELOPMENT STRATEGY

A PROACTIVE POLICY OF CORPORATE SOCIAL RESPONSIBILITY

Global challenges can become strategic opportunities

The world is now facing strong, rapidly evolving demographic, environmental and economic dynamics, resulting in growing environmental and social challenges:

- The latest projections from the United Nations estimate that the world's population is expected to grow from 7.1 billion to over 9.5 billion people by 2050 ⁽¹⁾. Due to this economic growth the mobility needs will increase. Both passenger travel distance and commuting time per capital are expected to double by 2050 ⁽²⁾.
- Over 60% of the world's population will live in urban areas by 2050 ⁽³⁾. This pressure requires careful planning of urban areas and infrastructure to deal with collective mobility needs in densified areas. At the same time, the social gaps are likely to be accentuated, both in cities subject to unprecedented urban sprawl and in rural areas where poverty is still largely concentrated and where populations are isolated. Strategies to improve standards of living must encompass the improvement of service delivery, including transport systems ⁽⁴⁾.
- Demographic and economic growth has increased emissions of greenhouse gases and the pressure on natural resources for decades, leading to substantial climate change. The magnitude of these changes and their consequences are still largely unknown today. The agreement concluded at COP21 ⁽⁵⁾ in Paris (France) in December 2015 by 195 countries confirms the objective of keeping the temperature rise threshold well below 2°C compared to pre-industrial levels. It also aims at building a green fund mechanism to help affected countries in mitigating the consequences of global warming. The pursuit of these objectives should lead to the development of regulatory and normative constraints in many countries and major investments in infrastructure.

Alstom considers that its mission is to contribute to the transition towards more sustainable transport systems by designing and producing innovative rail solutions which are environmentally efficient and attractive throughout their entire life cycle. By integrating sustainability in its strategy and processes, Alstom anticipates environmental and social challenges, manages the risks and opportunities they entail and ensures long-term growth both for the Company whilst contributing to the development of society as a whole.

The interaction between economic development, environment and social needs urge each actor to adopt a holistic approach that enables the Company to:

- identify and assess future and emerging markets and anticipate stakeholders expectations;
- avoid defensive costs – for instance, linked with a non-compliance with international or local legislations and standards, or with expectations from customers, investors and civil society;
- strengthen its reputation and mobilise its internal human resources;
- generate product and process efficiency gains to anticipate needs of the society.

This approach, focused on continuous improvement and risk management, means staying one step ahead to better grasp all the Company's sustainable development issues. This position gives Alstom the means to define and implement an integrated Sustainability & CSR policy.

The first CSR policy of Alstom was published in 2013. It was updated in March 2016 to fully reflect sustainable development issues of the railway business on which the Company has now refocused. This policy, described hereafter, is available on www.alstom.com.

An integrated Sustainable Development and Corporate Social Responsibility (CSR) policy

Alstom's Sustainable Development and CSR policy is at the heart of its 2020 strategy. It is based on four main axes, guided by quantified and assessed objectives and is cascaded in all its operations and wherever Alstom teams are located through a set of action plans.

Alstom strives to:

- **act as a stakeholder-oriented organisation:**
 - assess customers' expectations and adapt its offering accordingly,
 - involve itself in the life of local communities,
 - be recognised as a responsible company;

(1) UN World Population Prospects: The 2015 revision.

(2) UN World Urbanization Prospects, World Business Council for Sustainable Development.

(3) UN World Urbanization Prospects, the 2014 Revision.

(4) An overview of urbanization, internal migration, population distribution and development in the world, United Nations Population Division, 2008, p.5.

(5) Conference of the Parties (COP) organised by the United Nations Framework Convention on Climate Change.

- **develop solutions for sustainable mobility:**
 - promote electrical and shared transport,
 - deploy ecodesign processes,
 - integrate green innovation to lead on energy efficiency in its solutions;
- **manage its operations in a responsible way:**
 - ensure safety excellence with and for its employees and contractors,
 - continuously reduce the environmental footprint of its operations,
 - develop a sustainable supply-chain,
 - respect human rights;
- **build a culture of diversity and integrity:**
 - enforce the highest ethical standards,
 - promote and implement diversity in its various forms,
 - develop Alstom as a great place to work.

The action plans related to this policy are outlined both in the sections related to “Sustainable mobility solutions”, “Environmental performance”, “Social performance” and “Relations with external stakeholders”.

A dedicated organisation at all levels of the Company

The implementation of Alstom's Sustainable Development and CSR policy is defined and monitored by the Sustainability team. This Department is under the responsibility of the Senior Vice President Human Resources on the one hand and of the Strategy Department on the other hand, placing sustainable development at the heart of the organisation. Sustainable Sourcing, Ecodesign, Social, Environment Health and Safety policies are deployed in the corresponding functions of the organisation and are consistent with the global sustainable development approach.

Within the Board of Directors, the Ethics, Compliance and Sustainability (ECS) Committee has been closely following the Company's Sustainability policy and actions since 2010. This Committee meets three to four times a year to review and assess the Company's strategy, policies and procedures on topics related to sustainable development and corporate social responsibility (see Chapter 5 Corporate governance – Chairman's report, Section “Board Committees” p. 173).

The sustainable development three-year action plan is submitted and reviewed twice a year by the Company management. The Sustainability Steering Committee, including members from Human Resources, Sourcing, Marketing, Innovation, Sustainable Development, Environment Health and Safety and Communication Departments, meets on a quarterly basis to oversee and monitor progress on the initiatives, and coordinate deployment of transverse Sustainability & CSR activities.

Alstom's sustainable development approach is implemented through a set of programmes that combine general and specific objectives, whilst leaving room for local initiatives.

Implementation of the CSR policy in Regions is deployed by the local network which is progressively developed. Its role is to locally implement Alstom policies and process, to represent the Company and to develop relations with local institutions, organisations and communities. In all the Company's main countries of operation, the Country Managing Director is assisted by a CSR correspondent in connection with the central team. This local support organisation guarantees a good understanding of local social needs and environmental challenges. The objective is to spread and share the Alstom sustainability vision within the organisation so that everyone knows and understands it, commits to it and actively participates in it.

Evaluation of Sustainable Development policy *versus* stakeholders' expectations

Corporate Social Responsibility actions by the Company are increasingly expected by:

- its customers (increased importance of Sustainability criteria in tenders);
- its employees;
- public authorities (emergence of new Sustainability regulations);
- its shareholders and potential investors.

This year, in order to clarify these expectations and to evaluate the relevance of Alstom's Sustainability and CSR policy, the Company undertook a revision of its materiality assessment which was initially established in 2013. This evaluation aimed in particular at:

- updating the existing materiality matrix for the new scope of Alstom, a pure player in transport, and identifying potentially emerging issues with a three-five years time horizon;
- evaluating the importance of these sustainable development challenges for stakeholders and their impacts on Alstom performance;
- reinforcing transparency and focusing reporting efforts on the most material issues for the business;
- adjusting the Alstom Sustainability and CSR strategy by 2020.

Out of a large number of potential sustainable development challenges, the 16 most relevant ones to Alstom's business were selected, according to the Company's strategy as well as internal risk mapping. They were classified into five areas (Governance, People, Operations, Products & Services and Society).

The evaluation was based on internal and external interviews conducted by a consultant with internal and external stakeholders (including customers, shareholders, industry associations, suppliers, NGOs, partners, representatives of media, public authorities...).



More details on Alstom's CSR materiality matrix – and the related methodology – are available on www.alstom.com.

This analysis is shared with the Sustainability Steering Committee in order to identify strategic plan's adjustment needs.

Evaluation of the Company's CSR performance by independent third parties

Alstom's Corporate Social Responsibility performance is regularly measured by various rating agencies with different methods and criteria. These evaluations help to identify and analyse areas of improvement.

- Alstom was evaluated in September 2015 by RobecoSAM for the Dow Jones Sustainability Indices (DJSI). The company was selected for the fifth time in a row as an index component of the DJSI – World & Europe –. The rating agency attributed the rating of 76/100 to the sustainability performance, a score well above the average of the global Electrical Equipment sector part of the index. This year, Alstom distinctly improved in the fields of strategy for emerging markets, tax strategy, product stewardship and operational eco-efficiency. More information on www.alstom.com.
- Alstom was awarded "prime" status by the German firm Oekom Research in its 2015 ranking of the leading companies in terms of Corporate Social Responsibility (CSR) in the Electrical Equipment category. Alstom thus retained the status initially obtained in 2012.

The "prime" status under the methodology of Oekom means that the shares and bonds of the company will meet the sustainable investment requirements of their customers. Among the main assets of Alstom, Oekom highlighted health and safety of employees on the social side and resource-preserving production, eco-efficiency and product liability on the environmental side.

- Following its previous assessment in 2013, Alstom's sustainable development performance was assessed by Ecovadis in January 2016. The company improved its score and achieved the highest possible recognition by obtaining a "Gold" status. Alstom is ranked among the 5% best rated companies of this platform.

Through these local community activities and those of the Alstom Foundation, Alstom seeks to act and to be recognised locally as a responsible company. For instance, in 2015 and for the third year running, the Company received the *Distintivo ESR* – Socially Responsible Company award from the Mexican Centre for Philanthropy (CEMEFI).

FACING CLIMATE CHANGE

Climate change is one of the biggest challenges facing the world this century. Alstom wants to contribute to the mitigation of climate change impact risks from a business perspective and is, therefore, following closely the United Nations Framework Convention on Climate Change (UNFCCC) negotiation process through its membership of organisations such as the Sustainable Low Carbon Transport Partnership (SLoCaT) and the Union of European Railway Industries (UNIFE). Alstom participated in the UNFCCC's 21st Conference of the Parties (COP21) in December 2015 in Paris (France). In particular, the Company has contributed to the visibility of transportation issues and the promotion of sustainable mobility at the COP21 through its support to the Paris Process on Mobility and Climate (PPMC).

By advising governments on sustainable mobility and technology innovation, the Group takes serious steps in supporting a low-carbon future. By offering railway solutions that are ever more efficient, environment-friendly and attractive, Alstom is contributing to the transition to sustainable transport systems.

Risks

For several years, an annual risk assessment review has been performed as part of the annual budgeting and three-year plan process. The objective is to identify, analyse and anticipate the significant risks of the Company. This risk mapping now integrates "Climate change risk".

In order to address the climate change challenge, Alstom implemented in fiscal year 2013/14 an assessment of the potential impact on its manufacturing activities, sites and buildings of extreme weather conditions such as tropical cyclones, extra-tropical cyclones, hail storms, storm surges, flash floods and tsunamis. The evaluation method took into consideration facilities with property damage and business interruption insurance values of over €50 million. It took into account geographical risk indexes and probability ratios provided by insurance companies, in order to identify the most exposed company facilities.

Based on this risk evaluation, Alstom launched improvement actions wherever necessary. For example, the La Rochelle facility in France, which is located near the coast and exposed to storm risk, drew up a plan to trigger specific protection measures when facing exceptional weather conditions.

The risk analysis will be updated in the course of the year to take into account the evolution of the Company's industrial footprint (e.g. the integration of sites from the former General Electric Signalling and the construction of new industrial sites) and climate data.

Opportunities

The Paris Agreement is a major step forward in the global fight against climate change. Indeed the COP21 process has allowed a rather ambitious vision to emerge with the objective of keeping global warming well below +2°C and of reaching a balance between emission sources and sinks before end of the century.

The increased visibility of climate change consequences will drive the actions of governments and regulation bodies to limit the magnitude of this climate change by reducing greenhouse gas emissions whilst anticipating the consequences of its future evolution. Notably for the transport sector, the Lima Paris Action Agenda (LPAA) process implemented within the framework of COP21 and the numerous associated events, including the dedicated Transport Day, have given unprecedented visibility to the sector in 2015. From an international standpoint, transport is now clearly recognised overall as a sector which contributes significantly to worldwide emissions whilst offering a great potential to curb them.

For Alstom, rail is clearly positioned today among motorised transport emitting the lowest carbon emissions by transported passenger. For instance, in 2015, the analysis "Sustainable cities and Climate Change – French international projects", completed by Vivapolis ⁽¹⁾, estimated that the carbon footprint reduction over 30 years as a result of Line 1 of Panama metro amounted to 64,000 tons annually compared with the reference scenario, thereby representing an 83% reduction. This clearly illustrates the carbon benefit potential from enhanced urban rail transport.

The main opportunities regarding climate change are linked to:

- a reinforced need to decarbonise transport and shift to electrical and shared mobility;
- further integration of transport targets and action roadmaps in the Intended Nationally-Determined Contributions (INDCs) of which a large proportion already identify transport as a key mitigation source to reach the objectives;
- financing sustainable transport projects that generate major energy savings and greenhouse gas emissions reductions but also bring benefits in terms of air quality, reduction of congestion, local growth, safety...;
- adaptation of transport systems: resilience to climate change must be taken into account in the design of new infrastructure whilst existing systems must be assessed and adapted.

Alstom is well prepared to benefit from new opportunities arising from the reinforcement of public policies around climate change.

In 2015, Alstom also announced its objectives to contribute to the global reduction of CO₂ emissions through energy consumption reduction in its transport solutions (see p. 218) and through reductions in the energy intensity of its operations (see p. 221). Alstom is the first rail manufacturer to define a global energy efficiency performance indicator, systematic simulation methods and a reduction target. Its objectives have been lodged as commitments in the United Nations platform for non-state actors (NAZCA). The results delivered in 2015 are in line with these ambitions.

(1) Common brand gathering French public and private actors promoting a shared ambition for urban sustainable development at international level.

Alstom also supports the Low Carbon Rail Transport Challenge presented by the International Railway Association (UIC), gathering 240 members on six continents. Its targets are, amongst others, to:

- reduce final energy consumption from train operations by 50% by 2030 and 60% by 2050, relative to a 1990 baseline;
- reduce average CO₂ emissions from train operations by 50% by 2030 and 75% by 2050, relative to a 1990 baseline;
- achieve a 50% increase of rail's share of passenger transport (passenger/km) by 2030 and a 100% increase by 2050, relative to a 2010 baseline ⁽¹⁾.

In 2015, Alstom also completed a carbon footprint assessment of its tramway solutions compared with urban transport alternatives which demonstrated that:

- tramway systems have a carbon footprint which is half that of a diesel bus rapid transit system; ⁽²⁾

- the optimised tramway system ATTRACTIS™ allows emissions of CO₂ from construction to be reduced by more than 20% compared with a standard tramway system.

Finally, in terms of adaptation, Alstom is able to propose resilient solutions to climate change. For example, in the context of the Sydney tramway project, Alstom has completed for the first time an analysis that demonstrated the strong resistance capacity of its transport system when faced with extreme weather conditions, thereby validating its resilience to climate change.

Furthermore, the Dubai Tramway (United Arab Emirates) constructed by Alstom is the first tram in the world able to run in temperatures of up to 50°C and to withstand the harsh climate conditions which include high humidity and a sandy atmosphere.

DEVELOPING IN EMERGING MARKETS

Driven by population growth and urbanisation, the market in emerging countries is developing at a fast pace. Major cities are rapidly expanding, which creates strong needs for efficient transport solutions.

Alstom's development in emerging markets is a main driver for its growth. As a global player, the Company has a major presence in all leading growth economies. This does not mean only a commercial presence, but also significant R&D, engineering, manufacturing, project execution and service activities. The share of emerging markets in Alstom's headcount, capital expenditure and orders has increased in recent years, and will remain at a high level in the foreseeable future, in order to accompany the increased transportation solutions needs in these markets. Here are a few examples of what Alstom has achieved.

In recent years, the Company has accelerated the development of its international footprint, notably in emerging countries. It continued to develop its engineering centre in Bangalore (India) and its production site in Chennai (India), created a hub in Istanbul (Turkey) in 2014 and opened a new production line for the CITADIS™ tramway in Taubate (Brazil) in 2015.

Alstom has developed strategic partnerships with key actors, examples of which are:

- Russia: the local company Transmashholding (TMH);
- South Africa: several local companies within the joint-venture Gibela;
- Algeria: creation in 2011 of a joint-venture, Cital, for maintenance and assembly of trams;

- China: participation in the joint-ventures CASCO (signalling), SATCO (metro & tramway), SATEE (traction), XAYEECO (engines) and AQREC (shock absorbers);
- Kazakhstan: majority participation in the EKZ joint-venture for the production of locomotives.

In addition, Alstom plans to develop the presence of its commercial and industrial sites while adapting them to the needs of each region.

Alstom's organisation is designed to ensure close proximity to its customers: Alstom is divided into Regions which cover the full value chain, spanning bid preparation, project execution and after sales for trains and infrastructure. This new organisation brings significant empowerment of the Regions. As part of its Strategy 2020, Alstom is seeking to strengthen its cultural diversity and promote the mobility of its international talents, especially in respect of emerging countries. This is reflected, in particular, in the Company's ambition to have the nationality of middle management and the talent pool reflecting Alstom's business.

By reinforcing its local footprint, Alstom will benefit from the growth potential in these local markets and the associated increase in pricing competitiveness. The establishment of new engineering centres and production sites outside Europe will enable the Company to significantly reduce its engineering and production costs whilst maintaining its level of excellence.

Furthermore, Alstom is pursuing the localisation of its sources of supply in order to improve the competitiveness of its solutions by reducing delivery times, by benefiting from the optimised cost base and by limiting its exposure to currency fluctuations.

(1) UIC.

(2) Assessment carried out for a reference case in Belgium considering emissions from construction and operations.

SUSTAINABLE MOBILITY SOLUTIONS

ANSWERING THE SUSTAINABILITY CHALLENGES OF TRANSPORT

Worldwide demand for mobility is growing steadily in connection with demographic changes, urbanisation and economic development. Everywhere public authorities are concerned about the environmental impacts of transport: traffic jams, air pollution, noise, climate change and depletion of energy resources.

Alstom is convinced that only electrical, shared, fluid, connected mobility can allow mobility needs to be met in a sustainable way. Indeed the benefits of rail transport in terms of air pollution, use of space, safety, energy efficiency and CO₂ emissions make it a true sustainable alternative to road transport and a key player in the development of global sustainable transport systems.

Alstom designs and delivers comprehensive, efficient and sustainable railway systems and strives to reinforce their attractiveness while reducing their lifecycle cost.

Favouring access to mobility for all and contributing to urban development

Access to transport is a key competitiveness factor for economic actors and a key challenge for unprivileged populations.

In France it is estimated that about 20% of the working population has difficulty accessing transport ⁽¹⁾, while in emerging countries this percentage can amount to as much as 80% ⁽²⁾. Public transport infrastructure provides people with no access to individual mobility modes with the means to access job opportunities, medical support and education and cultural services.

Urban congestion costs annually about 1% of GDP in Europe ⁽³⁾ and even more in cities in emerging countries as a result of the loss of useful time and reduced productivity of the travellers. In cities well equipped with public transport and favouring soft modes, transport costs for the community can be cut by half. ⁽⁴⁾

Alstom is developing urban transport projects that actively participate in cities' sustainable development, offering access to transport to all inhabitants, promoting social inclusion and maximising transport capacity while limiting the footprint:

- Tramway projects can provide a transport capacity which is two or three times higher than that of a bus line using the same surface area and favour social inclusion by creating a physical link between different neighbourhoods of a city. They often also give the opportunity to enhance the urban landscape through the renovation of roads and a more balanced use of public space promoting soft mobility for increased attractiveness of the territory.

For instance in Casablanca, Morocco, the tramway project delivered by Alstom in 2013 led to the renovation of 32 km of sidewalks, the creation of 10 hectares of pedestrian areas and the plantation of 4,000 trees resulting in a global upgrade of served areas. The line, which is the longest one worldwide built in a single stretch, allows less developed parts of the city to be connected with the city center. Inhabitants of the city largely benefit from the project as demonstrated by a 30% increase in ridership between 2013 and 2015.

- With a capacity of transport of up to 100,000 passengers per hour per direction, metro systems offer a transport capacity that no other means can reach. They even retain the potential for significant enhancement in order to accommodate the future developments of growing cities. For example, Panama Line 1 delivered by Alstom in 2014 demonstrates a significant increase of ridership with more than 200,000 passengers per day which has led the authorities to announce, in December 2015, an extension of the project to increase the trainset configuration from three cars to five while adding six new trainsets to the network.
- For the long daily journeys within expanding suburban areas, Alstom's suburban trains and tram-trains in service on urban networks and main lines offer comfortable and reliable high-capacity public transport solutions. Regional trains provide efficient daily commuting services between new urban areas and connect territories thereby contributing to their economic growth.

Reducing environmental impacts from transport

The transport sector today represents 28% of final energy consumption worldwide and 23% of CO₂ emissions from fuel combustion ⁽⁵⁾. Between 1990 and 2011, energy consumption and CO₂ emissions from transport have increased by more than 50% following, in particular, the development of road transport ⁽⁶⁾. In order to reach the ambition stated in the Paris Agreement to keep climate change below +2°C ⁽⁶⁾, it is crucial to favour transport modes that have the lowest carbon footprint.

Rail transport is already one of the most energy efficient transport modes. Worldwide, rail consumes only 2% of transport final energy whilst carrying 8% of global passengers and freight ⁽⁵⁾. This good performance reflects the intrinsic efficiency of rail transport. Further development of clean and renewable energy sources will bring further environmental efficiency to the rail sector.

(1) *Secours catholique* (Caritas France) – *La Fracture Mobilité* 2014.

(2) International Transport Forum 2011 – *Transport to Society*.

(3) European Commission web – urban mobility section 2015.

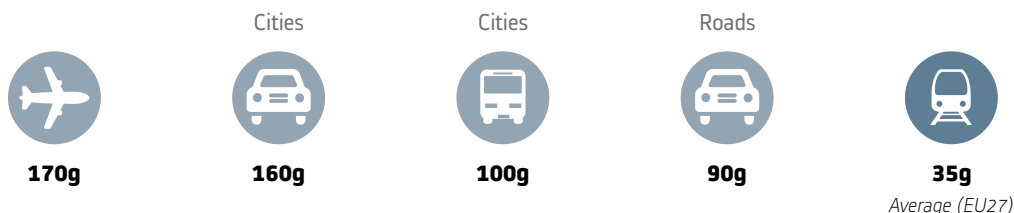
(4) UITP.

(5) UIC – IEA Railway handbook on energy consumption & CO₂ emissions 2015.

(6) Target set by the UNFCCC for the century.

Regarding CO₂ production, emissions per passenger moved by rail are on average substantially lower than those of any other transport mode.

CO₂ EMISSIONS PER PASSENGER PER KILOMETER



Sources: For rail EU27: UIC- IEA Railway handbook 2015 / for other modes – French Ministry of Environment, SNCF, RATP, and UK DEFRA.

In this context, Alstom requested the consulting firm Carbone 4 to complete a carbon footprint assessment of tramway systems *versus* alternative urban transport solutions. This demonstrated that, when taking into account construction and operations over 30 years, tramway systems emit half as much as diesel bus rapid transit systems and about 30% less than bus rapid transit operated with hybrid buses ⁽¹⁾.

Finally, air emissions from road transport – especially fine particles resulting from diesel combustion and wheel usage as well as NO_x and SO_x – contribute significantly to the poor air quality in big cities. Direct emissions from operations of urban trains are very significantly lower than these generated by buses. The Carbone 4 – Alstom survey demonstrated that the avoided fine particles emissions of a tramway line *versus* bus operation can amount to 300 kg per year and per line.

In this context, Alstom proposes attractive, high capacity solutions which encourage the transition to more sustainable transport modes and promote electrical and shared mobility.

Promoting electrical and shared mobility

Today 80% of passenger traffic on European railways is already powered by electricity. Nevertheless, Alstom is continuing to adapt its offering to propose alternatives to diesel trains on non-electrified lines.

Alstom is developing a new generation of emission-free regional trains equipped with fuel cell drives. Since 2014, Alstom has signed Letters of Intent for this project with the German *Länder* of Lower Saxony, North Rhine-Westphalia, Baden-Württemberg, and the Public Transportation Authorities of Hessen. The new trains will be based on the CORADIA™ regional train. They will be completely emission-free and their noise level will be drastically reduced, compared with the diesel version. Furthermore, the new trains will consume less energy, through energy storage as well as an intelligent energy and power management system. The new traction chains powered by fuel cells are currently being bench-tested. Two prototype trains will be tested in operational conditions in 2018.

Alstom has also designed the PRIMA H3™ hybrid shunting locomotive, combining the use of a diesel generator, electric traction and batteries. This technology reduces fuel consumption by up to 50% compared to conventional solutions and facilitates indoor operations by limiting emissions and reducing noise. The five first hybrid locomotives were delivered in 2015 to Volkswagen and are now in service.

For urban systems, Alstom has also developed SRS™, a new catenary-free solution. The SRS™ solution allows fast charging of a large portfolio of vehicles equipped with onboard energy storage during normal dwell time through a compact and discreet device located in the ground. It can be adapted to tramways equipped with on-board energy storage as well as a large range of electrical buses. In this latter case, power supply is provided through ground-based charging slots at stations or at the terminus. The SRS™ technology is already proven, safe and reliable because it is derived from APS™, the ground power supply solution developed by Alstom.

Optimising transport systems

The cost and construction duration of infrastructure are key challenges for the development of rail transport. Alstom develops solutions that allow the construction and use of infrastructure to be optimised.

Optimising existing infrastructure usage to adjust transport capacity

For automatic control of metro operations, the signalling system URBALIS™ Fluence developed by Alstom ensures maximum operational availability. Thanks to new ground equipment architecture, failures are rarer, potential affected areas are reduced and operation in degraded mode is facilitated. Increasing on-board intelligence allows the interval between trains to be reduced down to 60 seconds which allows the transport capacity to be increased without touching the railway infrastructure.

Besides, thanks to the homologation programme for the Regiolis trains which are part of the CORADIA™ range, SNCF and French Regions can now operate their regional fleets in multiple units of three and four trainsets, enabling greater flexibility in line with peak travel times. Since January 2016, SNCF and the Region of Picardy offer a daily return service between Laon and Paris (France) for 1,000 passengers, thanks to the use of Alstom's Regiolis trains, CORADIA™ Polyvalent platform designed for French regions, in multiple units of three.

The PENDOLINO™ is another versatile train that allows higher speeds in all the configurations that can be found between the regional railways and the very high-speed systems. When passenger traffic or other reasons do not justify the construction of a very high-speed line, this train offers the best way to cut travel times while optimising use of existing infrastructure.

(1) Reference case in Belgium.

Finally EURODUPLEX™ is the only double-decker very high-speed train in the world. It can carry between 20 and 40% more passengers than single deck in high comfort.

All these examples demonstrate Alstom ability to support its customers in making the best use of their transport infrastructure.

Optimising systems to facilitate new infrastructure projects

In order to facilitate integration of projects in urban areas, Alstom is also committed to the development of optimised and efficient turnkey solutions:

- ATTRACTIS™, Alstom's new tramway system, can be delivered in a record time of 30 months (for a 12 km line) thanks to optimised project management and new construction methods. The turnkey system includes the CITADIS™ tramway, roadway works, infrastructure (tracks, electrical supply, stations and information systems), monitoring systems, ticketing and maintenance depot. This solution allows investments to be cut by up to 20%, nuisances associated with building a project in the very heart of a city to be reduced and the carbon footprint of construction to be lowered by more than 20% (through a reduction in material quantities) compared with standard systems.
- AXONIS™ Alstom's light metro system which is economical, quick to build and fits smoothly into the cityscape, is particularly designed for cities with high population density and rapid expansion. This unique fully integrated metro solution combines Alstom's most efficient standardised and optimised metro sub-systems together: the METROPOLIS™ range of rolling stock, URBALIS™ signalling, HESOP™ energy recovery system as well as infrastructure built on viaduct sections made from precast modules for swift construction and sections at street level or possibly in tunnels.

Additionally, the APPITRACK™ automated track laying technology makes it possible to install tracks four times faster than with traditional methods, and ensures efficient installation while reducing works-related disturbances.

Developing smart and multi modal systems

Alstom is convinced that rail infrastructure must create the backbone of transport systems with interconnected information systems. For instance, Alstom's optimised tramway system ATTRACTIS™, is already compatible with ITxPT (Information technology for Public Transport), an initiative to define an open IT architecture for Public Transport. It allows interoperability between transport information systems, harmonises multimodal integration of urban transport systems and offers passengers innovative mobility services.

Alstom also launched a full digitalisation programme that aims to enhance the great potential of digital technologies to develop connected trains and propose new services with high added value.

In this frame, Alstom organised in March 2016 a hackathon based on the connected metro, in collaboration with École 42, a French computer programming school in Paris. Having access to public data for transport systems and Paris city as well as data extracted from existing metro trains, teams had 48 hours to come up with a design for how the metro will look like in 2030. The ambition was to identify how digital applications can be applied to an urban transport system in existence for over a century in order to offer connected mobility thereby revolutionising the passenger experience through prototype mobile applications, services and the IoT (Internet of things).

DESIGNING SUSTAINABLE RAILWAY SYSTEMS

For its products and services, Alstom consistently promotes a lifecycle approach in order to maximise environmental and economic benefits over time.

Ecodesign for products and services

The priorities set in Alstom's ecodesign policy focus on:

- energy efficiency of rail transport systems;
- reduction of noise and vibrations;
- use of clean, recyclable, and natural materials;
- reduction of air emissions;
- end-of-life management of products, particularly in maintenance activities.

This policy is deployed in design processes which ensure compliance throughout project execution, supported by a network of more than 100 experts (eco-designers, acoustics experts, materials experts, energy engineers, etc.).

2014 saw the first implementation of environmental performance dashboards to record baseline performance of reference solutions and track progress *versus* targets. These dashboards are progressively

deployed for urban trains and main lines and will be extended in the future to infrastructure and systems solutions.

Lifecycle assessments are conducted to identify significant environmental aspects, identify improvement areas and help with technical choices in many projects, such as new metros or tram-trains and the Regiolis version of the CORADIA™ Polyvalent platform designed for French regions. Environmental Product Declarations provide stakeholders with an in-depth picture of environmental impacts throughout the lifecycle. In 2015, Alstom has published three declarations demonstrating the performance of CORADIA™ Polyvalent (regional train), Montreal Metro and CPP4 URBALIS 500 (electrical equipment from a metro signalling solution).

In 2015, extensive efforts were pursued to rationalise and optimise practices in terms of lifecycle assessments across the platforms, which will help deploy lifecycle assessments in a more efficient and systematic way in the future. A common method of environmental analysis based on the results of life-cycle assessments for products developed since 2014 is being deployed progressively. It has already been fully implemented in Villeurbanne, Le Creusot, and Reichshoffen.

As for signalling equipment, the IMPN safety box, which allows safe stopping of traction in the case of anomalies (such as a wrong direction), is the first to have benefited from a full eco-design process. Its environmental performance has been improved globally by 30% and it uses 56% less natural resources over the lifecycle. It is also 30% lighter than previous generations. The environmental performance of this equipment was published in accordance with ISO 14025.

Improving energy efficiency

Aware that energy efficiency is a major challenge for the transport sector, Alstom makes constant efforts to reduce the energy consumption of its trains and systems. The trains designed today consume up to 20% less than previous generations.

Furthermore, Alstom is the first train manufacturer to have announced a commitment to reduce the energy consumption of its transport solutions by 20% by 2020 (compared with baseline 2014) measured in Wh/passenger.km.

Alstom has also defined its energy action plan, along three pillars:

- systematic monitoring of solutions performance;
- innovation for energy efficiency;
- collaboration with the other actors of the value chain.

Monitoring of solutions performance

Alstom has defined a key performance indicator to monitor its solutions' energy efficiency. The indicator consolidates the global portfolio energy consumption reduction based on a weighted average of the energy consumption reductions from standardised train products, so-called "reference solutions", as well as from projects representing more than €1 billion in sales.

In 2015, the Company has established standardised methodologies for energy simulations based on sets of assumptions defined for each type of train (mission profile, occupancy, temperature, etc.) in order to ensure the consistency of collected data. Over the fiscal year, simulations of energy consumption for metro, regional trains and mainlines solutions of the product portfolio have been launched. The first results of the consolidated indicator will be published at the end of fiscal year 2016/17.

Innovation for energy efficiency

Innovation is a crucial driver to improve the energy efficiency of solutions. Alstom strives to deploy the best available proven technologies across the entire portfolio where they are relevant, including:

- weight reduction through composite materials and re-design of parts;
- reduced aerodynamic drag;
- more efficient traction systems, either electric or diesel (permanent magnet motors, optimised power packs control system, new traction chains, efficient traction auxiliaries);
- energy-efficient comfort auxiliaries (lighting, heating and air conditioning);

- enhanced electrical braking including electrical braking until standstill;
- efficient energy storage solutions;
- optimised sleep modes.

For example, the latest-generation of rubber-tyred metros that will equip the Paris network – MP14 – was designed to reduce energy consumption by up to 20%. It is equipped with a more efficient motor and with LED lighting. Its 100% electric braking system recovers energy and re-injects it into the network in the form of electricity, thus avoiding the emission of fine particles from brake pads and contributing to the reduction of air pollution and the metro's energy consumption.

The new PRIMA H4™ locomotives recently acquired by the infrastructure company SBB are equipped with two powerpacks that are coupled with a start & stop system which allows energy consumption to be reduced by 20%.

The advanced reversible power-supply substation developed by Alstom for urban and suburban rail networks allows significant savings on operation to be achieved. Indeed, it enables almost all electrical energy recoverable from trains equipped with regenerative braking systems to be fed back into the grid. HESOP™ also allows heat release from underground operations and associated needs for ventilation systems to be reduced. To date, more than 100 HESOP™ converters have been delivered or ordered, such as for the Paris T1 Tramway (France), London Underground (UK) - in commercial service at the Cloudeley Road station, Milan-Desio-Seregno Tramway (Italy), Riyadh Metro (Saudi Arabia), Sydney Tramway (Australia) and Panama metro.

Alstom is also developing completely new types of trains with breakthrough energy efficiency performance: examples include a zero emissions train to replace diesel-driven regional trains for the German market and the new generation of very high speed trains.

In addition, Alstom strives to develop new components based on innovative technologies that will allow the improvement of the overall performance of trains and systems in the future: examples include highly efficient cooling systems, silicon carbide converters, on-board energy storage etc.

Finally, to reduce the energy consumption of existing systems, Alstom is developing a complete range of services which includes energy mapping and solution optimisation. They allow the monitoring of the main usages of energy in order to identify gaps and propose enhancements such as implementation of eco-driving tools. Retrofit services target the main energy-consuming components like traction, heating and ventilation systems and the recovery of energy from braking.

Alstom is currently delivering a contract awarded by STC (Sistema de Transporte Colectivo) which operates the metro of Mexico City to renovate 85 subway trains. A previous similar modernisation services contract in Mexico (MP82) demonstrated up to 35% reduction in energy consumption.

Collaboration with the value chain

In the field of energy efficiency, improvement often means combining knowledge of train design with operational data. Collaboration with customers, operators and suppliers on this topic is essential.

Many such initiatives have been deployed in France, Brazil or in Ireland. They cover energy measurement, on-board storage tests, heat pump tests, new energy management systems, auxiliaries control devices, etc. For instance, through a joint research programme with the Railway Procurement Agency, the Irish authority responsible for the development of railway infrastructure, two trams in Dublin have been equipped with smart meters to analyse the main energy usages. Optimisation solutions have been tested such as light energy storage for the recovery of braking energy and an enhanced HVAC control system.

Integration of supplier's innovation is also a key challenge. Collaboration with the company Calyos, for example, was essential to adapt to rail the highly efficient cooling technology developed for the aerospace industry.

In order to address the energy efficiency of global railway systems, Alstom has also worked in 2015 in partnership with major organisations to introduce "smart grid" elements in railway systems through such projects as:

- IN2RAIL, which targets smart metering of rail systems;
- Osiris, to develop energy hub solutions for urban transport (with RATP);
- Merlin, to develop energy efficient traffic management and a new generation of substations for high-speed lines (with SNCF).

Noise reduction

Noise is a key concern, crucial to the acceptance of railway projects and fundamental for passenger comfort. Simulation tools and technologies have been developed by Alstom to define optimised solutions by exploiting the most recent innovations, such as:

- customised silencers to reduce traction motor noise;
- optimised traction control strategies to improve the tonality of traction motors;
- optimised wheel design to improve noise radiation whilst respecting mechanical constraints (implemented on PENDOLINO™ in the frame of the contract with the Polish operator PKP);
- development of test benches for transformers to obtain noise performance in real operating conditions;

- psychoacoustic studies for the high speed passenger seats;
- development of passenger Information systems integrated into interiors to improve the intelligibility of spoken messages;
- reduction of acoustic absorption material in ducts through the development of specific silencers for air-conditioning systems (e.g. Riyadh Metro).

These tools allow considering the sound quality as a full design criterion.

In terms of infrastructure, noise is also a challenge. Alstom has co-developed high-attenuation sleepers which represent an alternative to floating slab track (FST) allowing the same noise reduction effect at lower cost. This co-development was realised with Sateba, a world leader in the manufacturing of sleepers, and its design has been proven in France and UK. It is currently being deployed on Crossrail C610 to replace the original FST design (4,500 units). Its implementation is also forecasted on Riyadh metro (5,000 units).

Use of clean and recyclable materials

Alstom is proactive in its design choices favouring recyclable materials. A consequence of the latest eco-design developments is that, on average, trains are now 92% recyclable and 97% recoverable (including energy recovery). The latest Montreal metro to which Alstom contributed is recyclable up to 96%, the CORADIA™ Polyvalent in its version for French Regions, Regiolis, is recoverable up to 98.5%.

Actions are taken to reduce the quantity of consumables needed in the maintenance process and to extend the lifetime of parts. For example, on new bogies proposed for the CITADIS™ X05, the wheel lifetime has been extended by up to 30% *versus* the previous generation.

The design process also makes it possible to reduce risks and prepare for the end of the product lifecycle by:

- favouring water-soluble paints and biodegradable oils for most trains;
- favouring riveting and bolting when assembling parts to facilitate recycling;
- providing customers with safety information and decommissioning instructions for materials;
- tracking and substituting hazardous substances falling under the European Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH ⁽¹⁾).

Over the past five years, the approach towards substances, managed in collaboration with the whole supply chain, has allowed the detection and resolution of many cases of the use of substances listed in Annex XIV or candidates under REACH regulation. For more detailed information, please refer to the section "Environmental Performance/Management of controversial substances".

(1) European Regulation No. 1907/2006 of the European Parliament and Council, dated 18 December 2006, for Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Integration in urban environment

When transport projects touch the very heart of a city with rich architecture heritage, esthetic concerns lead to catenary-less solutions being favoured.

Alstom is the only manufacturer with a complete range of catenary-less power-supply solutions for tramways that can meet the needs of all its customers. Features include a ground power-supply system (APS™), the only service-proven technology eliminating the need for an overhead wire over an unlimited distance; as well as on-board batteries or super-capacitors for autonomous operation over short distances. For example, in Rio de Janeiro (Brazil) for the VLT Carioca project, a combined solution integrating APS™ and on-board super-capacitors is being installed. It will allow covering areas without energy supply and storing energy regenerated during braking. The line will partially enter service shortly, in time for the Olympics Games.

In France, the future tramway lines circulating on the new East-West & 3 lines of the Nice Côte d'Azur tramway will also operate without overhead contact lines over the entire surface section of the route (except in tunnels). It was a request by the Nice Côte d'Azur Métropole which reflects its desire to integrate the new tramway line into the urban landscape while preserving the city's architecture. For this, Alstom will supply its latest ground-based static charging technology, SRS™ – a global premiere, coupled with an on-board energy storage device. This will allow the tram to charge safely and automatically in under 20 seconds while stopped at the station. Equipped with this technology, the future trams of the East-West tramway line will be able to charge up at each station as passengers get on and off, without extra stopping time and without driver intervention.

Product safety fully integrated in design

Product safety is a real concern for the railway industry and a major driver for Alstom's business. The performance of Alstom products in this field is well recognised.

The Alstom Quality and Safety policy was last updated in September 2015. For the implementation of this policy, a railway safety procedure is in place which defines three needs, as follows:

- ensure that safety is implemented & demonstrated in the systems/products delivered to customers;
- maintain safety during the operation and maintenance phase with adequate safety management of maintenance activities when performed by Alstom;
- report & manage any potential safety issues occurring in revenue service. This is done in collaboration with involved customers and suppliers.

Railway safety processes defined at Alstom level are complemented by railway safety deployment instructions for signalling activities, train platforms, services, infrastructure platforms and systems.

In addition, the Alstom Management and Quality Manuals define clear responsibilities in terms of product liability and safety authorisation. These processes and governance apply to all Alstom's Regions and sites.

In order to progress some continuous improvement actions have been put in place:

- the improvement of product safety through the use of return of experience;
- a collaborative way of working with certain days dedicated to railway safety involving Alstom experts and customers or external bodies;
- the reinforcing of the railway safety culture within Alstom, with a campaign of training at different levels, targeting all employees through different sessions.

Offering a new travel experience

Facing a changing world where the need to travel is taking a major part in citizens' life, Alstom has integrated internal skills on passenger experience with the desire to design relevant mobility solutions for a rewarding travel experience. By focusing on its customers, by understanding the behaviour and expectations of their passengers, the Company is able to build a full range of tailored products and services, with the most suitable level of comfort, safety and pleasure.

Tackling the major need to enhance capacity due to population growth, the Alstom teams have focused on optimising the accessibility of the vehicles. Our latest generation of rubber-tyred metro, the MP14 designed to operate in Paris (France), for RATP, includes widened access doors to maximise the inflows and outflows. The intuitiveness of use is enhanced through intelligent lighting combined with auditory and visual announcements and new seats incorporating multiple forms and structures.

Many innovations enhance the perception of well-being on board. For example, on CITADIS™ X05, the large balcony style windows offer a panoramic view on the outside and the fluidity is improved by the double-doors disposed along the train. On the version for Nice Côte d'Azur, special attention is given to each detail; design elegantly links the seats by creating a wide grip surface. Future first class EURODUPLEX™ trains will also have new ergonomic seats that are more comfortable, rotating in the direction of travel and are equipped with individual electric and USB ports.

Alstom is globally working on improving train capacity and flexibility to integrate future developments, whilst ensuring an enhanced level of comfort in terms of:

- acoustic comfort: such as through acoustic partitions transmitting sound;
- visual comfort: e.g. with new technologies recreating natural light;
- thermal comfort: e.g. through individual control of temperature and ventilation.

Alstom is also striving to assess comfort levels in a quantified way using measurement tools.

To maintain level of perceived quality throughout operational service, components are designed with shapes and surface coatings that are easy to wash for maximum guaranteed cleanliness and which use resistant materials to prevent wear, tear and vandalism.

To complete these innovations, Alstom has initiated a research programme aimed at defining and testing the future of connected mobility and its impact on the overall passenger experience.

ENVIRONMENTAL PERFORMANCE

This report presents the results of the Company on the environmental footprint of its facilities as described in the section "Methodology" (see p. 251).

Management of environment is based on:

- consideration given to environmental issues at all levels of the Company;
- deployment of environmental objectives in the organisation and periodical results reviews at the same frequency and in the same internal governance committees as for financial results reviews;
- implementation of an environmental programme: development and deployment of internal standards, assessment tools, targeted training actions to involve employees, communication and raising awareness actions;
- an EHS ("Environment, Health & Safety") organisation made of a network of about 200 professionals led both in the Regions and centrally.

The Company made operational and environmental excellence one of its five strategic pillars. In this context and further to the Energy activities transfer to General Electric, the Company set new environmental targets for 2020, taking 2014 as the reference year. On this occasion, the Company rationalised the consolidation perimeter of its environmental

results as described in the methodology. In consequence, some figures published for 2014 have been reviewed in this report.

The main environmental indicators that allow the monitoring of Alstom's progress are:

- energy consumption and greenhouse gas emissions (GHG) related to activity (intensities);
- percentage of recovered waste;
- volume of waste related to activity (intensity);
- water consumption;
- Volatile Organic Compounds (VOC) emissions.

In 2015, the Company reached the yearly targets, except for waste intensity, a new indicator largely impacted this year by the waste production of one site in relation to non-routine activity.

In this section, environmental results are presented by calendar year and compared to the reference year 2014 and certification results are presented by fiscal year.

Data on provisions and guarantees for environmental risk is available in Chapter 4 Risk Factors, section "Risks in relation to Environmental Health and Safety regulations" (see p. 144).

CERTIFICATION OF UNITS

Objective 2020: Global Alstom ISO 14001 certification.

Objective 2017: ISO 14001 certification of all manufacturing sites and Regional Centers with over 200 employees.

Results: At the end of fiscal year 2015/16, 100% of the manufacturing sites with over 200 employees and 60% of the Regional Centers with over 200 employees have been certified ISO 14001, which result is in

line with the intermediate 2017 objective. Moreover, Italy and Spain reached global certification ISO 14001. Some units have also launched the certification programme on a voluntary basis.

The requirements of ISO 14001 standard are integrated in the Alstom Management System and contribute to the environment performance improvement process of sites.

ENERGY CONSUMPTION

Objective 2020: Reduce energy intensity by 10% compared with the reference year 2014.

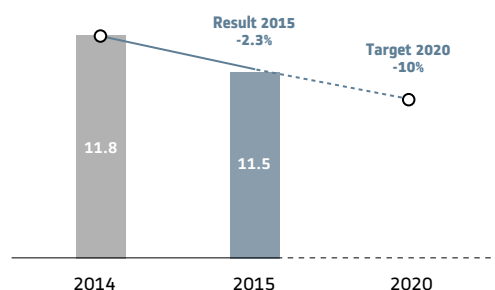
Objective 2015: Reduce energy intensity by 2% compared with 2014.

Energy intensity is defined as the amount of energy used in relation to Alstom's activity. The activity is measured in hours worked.

The amount of energy used is recalculated by integrating a climate factor. In this way, the part of energy considered as used for heating is corrected to take into account winter temperatures impact on heating energy consumption. This correction is done every month with the factor "heating degree days" which, for a given location, estimates daily gaps between base temperature and average measured temperature.

Result: At the end of 2015, energy intensity decreased by 2.3% compared to the base year. The annual objective is achieved.

ENERGY INTENSITY (in kWh/hours worked)



DETAILS OF ENERGY CONSUMPTION

<i>(in GWh – raw values)</i>	2014	2015
Natural gas	242 (*)	245
Butane or propane and other gases	7	7
Domestic fuel	10	10
Steam/heat	30	35
Electricity	180	175
Coal, heavy fuels and other fuels	0	0
TOTAL ENERGY CONSUMPTION	469	472

Source: Alstom Teranga.

(*) Reference year consumption modified to integrate data corrections on Belfort site on which a new reference was established further to the separation of the Transport and Energy activities.

The Company's total energy consumption was almost stable between 2014 and 2015. This is due to the compensation of the slight natural gas consumption increase (+1.4%) by the decrease of electricity usage

(-2.6%). Globally energy intensity decreased by 2.3% due to correction with the climate factor and to the actions implemented via the five year energy plan that Alstom is deploying.

GREENHOUSE GAS (GHG) EMISSIONS

GHG emissions related to operations

Objective 2020: Reduce GHG attributable to energy usage emissions intensity by 10% compared to 2014.

Objective 2015: Reduce GHG attributable to energy usage emissions intensity by 2% compared to 2014.

GHG emission intensity is defined as the amount of GHG attributable to energy usage produced, expressed in kilograms of CO₂ equivalent, in relation to Alstom activity. The activity is measured in hours worked.

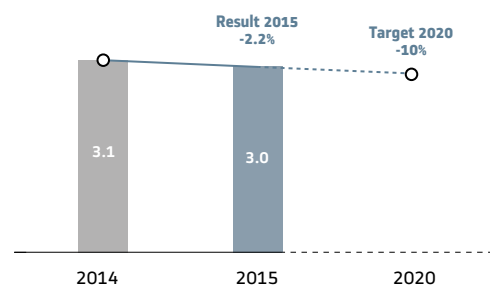
The objective of reduction of GHG emissions intensity is directly linked to the objective of energy intensity reduction. The quantity of GHG attributable to energy usage takes into account the climate factor as presented in the section "Energy consumption".

The Company measures separately the GHG attributable to energy usage – the main ones – and the fugitive emissions of hydrofluorocarbons (HFC). As such, only GHG emissions from energy consumption are considered in the intensity indicator.

Result: At the end of 2015, the GHG emissions intensity attributable to energy consumption decreased by 2.2% compared to the reference year 2014.

GREENHOUSE GAS EMISSIONS INTENSITY

(in kg CO₂ equivalent/hours worked)



GHG emissions details

<i>(in kilotons CO₂ eq – raw values)</i>	2014 (*)	2015
Direct CO ₂ emissions from natural gas, butane, propane, coal and oil consumption ⁽¹⁾	53	54
Indirect CO ₂ emissions from steam, heat and electricity consumption ⁽²⁾	70	69
Total CO₂ emissions from energy consumption	123	123
Other direct CO ₂ fugitive emissions from HFC	1	1
TOTAL CO₂ EMISSIONS FROM ENERGY CONSUMPTION AND OTHER DIRECT EMISSIONS	124	124

Source: Alstom Teranga.

(1) Source: for natural gas, butane, propane, the CO₂ emissions factors come from IPCC Guidelines for National Greenhouse Gas Inventories (2006).

(2) Source: for electricity the CO₂ emissions factors come from 2015 The Climate Registry Default Emission Factors – April 2015.

(*) The emissions have been adjusted by using, for all our sites, the factors provided by the sources mentioned above.

Alstom's direct and indirect CO₂ emissions from energy consumption have been stable since 2014. Intensity follows of GHG emissions follows the same trend as energy intensity.

The actions to reduce energy consumption, implemented through the energy plan deployed by Alstom over the next five years, will allow the GHG emissions to be reduced.

CO₂ emissions related to business travels

(in kilotons CO₂ eq)

	2014	2015
CO ₂ emissions from air travels ⁽¹⁾	20 ⁽²⁾	24
CO ₂ emissions from train travels ⁽¹⁾	1	1
CO ₂ emissions from Company cars using gasoline	1	1
CO ₂ emissions from Company cars using diesel oil	5	5

Source: Alstom Teranga.

(1) Source: Carlson Wagonlit Travel (CWT) – CO₂ calculations are based on the 2011 (July) guidelines produced by DEFRA/DECC's GHG Conversion Factors – The calculation takes only into account air travel that has been tracked by CWT.

(2) 2014 figures were adjusted to integrate the travels to South Africa related to "Gibela" project, which were not allocated specifically to Transport in the previous report.

In 2015, even though Alstom maintained strict control on air travel, encouraging the use of trains and virtual meetings as much as possible, the number of business trips increased in relation to the activity. This has contributed to the increase in CO₂ emissions related to air travel by 23%. Emissions from the other travel modes remained stable.

Use of renewable energies

The Company has signed contracts for the usage of electricity from renewable sources where economically feasible: Alstom is fully supplied with green electricity in the UK as well as in Belgium. In France, all the sites except Petit-Quevilly, derived as at 31 December 2015 at least 30% of their electricity from renewable energy sources. In Germany all the sites are supplied with more than 30% of green energy.

WATER CONSUMPTION AND WATER DISCHARGES

Water consumption

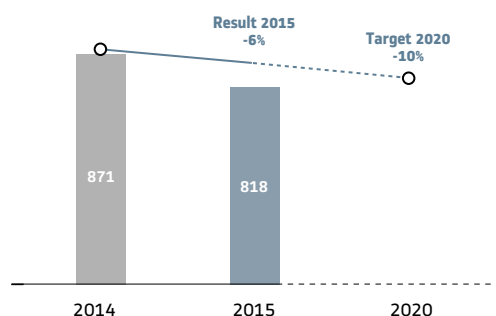
Objective 2020: Reduce water consumption by 10% compared with the reference year 2014.

Objective 2015: Reduce water consumption by 2% compared with 2014.

This indicator is monitored because of the sensitivity of this resource, specifically in water-stressed areas but more generally in emerging countries where Alstom is developing its business.

Results: In 2015, the water consumption decreased by 6%.

WATER CONSUMPTION (in thousands of m³)



Sites located in water-stressed areas

Special attention is given to sites located in extremely high and high water-stressed areas ⁽¹⁾. This category represents 22 permanent sites. Their consumption decreased by 5% in 2015, over the global target of 2%.

(1) Mapping as per the WRI Aqueduct™ project reference map.

Details of water consumption

(in thousands of m³)

	2014 (*)	2015
Public network	633	590
Ground water	238	228
Surface water	0	0
TOTAL WATER CONSUMPTION	871	818

Source: Alstom Teranga.

(*) Evolution compared with the published figures last year further to the review of the consolidation perimeter as described in the methodology.

The Company reduced its water consumption thanks to better management of network leakages.

Waterborne discharges

In 2015, 73% of sites have obligations to monitor the quantity and the quality of waterborne discharges. The various obligations in terms of

nature and limits of the discharges do not allow the consolidation of those figures at Alstom level. Nevertheless, Alstom ensures, through a new indicator measuring the regulatory compliance of the waterborne discharges created in 2015, that regulatory monitoring is done and the authorised thresholds respected.

AIRBORNE EMISSIONS

Non-methane Volatile Organic Compounds (VOC) emissions

Objective 2020: Reduce non-methane VOC emissions intensity.

Objective 2016: Establish a measurement of the non-methane VOC emissions intensity.

VOC are the main air pollutants emitted by Alstom operations. Thanks to its paint substitution initiatives (replacement of solvent containing paints by aqueous paints), Alstom divided by two its VOC emissions over the last five years. Alstom is continuing its efforts with the ambition to reduce the intensity of those emissions. For that, Alstom is thinking about a relevant indicator that would be related to activity.

Results: At the end of 2015, non-methane VOC emissions are almost stable compared with 2014.

Detail of non-methane VOC emissions

(in metric tons)

	2014	2015
VOC emissions	146 (*)	150

Source: Alstom Teranga.

(*) Emissions of the reference year modified to integrate data corrections done on Belfort site.

Other emissions

In 2015, 44% of sites have obligations to monitor the quantity or the quality of air emissions. The various obligations in terms of nature and limits of the emissions do not allow those figures to be consolidated at Alstom level. Nevertheless, Alstom ensures, through a new indicator measuring the regulatory compliance of the air emissions created in 2015, that regulatory monitoring is done and the authorised thresholds respected.

RAW MATERIALS

Alstom, as an engineering company, does not use a significant amount of raw materials as such. It generally uses already transformed material or components. Nevertheless, through its sustainable development policy, Alstom encourages its suppliers to work on raw material reduction

whenever possible. For more information on Alstom's approach to "sustainable supplies", please refer to the section "Relationships with suppliers and contractors".

NOISE POLLUTION

The main impact comes from Alstom's night activities, in particular the maintenance operations in the urban depots. The issue is addressed at site level in order to take into account the local specificities.

Thus, in the UK for example, where the maintenance activity is well developed, the noise issue is managed as a priority to ensure that the impact from noise has a minimum effect on the neighbourhood. Noise level monitoring is systematically put in place around the sites and works areas. For outside works, such as signalling works that generally

occur at night, mitigation measures have been put in place such as the use of equipment which allows noise levels to be kept to a minimum. Engagement programmes have been implemented with local residents, as have Tool Box talks with staff to ensure that they comply with the rules and behave with respect for the public.

SOIL POLLUTION

The current and standard Alstom activities do not generate soil releases. Nevertheless some accidental leakage prevention devices are deployed on site. On old sites potentially contaminated as a result of past activities,

Alstom implements a monitoring and management programme and ensures to be compliant with local regulations.

GROUND FOOTPRINT

Most production sites have been located in areas dedicated to industrial activities for a long time. During project development of new sites or renovation of existing sites, Alstom takes into account the applicable regulations regarding soil sealing and maintenance of green spaces.

The ground footprint of industrial Alstom sites and the associated environmental impacts are not considered significant and therefore not subject to detailed analysis.

WASTE MANAGEMENT

Waste production, recovery and disposal

Objectives 2020:

- maintain the percentage of recovered waste at 80%;
- reduce waste intensity by 10% compared with reference year 2014.

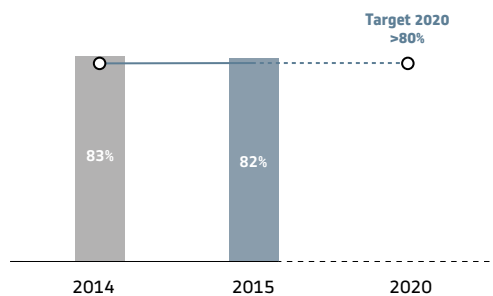
Objectives 2015:

- recover 80% of the total waste;
- reduce waste intensity by 2% compared with 2014.

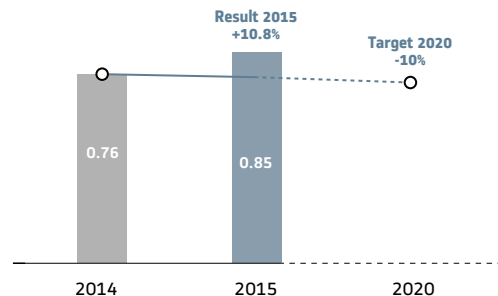
The Company is pursuing its objective of waste recovery at 80% with particular emphasis on countries in which waste recovery is not developed. The Company defined a new indicator to measure the impact of its activities on waste production. Waste intensity is defined as the amount of waste produced in relation to Alstom activity. The activity is measured in hours worked.

Results: By the end of 2015, the waste recovery rate is 82%. The target is reached. The waste intensity increased by 10.8% compared to 2014.

PERCENTAGE OF RECOVERED WASTE



WASTE INTENSITY (in kg / hours worked)



The first waste intensity results are not in the right trend (+10.8%), but this is a first step of performance measurement. Moreover, Tarbes site had an unusual activity generating waste, impacting the global result (representing around 1,200 tons of dangerous waste). This indicator will be followed more closely in the coming years.

WASTE PRODUCTION

<i>(in metric tons)</i>	2014	2015
Hazardous waste	2,658	4,236
Waste recovered	1,635	1,790
Non-hazardous waste	27,710 (*)	28,860
Waste recovered	23,656	25,420
TOTAL WASTE PRODUCTION	30,368	33,096

Source: Alstom Teranga.

(*) Consumption of the reference year modified to integrate data updates on Ballarat site.

MANAGEMENT OF CONTROVERSIAL SUBSTANCES

Elimination of asbestos

Utilisation of any asbestos or material containing asbestos is strictly prohibited in Alstom's products.

It has been Alstom's policy for many years to manage the risk of exposure to asbestos in all its operational units: asbestos surveys in its buildings (leased or owned) and equipment, abatement plans according to the risks, including in countries where asbestos is not prohibited. The Company applies instructions to frame the monitoring process and workers' protection; these instructions have been updated and improved regularly.

Within this framework, Alstom retains the ambition to eradicate asbestos in its buildings as far as reasonably and economically practicable.

"Pro-active" application of the regulation on the use of hazardous substances and REACH regulation management

As a complex product and service supplier working in an international environment, Alstom is impacted by the REACH regulation ⁽¹⁾ (in the European Economic Area) and by regulatory provisions of the same type in other regions, in its design activities and project implementation undertaken within and from Europe. REACH being the most demanding of the regulations in this area, Alstom has issued rules on the use of hazardous substances for all its solutions which use it as a basis whilst taking into account the specificities of other regions.

There are two main potential impacts on items and components included in Alstom solutions:

- the obligation to inform the customers about Substances of Very High Concern (SVHC);
- the risk of a lack of supply for critical yet hazardous substances as suppliers could stop providing them.

It is generally understood that:

- Alstom does not need to register any substance because it does not import or manufacture any chemical substance in quantities above 1 ton/year per European entity;
- Alstom does not need to notify the European Chemical Agency (ECHA) or communicate to its customers the presence in its products of any SVHC listed on the ECHA "candidate list", because the Company does not supply products containing more than 0.1% of these identified substances and in quantities above 1 ton per year;
- Alstom has set up provisions to identify the presence of Substances of Very High Concern (SVHC) included in the list of candidate substances published by the ECHA; Alstom substitutes these substances whenever technically feasible and communicates to its customers the presence of SVHC when substitution is not feasible;
- Alstom implements the recommended measures to prevent human and environmental risks related to the use of chemicals.

In order to guarantee compliance with these guidelines, Alstom uses an approach that requires dealing with exclusive representatives in order to import chemicals into the European Economic Area, the issuing of instructions to suppliers concerning substances and articles listed in the REACH regulation and the gathering of information from suppliers about the possible presence of hazardous substances in the products. Alstom also identifies hazardous articles thanks to internal experts, implements substitution programmes when necessary and updates internal process of chemical hazard management.

For four years, Alstom's proactive approach to substances has enabled it to detect and resolve numerous cases of the use of Substances of Very High Concern according to the REACH regulation.

More than 20,000 cases of components or parts that contain candidate substances have been detected since 2012. These components are monitored in order to progressively substitute these substances with more environmentally friendly ones. Currently, 48% of detected cases have already been substituted. With respect to substances subject to authorisation, as published in Annex XIV of the REACH regulation, around 1,400 cases have been detected and are currently being addressed with suppliers. Thus 85% of Annex XIV cases are now secured and 100% will be secured before the legal deadlines.

(1) European Regulation No. 1907/2006 of the European Parliament and Council, dated 18 December 2006, for Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Conflict minerals

Alstom is following the discussions concerning the May 2014 proposal of the European Union to establish a European self-certification mechanism as part of due diligence on supply chain for importers of tin, tantalum, tungsten, their minerals and gold originating from conflict or high risk zones.

The Company supports the work of the Union of European Rail Industries (UNIFE) ⁽¹⁾, which calls on the European institutions to maintain the original approach of the proposal by keeping the focus on the upstream segments of the supply chain which are key in the due diligence process.

Alstom is also committed to a sustainable supply chain approach designed to identify and reduce environmental and social impacts of the supply

chain by ensuring the traceability of all products and operations. Several initiatives have been launched this year in this direction, including:

- the revision to the Sustainable Development Charter in January 2016 to introduce a specific paragraph on minerals from conflict or high risk areas – for producers or suppliers of goods containing tin, tantalum, tungsten or gold. This new Charter is being deployed with Alstom's main relevant suppliers;
- the implementation of sustainable development assessments for its suppliers which include a specific dimension regarding conflict minerals for the relevant segments, as part of its sustainable sourcing approach.

For more information on the Alstom sustainable sourcing approach, please refer to the section "Relationships with suppliers and contractors".

BIODIVERSITY PROTECTION

A biodiversity assessment was conducted in March 2013 to evaluate Alstom's manufacturing sites of more than 200 employees. It used the Integrated Biodiversity Assessment Tool (IBAT), a database which allows the proximity of sites to sensitive biodiversity areas to be assessed.

Updated with the list of relevant sites in 2016, the assessment highlighted that, of the main 25 production sites, 23 are located outside legally protected areas ⁽²⁾ and/or priority sites for biodiversity ⁽³⁾, representing over 90% of Alstom major manufacturing sites; all these sites keep abreast of regulatory changes.

Alstom currently does not own any site located within the sub-categories of legally protected areas (IUCN I, II, III and IV) nor within priority sites for biodiversity.

The two sites identified as being in biodiversity hotspots are located in France. The Reichshoffen manufacturing site is situated in a protected area classified IUCN V-VI (protected landscape / protected area with sustainable use of natural resources) and the Ornans manufacturing site in an area classified Natura 2000. At both sites, monitoring and compliance processes have been implemented, in line with the regulations. This year, Reichshoffen site has launched a project to protect the river crossing the site by treating the accidental release of oil from parking lots and roads (oil separators), thereby preventing harmful discharges from entering into the environment.

EMPLOYEE AWARENESS AND RECOGNITION FOR BEST PRACTICES

The Company undertakes communication and awareness actions on good environmental practices for its employees, especially within the framework of ISO 14001. These actions are completed by mobilisation programmes often combined with health and safety awareness programmes.

Thus, in 2015, Middle East & Africa, Latin America and Europe Regions launched an inter-site EHS challenge to promote the best health, safety and environmental practices. In Europe an outstanding number of proposals (340) of good practices were submitted. The cluster Germany/Austria won the health and safety good practice prize thanks to a system reducing the risks during rail vehicle movements, while Italy won the award for the best environmental practice related to its energy management. The cluster United Kingdom/Ireland won the global event, for which the selection criteria were the degree of innovation of the

good practices, the EHS performance, the recognition of performance by customers and the contribution to the Alstom EHS programme deployment. In a similar spirit, services sites in Algeria and infrastructure & systems sites in Dubai won the challenge for Middle East & Africa.

These initiatives may be generalised across all Alstom activities worldwide. Furthermore, some Alstom environmental practices are recognised by external stakeholders. For example in France, Villeurbanne site won the Rhône-Alpes region Mobility Challenge, which rewards companies whose employees go to work by green modes of transport. With 72% of participation, it ranked first in the category of companies with over 1,000 people. The site had previously won the prize awarded for the Grand-Lyon city area.

(1) Position paper – EU draft regulation on responsible sourcing of minerals, UNIFE, July 2015.

(2) Legally protected areas (PA): IUCN I-VI, World heritage sites, Natura 2000, Ramsar, OSPAR, Barcelona convention, ASEAN heritage sites. Definitions of IUCN I-VI, Natura 2000, "biodiversity hotspots", etc. available on www.biodiversitya-z.org.

(3) Priority sites for Biodiversity (KBA): Important Bird Area (IBA) and AZE.

SOCIAL PERFORMANCE

To succeed on numerous, wide-scale projects, and implement state-of-the-art technology and equipment, Alstom needs competent, motivated and dedicated employees and teams worldwide.

People are Alstom greatest asset – they shape its future. Alstom's Human Resources (HR) strategy is based on its values – Team, Trust & Action and Ethics & Compliance and its Leadership dimensions – Entrepreneurship, Collaboration, Agility and Global Vision.

The objective is to ensure consistency and fairness for all employees. These values bring all Alstom employees together in a shared culture and aim to inspire a strong feeling of belonging to a single unified organisation.

Promoting diversity, equal opportunity, dialogue, commitment to Environment, Health & Safety, Security, people management and development, knowledge-sharing, and recognition of employees' individual and collective contribution are at the heart of the Company's priorities to build a great working environment.

A STRONG FOCUS ON OCCUPATIONAL HEALTH AND SAFETY

Occupational accident prevention

Alstom is pursuing an ambitious policy to reduce occupational health and safety risks for employees, whether permanent or temporary, and for contractors involved in the Company's activities.

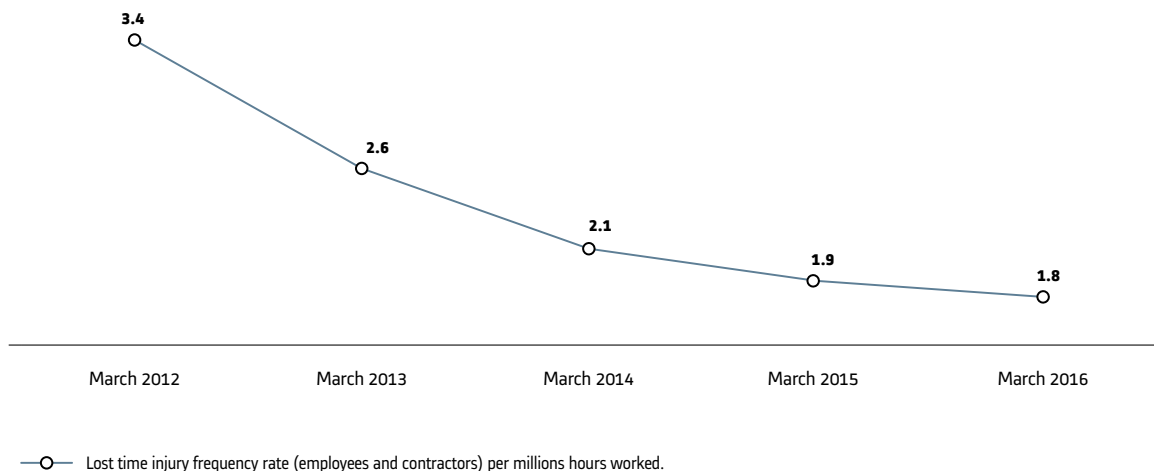
Alstom occupational safety objectives and results

Safety objectives:

- zero fatalities at work (for employees and contractors);
- occupational injury frequency rate (for employees and contractors) at 1 by 2020.

Result: The lost time injury frequency rate of employees and contractors was 1.8 at 31 March 2016, in line with the Company's yearly objectives and 2020 ambition. Alstom did not record any fatality at work in 2015/16, however, unfortunately, two Alstom employees lost their lives in a car accident when they were traveling to work in India. The Company is developing in countries where road safety risks are high and has put in place actions to better record such events in order to deploy the necessary measures and improve risk prevention.

OCCUPATIONAL INJURY FREQUENCY RATE – EMPLOYEES AND CONTRACTORS



Alstom deploys strong programmes to reduce occupational accidents wherever it operates worldwide and involves both its employees and its contractors who may be significantly exposed to accident risks. Efforts made achieved tangible results: in five years the injury frequency rate has almost halved while the number of workplace fatalities has

decreased from several cases a year to zero in the last three consecutive years. Following a tragic accident in India resulting in two fatalities in February 2016, Alstom has introduced a specific "number of travel fatalities" indicator in its Group's reporting.

Occupational safety remains, however, of the utmost priority for the entire Company: the nature of Alstom's activities, its development in countries where the level of consideration of health and safety risks is sometimes low, its complex partnerships in construction activities,

obliges the Company to focus on the control of the most hazardous activities and to observe a high level of vigilance in order to maintain and improve its results.

KEY RESULTS ON OCCUPATIONAL SAFETY

	2014/15	2015/16
Number of fatalities at work (Alstom employees and contractors) ⁽¹⁾	0	0
Number of travel fatalities (Alstom employees) ⁽²⁾	Not recorded	2
Number of occupational severe accidents ⁽³⁾	8 ⁽⁴⁾	6
Lost time injury frequency rate (employees and contractors) – IFR 1 ⁽⁵⁾	1.9 ⁽⁶⁾	1.8

Source: Alstom Teranga.

(1) Includes all accidental fatalities at the workplace and on the way between two workplaces.

(2) Includes all accidental fatalities on the way from home to work or work to home, when Alstom directly or indirectly participates in the travel organisation.

(3) Occupational severe accident: fatal accident and any accident resulting in permanent consequences (either in permanent disfigurement, or permanent disability such as amputation of any digit or part of a digit) whatever the length of the medical leave, as well as any accident causing fracture requiring surgery, whatever the length of the medical leave. Severe accidents between two workplaces are included, severe accidents on the way from home to work or from work to home are excluded.

(4) Adjusted data: 10 severe accidents were reported instead of 8.

(5) IFR 1: Number of work-related injuries, which prevents the injured person from carrying out work for a period of at least one full day, per million of hours worked. Accidents on the way from home to work or from work to home are excluded from the calculation of the indicator.

(6) Adjusted data: 1.9 versus 2.0 due to three accidents reported in 2014/2015 fiscal year that were not recognised as occupational by relevant Authorities and removed from our records.

The Company's occupational safety approach is primarily to prevent severe and fatal accidents.

The number of severe accidents is used to measure the trend. Alstom has used for several years a definition of severe accidents which is adapted to the international context of its operations, where durations of medical leave may vary from one country to another one for a same medical condition.

Management of occupational safety

Management of occupational safety is based on:

- consideration given to safety risks at all levels of the Company starting at the top;
- deployment of safety objectives in the organisation and periodical results reviews at the same frequency and in the same internal steering committees as for financial results reviews;
- implementation of a health and safety programme: control of the most hazardous activities, systematic and deep analysis of all severe or potentially severe accidents, development and deployment of internal standards, targeted training actions to involve employees, development of the safety practices of our contractors, communication and raising-awareness actions;
- an EHS ("Environment, Health & Safety") organisation made of a network of about 200 professionals led both in the Regions and centrally.

"Alstom Zero Deviation Plan" (AZDP)

This plan, launched in June 2012 in order to reduce the number of fatal and severe accidents resulting from the Company's activities, is focused on the control of our most hazardous activities and has strongly contributed to the reduction of the number of occupational fatalities.

The plan is structured around 11 Alstom directives, each of them being dedicated to one high risk activity (example: train movement, work at height, lifting, etc.) and requires strict compliance to 50 safety requirements in all activities where Alstom operates worldwide and the implementation of a "zero tolerance" to deviations policy.

Each Alstom entity regularly proceeds to the self-assessment of its compliance to the directives while a three-year centrally managed audit programme is deployed in the Company both in big industrial sites and in smaller activities such as activities in depots or in construction.

The "AZDP" remains the cornerstone of the Company's initiatives to reach "zero severe accidents".

In 2015, following the transfer of the Energy activities to General Electric, Alstom slightly reviewed the requirements of the directives to make them even more consistent with specific railway risks. Alstom maintained an ambitious audit programme built on the exposure to risks of its operations.

	2014/15	2015/16
Number of formal AZDP audits conducted during the fiscal year	46	61

Source: Alstom (EHS Library).

Return of Experience ("REX")

An immediate (24 hours) notification process is in place when a lost time accident or a severe event or an event that could potentially have been severe occurs in the Company. This allows the organisation to react quickly when necessary. Each severe or potentially severe accident is analysed to identify the root causes of its occurrence and take measures to avoid a new occurrence. It is then subject to return of experience analysis during systematic reviews organised by the Head of the EHS organisation in each Alstom Region. Lessons learned are shared within the Company. When necessary the Company safety standards are upgraded to take into account the return of experience.

During the fiscal year the Company continued to deploy a programme initiated in the previous fiscal year to train the EHS community on accident investigation and analysis, in order to reinforce its capacity to identify the root causes of events. Moreover, 36 return of experience sessions about severe or potentially severe accidents were conducted during the year and each one was summarised into a synthetic report issued within Alstom and available in the shared EHS platform of the Company. A new safety standard for train manoeuvres was also created and deployed as a result of the return of experience initiative.

Safety Observation Visits

The "Safety Observation Visits" programme was initiated last year and is intended to develop managerial practices encouraging a positive safety culture and safe behaviour by all our employees. Alstom continued to

deploy the programme during the fiscal year in all sites where the level of safety maturity allowed such an initiative to be conducted. As at March 2016, safety observation visits are regularly conducted in nearly 100% of European sites. The initiative is being progressively deployed in the rest of the world.

Health and Safety Training

	2014	2015
Number of persons ("trainees") ⁽¹⁾ having received a class-room EHS training during calendar year	3,960	3,670
% of Alstom employees trained to e-learning module on High Risk Activities ⁽²⁾	82%	86%

Source: Alstom HRIS.

(1) A person having participated in several training courses is counted several times.

(2) Alstom deploys an e-learning programme about high risk activities targeting all employees. The table gives the percentage of employees of Alstom at the end of the calendar year who followed the training course.

In complement to training required by regulations, Alstom designs and deploys safety training modules to answer specific needs and permanently adapts its internal training offer.

During the year the Company designed a new one-day training course targeting employees involved in the dynamic testing of rolling stock with the intention to raise consciousness about risks coming from railway environment. This training will be deployed next year.

Occupational diseases

	2014	2015
Number of recognised occupational diseases in Europe during calendar year	22	17

Source: Alstom Teranga.

The absence of an international definition of occupational diseases makes it difficult to aggregate the data in this domain. Therefore the reported figures are restricted to the European perimeter.

Alstom strives to reduce risks of occurrence of occupational diseases. On top of preventive or protective measures resulting from work place risk assessment, Alstom seeks to better take into account ergonomics in the design of workstations: each year Alstom industrial teams conduct audits as per the APSYS referential ("Alstom Production SYStem") in production sites to measure the progress made in respect of Alstom's operational requirements. The ergonomics of workstations is one of the assessed criteria in these audits. In 2015/16, 30 APSYS audits were conducted. Alstom also takes into account measures to reduce asbestos risks as described in the section "Management of controversial substances".

Health and Safety awareness programmes and performance awards

Alstom conducts several actions for communicating and recognising performance in order to raise health and safety awareness among its employees and contractors.

- In its internal guide "Visible Active Leadership", dedicated to EHS managerial practices, Alstom recommends to establish a fair balance between the recognition of individual initiatives and discipline, *i.e.* strict application of EHS rules. As a result local programmes were initiated for recognition of the employees according to their implication in the control of the environment and health and safety risks. In 2015, 50 units in Alstom deployed such programmes, the detailed content of which was left to the initiative of every site so that it perfectly fitted with the local cultural context. As an example, Alstom Jerusalem services put in place such a programme. The "employee of the month" is celebrated each month. The compliance with the safety rules, the escalation of potential health and safety risks, the improvement ideas and the actions to reduce risks are all part of the criteria considered for the selection. The practices and the achievements of the employee which led to his/her selection are promoted *via* a poster campaign.
- Alstom also conducts training, awareness and performance recognition actions with its contractors. As an example, in Brazil, the prize for the best contractor is delivered yearly based on considerations of several criteria such as legal compliance, participation in training provided by Alstom, involvement in monthly meetings, reactivity in closing gaps to requirements. This type of initiative will further expand in the future.

- In 2015, Romanian services activities deployed an innovative initiative, so-called "EHS Daily", which was mid-way between a training programme and a challenge. It aimed at anchoring sustainably the health and safety knowledge of employees. During two months, more than 300 employees, gathered in teams, were invited to take part in an interactive contest and to spontaneously and daily connect to a digital platform to answer questions about safety that were derived from situations in their own working environment. The system used to analyse the answers was designed to ensure that the knowledge was properly anchored in employee's minds or to ensure that it was acquired when applicable. The initiative was a great success: more than 85% of employees spontaneously connected and entered the competition and 98% of participants considered that the action had reinforced their understanding of health and safety rules. Given the success of this pilot, further developments are being considered.
- EHS inter-site challenges were also organised as described in the "Environmental Performance" section.

Life insurance

Objective: All employees are covered by a life insurance in case of accidental death representing at least one year salary.

Results: The evolution of employee coverage is considered satisfactory.

	2014 (*)	2015
Ratio of employees covered by a life insurance in case of accidental death	98.0%	98.6%
Ratio of employees covered by a life insurance giving one year salary	83.2%	83.9%

Source: Alstom social survey conducted in 21 countries representing 93% of Alstom's total headcount.
(*) 2014 data has been modified in order to take into account Alstom new perimeter following the separation of Transport and Energy activities.

In some countries such as Poland, employer contributions to insurance policies are considered as a taxable benefit, leading some employees to decline this offer.

HUMAN RESOURCES POLICY

In 2015, Human Resources 2020 strategy has been newly designed in a highly collaborative manner, involving operational managers and professionals from the Human Resources community, in order to anticipate and support growth. Five pillars are defined as Human Resources Strategy as presented below:

- build local leaders & expertise;
- promote knowledge management;
- connect passionate people to foster innovation;

Assessment of collective agreements on Health & Safety

Occupational safety indicators are included in most profit-sharing agreements as one of the calculation criteria. On-site health and safety committees resulting from regulation or local agreements exist in most industrial locations.

It is formally recommended that all operational managers whose action impacts on Environment, Health and Safety have one of their objectives related to results or undertaken actions.

- provide a seamless people management cycle;
- develop diverse and entrepreneurial people.

Human Resources Policy is driven and implemented with alignment of this strategy.

WORKFORCE AND WORK ORGANISATION

The figures in the following tables include permanent contracts, fixed-term contracts, apprentices, trainees and long term absentees (LTA), unless otherwise stated. Altogether, they represent the total number of employees.

Note: Alstom HRIS stands for Alstom Human Resources Information System, a worldwide database supporting human resources management.

Breakdown by Type of contract

At 31 March 2015				At 31 March 2016			
Permanent contracts	Fixed-Term contracts	Interns	Total employees	Permanent contracts	Fixed-term contracts	Interns	Total employees
25,848	1,695	564	28,107	28,722	1,628	620	30,970

Source: Alstom HRIS.

Breakdown by Region

At 31 March 2015						At 31 March 2016				
	Middle East / Africa	Asia / Pacific	Europe	Americas	Total	Middle East / Africa	Asia / Pacific	Europe	Americas	Total
Employees	1,394	2,312	20,523	3,878	28,107	1,698	3,173	21,254	4,845	30,970
% of employees	5.0%	8.2%	73.0%	13.8%	100.0%	5.5%	10.2%	68.6%	15.6%	100.0%
Out of which long-term absentees (LTA)	11	3	552	63	629	10	4	490	66	570

Source: Alstom HRIS.

Breakdown by category

At 31 March 2015				At 31 March 2016			
Managers and professionals		Other employees		Managers and professionals		Other employees	
Total	% of total employees	Total	% of total employees	Total	% of total employees	Total	% of total employees
12,569	44.7%	15,538	55.3%	14,426	46.6%	16,544	53.4%

Source: Alstom HRIS.

Breakdown by gender

At 31 March 2015				At 31 March 2016			
Men		Women		Men		Women	
Total	% of total employees	Total	% of total employees	Total	% of total employees	Total	% of total employees
23,770	84.6%	4,337	15.4%	25,731	83.1%	5,239	16.9%

Source: Alstom HRIS.

Workforce changes during fiscal year

At 31 March 2015						At 31 March 2016					
Hiring on permanent contracts	Hiring on fixed-term contracts	Resignations	Redundancies	Dismissals ⁽¹⁾	Other departures ⁽²⁾	Hiring on permanent contracts	Hiring on fixed-term contracts	Resignations	Redundancies	Dismissals ⁽¹⁾	Other departures ⁽²⁾
2,442	969	776	359	449	1,064	3,228	997	852	173	458	1,802

Source: Alstom HRIS.

(1) Calculated on permanent headcount only.

(2) Including retirement, not including disposals and acquisitions.

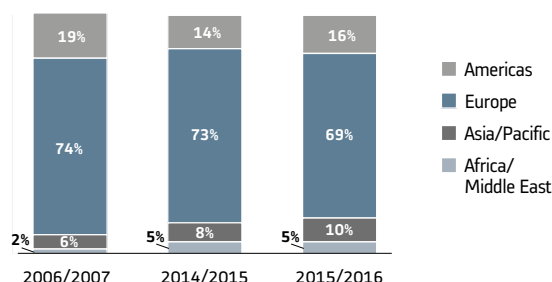
Adapting the workforce to the markets and activities

At 31 March 2016, Alstom employed directly 30,970 people. Hired staff – who have no direct employment contract nor training contract with an Alstom subsidiary but are hired because of a fluctuation of activity – represent 2,365 people.

The priority is to have the competencies needed for the Group's development and to facilitate the integration of newcomers.

The chart below shows the workforce breakdown evolution by region over the past nine years, which demonstrates the development in emerging countries where the markets grow faster. The main workforce evolution in 2015 is noted in India resulting from the significant growth in all activities of the portfolio, the development of Alstom India as a strong local leader and the increase of supporting activities for the whole Alstom. The integration of GE Signalling business also impacted workforce figures, mainly in USA.

WORKFORCE BREAKDOWN BY REGION (EMPLOYEES)



Source: Alstom HRIS.

Alstom recruited 3,228 permanent employees over fiscal year 2015/16. In particular, active relationships and partnerships with schools and universities is key in Alstom recruitment policy.

REINFORCING THE COMPANY CULTURE

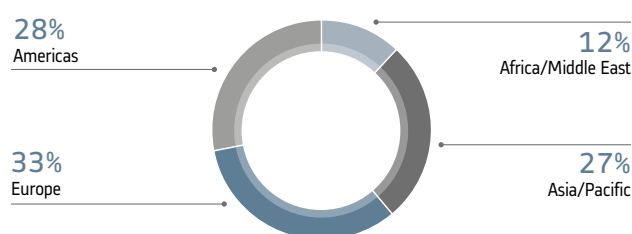
To maintain a high level of employee engagement, Alstom relies on the respect of Business Ethics and Human Rights, as well as on a common culture based on Alstom's values and common tools implemented worldwide.

Respecting business ethics

Culture and reputation for integrity are essential for Alstom. Such a reputation can only be built through a permanent benchmark to meet the international standards and through the continuous strengthening of its ethical rules and procedures, as well as through the adhesion of all employees, who must know and rigorously apply the principles of Alstom's Code of Ethics.

The mission of the Ethics & Compliance (E&C) Department is to propose the content of the Alstom Integrity Programme and to foster its implementation worldwide. The Company culture embraces all ethical best standards based on the Alstom values: Team, Trust, Action. This culture must permeate the whole organisation, the tone from the top being relayed by each level of the management up to each and every employee.

RECRUITMENT BY REGION IN 2015/16 (PERMANENT CONTRACTS)



Source: Alstom HRIS.

Organisation of working time

Work practices at Alstom's industrial, commercial and administrative sites vary greatly depending on the site, type of activity, geographical location and local legislation.

In France, out of a total of 8,926 employees, 12% of the employees work on 2x8 shifts, 3% on 3x8 shifts and less than 1% on weekend shifts.

Overtime

Overtime refers to hours worked beyond the individual contractual laws. The concept of overtime may vary from one country to the next and in some cases is not applicable. This somewhat mitigates the relevance of this benchmark as a consolidated indicator.

In France, the average figure of overtime is 7.3 hours per employee for calendar year 2015.

The Alstom Integrity Programme comprises:

- the Code of Ethics, which applies to every employee. Published in 2001, it was reviewed and updated for the last time in February 2016. It includes a set of practical tools for employees. It is available in various languages.

The Code of Ethics prescribes essential rules of conduct with regard to the relationships with business partners, the role of Alstom in its environment, the promotion of a team spirit and the commitment to protect Company's assets.

In addition, the Code of Ethics details the Alert Procedure which allows any employee or any person or third party in relationship with Alstom to report, according to the applicable legislation, a violation of the Code of Ethics or Alstom rules and policies. The Alert Procedure allows several means of reporting, including a secure website (www.alstom.ethicspoint.com) and a toll-free hotline, both reachable 24 hours a day, seven days a week, 365 days a year.

Alstom has made the decision in October 2015 to widen the scope of the Alstom Alert Procedure to cover all the values and principles of the Alstom Code of Ethics, according to the applicable legislation in each country. The updated list of categories for reporting is as follows:

- fight against corruption,
 - anti-competitive practices,
 - conflicts of interest,
 - the fight against discrimination and harassment at the workplace,
 - health, safety and security at the workplace,
 - protection of the environment,
 - other violations of Alstom rules, policies and internal controls (including violation of power of attorney / delegation of authority limits);
 - E&C Instructions which provide detailed guidance to employees on rules and procedures to strictly apply in the areas of gifts and hospitality, political contributions, charitable contributions, sponsorship, sales partners, consulting companies, conflicts of interest, facilitation payments and prevention of corruption with suppliers and contractors and in joint venture and consortium. In 2015, all the instructions were reviewed and adapted to the new organisation of Alstom;
 - awareness and training of employees are essential to explain the Alstom's Ethics & Compliance policy and are available on multiple media: on-line modules in our catalogue "e-learning", live sessions and specialists interventions on the questions of ethics and compliance.
- The e-Ethics module related to the Code of Ethics targets Managers & Professionals for whom it is compulsory. They must retake and complete it every two years. The "E&C Class" of three hours in face to face has already been given to more than 75% of the targeted population of employees who could be confronted with corruption risks;
- a community of approximately 150 E&C ambassadors, all volunteers who come mainly from the Legal, Finance and Human Resource functions. Their main role is to promote the culture of integrity through E&C Awareness sessions and to be a contact point for questions about ethics and compliance. The E&C Ambassadors have a direct contact with the E&C Department which provides them with the appropriate support and tools to achieve their mission;
 - a variety of internal communication methods in order to ensure that all employees are well informed about E&C in Alstom:
 - a visible and regularly updated section on Alstom's intranet, called "Ethics & Compliance", containing information on the efforts and the initiatives of Alstom to fight corruption,
 - regular news on Alstom's internal communication tools (intranet, social network of Alstom, magazines),
 - an educational video addressing the issue of corruption prevention, available in both English and French on the intranet site as well as on www.alstom.com,
 - posters.

On 12 September 2011, the Alstom Integrity Programme was awarded a certificate from ETHIC Intelligence, a certifying body specialised in the field of ethics and compliance policies and, in particular, in matters of prevention of corruption. In May 2014, the programme received a new certification following an audit of the procedures in various countries and on the recommendations of international and recognised anti-bribery experts. The ETHIC Intelligence Certification Committee concluded that Alstom's anti-corruption compliance system is designed and implemented in ways which correspond to international best practices.

In February 2015, after an observation period of three years with an independent compliance monitor, the World Bank's Integrity Compliance Office ("ICO") concluded that Alstom has implemented a corporate compliance programme in line with the World Bank's guidelines on the subject and that Alstom has satisfied all its conditions in accordance with the 21 February 2012 settlement. Furthermore, under Alstom's 22 December 2014 plea agreement with the US Department of Justice (DOJ) and based on the ICO's conclusions, the DOJ has not required Alstom to undergo an additional monitoring.

On 21 December 2015, the Norwegian sovereign fund NBIM announced the removal of Alstom of from its observation list ⁽¹⁾.

To monitor the performance of the Alstom Integrity Programme, the E&C Department launched in 2012 the Yearly Integrity Review to gather feedback on the performance of the Alstom Integrity Programme during the year. The top managers requested to complete the questionnaires were identified by the Human Resources and discussed with the Chief Compliance Officer. The fourth exercise was launched on October 30, 2015. This year, the format of the questionnaire has been streamlined to facilitate the responses via a web-based survey; this has allowed the E&C Department to widen the scope of managers responding from around 150 managers to over 300 managers for this edition. This allowed over twice the number of managers the possibility to make their voice heard on the effectiveness of the Alstom Integrity Programme, areas of concern and suggestions to improve the programme. Based on the responses, the E&C Department provides to the CEO and the Ethics Compliance & Sustainability Committee members with a summary of employee feedback and statistics on the responses to the online survey. Then, the E&C Department prepares an action plan.

Respect of Human rights

The respect of Human rights is one of Alstom's fundamental commitments. Among others, Alstom is particularly respectful of the laws governing human rights and labour, health and safety standards, protection of the environment, corruption and bribery, fair competition, taxation and the accurate communication of financial information. Alstom's policy is to comply fully with the fundamental conventions of the International Labour Organisation (ILO), as specified in the Code of Ethics of the Company. Alstom also complies with the guiding principles of the Organisation for Economic Cooperation and Development (OECD), the United Nations Universal Declaration of Human Rights and those of the International Chamber of Commerce (ICC). The charter that Alstom's suppliers and contractors are requested to adhere to, stipulates that they must be compliant with the same principles and national or local regulations which are applicable to their activities (see section "Relationships with suppliers and contractors").

(1) Alstom had been on the fund's observation list since 2011, after a decision of the Norwegian Ministry of Finance to place Alstom under observation for up to four years based on concerns related to possible involvement in severe corruption.

Alstom is a member of the Global Compact, promoting the respect of human rights within its sphere of influence. In November 2015, the Alstom Chairman and CEO renewed his commitment to the 10 principles of the United Nations Global Compact.

In the day-to-day management of its activities, Alstom strives to strictly comply with its commitments in its sphere of influence:

- regarding human resources, Alstom applies a policy based on respect for individuals, their dignity, rights and individual liberties, and promotes their involvement in Company life. Alstom promotes all forms of dialogue with both individual employees and their representatives;
- Alstom conducts a social survey to ensure the absence of any incident regarding child labour, forced labour, freedom of association. This year, no incident was reported. Nine potential cases of discrimination are currently being analysed;
- an internal directive on individual data protection states that the human resources management is based upon performance and competence using well-known shared processes. These processes should be based on objective data, not on personal factors such as gender, age, religion, ethnic origin, political and philosophical opinions, trade union membership, health, and sexual orientation. All recorded information shall reflect these principles. All employees have the right to request access to their own data and to obtain the rectification of such data when justified;
- the respect of Human rights is one of the criteria examined by the Key Tender Board, an instance which can arbitrate on sensitive deals when assessing the projects: any breach to it may have significant consequences on the feasibility of the project, its financing or implementation, and on the Group's reputation.

Alstom implements specific control measures when necessary. For example, in Qatar, Alstom performs inspections of the living conditions of contractors' migrant workers as part of the project of creation of a tramway line in Lusai.

Involving employees in the Company

The development of a common culture is important to hold Alstom's employees together, which is done through:

- a set of Alstom's common values and ethical principles: Alstom's three core values – Trust, Team, Action – contribute to the sense of belonging. They are explained via awareness-raising actions and training at local level. As part of the performance review process, the manager, after in-depth discussion with the employee, evaluates how values are put into practice. Should improvement be identified during the performance review discussion, a specific development plan will be built and its implementation will be monitored with the support of the Human Resources team;
- four leadership dimensions – Entrepreneurship, Collaboration, Agility and Global vision, – based on these values. These Leadership dimensions have been presented to the management line in 2015 and are being defined as core behavioral competencies for all employees. Specific actions to promote, assess and develop these four dimensions are currently being designed and implemented. For example, in Latin America, as part of the local transformation programme launched

in 2015, workshops were conducted by internal facilitators that involved all Managers, Engineers and Professionals (more than 1,000 people). They focused on driving cultural change by aligning on Alstom Leadership dimensions, boosting the leadership of each employee (Entrepreneurial mindset), and sharing a common vision;

- action plans to promote this involvement in the life of the Company – some major actions are detailed below – measured through specific indicators.

Well-being policy

In several countries, specific programmes are in place to improve employees' health and well-being at work such as fitness facilities, on the job concierge, healthy food proposals.

Actions in order to improve balance between personal and professional life are also developed at site and country levels (see section on "Equal Opportunity").

Remuneration schemes

Remuneration evolution

Due to Alstom's presence in numerous countries, influence of local inflation and economic situation, no comprehensive indicator can be developed. Alstom's policy is to review the employees' base salaries every year, and to have open negotiations with employee representatives where they exist.

Performance linked remuneration schemes

Short-term incentive scheme

Alstom's annual short-term incentive scheme is based on two performance factors: collective performance (60% of the incentive target) and individual performance (40% of the incentive target). The target incentive is the incentive payment that is received when 100% of the financial goals and individual objectives are met. If the financial results exceed the goals, the incentive paid out may exceed the target incentive.

Eligibility and incentive target rates are linked to the job grading and influenced by local market practice in each country. Nearly 10,000 employees were eligible to this remuneration scheme at 31 December 2015.

As safety, quality and environment care are objectives which the Company wishes to develop and reinforce as well as sustainability performance, the variable remuneration of a number of the top management teams includes related indicators.

Profit-sharing

Alstom's policy aims to recognise collective performance. Profit-sharing schemes are in place in various countries (such as France, Brazil, Ecuador, Peru, Mexico or Italy) covering more than 13,000 of the Group's permanent employees.

The profit-sharing schemes are often calculated on agreed criteria, including the injury frequency rate reduction or other safety-related indicators. These schemes may also include business-related indicators such as the reduction of waste, or quality-related points.

Employee shareholding & long-term incentive scheme

Since its initial public offering and first listing, Alstom has implemented five capital increases reserved for employees and a plan to allocate free shares to all employees (May 2006). At the Extraordinary General Meeting held on 18 December 2015, a new authorisation for a capital increase dedicated to employees of up to 5,000,000 shares over a period of 38 months has been voted, including up to 2,000,000 shares to be dedicated to democratic distribution plans.

The Board of Directors has approved on 17 March 2016 a new programme of performance shares. 957,975 shares have been granted to 737 employees around the world, with a vesting period of three years and based on two internal and one external performance conditions, allowing the alignment of shareholders' and employees interests.

At 31 March 2016, the current and former Alstom employees held 1.35% of the Alstom share capital, either directly or through mutual funds.

Employee retention schemes

In order to ensure the success of the acquisition of the General Electric Signalling activities, some critical employees have been offered a retention bonus to secure the execution of some key customer projects over a period of 18 months.

Indicators to measure involvement

Regular indicators to measure motivation include overall resignation rate, absenteeism and results from opinion surveys.

Resignation rate

Resignation rate, which also reflects the general employment situation in each geographical area in which the Company operates, is one of the criteria used to determine the level of satisfaction of the Group's employees. The rates are closely monitored at both global and regional levels.

RESIGNATION RATE FOR EMPLOYEES ON PERMANENT CONTRACTS IN EACH REGION

Region	2014/15	2015/16
Europe + Africa / Middle East	2.2%	2.2%
Asia / Pacific	10.8%	8.9%
Americas	3.9%	4.8%
TOTAL	3.0%	3.2%

Source: Alstom HRIS.

The resignation rate is considered stable in 2015/16.

Absenteeism

Absenteeism indicator allows monitoring Alstom's ability to provide an appropriate working environment for its employees, as part of its well-being policy.

The average absenteeism rate amounts to 3.1% this year, with significant variations from country to country. This is the first year that the absenteeism rate is gathered at Group level. The data shows that 'Medical or sick absence due to personal injury and disease' accounts for 91% of total number of absence hours; appropriate actions and initiatives will be taken progressively in order to better identify causes of absenteeism and propose actions to influence the absenteeism rate.

As this indicator is monitored and analysed at local level, several local initiatives have already been implemented to reduce the absenteeism rate. For example, in Germany, a Company doctor is present full-time in office, while support from on-site psychiatric is in place to identify potential burn-out symptoms. Yoga courses and back exercises are provided to employees as well. Moreover, a re-integration process has been put in place to bring ill employees back to specific workplaces. Discussions with all leaders from all levels are conducted on a monthly basis to raise the awareness of the cost of absenteeism.

	2015
Absenteeism Rate	3.1%

Source: Social survey conducted in 20 countries (excluding India) representing 88% of the Company's total headcount.

Employee engagement surveys

Engagement is one of the pillars of the Alstom Human Resources strategy. In order to foster the employees' involvement, Alstom has launched surveys every two years which target to measure employees' opinion and assess employees' engagement on Company's vision, roadmap and strategy in order to implement appropriate actions.

Alstom conducted an Employee Opinion Survey by all its employees in November 2014 with a 64% response rate (2% higher than the 2012 survey). Improvement actions were launched in different Regions focusing on Sourcing, Engineering, Information Technology, Corporate Social responsibility areas. Most of the action plans included re-explaining the organisational principles to improve cooperation between teams as well as intensive deployment of the Alstom 2020 Strategy.

In particular:

- in Asia/Pacific Region, the two action plans post the engagement survey were launched:
 - "Work to be correctly rewarded (Salary, Bonus, Advantages)" – for which Alstom ensures that employees performance is well paid during the salary review; in addition, an annual reward ceremony for exceptional contributors have been initiated during the Annual Team Day. Key and critical employees today are also invited to a "cafezinho" (sharing a coffee) with Asia/Pacific management team,
 - "Management Communication of Alstom Strategy & Clarity of Organisation & Its principles" – for which Alstom started structured communication via a local Webcast. In addition, presentation of Region 2020 strategy is now an integral part of the induction programme for new comers. Face to face employee events are also great enablers to bring more clarity and shared vision of the strategy;
- in Germany, the entire management together with employees and employee representatives worked on the cascading of their strategy at local level to increase understanding and involvement of all contributors.

Next engagement survey is planned for autumn 2016.

MANAGING CAREERS AND DEVELOPING COMPETENCIES

Alstom is a high-technology company that handles large-scale, complex projects over the long-term. The quality of its teams, their skills and their commitment are crucial to its overall success.

Talent management remains a priority in 2015/16. Talent Management organisation aims to support Alstom in its talent development initiatives with a specific focus on diversity, talent pools and development of all its employees.

It is based around three pillars:

- talent acquisition;
- career management and talent development;
- Learning Solutions.

The network for Talent Management includes Talent Management teams of the regions and the headquarters.

Talent Acquisition

The Talent Acquisition overall objectives for the 2020 strategy are to:

- develop and deploy a Talent Acquisition Strategy to better attract, engage & retain diverse workforce representative of the Company's organisation, values, territory demographics, societal views and customer base;
- develop & implement an attractive Alstom employer brand & effective employer value proposition;
- contribute to effective resource planning & processes, as well organisational transformation and talent mapping.

2016/17 fiscal year will focus primarily on developing the way Alstom attracts, engages and retains talent to the organisation, *via* the implementation of its new application management tool as well as the creation of a Global Sourcing Team, to be based in India. The overall objective this year is also to focus on social media and communication, *via* internal training and further development of the existing social media channels.

Developing active relationships with universities and developing a young talent value proposition

Alstom 2020 Strategy aims for a more diverse workforce, representative of its organisation, values, territory demographics, societal views and customer base. This diverse workforce must also include young talents.

For example,

- in Italy, Alstom Services business has put in place a partnership with ELIS school, which provides specific technical training in railways maintenance to post bachelor students. Signalling Departments in Bologna and Bari have also put in place a partnership with ITIS Cuccovillo school for specific technical training in electronics. Altogether 13 internships have been organised and 160 hours of lectures have been provided by experts;

- in India, the Young Engineering Graduate Programme (YEGP) has been implemented in 2015 in order to hire young talents, with strong support and relationship with universities. 56 young Engineering graduates were on-boarded in 2015/2016. To retain and to develop them, one month of detailed induction and integration pathway across departments was arranged with close monitoring of their development progress;

- in 2015, Alstom France welcomed over 80 apprenticeships and 230 trainees on its French sites and has set a goal of increasing by 20% the number of its apprentices in 2016.

"Millennials" – or those born between 1980 and 2000, are now entering employment in vast numbers. By 2020, they will form 50% of the global workforce and will represent 75% of the workforce by 2030 ⁽¹⁾. In order to identify, attract and recruit this particular talent group, Alstom has created a new function that will coordinate university and school relationships across the world and will provide a central toolkit and support for its Regions.

The objectives for 2016/17 fiscal year will include a global mapping of both current Alstom practices regarding relationships with universities, as well as an external analysis of industry best practices and competitors. Relevant tools for future young talent strategies will also be proposed and developed, including internal & external communications, internal networks, social media and the identification of Alstom ambassadors that will represent the Company. By the end of 2016/17 fiscal year, a new Young Talent Value Proposition should be in place to contribute to the overall 2020 Strategy.

Integrating new employees

Recruitment is followed by numerous actions to facilitate the integration of new employees into their teams.

Since the beginning of 2016, Alstom has been reviewing the onboarding & induction process, so as to ensure similar employee experience across all its Regions, taking into account local specificities. The Onboarding and Induction process will also aim to be more integrated with the recruitment and internal mobility practices.

Career management

In Alstom, employees are encouraged to take ownership of their development and to manage their own career in collaboration with their line manager and Human Resources manager. This allows each employee to play a key role in his/her own performance and in his/her advancement.

All employees are treated equally on the basis of their skills, especially with regards to employment, recruitment, talent identification, mobility, training, remuneration, health and safety, which rely on common processes and policies across Alstom.

(1) "Millennials at Work", PwC 2011. Bureau of US Labor statistics, 2014. Pew Research Center 2015.

To enhance internal mobility and stimulate employee applications, Alstom effectively motivates all categories of potential internal candidates. Promoting a strong employer brand in this way has helped position Alstom as a globally recognised benchmark employer, capable of both attracting the best talents and mobilising all employees around shared values (Trust, Team, Action) that are in line with Alstom's strategic development.

In most large countries where Alstom is present, regular resourcing forums are held to better identify the available competencies, business needs and to facilitate cross-functional and cross regional moves.

In January 2016, Alstom deployed SAP Success Factor with a new applicant tracking system. Above 2,000 total open positions are currently being uploaded and accessible from more than 60 countries.

Development programmes

Development programmes have been built for different communities, which address different populations within Alstom: technical experts, support functions and managers.

Technical experts' development programmes

Alstom manages the technical experts' development through programmes adapted to their specific needs and environment. In particular, World Class Engineering programme is an important yearly process in order to identify all technical experts, provide them with appropriate personal development opportunities and ensure that technical expertise remains in line with the evolution of the market and Alstom strategy. Alstom has a network of around 300 Senior Experts and 30 Master Experts.

Experts' main missions are:

- to use their technical expertise to support the teams in charge of the operational performance of bids and projects, whether this is done through design reviews or *via* the resolution of problems arising during commercial service;
- to develop the Alstom knowledge in their field, and to transmit their knowhow internally so to act as trainers;
- to develop their influence in their area of competence and get recognition, not only within their entity and within the Company, but also outside the Company (in particular for Master Experts).

Skills transfer programmes are implemented specifically for Senior & Master Experts in order to develop growing technical experts in the organisation.

Support function development programmes

Alstom continues to deploy a strategy of career management for several functions: Finance, Human Resources, Environment Health and Safety, Legal, and Communication, in order to develop functional expert communities. These communities are managed at central level. In addition to the management of communities, "Operations" have been considered and maps of competencies have been designed for Quality, Sourcing, Supply Chain, Industrial and Engineering communities for which a competency model has been issued.

Management development programmes

As regards management and leadership skills:

- the ALP ("Accelerated Leadership Programme") continues with a focus on diversity. 16 different nationalities were represented among the 25 participants and 31% women in 2015/16. The objective is to focus on "Leadership": Leading self – leading others – Change leadership and transitional leadership. Alstom also monitors the previous participants' evolution in the Company;
- Additional Regional Management & Leadership programmes are also under development in Middle-East and Africa and Asia Pacific.

Leadership programmes are complemented by the management training modules proposed by the Company.

Performance and talent management

Career path management relies on the combination of three processes articulated in the People Management Cycle (PMC) launched each year on 1 March. The PMC adapts to the business priorities and leads to improvements.

Alstom proposes that managers and employees follow an e-learning module focusing on performance management, definitions of promotability and structure of development plans.

Annual performance interview

Objective: All employees benefit from an annual performance interview.

	2014/15 ^(*)	2015/16
Number of managers and professionals with an annual performance interview	12,500	13,500

Source: Alstom HRIS.

(*) 2014/2015 data reflects Alstom new perimeter following the separation of Transport and Energy activities.

All managers, engineers and professionals are covered by this process on a mandatory basis, which includes the setting of objectives and a development plan. To increase the efficiency of this process, the training of managers related to people development has been strengthened. Since 2015, the annual interviews systematically assess the implementation of the four leadership dimensions.

The process is optional but recommended for all other employees.

People Reviews

People Reviews allow the current and future needs of Alstom (based on a competency mapping) to be matched with the available competent resources, and career paths to be set.

Alstom includes most of its managers, roughly 13,000, in people reviews carried out at sites, Regions, and functions as a whole.

Learning Solutions

Objective: Shape the competencies that Alstom needs, taking the employees' expectations into account.

	2014 (*)	2015
Percentage of employees who have had training	81%	68%
Average number of training hours/employee	17 h	14 h
Total number of training hours	431,066 h	388,897 h

Source: Social survey conducted in 20 countries (excluding Israel) representing 93% of the Company's Total Headcount.

(*) 2014 data reflects Alstom new perimeter following the separation of Transport and Energy activities.

The rate of employees trained and the average number of training hours per employee has decreased during fiscal year 2015/16. The main reasons are:

- Considering circumstances on transition to new Alstom and integration of General Electric Signalling employees, countries focused on the analysis of training needs and planning to meet the organisation and business objectives. For example:
 - some functions like Finance, Human Resources, Legal, Sourcing concentrated on the separation tasks with General Electric and integration work of General Electric Signalling. Most of trainings related to these functions were not conducted in 2015,
 - many sessions were organised around the transition in various ways such as workshop, welcoming session, presentation about Company & Products, for duration shorter than four hours and for small groups, and these were not counted as trainings;
- Since development plans for employees have been targeted to offer a learning experience based on a 70:20:10 principle (70% on learnings on the job / 20% on special assignments and specific projects / 10% on formal training – face to face, e-learning, alternate formats via integration session), the Company focused to provide various options and alternatives for learning and to develop employees' career and knowledge. For example, in India, as part of competency build up for new engineers in new Rolling Stock & Component Engineering Center, focus was given to "on job training" for engineers either as business trip or short term assignment in 2015, instead of class room training sessions deployed in 2014.

Therefore the numbers of training hours can be slightly misleading.

Alstom Learning

Learning is a cornerstone of Alstom's people development's strategy. That's why Alstom Learning proposes top quality and mostly customised programmes. Carefully chosen expert partners – universities, external consultants, companies specialised in training design and delivery as well as internal specialists – collaborate on these programmes and a wide range of training methods is used (including classroom-based learning, workshops, virtual classrooms and also pure e-Learning).

Today the existing global catalogue proposes more than 127 modules (face to face and virtual classrooms) in a wide range of core business topics: Security, Environment Health and Safety, Manufacturing, Engineering, Project Management, Supply Chain, Sourcing, Finance, Legal, HR, Leadership and management, Ethics & compliance.

Main missions of the Learning team include:

- define and share yearly learning orientations in line with business strategy;
- design, build and manage a central and global learning offer and deploy it worldwide in order to develop employees and serve Alstom goals;
- animate and facilitate the sharing of best practices and networking into the Learning community;
- identify and train internal trainers across the organisation.

The learning orientations established for fiscal year 2015/16 focused on:

- continue to keep ethics and compliance at the heart of Alstom ways of working;
- have security and safety at the top of Alstom priorities;
- reinforce technical expertise and capacity to innovate;
- target excellence in execution of Alstom products and projects;
- lead and motivate diverse teams.

Knowledge management/transfer

Alstom believes that there is a positive and significant relationship between motivation and performance, and that having opportunities to learn is part of this motivation. Developing all employees is part of the Company's "People Management cycle" which guides managers in empowering their teams. For each employee a training plan is designed annually with his/her manager and Human Resources referent and put into action throughout the year.

Two levers of internal knowledge transfer are being promoted:

- the support to employees empowerment and autonomy in their development through specific actions such as:
 - 360° evaluations and the feedback that goes along: 130 managers, middle and senior management have benefited from this evaluation this year and 130 last year, on a total of 344 from the "Talent pool", which reaches almost 80% in two years' time,
 - Mentoring or coaching initiatives: 50 actions have been coordinated centrally. Other programmes are also developed at local level; for example in Brazil, the third edition of the mentoring programme has been launched with the following results in 2015: 21 Mentors, 27 Mentees, 200 sessions in total and 280 hours dedicated to sessions between Mentors and Mentees. A similar programme was deployed in North Latin America involving nine Mentors and nine Mentees which was also well appreciated by participants;
- the support to delivery of training by internal trainers. Indeed Alstom believes that being able to design and deliver training is a real managerial competency that needs to be valorised, but also that internal training helps to develop and keep the expertise within the Company and facilitates some knowledge transfer by being taught by colleagues. In 2015/16, additional 85 people have been trained to be trainers and more than 50% of training sessions at Alstom have been delivered by internal trainers.

EQUAL OPPORTUNITY

Diversity is one of the five pillars of Alstom 2020 Strategy (see chapter 1 Description of Group activities, section "Strategy" p. 7). Common objectives and KPIs have been set for the whole Alstom, around gender and multicultural diversity. By 2020, Alstom targets to reach 25% of women amongst managers & professionals and to ensure that the nationality of middle management and talent pool reflect Alstom's business worldwide. Country-specific diversity action plans are being set up, encompassing nationality and gender and beyond: age/generations, educational background, social status and ability/disability are also included in local action plans.

The following measures were validated and implemented in June 2015:

- diversity as an objective for Human Resources population;
- action plans in countries;
- short list policy: at least one diverse candidate in all short lists (gender, nationality, social background, disability);
- diversity of participants in the Accelerated Leadership Programme (16 nationalities and 31% of women in 2015/16);
- analysis of the salary gap between women and men for the same level of responsibilities, starting 2014/15 salary reviews.

INDICATORS RELATED TO WOMEN BY CATEGORY

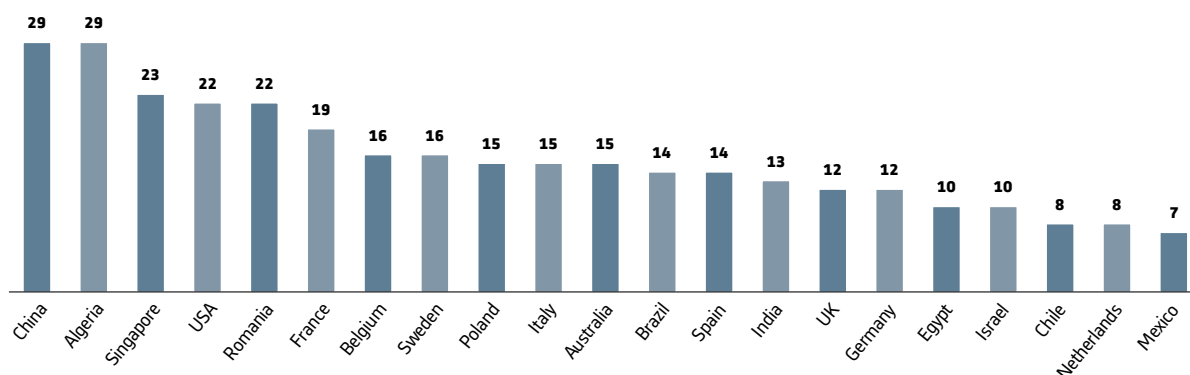
	2014/15 (*)	2015/16
Percentage of women in the workforce	15.4%	16.9%
Percentage of women: managers & professionals	18.6%	19.9%
Percentage of women: executives	12.6%	13.1%
Percentage of women trained in training sessions	14.0%	15.7%

Sources: Social survey conducted in 21 countries representing 93% of the Company's Total Headcount and Alstom HRIS.

(*) 2014/15 data reflects new Alstom perimeter following the separation of Transport and Energy activities.

The proportion of women in the headcount varies greatly between countries.

PERCENTAGE OF WOMEN PER COUNTRY (AS OF 31 DECEMBER 2015)



Source: Social survey conducted in 21 countries representing 93% of the Company's total headcount.

Promoting gender equality

It is Alstom's policy to promote equal opportunities for men and women on the basis of equal employment and qualifications. This principle is included in Alstom's Code of Ethics and in the Company's Human Resources policy. Moreover, as previously mentioned, Alstom aims to have 25% of women among its Managers & Professionals.

The question of professional equality between women and men has been at the heart of Alstom's social and Human Resources policy for many years. It is nevertheless noteworthy that the training path leading to the skills required for most Alstom positions primarily attract men. The proportion of women in those curricula is about 15% to 20%, which prevents meaningful quantitative comparison. Therefore, Alstom focuses particularly on optimising the integration of women in its activities and offering them career opportunities.

In order to reinforce the diversity of its population, the Company acts at local and Alstom levels. In addition, through its local presence and offer of high-quality jobs and career development, Alstom is a strong contributor to the development of the countries in which it is located.

Supporting initiatives dedicated to promotion of women

In addition to actions launched in the previous fiscal year, Alstom requested this year all country organisations to define action plans to promote the employment of women. For example:

- In France, Alstom is member of “Elles bougent”, a non-profit organisation which promotes industrial jobs to high school students by organising exchanges with female students and Alstom engineers and offering tours of workshops. This year in particular, Alstom participated in the Forum “Elles bougent pour l’industrie en Rhône-Alpes” in March 2015 and participated in the fourth edition of the forum “Feminine Networks and careers” in February 2016, with 70 CVs collected for internships or first jobs. Spain has followed suite and started a collaboration with “Elles bougent” Association in Madrid, to promote technical and engineer careers between women.
- In line with Alstom 2020 strategy on diversity, Alstom established a professional relationship with Valore D (<http://valored.it/en>) – the first association of large companies formed in Italy in order to support female’s leadership in the corporate world. This initiative will give the opportunity to support, retain and motivate Alstom talented female employees and female employees who are in the Company’s key roles. These employees have access to seminars, events and other lab dedicated to support female professional growth, work-life balance and promote diversity. The 35% of Alstom managers and professionals women will be involved this year in this process.
- In the UK, as part of the ATC joint-venture, Alstom is participating in the “Women Into Construction” initiative, a non profit organisation promoting construction related opportunities for women. Female contractors are offered a two to six weeks full time placement.
- In the USA, Alstom has continued numerous partnerships and participated in many programmes and activities. This year Alstom sponsored and attended the regional conference of the Society of Women Engineers (SWE) and also supported the national SWE conference. Alstom also participated in the fifth annual Celebrating Women Who Move the Nation (CWWMN); Alstom is part of the Equal Employment Advisory Council (EEAC) and of the Industrial Liaison Group (ILG) which promotes affirmative action and equal employment opportunities by working closely with the US Government Office of Federal Contract Compliance Programmes and Employment Opportunities Commission.

Balance between personal and professional life

In several countries, measures have been taken or renewed to encourage a good balance between personal and professional life. For example, Alstom encourages the development of its parental policy by starting systems of assistance to find childcare solutions or inter-company day nurseries whenever possible (Saint-Ouen or Villeurbanne in France).

Employment of disabled people

It has been a continuous guideline within Alstom to develop and support the integration and employment of disabled people. This enables those employees to work in a challenging environment while following the Alstom Code of Ethics – which strictly prohibits any discrimination on the basis of health or disability – and the local regulations.

With regards to disability, Alstom has started to develop a disability policy focusing on five complementary areas: job access, maintenance in employment, raising awareness, accessibility to premises and information, and partnership with the sheltered work sector. Each entity is encouraged to integrate this policy into its process. Each year, Alstom organises internal training sessions to help Human Resources team members better understand various situations relating to disability and to help prepare job interviews and the integration of people with disability.

PERCENTAGE OF EMPLOYEES WITH DISABILITIES

	2014	2015
Percentage of employees with disabilities	2.8%	2.6%

Source: Social survey conducted in 21 countries representing 93% of Alstom’s total headcount.

The above table shows the average percentage of direct employees with disabilities, as per the social survey conducted in 21 countries. This indicator measures the level of integration of disabled people in direct staff.

Regulations regarding the employment of disabled people are very different from one country to another. Action plans to promote the integration of people with disabilities in the Company are therefore conducted at local level. For instance, the three-year action plan implemented in Brazil includes a “Disabled people inclusion programme”. This programme includes the definition of an action plan to achieve country’s target number on employment of disabled (5% of total employees), accessibility studies and partnerships with institutions.

Promoting cultural diversity

Alstom is fully aware of the strength resulting from the large number of nationalities, cultures and approaches represented in its employees. Specific action plans have been developed at local level to take advantage of this asset.

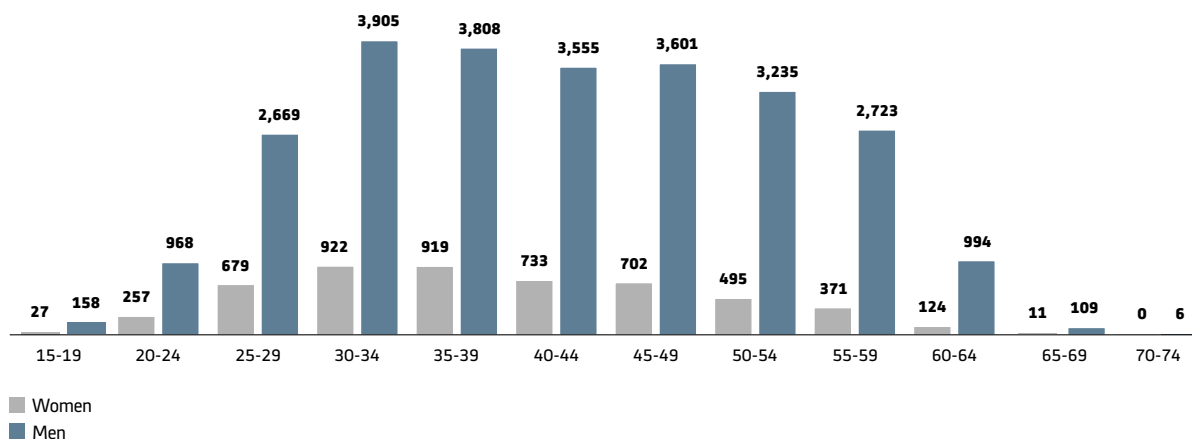
Two indicators measure diversity:

- nationalities in middle management and talent pools: progress has been made on localisation of managerial positions within the Alstom Regions, with Asia Pacific at 75%, Americas at 70%, Middle East at 50%, and Headquarters with 10% non Europeans;
- number of expatriates has increased from 320 in December 2014 to 365 in December 2015, reflecting Alstom’s challenges to recruit local expertise in areas such as the Middle-East or India, where major projects were sold.

Managing senior careers

Age is obviously not a discrimination criterion. According the chart below, employees aged over 45 account for around 40% of the Group's headcount. The women/men breakdown *versus* age is identical.

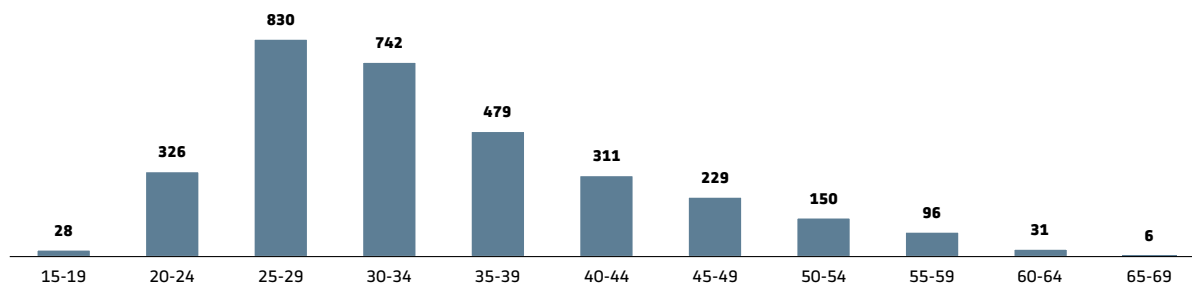
AGE PYRAMID BY GENDER – MARCH 2016



Source: Alstom HRIS.

Besides, 512 people aged over 45 were hired over the fiscal year, corresponding to 16% of the new permanent recruits.

AGE PYRAMID OF NEW HIRES 2015/16 – PERMANENT CONTRACTS



Source: Alstom HRIS.

EMPLOYEE RELATIONS

An internal survey, conducted in 21 countries and representing 93% of the Alstom headcount, showed that 76% of employees are covered by a national or intra-company collective bargaining agreement.

Collective bargaining agreements

Alstom's Management and employee representatives work closely together at all levels within Alstom. The European Works Forum (EWF) meets on a regular basis in various formats: eight select committees, 11 regular or extraordinary plenary sessions, 11 meetings of working groups held during 2015. The exchanges enabled the business situation and the impact on the workforce to be shared. Most meetings focused on transaction with General Electric, former General Electric Signalling

activities integration and planned reinforcement of Alstom's support and IT functions to ensure continuity of activity and complete independence of the Company. On 10 November 2015, Management welcomed participants to the first Alstom EWF meeting post-closing of the General Electric – Alstom deal. Since, meetings have been organised in December 2015 and March 2016 (Plenary meetings) and February 2016 (Select Committee).

Many agreements related to salaries, working time, restructuring and profit-sharing were signed at local level with the employee representatives during 2015. The list of the agreements signed in France in 2015 is available on www.alstom.com.

Management of restructuring impacts

Date February 2011, the agreement between Alstom and the European Metalworkers' Federation (which has become IndustriAll since that

date) was renewed in November 2015 to adapt to the new scope of Alstom activities. The agreement aims at safeguarding employment and accompanying the redeployment of employees. It also organises the social dialogue at European and local levels.

RELATIONS WITH EXTERNAL STAKEHOLDERS

RELATIONSHIPS WITH CUSTOMERS

Customer centricity: the first pillar of Alstom strategy

Alstom's is now fully focused on serving transport markets for urban and main lines mobility and transportation actors in the freight and mining sectors around the world. The Company's vision is to be the preferred partner of its customers developing innovative solutions that bring value for both parties.

For Alstom, customer centricity means:

- understand customers' challenges and expectations;
- commit and deliver on promises;
- seek customer feedback proactively;
- develop a long-term relationship of mutual trust and understanding.

This is built on:

- its regionalised and customer-focused organisation spread over 90 sites in 60 countries. This organisation set up in 2014 allows to be closer to customers to better understand and address their needs throughout all stages of their buying cycle;
- its Customer Relationship Management tool which supports common sales processes used by 1,200 people worldwide;
- initiatives where the customer-centricity value is being boosted in actions and behaviours.

Customer Satisfaction Surveys

Since 2013, Alstom has run periodic surveys to measure customer satisfaction of the way projects are executed. Alstom executes concurrently some 450 contracts as "projects" worldwide. Of these about 300 have a contract value over €15 million and fall in scope of Customer Satisfaction Surveys; about half of the 300 projects are selected to be surveyed each year. These surveys are a way to step back from day-to-day interactions with customers and to ask them to assess Alstom performance.

In the past fiscal period, 180 projects were surveyed. The average satisfaction indicator rose from 7.8 to 8.0 out of 10 compared to the previous year and remedial action plan for projects with results below 8.0 were reinforced with systematic feedback to customers.

Customer Clubs

Since 2013, five "Customer Clubs" addressing metro, PENDOLINO™ and tramway systems have gathered 146 delegates from 63 companies. Customer Clubs are worldwide forums for customers to share their professional know-how and opinions with their peers and with Alstom experts. Customer Clubs for each system type are run every 18 to 24 months jointly between Alstom and one Club member. It is an opportunity for Alstom to listen to what its customers say about their business challenges and their specific needs and to present recent solutions in a customer environment. It also reinforces the customer intimacy beyond the contractual relationship. In 2015, the second meeting of the Alstom PENDOLINO™ Club took place in November in Manchester: in the course of two days, 22 customer representatives from eight PENDOLINO™ operators had the opportunity to share their ideas and experience. In 2016, the third session of the Metro Club will take place in autumn.

Customer relationship goes digital

In 2015, Alstom launched its Services Customer Portal, which provides a customised set of e-services ranging from technical expertise, alerts, e-documentation, information and a collaborative platform. It embeds Partsfolio, Alstom e-business solution for parts and repairs.

Today, 180 buyers and users from maintenance and logistics functions from 25 customer companies are regularly using Partsfolio or use the other services of Alstom Services Customer Portal.

These e-services reinforce the proximity with the customers providing better responsiveness and more collaboration during the operation and maintenance of their fleet.

More information on Service Customer Portal and Partsfolio can be found on the dedicated websites:

www.services.transport.alstom.com

www.partsfolio.transport.alstom.com

Customer relationships through industry associations and events

Beyond the day-to-day relationships with its customers, Alstom is active in a range of industry bodies on all continents through which the Company tries to address customer needs beyond specific opportunities and contracts. For example, in Kazakhstan, Alstom has gone beyond a transfer of state-of-the art technology by supporting the national Academy of Railways to train future railway engineers. Specifically, in 2015, Alstom donated to the Academy locomotive sub-systems as well as technical, repair & operation manuals. The equipment is today installed in the Academy's laboratories and regularly used in their student training courses.

Alstom is also present in many industry events such as exhibitions and conferences and meets existing and new potential customers. In these events, Alstom increasingly seeks to present and promote new technologies, products and services to customers expressing the benefits they get from using them. For example in February 2016, with Alstom's

support, London Underground, won the UK Railway Industry Award for their use of HESOP™, Alstom's innovative "reversible" power supply substation.

Customer relationships' continuity following General Electric Signalling acquisition

As part of Alstom's strategic repositioning on its transport activities, the Company has acquired General Electric's railway signalling business. This acquisition brought Alstom a set of new existing and prospective customers who are rail freight and mining companies around the world. Starting in early November 2015, immediately following the acquisition, Alstom launched a "Business Continuity" task force to meet, listen and reassure these customers and ensure a seamless transition of operations and projects. This will serve to build a new value proposition to this customer base combining former General Electric and Alstom solution portfolios to respond to their requirements.

RELATIONSHIPS WITH GOVERNMENTS, INTERNATIONAL ORGANISATIONS AND THINK TANKS

Contribution to the public debate on sustainable development policies

Alstom wants to contribute to the public debate around sustainable mobility and rail transport, engaging governments and international organisations in the development of policies.

As a company with a long history and a unique portfolio of sustainable transport technologies, Alstom has the experience and expertise to help drive sustainable and low-carbon development.

The Group therefore engages in advocacy, both directly with governments, international organisations and other influencers, and through memberships in selected coalitions sharing the same vision.

The messages through which Alstom contributes to the policy debate focus on the following:

- the role of open markets and fair competition in supporting green growth, particularly through:
 - fair competition and reciprocity in public procurement,
 - removal of trade barriers for environmental-friendly goods and services,
 - consistent application of high international standards for ethics and compliance,
 - protection of intellectual property rights (IPR) as a major driver of innovation and investment in Research, Development and Deployment (RD&D);
- the need for continued investment in sustainable technologies in public and private sectors, particularly through:
 - public support and collaboration to accelerate ongoing R&D and demonstration of sustainable technologies and services,
 - public funding for the piloting and demonstration of pre-commercial technologies,

- international financial institutions support for major infrastructure projects in developing countries,
- financial institutions making more use of innovative instruments to leverage private investment, notably through risk-sharing, and governments that support and facilitate this;
- the importance of long-term, transparent and stable policy frameworks to support investment in sustainable development, particularly through:
 - meaningful CO₂ prices,
 - transport decarbonisation strategies including the promotion of sustainable, low-carbon transport options such as rail,
 - balanced regulation and standard-setting to support a broad portfolio of sustainable, low carbon, high-efficiency technologies,
 - evaluation of tenders in the public procurement market for transport systems based on the Most Economically Advantageous criteria, taking into account the long life-cycle of such investments,
 - effective application of the right technical standards to deploy technologies. Technical standards should ideally promote the use of best available technology (BAT),
 - consistency and mutual recognition of standards and regulation between different jurisdictions (certification & homologation) to reduce costs,
 - robust standards on energy efficiency and incentives to improve it, which play an important role in driving investment in transport technologies,
 - growing interest in improving the resilience of transport infrastructure, especially in response to climate change impacts.

The transition to a low-carbon economy is an essential element of ensuring a long-term sustainable operating environment for Alstom's businesses. It provides major opportunities for the deployment of the Group's technologies, and effective action on it is a central part of the Group's wider Corporate Social Responsibility. In line with the new global climate change agreement obtained at the Paris COP21, major economies need to make ambitious CO₂ emission reduction commitments to drive the transition to low-carbon society. Transport should become a major area of its implementation.

Participation in organisations and high-level initiatives

Convinced that the Sustainable Development goal will be reached only if all parties concerned are actively involved, Alstom participates in a number of leading bodies.

At international level

- In 2008, Alstom joined the United Nations' Global Compact organisation, designed to encourage companies to commit to a set of key values spanning human rights, labour standards, environmental protection and ethics in business practices. Alstom is actively involved in this network and promotes the ten principles that summarise its key values.
- In 2014, Alstom became part of the World Bank's Carbon Pricing Leadership Coalition, bringing together leaders from governments, business and civil society, to help expand and improve the design and implementation of carbon-pricing policies which maintain competitiveness, create jobs, encourage innovation and deliver meaningful CO₂ emission reductions.
- Alstom has signed the sustainable development charter drawn up by the International Association of Public Transport (*Union Internationale des Transports Publics*, UITP).
- In 2015, Alstom confirmed its support to the International Union of Railways (UIC) Low Carbon Rail Transport Challenge, "a commitment

to deliver railway solutions which are ever more energy efficient and attractive such as high performance electrical, diesel and hybrid trains, smart railway systems and modernisation services".

- Alstom joined the Sustainable Low Carbon Transport Partnership (SLoCaT) bringing together international players committed to sustainable mobility.
- Alstom continued to participate actively in the United Nations Framework Convention on Climate Change (UNFCCC), participating in COP21 in Paris, France, in December 2015 to show how its technologies support the transition to a low-carbon society.
- In March 2015, Alstom, together with Bombardier Transportation, Deutsche Bahn, Knorr Bremse, Nederlandse Spoorwegen and SNCF – launched Railsponsible in Utrecht, The Netherlands (see more details in next section "Relationships with suppliers and contractors").

At regional/country level

Alstom is participating in a large number of industry associations in Europe and large countries (AFEP, MEDEF, C3D, BITC, CEMEFI, etc.) which is a way to get insight from public authorities' expectations and to understand in advance the evolution of regulations.

This year, Alstom supported a number of initiatives in the rail industry. Two examples:

- in the USA, Alstom is a member of the US Business Council for Sustainable Energy (BCSE) and the US National Climate Coalition;
- Alstom UK is co-chair of Rail Supply Group, alongside Secretaries of State for Business and Transport. The group is led by the tier-one suppliers in the British rail industry, including Alstom, Siemens, Hitachi and Bombardier as well as civil contractors, consultants and other engineering firms. The group's mission is to support the development of the UK's rail supply chain – both to ensure successful delivery of domestic projects such as HS2, Crossrail and London Underground, as well as to develop a supply chain that can effectively export its expertise and products into the global rail market.

RELATIONSHIPS WITH SUPPLIERS AND CONTRACTORS

For over 10 years, Alstom has been taking account of the sustainable development issues in its purchases and making efforts to reduce social, environmental and ethical risks in its supply chain.

Representing over 60% of the turnover of Alstom, sourcing plays a strategic role that directly impacts the Company's performance. Relationships between Alstom and its suppliers and subcontractors are thus a key success factor. The sustainable sourcing approach initiated by Alstom aims particularly at making these relationships durable and continuously reinforcing their quality. The different axes of this approach are stated in the Sustainable Sourcing Policy of Alstom signed by the Sourcing Vice President of the Company and available on www.alstom.com.

Consistent with this approach of continuous improvement and collaborative relationships with its suppliers and subcontractors, Alstom has launched a number of actions related to Corporate Social Responsibility (CSR) and the associated notion of performance. In this light, since 2007, Alstom has been paying special attention to the development of the CSR performance of its suppliers and contributing to the sustainability of the railway supply chain. This allows its exposure to risks to be reduced whilst generating many innovation opportunities and facilitating change management.

Risk reduction in the supply chain

Commitment and qualification of the suppliers

Through the signature of the Sustainable Development Charter between Alstom and its suppliers and subcontractors, the suppliers of Alstom commit to respect the principles of the Universal Declaration of Human Rights of the United Nations, the fundamental conventions of the International Labour Organisation (ILO), the Guiding Principles of the Organisation for Economic Cooperation and Development (OECD), the rules of conduct of the International Chamber of Commerce (ICC) and the values set out in the Alstom's Code of Ethics.

As of 31 March 2016, more than 3,000 suppliers of Alstom have signed this Charter, among which are 2,100 suppliers who have received an order from Alstom within the last 12 months. This commitment covers more than 75% of the amount spent with referenced suppliers. In order to obtain the general approval of its suppliers, Alstom has also included conformity locally with the Charter in its general purchasing conditions.

Furthermore, in the frame of the qualification process, the audits led by the purchasing and quality managers include questions related to the Corporate Social Responsibility of the supplier.

Risk mapping

Alstom's objective is to reduce the environmental, social and ethical risks in its supply chain. It is therefore necessary to prioritise the evaluation of the CSR performance of suppliers representing a particularly high level of risk to the Company. A mapping of supplier CSR risks is performed every year according to three criteria:

- family of products;
- supplier's country;
- volume of purchases by Alstom.

The risk level for each product family and each country is defined by an external company. This mapping allows the suppliers to be prioritised.

Evaluation of the suppliers and corrective action plans

The suppliers are evaluated using questionnaires related to environmental, social and ethical criteria and their respective requirements towards their own suppliers.

Undertaken by EcoVadis, a company specialised in sustainable development evaluations, the assessments are led by a team of CSR experts which analyses the answers from the suppliers, the uploaded evidence documentation and information published on their activities. The evaluation system relies on United Nations Global Compact, the ISO 26000 standard as well as the Global Reporting Initiative guidelines.

When the evaluation results are not in line with Alstom's requirements, the suppliers are required to set up and implement an action plan to remedy the identified weaknesses. In this task, they are free to ask the fully trained Sourcing Managers of Alstom to accompany them in their improvement process.

Once the corrective action plans have been implemented, the suppliers undergo a new evaluation. In the event that a non-compliant supplier declines to put in place corrective actions or to commit to progress, Alstom may decide to break the commercial relationship.

Sectorial initiative: Railsponsible

Officially launched on 4 March 2015, Railsponsible is an initiative on railway sustainable procurement that was founded by Alstom, SNCF, Nederlandse Spoorwegen (NS), DB, Bombardier and Knorr-Bremse.

On 1 April 2016, the Vice President Sourcing of Alstom was appointed to chair the Committee of Railsponsible, succeeding his counterpart from NS.

Focused on sustainable sourcing, this initiative of the European railway industry aims at improving the sustainable development of the supply chain through a common approach and the sharing of best practices, tools and processes.

Under this framework, the members use the same supplier evaluation platform – EcoVadis – in order to measure their CSR performance. There are plenty of advantages to be derived from this initiative, for both the suppliers and the members. Once the evaluation has been carried out, a supplier may decide, on the request of one of the partner companies, to make his score visible to the rest of the members of the initiative. Through its access to the supplier evaluations that are not necessarily derived from the risk mapping, Alstom benefits from a better overview of the CSR performance of the supplier and gains time and efficiency in doing so. For more information please see www.railsponsible.org.

At the end of the fiscal year 2015/16, 338 suppliers have a valid evaluation via the EcoVadis platform, representing more than 37% of the total purchase volume ⁽¹⁾.

Integration of best practices and continuous improvement

Change management with the buyers

Alstom works with numerous suppliers across the world. Its whole approach is supported by the Sourcing Department and is aimed at embracing sustainable development as a key element of the sourcing culture. Conscious that this dynamic needs a strong involvement of the buyers, Alstom has developed a communication and training programme adapted to the sourcing and supplier quality communities. The objective of this training is a better understanding of Alstom's sustainable sourcing, supplier evaluations requirements and their accompaniment in the setting-up of corrective action plans. To ensure broad participation in the countries where Alstom is located, the training sessions are organised both in the class-room and online. The training content is updated each year and evolves with the sustainable sourcing maturity of buyers and suppliers.

(1) According to internal instruction, suppliers CSR performance assessments are valid for three years.

Two levels of training were proposed in the fiscal year 2015/16: the complete training module dedicated to Sourcing Managers, and an introduction to sustainable sourcing delivered as short modules for buyers. As at 31 March 2016, nearly 80% of the Sourcing Managers – the priority target – have been trained. 120 buyers and members of the sourcing network have attended the introduction module.

Development of partnerships with suppliers

Alstom redesigned its strategic suppliers programme “Leading Partners” as well as its sourcing model “Identity” in order to integrate at their heart a more collaborative approach.

This is formally expressed by a programme Charter testifying the intention and good will of the Parties (Alstom and its Partners) to work together on three main axes which are business development & international expansion, industrial excellence and innovation.

The key phrase is “mutual interest”. Since November 2015, 18 partners have been admitted by a multi-trade board as well as by the steering committee drawn from the top management of Alstom.

Concrete progress with respect to the objectives and the partner relationship status are reviewed yearly with each partner in order to confirm, adapt or reconsider the interest and the adhesion to the Programme.

Among the partners are companies that have an international dimension, including some major companies from the French stock market index CAC 40, and also small and medium enterprises.

Centred today on its transport activity, Alstom continuously supports a railway culture whereby all sector players share their collaboration results in order to benefit the customer and the final user.

Sourcing of sustainable products and services

Alstom has integrated, within some of its selection procedures, strong commitments to energy consumption reduction, which, if they are not reached, subject the supplier to penalties. Alstom continues its efforts by including, for example in respect of facility management, sustainable sourcing criteria in its specifications that are key elements of the award process. To support them in this approach, recommendation files explaining the sustainable development stakes and the selection criteria by product family are put at the buyers’ disposal. Alstom fosters recourse to the protected sector on specific identified activities. The current perimeter notably includes printing, translations and the care of work clothes and is meant to evolve.

Alstom collaborates with partners in respect of “sustainable products” taking into account the life cycle of its solutions. The process of consultation includes ecodesign. This collaborative approach allows the selection and development of components and technologies that are more environmental friendly. For instance, Alstom has developed with Thermoking, an HVAC supplier, a reversing air conditioning system giving rise to substantial energy savings. Furthermore, as part of its continuous improvement approach, Alstom is working in close cooperation with its suppliers to identify and substitute potentially hazardous materials in line with evolution of scientific knowledge and legislation (see section “Sustainable mobility solutions”).

Key indicators

	2014/15	2015/16
Number of sustainable development charters signed by the suppliers (cumulative since the chart implementation in 2007) ⁽¹⁾	2,450	3,060
Number of suppliers covered by an assessment less than three years old	259	338
Number of employees who have attended sustainable sourcing training (cumulative over three years)	67	58

(1) Not integrating the charters accounted for in the general purchasing conditions.

RELATIONSHIPS WITH LOCAL COMMUNITIES

Whilst being a global player, Alstom recognises the obligation to also act as a local player wherever it is operating. Alstom first defined its global Community Investment Policy – which is published on the Company’s website in 2013. Since then, the Company has consistently applied this Policy, engaging with local stakeholders in order to implement local action plans which meet their expectations and needs.

The Community Investment Policy is focused on three priorities:

- responding to local needs;
- supporting development through education;
- supporting local economic development and industrial activities.

Responding to local social needs

Alstom wants to make a positive impact on communities that are local to where it has a presence, improving the living standards of local people through pragmatic dialogue and by encouraging employee awareness and employee involvement in various volunteer activities. Formal and informal mechanisms have been developed at different levels to coordinate these volunteering activities.

Underneath are presented a few examples of projects addressing social needs in various countries.

- In India, Alstom provided support to the Government High School at Kangeyampalayam in Sullur by having water pipes installed to bring water from a water treatment plant to the school thereby reducing water wastage and benefitting 218 children and 15 teachers.

- In Australia, since 2014 Alstom has been a partner of Children's Cancer Institute (CCI) during which time team members have visited the laboratories, raised funds through local and national initiatives and volunteered at key events. Fundraising activities have included volunteering at CCI functions, participating in fundraising activities and Alstom employees managed activities such as sport or festive events. Over AUS\$25,000 have been raised to date.
- In the UK, five employees from the Holborn and Golders Green sites participated in the BITC (Business in the Community) "Give and Gain Day", which is a national day for volunteering. They took various roles at a Sports Day where approximately 220 young people, competed in six different sports. The goals of the day were to inspire young people through sport, to bring people together from the local community and to create a festival-like environment where people could experience the variety of sports available.
- In Mexico, Alstom gives its employees and their families the opportunity once a year to participate on a voluntary basis in Alstom Green Day, a one-day activity which aims at improving the living conditions of Mexico's poorest communities. The participants learn about sustainable and ecological techniques and provide physical assistance, for example, to construct organic gardens, grow orchards, install ecological stoves and restore rainwater cisterns to the benefit of 30 poor local families.

Alstom also encourages initiatives amongst its employees to raise money for local charities and often contributes to them in some way – such as through sponsorship; through its organisational ability; through the provision of food or refreshments; by allowing the use of Company property; or by giving employees the time to participate.

A few examples of charitable activities and fund-raising are as follows:

- In Singapore, Alstom participates annually in the JP Morgan Corporate Challenge, which is a 5.6 km run. 126 employees joined the Challenge in 2015. The race is part of efforts to promote fitness in the workplace, while a substantial portion of the race proceeds goes towards supporting an international children's charity – The Smile Mission – which provides free surgery for those born with facial deformities.
- In India, the Wipro Chennai Marathon is an annual event to increase awareness of the general public on health & fitness. The proceeds of the event go to local charity organisations. In 2015, nearly 150 Alstom employees participated, with the Company contributing 80% of the participation fee.
- In Hong Kong, 20 members of Alstom's team participated in the UNICEF Charity Run 2015 in order to raise funds for the fight to prevent mother-to-child transmission of HIV. The Charity Run has raised more than HK\$66.5 million since 2006 to support UNICEF's HIV/AIDS prevention and treatment activities in over 150 countries.
- In USA, the United Way campaign, which runs from November to December, supports charities through employee contributions. Some Alstom sites hold additional fund raising activities. In 2015 employees donated over \$50,000 to United Way.
- In Morocco, members of the Alstom football team started an initiative to raise funds to support a local orphanage NGO called "Al Ihsane". This volunteerism led to a social event which gathered Alstom staff beyond the footballing fraternity.
- In Spain, Alstom Spain has been collaborating since end of 2015 with the "Menudos Corazones" Association in Madrid, which help babies and young people with heart problems. Money raised through a prize raffle was donated to the cause.

- In Italy, since 2014 Alstom's Bologna site has been donating the food surplus from its canteen to the Foundation *Banco Alimentare*, a non-profit organisation that works to combat food waste and hunger in the fight against poverty, which then distributes it to charitable organisations in the Bologna area. In addition, employees from the Bologna and Bari sites have entirely financed the purchase of a "refrigeration blast chiller" that keeps the food surplus at safe temperature before it is donated. 4 tons of food have already been collected since the beginning of the project.

Supporting development through education

Continuing to honour the commitment it made at the Rio+20 meeting in June 2012, Alstom promotes education among young people through three primary activities: supporting students; supporting educational institutions; and partnering with universities.

Here are some examples.

Supporting students

- In Italy, the 2015 edition of "Children in Alstom" involved 240 children in visiting five Alstom sites in Italy. In some sites there were presentations of Alstom trades while, in others, part of the entertainment was dedicated to safety.
- In India, Environment, Health and Safety Training was conducted at the Government High School in Kangeyampalayam, Sulur on the topic of "Road Safety" in 2015. About 100 children participated in the training and the associated poster competition.
- In Morocco, Alstom Morocco supports the Initiative Foundation which rehabilitates primary schools in poor neighbourhoods of Casablanca, creating a network between students of a local university and pupils of the beneficiary school for support to education. Alstom rewards the university students by offering internship opportunities. The main result is an increase in the quality of the school's facilities, allowing the pupils of this impoverished neighbourhood to develop their potential in a favourable environment.
- In Australia, six highly skilled senior tradesmen from the Alstom site in Ballarat, Victoria have teamed up with local training organisation – Ballarat Group Training – and have started a mentoring programme for apprentices from different trades to act as mentors and share their experiences. This initiative has received high recognition and positive feedback from the community.
- In the UK, Alstom joined the BITC (Business in the Community) Business Class Programme – a government-endorsed programme which supports secondary school pupils facing social disadvantage by forming long term partnerships between schools and businesses. For instance, employees of the Company participated in the BITC MOSAIC programme, providing mentoring to young girls and their mothers or to groups of teenage girls to help inspire them/give them confidence.

Supporting schools/educational establishments

- In Qatar, Alstom has partnered with INJAZ-Qatar in a programme designed to inspire and prepare young people to succeed in the work place. INJAZ Qatar is a non-profit organisation dedicated to helping youth to develop work-readiness, entrepreneurship and financial literacy skills through the "More than Money" programme. This year 13 Alstom volunteers delivered "More than Money" presentations to Grade 7 students at the American School of Doha.

- In Morocco, Alstom, as the sponsor of a Masters Programme on Integrated Urban Transport Planning at *Ponts et Chaussées* Engineering School, co-organised study trips for 120 students from this programme, arranging meetings and site visits with local partners in the Transport domain.
- In Australia, workers from Alstom's Ballarat factory used their downtime to do maintenance and safety work at two local schools and two local Uniting Care facilities. This activity led to the re-use of left over materials from previous work and continued employment for Ballarat workers despite being in a low activity phase.
- In the UK, Alstom's 38 STEM (Science, Technology, Engineering, Mathematics) Ambassadors are part of a network across the UK that work with thousands of schools, colleges and STEM employers, to enable young people of all backgrounds and abilities to meet inspiring role models, understand real world applications of STEM subjects and experience hands-on STEM activities that motivate, inspire and bring learning and career opportunities to life.

Partnerships with Universities

Alstom has a broad array of technical partnerships in place with Universities/Higher Education establishments in Europe and beyond. The objective of these is to enhance the Company's R&D capability by using local talent. A list of these partners by country can be found on the Company website.

- In Italy, in 2015, Alstom was partner of HackToscana, a Hackathon organised by the Tuscany region and Siena University. A Hackathon is a 24-hour marathon in which participants work to develop innovative business ideas. The aim of this event was to focus on the need for technological innovation for sustainability in regional transport. The ideas were presented and judged and the three winning teams were presented with prizes worth €5,000 each.
- In USA, Alstom has relationships with many local universities whereby interns or co-op students, especially those studying engineering, come to work for short periods of time at Alstom. Co-op students gain college credit while working for Alstom, whilst interns gain experience. Alstom's goal is to recruit the best of these aspiring engineers.

Supporting local economic development and industrial activities

The third axis of Alstom's Community Investment Policy is local development, which is achieved mainly:

- **through insertion programmes** – for instance, In France, Le Creusot manufacturing site is a founding member of the Employers Group for Integration and Qualification (GEIQ Industrie 71). GEIQ seeks to create pathways to employment for those facing difficulties (e.g. young people with no or low qualifications, the long-term

unemployed, people aged over 45 years or those on the minimum wage) by promoting professional retraining and subsequent access to skilled job openings in the region. In addition, GEIQ offers social support (e.g. accommodation search, access of mobility, fulfillment of legal or administrative procedures, budget development, family management issues). This programme facilitates ongoing access to employment and improved employability on completion the release of the training. As part of this process, Alstom hosts each year, on apprenticeship or professionalisation contracts, a number of young people preparing for Diplomas or Bachelor qualifications. Since two years, the Company has also taken on young people through insertion contracts ("*Contrats d'Avenir*") for training to become fitters (seven persons) or logistics officers (two persons);

- **through the support of innovative local institutions and companies** – as part of its open innovation paradigm, Alstom contributes to local development by participating in programmes related to technology and research, nurturing the key enabling technologies alongside other counterparts through different instruments such as competitiveness clusters. For instance:

- Alstom supports innovative start-ups and participates in two venture capital funds which incubate start-ups working, inter alia, in the mobility domain, Aster Capital and Evertec IV,
- in France, Alstom develops joint projects with SMEs and academics as part of the "Investments for the Future" programme. Examples of this are its involvement in Technology Research Institutes in Saclay (SystemX) and in Northern France (Railenium) and the Energy Transition Institute in Villeurbanne (SuperGrid). To develop ecosystems around innovation, Alstom is also present in numerous clusters, such as the I-Trans and Médée clusters in Northern France; the Vehicle of the Future cluster in Belfort; the Aerospace Valley cluster in Toulouse and the Systematic cluster in Paris;

- **through the support to local enterprises wherever it operates** – Alstom seeks to and to develop a local industrial footprint to serve the local market. As a multinational company, Alstom assumes a responsibility to coach and support small and medium-sized enterprises (SMEs) and start-ups at local level through mentorships and financial support. In South Africa for example, 65% of the components for the PRASA train contract are to be sourced locally. Gibela, the joint venture created to secure and deliver this huge contract, is led by Alstom and co-owned by local shareholders and has the task to secure the local supply chain. 1,500 direct jobs will be created in the new Dunottar factory and 19,000 local people are to be trained by Gibela over 10 years. The local economy will largely benefit from Alstom's transfer of technology which implies a significant amount of knowledge transfer and skills development within the local population.

More information can be found on www.alstom.com.

THE ALSTOM FOUNDATION

Created in 2007, the Alstom Foundation seeks to share Alstom's success with communities local to where Alstom has a presence, thereby enhancing the relationships with such communities whilst recognising the citizenship and engagement of Alstom's employees. Working with international and local partners, the Foundation seeks to improve the living conditions of local communities by providing finance for a variety of concrete initiatives which support economic and social development and sustainability. With its budget of €1 million per year, the Foundation has supported 133 projects to date, including the 18 projects selected in 2015/16. These projects span 49 countries across six of the world's continents. The focus is predominantly, but not exclusively, developing economies.

Projects are selected according to four main categories:

- environmental protection;
- access to water / energy;
- access to mobility;
- local and social development.

In the run up to the completion of the General Electric transaction, it was decided to keep the Foundation within the Alstom organisation. This was formalised at a meeting of the Foundation's Board of Directors, in July 2015. The Foundation Board of Directors includes eight members, five of whom are internal to Alstom and three of whom are external experts: Jean Jouzel (Nobel Laureate; Climatologist and member of the Intergovernmental Panel on Climate Change); Jean-Michel Severino (former Director General of the *Agence Française de Développement*); and Bernard Emsellem (Vice-President of the SNCF Foundation).

22 projects were active in April 2015; of these, at the end of financial year, 13 remain active and 9 new additional projects have already been launched.

At its meeting in January 2016, the Board of Directors selected the following 18 projects for support from the 2015/16 budget, presented below by category. Several projects span more than one category.

Environmental Protection

The four projects in this category are aimed at fostering collective awareness on the importance of nature preservation and facilitating environmental protection at the local community level through sustainable daily activities:

- energy efficiency and halting the deforestation of Cambodian forests by enabling local farmers and food producers to switch to Multi Energy Stoves that are energy efficient and largely based on renewable fuel supply;
- enabling a community of poor women in Mexico to preserve the Melipona bees that will not only help to restore the ecosystem balance of the Central American jungles but also produce high quality honey supporting local livelihoods;
- engaging 400 Mexican coffee farmers in reforestation activities to revive degraded pastureland by planting 45,000 trees and advancing more sustainable coffee production;

- establishing environmental committees and improving gardens at six schools in the Tangier region of Morocco to impact environmental education.

Access to Water/Energy

There are four projects under this category that seek to provide access to either water or energy or both for local communities in some of the most remote regions of the world:

- equipping wells with solar power equipment to implement a drip irrigation system that will enable efficient farming and help rural women in Senegal realise the full potential of their farms;
- installation of solar panels in a school in Peru to promote a switch to renewable energy and construction of a pedagogical greenhouse to enhance the quality of nutrition among children;
- installation of solar cells to provide energy and rain water harvesting cisterns to preserve water, imparting training to make fuel efficient stoves and construction of dry composting toilets to improve the lives of 20 families in Oaxaca region of Mexico;
- provision of rainwater harvesting systems, tanks and solar energy systems to benefit four schools and two communities in the rural region of Rivadavia in Argentina.

Access to Mobility

One project has been selected under this category to promote eco-tourism among tourists travelling to the Alps in France. It is a project designed to promote mountain trekking whilst encouraging the use of the public transport instead of private cars to contribute to reduce pollution in the mountains and offers alternative options to access trekking areas.

Social and Economic Development

The projects under this category are focused on supporting social and/or economic development among local communities spanning four regions of the world:

- imparting skills and training to a group of 20 women in Belgaum village in India to produce hand crafted bags from jute that are to be sold primarily as school bags in rural schools, thereby offering a route to permanent employment;
- providing support to build 126 resilient permanent shelters with water, sanitation and hygiene along with complementary livelihood support for 30 households in the typhoon-affected East Samar region of Philippines;
- providing technical training on agriculture and nutrition in targeted households in Son La, Vietnam as a third year continuation of the "Improved Household Food Security and Nutrition" project;
- creating multi-activity companies to train and engage long term unemployed people in France;

- initiating a flood risk management plan by encouraging crop diversification using a sustainable agro-ecological model to help small rice producers in the Inundaule region of Ecuador recover from floods;
- rehabilitation of school infrastructure and provision of basic sanitary and general facilities to meet the minimum Environment, Health and Safety standards in the *El Reino de los Países Bajos* school in Panama;
- construction of two green communal spaces in Los Jazmines, Peru by community women through imparting training, social and psychological support and a salary to make them independent;

- refurbishing and designing a sustainable agro-production centre to provide food for local school children and modernising an existing hydro-turbine to improve the energy supply for the local community of Kamarata, Venezuela;
- construction of a health centre with observation beds and renovation of a maternity ward, both furnished with the required technical equipment and furniture, in the isolated village of Bassar, Senegal.

More information about the Alstom Foundation and its projects can be found on the Foundation's website: www.foundation.alstom.com.

METHODOLOGY

Introduction

The content of this chapter dedicated to Sustainable Development and Alstom's Corporate Social Responsibility (CSR) has been prepared by the Sustainable Development and CSR central team of Alstom with the collaboration of many support functions such as Sourcing, Human Resources, Risk Control, Ethics & Compliance, Environment Health & Safety (EHS), Ecodesign, Innovation, country representatives and Product platforms.

The information collection and consolidation were conducted along with a dedicated process between January and April 2016. The whole chapter has been reviewed by PricewaterhouseCoopers as an independent third party in regard to Article 225 of the French Grenelle II law.

Reporting principles

All the data reported (indicators) are coming from different Alstom internal reporting systems, detailed in the respective sub-sections.

These indicators definitions refer to the "Global Reporting Initiative" (GRI). However, some indicators are not yet available on a consolidated basis or have been considered irrelevant for Alstom reporting. In such cases, they are not mentioned or are limited in scope, which is then specified.

A synthesis of indicators/key figures is available in a dedicated section at the end of this chapter; it includes information as per Article L. 225-102-1 of the French Commercial Code and the decree and order – as well as per the Decree No. 2012-557 dated 24 April 2012 related to the obligation of companies' transparency in environmental and social matters.

The activities disposed to General Electric in 2015, including those not yet effectively transferred but which will not ultimately remain in the Group, are not consolidated in the environmental performance or in the social results. Only data related to the railway activities of Alstom are presented.

Environmental performance and health and safety results

Data covering those topics are gathered within the reporting and consolidation system so-called "Teranga" which is also used for financial reporting.

On this scope, the safety and health results cover nearly 100% of Alstom employees and contractors working for Alstom. As far as environmental performance is concerned, all production sites, all depots operated and managed by Alstom in the context of a contract duration of five years or more, all permanent offices occupied and managed by Alstom and all permanent sites of more than 200 persons are consolidated in the environmental reporting. Due to significantly different possible configurations and partnerships in projects, the environmental performance of temporary construction sites is not consolidated, as is the case for the environmental performance of activities of less than 200 persons conducted in sites on which utilities are not managed by Alstom. Environmental results cover more than 75% of Alstom employees.

Newly acquired activities start to report after a full calendar month of presence in the Group for safety results and after a full calendar quarter of presence for environmental results.

On health and safety, the reporting is done monthly from around 180 elementary reporting units with nine basic indicators. On environment, the reporting is done quarterly from around 70 reporting units with 30 basic indicators. Monthly and quarterly reporting are complemented by a yearly reporting campaign with 13 additional indicators.

The definition of indicators is described in a Group document, the EHS reporting manual, which is complemented by a reporting procedure. The process is under the responsibility of the EHS Vice President.

Except when specified differently, health and safety data are presented over the fiscal year, *i.e.* from April 2015 to March 2016, while environmental data are consolidated over the calendar year, *i.e.* from January to December 2015.

Social report and actions on local communities

The sources for social reporting indicators are:

- the Alstom Human Resources Information System (HRIS), which is based on Success Factor and operates at all Alstom facilities;
- a social survey conducted in 21 countries on the figures of calendar year 2015 – Algeria, Australia, Belgium, Brazil, Chile, China, Egypt, France, Germany, Israel, India, Italy, Mexico, Netherlands, Poland, Romania, Singapore, Spain, Sweden, United Kingdom (UK) and United States of America (USA) –, representing 93% of Alstom's workforce. In the case of Absenteeism, India has been excluded from consolidated totals due to incomplete data, but the coverage remains sufficiently high for this indicator.

In addition, and in order to illustrate the different sections with local initiatives, the following actions are conducted by the CSR central team:

- a "best practice" survey conducted worldwide with the support of Country Presidents and Sustainability network;
- a survey among the Product platforms regarding achievements of the year and ongoing developments;
- a collection of all news related to CSR, published internally through our internal communication tools and externally through press releases.

SYNTHESIS OF INDICATORS/KEY FIGURES 2015/16

Indicators	2014/15	2015/16	GRI ⁽²⁾ reference	Page
ENVIRONMENTAL INDICATORS				
Energy				
Energy consumption from natural gas ^(*) (in GWh)	242 ⁽¹⁾	245	EN3	222
Energy consumption from butane/propane and other gases ^(*) (in GWh)	7	7	EN3	222
Energy consumption from domestic fuel ^(*) ⁽¹⁾ (in GWh)	10	10	EN3	222
Energy consumption from imported steam and heat ^(*) (in GWh)	30	35	EN3	222
Energy consumption from electricity ^(*) (in GWh)	180	175	EN3	222
Energy consumption from coal, heavy fuels and other fuels ^(*) (in GWh)	0	0	EN3	222
Total energy consumption ^(*) (in GWh)	469	472	EN3	222
Energy intensity ^(*) (in kWh/hours worked)	11.8	11.5	EN5	221
Direct CO ₂ emissions from natural gas, butane, propane, coal and oil consumption ^(*) (in kilotons CO ₂ eq.)	53 ⁽¹⁾	54	EN15	222
Indirect CO ₂ emissions from steam, heat and electricity consumption ^(*) (in kilotons CO ₂ eq.)	70 ⁽¹⁾	69	EN16	222
Total CO ₂ emissions from energy consumption ^(*) (in kilotons CO ₂ eq.)	123	123	EN15-16	222
Other direct CO ₂ emissions from HFC ^(*) (in kilotons CO ₂ eq.)	1	1	EN17	222
Total CO ₂ emissions from energy consumption and other direct emissions ^(*) (in kilotons CO ₂ eq.)	124	124	EN15-16-17	222
GHG emissions intensity ^(*) (in kilotons CO ₂ eq. / hours worked)	3.1	3.0	EN18	222
CO ₂ emissions from air travels ^(*) (in kilotons CO ₂ eq.)	20 ⁽¹⁾	24	EN17	223
CO ₂ emissions from train travels ^(*) (in kilotons CO ₂ eq.)	1	1	EN17	223
Company cars CO ₂ emissions from gasoline ^(*) (in kilotons CO ₂ eq.)	1	1	EN15	223
Company cars CO ₂ emissions from diesel oil ^(*) (in kilotons CO ₂ eq.)	5	5	EN15	223
Water				
Water consumption from public network ^(*) (in thousands of m ³)	633 ⁽¹⁾	590	EN8	224
Water consumption pumped from groundwater ^(*) (in thousands of m ³)	238 ⁽¹⁾	228	EN8	224
Water consumption pumped from surface water ^(*) (in thousands of m ³)	0	0	EN8	224
Total water consumption ^(*) (in thousands of m ³)	871	818	EN8	224
Airborne Emissions				
Non-methane Volatile Organic Compounds (VOCs) emissions ^(*) (in tons)	146 ⁽¹⁾	150	EN21	224
Waste management				
Total hazardous waste production ^(*) (in tons)	2,658	4,236	EN23	226
Recovered hazardous waste ^(*) (in tons)	1,635	1,790	EN23	226
Total non-hazardous waste production ^(*) (in tons)	27,710 ⁽¹⁾	28,860	EN23	226
Recovered non hazardous waste ^(*) (in tons)	23,656	25,420	EN23	226
Total waste production ^(*) (in tons)	30,368	33,096	EN23	226
Percentage of recovered waste ^(*) (in %)	83	82	EN23	225
Waste intensity ^(*) (in kg/hours worked)	0.76	0.85	EN23	225
Biodiversity				
Proportion of manufacturing sites with over 200 employees not operating within legally protected areas and / or priority sites for biodiversity ^(*) (in %)	-	92	EN11	227
Management system				
Proportion of manufacturing sites of more than 200 employees certified ISO 14001 (in %)	100	100	Non-GRI	221

Indicators	2014/15	2015/16	GRI ⁽²⁾ reference	Page
SOCIAL INDICATORS				
Occupational Health and Safety				
Number of fatalities at work (<i>Alstom employees and contractors</i>)	0	0	LA6	229
Number of travel fatalities (<i>Alstom employees</i>)	Not recorded	2	LA6	229
Number of occupational severe accidents (<i>incl. fatal accidents</i>)	8 ⁽¹⁾	6	LA6	229
Lost time injury frequency rate 1 (IFR 1) (employees and contractors)	1.9 ⁽¹⁾	1.8	LA6	228
Number of persons ("trainees") having received a class-room EHS training during calendar year ^(*)	3,960	3,670	LA9	230
Proportion of employees trained to e-learning module on High Risk Activities ^(*) (<i>in %</i>)	82	86	LA9	230
Number of <i>Alstom Zero Deviation Plan</i> official evaluations during fiscal year	46	61	Non-GRI	229
Number of recognised occupational diseases (in Europe) ^(*)	22	17	LA6	230
Ratio of employees covered by a life insurance in case of accidental death ^(*) (<i>in %</i>)	98.0 ⁽¹⁾	98.6	LA2	231
Ratio of employees covered by a life insurance giving one year salary ^(*) (<i>in %</i>)	83.2 ⁽¹⁾	83.9	LA2	231
Workforce and organisation				
Total workforce by type of contract			LA1	232
• Permanent contracts	25,848	28,722		
• Fixed-term contracts	1,695	1,628		
• Interns	564	620		
Total employees	28,107	30,970	LA1	232
Distribution of employees by Region (employees) (<i>in %</i>)			LA1	232
• Middle East / Africa	5.0	5.5		
• Asia / Pacific	8.2	10.2		
• Europe	73.0	68.6		
• Americas	13.8	15.6		
Distribution of employees by category (employees)			LA1	232
• Managers and professionals (<i>in %</i>)	44.7	46.6		
• Other employees (<i>in %</i>)	55.3	53.4		
Employees' movements during fiscal year (employees)			LA1	232
• Hiring on permanent contracts	2,442	3,228		
• Hiring on fixed-term contracts	969	997		
• Resignations	776	852		
• Redundancies	359	173		
• Dismissals (<i>permanent headcount</i>)	449	458		
• Other departures (incl. retirements, excl. acquisitions/disposals)	1,064	1,802		
Recruitment by region (permanent contracts) (<i>in %</i>)			LA1	233
• Middle East / Africa	-	12		
• Asia / Pacific	-	27		
• Europe	-	33		
• Americas	-	28		
Resignation rate for employees on permanent contracts by Region (<i>in %</i>)	3.0	3.2	LA1	236
• Europe + Middle East / Africa	2.2	2.2		
• Asia / Pacific	10.8	8.9		
• Americas	3.9	4.8		
Absenteeism rate ^(*) (<i>in %</i>)	Not recorded	3.1	LA6	236

Indicators	2014/15	2015/16	GRI ⁽²⁾ reference	Page
Competencies and carriers				
Number of annual performance interviews (managers & professionals)	12,500 ⁽¹⁾	13,500	LA11	238
Proportion of employees trained ^(*) (in %)	81 ⁽¹⁾	68	LA9	239
Average training hours per employee ^(*) (in hours/employee)	17 ⁽¹⁾	14	LA9	239
Total number of training hours ^(*) (in hours)	431,066 ⁽¹⁾	388,897	LA9	239
Diversity and equal opportunity				
Proportion of women in the workforce (in %)	15.4*	16.9	LA12	240
Proportion of female managers or engineers (in %)	18.6*	19.9	LA12	240
Proportion of executive women (in %)	12.6*	13.1	LA12	240
Proportion of women trained ^(*) (in %)	14.0*	15.7	LA12	240
Proportion of employees with disabilities ^(*) (in %)	2.8	2.6	LA12	241
Proportion of employees aged over 45 years	-	40	LA12	242
Sustainable sourcing				
Number of sustainable development charters signed by the suppliers (cumulative since the chart implementation in 2007)	2,450	3,060	Non-GRI	247
Number of suppliers covered by an assessment less than three years old	259	338	Non-GRI	247
Number of employees who have attended sustainable sourcing trainings (cumulative over three years)	67	58	Non-GRI	247
Labour/Management relations				
Proportion of employees covered by a collective bargaining agreement ^(*) (in %)	67 ⁽²⁾	76	Non-GRI	242
Ethics				
Proportion of employees who have received training on ethics (in %)	-	75	SO4	234

(*) Indicators reported for calendar years 2014 and 2015.

(1) Reference year modified.

(2) Data including Alstom Energy and Transport activities.

REPORT BY ONE OF THE STATUTORY AUDITORS, APPOINTED AS AN INDEPENDENT THIRD PARTY, ON THE CONSOLIDATED ENVIRONMENTAL, LABOUR AND SOCIAL INFORMATION PRESENTED IN THE MANAGEMENT REPORT

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

For the year ended March 31, 2016

To the Shareholders,

In our capacity as Statutory Auditor of Alstom, appointed as an independent third party and certified by COFRAC under number 3-1060 ⁽¹⁾, we hereby report to you our report on the consolidated human resources, environmental and social information for the year ended 31 March 2016, included in the management report (hereinafter named "CSR Information"), pursuant to article L. 225-102-1 of the French Commercial Code (*Code de commerce*).

Company's responsibility

The Board of Directors is responsible for preparing a Company's management report including the CSR Information required by article R. 225-105-1 of the French Commercial Code in accordance with the "Environment, Health and Safety Reporting Manual" used by the Group's sites as well as Human Resources standards "Census Rules" and "Social Survey" used by the Company (hereinafter the "Guidelines"), available on request to the CSR direction of the Company.

Independence and quality control

Our independence is defined by regulatory texts, the French Code of ethics (*Code de déontologie*) of our profession and the requirements of article L. 822-11 of the French Commercial Code. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with the ethical requirements, French professional standards and applicable legal and regulatory requirements.

Statutory Auditor(s)'s responsibility

On the basis of our work, our responsibility is to:

- attest that the required CSR Information is included in the management report or, in the event of non-disclosure of a part or all of the CSR Information, that an explanation is provided in accordance with the third paragraph of article R. 225-105 of the French Commercial Code (Attestation regarding the completeness of CSR Information);
- express a limited assurance conclusion that the CSR Information taken as a whole is, in all material respects, fairly presented in accordance with the Guidelines (Conclusion on the fairness of CSR Information).

Our work involved 10 persons and was conducted between October 2015 and April 2016 during a 30 week period. We were assisted in our work by our CSR experts.

We performed our work in accordance with the French professional standards and with the order dated 13 May 2013 defining the conditions under which the independent third party performs its engagement and with ISAE 3000 ⁽²⁾ concerning our conclusion on the fairness of CSR Information.

1. Attestation regarding the completeness of CSR Information

Nature and scope of our work

On the basis of interviews with the individuals in charge of the relevant Departments, we obtained an understanding of the Company's sustainability strategy regarding human resources and environmental impacts of its activities and its social commitments and, where applicable, any actions or programmes arising from them.

We compared the CSR Information presented in the management report with the list provided in article R. 225-105-1 of the French Commercial Code.

For any consolidated information that is not disclosed, we verified that explanations were provided in accordance with article R. 225-105, paragraph 3 of the French Commercial Code.

(1) Whose scope is available at www.cofrac.fr.

(2) ISAE 3000 – Assurance engagements other than audits or reviews of historical financial information.

We verified that the CSR Information covers the scope of consolidation, *i.e.*, the Company, its subsidiaries as defined by article L. 233-1 and the controlled entities as defined by article L. 233-3 of the French Commercial Code within the limitations set out in the methodological note, presented in the methodology section of chapter 6 of the management report.

Conclusion

Based on the work performed and given the limitations mentioned above, we attest that the required CSR Information has been disclosed in the management report.

2. Conclusion on the fairness of CSR Information

Nature and scope of our work

We conducted more than one hundred interviews with the persons responsible for preparing the CSR Information in the Departments in charge of collecting the information and, where appropriate, responsible for internal control and risk management procedures, in order to:

- assess the suitability of the Guidelines in terms of their relevance, completeness, reliability, neutrality and understandability, and taking into account industry best practices where appropriate;
- verify the implementation of data-collection, compilation, processing and control process to reach completeness and consistency of the CSR Information and obtain an understanding of the internal control and risk management procedures used to prepare the CSR Information.

We determined the nature and scope of our tests and procedures based on the nature and importance of the CSR Information with respect to the characteristics of the Company, the human resources and environmental challenges of its activities, its sustainability strategy and industry best practices.

Regarding the CSR Information that we considered to be the most important (given in appendix):

- at parent entity level, we referred to documentary sources and conducted interviews to corroborate the qualitative information (organisation, policies, actions), performed analytical procedures on the quantitative information and verified, using sampling techniques, the calculations and the consolidation of the data. We also verified that the information was consistent and in agreement with the other information in the management report;
- at the level of a representative sample of sites selected by us ⁽³⁾ on the basis of their activity, their contribution to the consolidated indicators, their location and a risk analysis, we conducted interviews to verify that procedures are properly applied, and we performed tests of details, using sampling techniques, in order to verify the calculations and reconcile the data with the supporting documents. The selected sample represents 23% of headcount and between 25% and 43% of quantitative environmental data disclosed.

For the remaining consolidated CSR Information, we assessed its consistency based on our understanding of the Company.

We also assessed the relevance of explanations provided for any information that was not disclosed, either in whole or in part taking into consideration, if any, industry best practices.

We believe that the sampling methods and sample sizes we have used, based on our professional judgement, are sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures. Due to the use of sampling techniques and other limitations inherent to information and internal control systems, the risk of not detecting a material misstatement in the CSR information cannot be totally eliminated.

Conclusion

Based on the work performed, no material misstatement has come to our attention that causes us to believe that the CSR Information, taken as a whole, is not presented fairly in accordance with the Guidelines.

Neuilly-sur-Seine, 11 May 2016

One of the Statutory Auditors

PricewaterhouseCoopers Audit

Édouard Demarcq

Partner

Sylvain Lambert

Partner in charge of the Sustainable Development Department

(3) Alger, Sétif and Mostaganem in Algeria, Lapa and Taubaté in Brazil, Belfort, La Rochelle and Le Creusot in France, Sri City and Chennai in India, Bologna, Bari and Savigliano in Italy, Pantelimon, Uzina and Vintusieria in Romania, Singapore, Hong-Kong, Cerro Negra, La Sagra and Santa Perpetua in Spain, Grainvalley and Warrensburg in the United States.

Appendix: List of information that we have considered to be the most important

Human resources information:

- Total number and breakdown of employees by gender, age and geography, indicators total workforce at the end of March 2016, breakdown by category, breakdown by gender and breakdown by region.
- Hirings and dismissals, indicators number of hires, number of resignations and number of dismissals.
- Organisation of social dialogue, including procedures for information, consultation and negotiation with employees, indicator percentage of employees covered by a collective bargaining agreement.
- Absenteeism, indicator absenteeism rate.
- Health and safety work conditions.
- Occupational accidents, including frequency and severity, and occupational diseases, indicators number of fatalities at work (Alstom employees and contractors), number of occupational severe accidents and lost time injury frequency rate (employees and contractors).
- Total number of training hours, indicators total number of training hours and average number of training hours per employee.
- Measures taken in favor of equality between women and men, indicator proportion of women, proportion of women managers, proportion of women executive officers.
- Respect for freedom of association and rights for collective bargaining.

Environmental information:

- Company organisation to take into account environmental issues and if relevant, environmental evaluation and certification process.

- Amount of provisions and guarantees for environmental-related risks, unless such information is liable to cause serious harm to the Company in an ongoing dispute.
- Measures to prevent, reduce or compensate discharges in the air, water and soil causing important damage to the environment, indicator VOC ⁽⁴⁾ emissions.
- Measures to prevent, recycle and eliminate waste, indicators hazardous and non-hazardous waste production, share of hazardous and non-hazardous waste recovered.
- Water consumption and water supply regarding local constraints, indicators consumption of water from public water supply, surface water and groundwater.
- Energy consumption and measures taken to improve energy efficiency and renewable energy use, indicators consumptions of natural gas, butane/propane and other gas, domestic fuel, steam/heat, electricity, coal, heavy fuels and other fuels.
- Greenhouse gas (GHG) emissions, indicators direct and indirect CO₂ emissions from energy consumption and other direct CO₂ fugitive emissions from HFC, CO₂ emissions related to business travels.

Social information:

- Territorial, economic and social impact of the Company in terms of employment and regional development.
- Consideration of social and environmental issues in the Company's procurement policy
- Importance of subcontracting and inclusion in the relationships with suppliers and subcontractors of their social and environmental responsibility, indicators number of suppliers evaluated, signature of the Sustainability Charter by all suppliers.
- Actions carried out to prevent corruption.

(4) Non methane Volatile Organic Compounds.

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(*) Not applicable.