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"Meeting today's needs without compromising the ability of future generations to meet their own needs" (1)

Tomorrow, about 9 billion people will call the planet home, mostly living in cities. They will need clean and affordable energy and efficient transportation. Current transport and energy infrastructures will need to change to avoid long-term impacts on the environment, health and climate change. All parties involved in economic development are aware of this fact.

Operating at the heart of these issues, Alstom contributes to Sustainable Development through a socially responsible model, first by deploying the means to create the sustainable power generation, transmission and transport technologies of tomorrow, secondly, by integrating environmental and social concerns in all of its business operations and in its interaction with its stakeholders.

SUSTAINABLE DEVELOPMENT
AND ALSTOM'S SOCIAL RESPONSIBILITY

ALSTOM'S CONTRIBUTION TO SUSTAINABLE DEVELOPMENT: A PROACTIVE POLICY OF CORPORATE SOCIAL RESPONSIBILITY

Addressing global challenges as strategic opportunities

In October 2013, the Intergovernmental Panel on Climate Change (IPCC) demonstrated how human activity is affecting climate. The IPCC report and three more to come, increase the pressure on negotiators to deliver a new global agreement in 2015, starting with the attendees of the COP19 (2) in 2013. Held in Warsaw (Poland), it agreed a roadmap towards a new global climate agreement to be concluded at COP21 in 2015 in Paris (France). It aims to get commitments to reduce carbon emissions, which will drive both regulation and infrastructure investments.

Another cross-border issue calling for international cooperation concerns freshwater resources. While 148 countries share at least one transboundary river basin, rapid urbanisation, climate change and growing food needs put ever-increasing pressure on freshwater resources. To explore key concerns and draw attention to the benefits of cooperation in water management, 2013 was declared "International Year of Water Cooperation" by the United Nations.

It is clear that the world is facing growing environmental and social challenges:

- the world's population is expected to reach over 9 billion people in 2050. As a consequence, global demand for energy and infrastructure will grow. By 2035, the global energy demand is anticipated to rise by more than one-third, while 60% of the infrastructure which will supply the world's electricity are yet to be built (3);
- over 70% of the world population will live in urban areas by 2050. Driven by economic growth, mobility will increase; both passenger travel distance and commuting time per capita are expected to double (4);
- with demographic and economic growth pushing up greenhouse gas (GHG) emissions and the pressure on natural resources, the climate is substantially changing.

The interaction between energy, environment and development concerns urge each actor to adopt a holistic approach. To make corporate action a change lever, it is essential that Corporate Social Responsibility (CSR) be addressed on a strategic level.

Alstom considers that catching the early warning signs announcing megatrends is a key competitive advantage, driving profitable, long-term growth. In that way, pursuing a CSR policy is therefore critical to anticipate and proactively manage the risks and opportunities they entail.

(1) World Commission on Environment and Development, Bruntland Report 1987.

(2) 19th session of the Conference Of the Parties organised by the United Nations Framework Convention on Climate Change.

(3) World Energy Outlook 2012.

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

This cross-cutting approach enables the Group to:

- 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;
- identify and assess future and emerging markets.

It involves driving progress by staying one step ahead to better grasp all the Group's sustainability concerns. This position gives Alstom the means to define and implement an integrated CSR policy, which was endorsed by the top management and widely communicated inside the company in December 2013. This policy, described hereafter, is available on www.alstom.com.

An integrated Corporate Social Responsibility (CSR) policy

Alstom's strategy is based on three pillars:

- **growth** in new activities and geographies as well as in the development of "service activities";
- **technology:** to be at the forefront of innovative and environmental-friendly products and solutions;
- **operational excellence:** to maximise the value for customers, shareholders and employees, derived from a lean organisation with optimised resources.

Supporting this strategy, Alstom's CSR policy is based around three main axes, guided by quantified and assessed objectives. These objectives are translated into action plans, which create a virtuous circle of progress in economic, social and environmental fields.

Alstom thus strives to:

- **with its technologies and solutions,** help customers effectively limit their environmental impact:
  - support the expansion of renewable energy production,
  - improve resource and energy efficiency in all of its new and existing products,
  - apply sustainable development and eco-design principles;
- **with its partners and stakeholders,** work together for mutual benefit:
  - assess existing and future customers' needs and adapt its offering accordingly,
  - develop a sustainable supply chain,
  - do more to identify environmental and social impacts of projects,
  - involve itself in the life of local communities;
- **with its way of operation,** be a reference to:
  - enforce the highest ethical standards,
  - offer its employees the best safety and working conditions,
  - reduce the environmental footprint of its operations.

The action plans related to this policy are outlined both in the sub-sections related to "Sustainable Development in solutions from the Sectors" and in the sections related to "Environmental performance", "Social performance" and "Relationships with external stakeholders".

The Group commits to implement this policy and ensure compliance with its internal rules across the full range of its operations.

IMPLEMENTING THE CSR POLICY

A dedicated organisation at all levels of the Group

A central team, under the responsibility of the Group Senior Vice-President Strategy and Business Development, defines and monitors the implementation of this CSR policy. It is supported in each Sector by a dedicated team in charge of implementing the Group's policies and setting up programmes related to the Sectors' activity. The aim is to spread the Group's CSR vision throughout the organisation, so that all employees know it, understand it, commit to it and actively take part in it.

Within the Board of Directors, the Ethics, Compliance and Sustainability (ECS) Committee has been closely following the Group's CSR policy and actions since 2010. This Committee, composed of three independent directors, meets three times a year to review and assess the Company's strategy, policies and procedures on topics related to corporate responsibility and sustainable development (see Corporate governance – Chairman's report – Board Committees).

In order to support and reinforce the implementation of the CSR policy at local level, the Group relies on the Alstom International Network, with 56 Country Presidents covering 179 countries. The role of the Country Presidents is to represent the Group locally and to develop relations with local institutions, organisations and communities. In all the Group's main countries of operation, the Country President is assisted by a CSR specialist in connection with the central team.

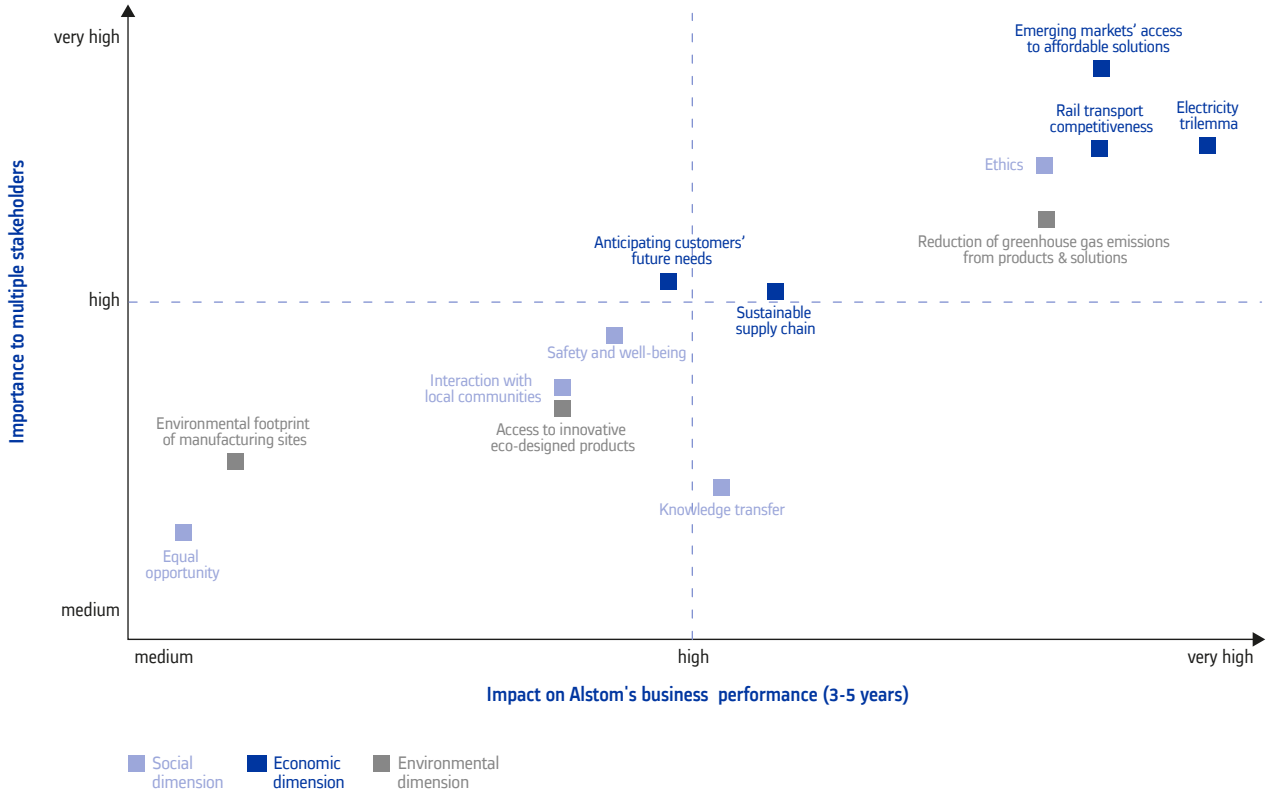
Evaluation of the CSR policy *versus* stakeholders' expectations

CSR actions by the Group are increasingly expected by:

- its employees (outcome of the opinion survey conducted in 2011);
- its customers (increased use of CSR criteria in tenders);
- public authorities (emergence of new CSR regulations);
- its shareholders and potential investors.

In order to clarify those expectations and to evaluate the appropriateness of Alstom's CSR policy to them, the CSR Department conducted for the first time in 2013/14, a materiality check: out of a large number of sustainable development challenges, the most relevant ones to Alstom's business were selected (13). The importance of these challenges for stakeholders, as Alstom understands it, was weighted using information gathered from various sources [1]. The impact of the same challenges on the Group's business performance over a range of three to five years was evaluated. This assessment was conducted along with the three axes of Alstom's strategy (growth, technology and operational excellence), as well as with the impact on the Group's reputation.

CSR MATERIALITY MATRIX



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

Evaluation of the Group's CSR performance by independant third parties

Alstom's Corporate Social Responsibility performance is regularly measured by various rating agencies with different methods and criteria, such as, in 2013, RobecoSAM for DJSI, and CDP (formerly known as 'Carbon Disclosure Project'), as well as Eiris, Vigeo, Empreinte Écosociale and Ecovadis. These assessments help identify and analyse the areas of improvement.

As a result:

- Alstom was selected in September 2013 for the third time in a row as an index component of the Dow Jones Sustainability Indices (DJSI) – World & Europe –, after its assessment by RobecoSAM. This rating agency attributed the rating of 77/100 to the sustainability performance this year, with a particular good rating on the economic dimension. This year, Alstom distinctly improved in environmental policy, customer relationship management and strategy for emerging markets. The Group also achieved the best score of its industry category on labour practices indicators/human rights and supply chain management;
- since 2010, Alstom has been assessed by CDP for its transparent approach in disclosing climate change information; in December 2013, the Group received a score of 92/B (disclosure/performance). For the second consecutive year, Alstom is ranked as part of the Carbon Disclosure Leadership Index for French companies.

(1) Major sources: assessments by CSR rating agencies, Sectors' customer surveys, internal/external stakeholders' survey, CSR employee opinion survey, etc.

INNOVATION MANAGEMENT

The concept of sustainability has transformed the competitive landscape and the way companies think about products, technologies, processes and business models. Innovation is a major differentiator for the whole economic sphere. Alstom, whose mission is to develop future technologies and systems for power generation and transmission and for rail transport, considers that innovation is one of the lever arms of economic development, in particular by strengthening its strategy in open innovation. Alstom Innovation programme is also a key enabler of the Group's CSR policy number 1 axis: "with Alstom's technologies and solutions…".

In view of this, and despite a difficult economic context, total Research and Development (R&D) efforts across all Sectors amounted to €733 million in 2013/14 (compared to €737 million in 2012/13), nearly 4% of sales.

To reinforce this strategic vision, the Innovation team was established in March 2012, reporting directly to the Chairman and CEO. It aims at stimulating synergies between Sectors and strengthening the connections to the outside in order to expand Alstom's technological portfolio and acquire new skills in emerging domains.

The Innovation strategy has been built at Group level in coordination with all Sectors, complementing their own projects. It is based on the following programmes:

- **"Innovation Management System"** organised into five pillars:
  - the **Innovation Steering Committee** chaired by the Chief Innovation Officer and composed of R&D and Innovation Vice President of each Sector, meets four times a year, to share information related to ongoing projects, to stimulate cross-Sector synergies and to present new opportunities,
  - the **International Science and Technology Committee** chaired by Jean Jouzel, Nobel Peace prize-winner with the Intergovernmental Panel on Climate Change (IPCC), and composed of independent experts, provides advice and comments on Alstom's innovation policy, focusing on state-of-the-art technology, along with worldwide strategies and trends,
  - an **advanced Enterprise Social Network featuring "virtual user" functionalities** breaks down the walls of communication between Sectors, stimulates R&D discussions, leverages potential external R&D and partnerships and is used as a tool to better define R&D and innovation paths,
  - a **Group innovation contest "INove You"** strengthens cross-company collaborative work, creating synergies and nurturing cross-cutting innovation. Over the past years, a number of award-winning projects in this competition have played a role in Alstom's success on the market, demonstrating that innovation equals competitive advantage. In 2013, the sixth innovation awards contest was the biggest success since the programme was launched in 2008 with 510 innovations submitted coming from 1,900 people from all over the world and from all Sectors and functions (R&D, engineering, communication, human resources, EHS and project management). Projects rewarded in the "Green Innovation" category (clean power, clean transmission and clean transport) included:
    - "stay vane Extensions made of composite materials", an advanced retrofit process for stay vane composite extensions that improve hydro plants efficiency significantly,
    - the "district heating with KA26 flexibility" project, an innovative modification of the power plant to harvest energy losses and integrate district heating functionality without increasing the footprint,
  - a **track record of international publications and patents** proves that the Company is keeping its leadership in the fields of Energy and Transport. Over the last five years, Alstom has registered more than 1,700 patent families – representing an increase by 30% over the period – by more than 2,300 inventors, showing the diversity and dynamism of Alstom employees. Publications in high-impact journals and conferences are also tracked through the Thomson Reuters database (Web of Science) and more than 1,200 publications have been reported over the last five years, an increase by 30% over the period ;
- **"Science and Technology Reshaping"** encompasses all Sectors under a wide variety of partnerships, alliances and joint ventures to support knowledge progress, new competencies and acquisitions at the forefront of research. Throughout this year, actions have been maintained and expanded such as connections with universities and key research bodies worldwide, or the signing of a new strategic alliance with some of the leading centres in cross-cutting strategic areas such as predictive maintenance, power electronics, embedded software and big data. The programme can be broken down as follows:
  - open innovation is illustrated by the increase in the number of Alstom's bilateral collaborations with universities (more than 180 active projects in 20 countries),
  - participation in public-private research centres through open innovation schemes has been reinforced. Besides Alstom's participation in the MIT industrial liaison committee, IMS centre in Cincinnati University, CPES in Virginia Tech, Electric Power Research Institute (EPRI)/USA, Power Electronics Platform in Germany (ECPE), UK Universities High Voltage Network and Catapult centre programme in the UK, participation in France in public-private projects in the field of smart grids, systems and system of systems, innovative materials and advanced transport (Jules Verne Centre, SystemX Centre, Supergrid Centre, Railenium Research Centre), National Network in Electrochemical Energy Storage (France), new partnerships have been signed with the following objectives:
    - to reinforce Alstom's presence in Asia in terms of innovation and R&D:
      - a joint laboratory with City University of Hong Kong, China, has been launched on Advanced Open Systems for Smart Cities,
      - a joint laboratory is under discussion with another main Asian city in the field of urban systems,

– to reinforce Alstom's presence in the field of digital industries:
  - a joint laboratory has been launched with *Institut national de recherche en informatique et automatique* (INRIA) a research organisation in France with the objective to develop Alstom footprint in the field of digital technologies (power automation and control, cyber security, big data, simulation and optimisation, communication networks, etc.),
  - a strategic alliance is being signed with *École polytechnique fédérale de Lausanne* (EPFL) in Switzerland, on new approaches to analyse and control future electrical grids,

- Alstom has supported new professor chairs at ETH Zurich (Switzerland), University of Witwatersrand (South Africa), King Abdullah University of Science and Technology (KAUST) (Saudi Arabia) in the field of Power, and *Institut National Polytechnique* (INP) of Grenoble (France) in the field of renewables,
- participation in industrial clusters in France has been maintained (Alstom is part of ten competitive clusters) as well as involvement in European collaborative projects. In the USA, partnership with the Department of Energy (DOE) has been developed both in the field of power generation and transmission. In Canada, the partnership with the Quebec research funding agency has been extended in the field of renewables and smart grids;

- **"Alstom Venture Programme"** is related to Alstom's strategy to support innovation eco-systems both in France and abroad, to prepare future partnership networks and be in an ideal position to detect future breakthrough technologies and talents. It is structured on two pillars through participation in a venture capital fund (ASTER) that has a 30 company portfolio and an Incubator/accelerator programme (Horizon GreenTech ventures) to ensure that Alstom is a forefront player in setting up innovation ecosystems in countries with high-innovation potential. This year has been a very dynamic one with four investments completed at ASTER and four start-ups created by Horizon Green tech ventures; furthermore, a new incubator is under discussion in the South Asian region where innovation is very strong;

- **the "Green Product programme", Alstom's product stewardship strategy,** shows Alstom's strategy with respect to environmental issues together with economic competitiveness. The programme has the following objectives:
  - to position Alstom on the market, recognise and process its customers' and stakeholders' key sustainability requirements and concerns, and its commitment for a responsible management approach that balances the economic, social and environmental values of its existing and new solutions,
  - to offer a concrete portfolio of products, systems and services featuring advanced environmental performances,
  - to set up an efficient methodology at Group level involving innovation, leading to continuous improvement of Alstom products' environmental footprint.

  This programme is consolidated at Group level, derived in each Sector according to the market trends and specifications. A governance frame has been set up, defining indicators related to products for each Sector and resulting in a global offering at Group level.

  The programme is broken down into two pillars represented by an eco-design methodology and a portfolio of products, systems and services at Group level and broken in the three fields of activities of the Group: power generation, power transmission, rail transportation.

  The programme is elaborated in each Sector and coordinated at Group level. It should demonstrate a comprehensive portfolio policy that practically meets the strategic objective of being a relevant actor in the field of sustainable development.

  The teams are currently working on developing the qualifying process which aims to:
  - identify key sustainability categories and indicators to evaluate performance through the different life-cycle critical stages,
  - define qualifying criteria for the products that will be integrated in the portfolio,
  - performance evaluation of existing products/systems/services, vs. those criteria,
  - recommendations for future R&D programmes.

  The programme is currently in a pilot phase within each field of activity and the first portfolio version is expected at the end of 2014/15.

SUSTAINABLE DEVELOPMENT IN SOLUTIONS FROM THE POWER SECTORS

Today the global population is estimated to exceed 7 billion people and it is expected that this figure will reach 9 billion by 2050 (1). As a consequence:

- demand for electricity, as a key enabler for economic and societal developments is increasing along a similar trend;
- in addition, high inequalities in the world are leading to heterogeneous electricity distribution and it is estimated that today, 1.5 billion people do not yet have access to electricity (2);
- for social and economic development to be sustainable, delivery of power services needs to be secure and have low environmental impacts. It requires reliable and affordable access to power.

Alstom is committed to being a socially responsible organisation; the Thermal Power and Renewable Power Sectors are applying this commitment to integrate sustainable development in the power markets and countries they serve. This vision was translated in 2009 into a sustainable development strategy and programmes for both Power Sectors, which is evolving so that it always remains ambitious and aligned with internal and external stakeholders' expectations. The strategy is organised around:

- **implementing sustainable operations "Our Own Footprint":** focusing on Alstom Power Sectors' direct contribution to limiting the environmental footprint of their own operations and by improving social and societal impacts on employees and local communities. Alstom Power Sectors' contribution has been consolidated with the other Sectors' efforts and the results can be found in this Registration Document, chapter 6, under the "Environmental performance" and "Social performance" sections;
- **developing and offering sustainable solutions "Our Product Stewardship":** recognising and actively managing the life-cycle environmental, economic and social impacts and benefits of Alstom Power Sectors' products and solutions. The aim is to bring value to customers while addressing society and stakeholders' key requirements and expectations in sustainable development. The Power Sectors' "Clean Power, Clear Solutions" offering strategy is the backbone of this initiative currently being implemented.

"Clean Power, Clear Solutions": the Power Sectors' Product Stewardship strategy

Alstom Power Sectors share the perspective of major players, that there is no alternative to an integrated view on the energy trilemma (economic viability, environmental responsibility and security of power supply), in order to enable a sustainable growth path in the global power generation sector.

Alstom's new offering strategy "Clean Power, Clear Solutions", introduced in 2013, is the Power Sector's strategy to serve customers' needs while ultimately fulfilling the need for sustainable solutions along their life cycle:

- **reducing cost of electricity generation,** to ensure assets' competitiveness;
- **lowering environmental footprint,** to lower the life-cycle impact while making these assets increasingly eco-friendly;
- **increasing flexibility and reliability,** to ensure assets can respectively:
  - adapt to fluctuating electricity and fuel markets conditions,
  - generate the required electrical load through maximised availability, reliability, and maintainability.

Implementing the "Product Stewardship" strategy in the Power Sectors

The "Clean Power, Clear Solutions" offering strategy is being implemented in the Power Sectors as a global product stewardship initiative. The different programmes of this initiative are structured around three levels as described in the following sections:

- **product level:** addressing the implementation of "Product Stewardship" into product management and development processes;
- **project level:** integrating the product and offering stewardship perspective into all stages of power project development and implementation processes;
- **portfolio level:** implementing this perspective into portfolio performance management and strategy development processes.

Programmes at Product level

Adapting business/product development processes management to the new initiative

As part of the Thermal Power Sector strategy aiming at improving operational excellence, the business process management system is being revised to accommodate new provisions, including the key elements of the "Clean Power, Clear Solutions" offering strategy. Those product management directives and procedures will become the backbone of product stewardship and will be progressively deployed through all product lines. From product marketing, including "voice of customer" exercises, to product life-cycle management, the Power Sectors will therefore ensure that a special attention to sustainability is embedded in their product management and quality control guidelines.

(1) World Energy Outlook 2012.

(2) Source: "Achieving Universal Energy Access" – United Nations Foundations (unfoundation.org), 2012.

Monitoring key improvements achieved with recent new product introductions

Amongst the main new product introductions, first on the Thermal Power Sector side, the new Circulating Fluidised Bed 660 MW Ultra Super Critical boiler is an example of performance improvement along all three levers of sustainability starting with three points of efficiency gain, leading to reduced fuel consumption, 6% CO_2 savings, and lower cost of electricity. It also includes cutting edge back-end flue gas cleaning systems ensuring lower SO_x and NO_x emissions and a reduced environmental footprint. Finally, its high efficiency cyclones design ensures optimal fuel flexibility.

The new MXL2 gas turbine upgrade package is another successful example offering a full sustainability improvement scope. With 1% efficiency gain on installed GT13E gas turbines, this new offering leads to reduced cost and CO_2 emissions, while increasing service intervals by one-third, contributing also to significantly lower operating costs and improving both availability and power dispatch security.

The new Last Stage Blade (LSB) LP75 (75") designed for the nuclear steam turbines is cutting exhaust losses by 20% and allowing 10 MW improved output. This reduces cost, reduces fuel utilisation and downstream waste management, and increases turbine flexibility by raising its power range span.

On the Renewable Sector side, in the Wind business a significant milestone has been reached with the new 6 MW Haliade™ 150 wind turbine installed offshore in November 2013. This turbine is the biggest of its class ever installed and offers a 15% increase in annual energy production compared to its competitors, while the patented PURE TORQUE® and its direct drive technology guarantees high reliability.

Progress was also achieved in the Hydro business through the "Pit Stop" approach: shortening the outage time by 75%; on the environmental front, since 100% oil-free operations can be implemented (bearing, hub, bushing); finally on reliability and availability, thanks to the expertise built on 6,000 assessments carried out on over 2,000 generators worldwide. Such service and retrofit offering allow Alstom to support customers to reduce the total cost of ownership.

Further integrating life-cycle impact assessment into product development and management

The Aveny Life Cycle Assessment (LCA) software has been developed to be user friendly and to be adapted specifically to power generation equipment. Tools and processes have now been tested in all businesses on at least one core product. This testing phase confirmed the compatibility of the approach (tool, methodology, deliverables) with the various pieces of equipment.

This validation was a necessary step to enable the integration of the LCA process in the detailed innovation process of the Power Sectors. It will ensure that all new products have their LCA done and improvements will be measurable.

Among the different Life Cycle Impact Assessments (LCIA) methodologies available in the software, impacts have to be assessed with at least two main universal methods in Alstom Power Sectors: IPCC [1] (2007) for impact on climate change and ReCiPe for impacts on the ecosystem, resources and health. For example:

- in the Thermal Power Sector:
  - in addition to previous Life Cycle Assessments, the ARABELLE™ 1000 steam turbine for nuclear power stations was assessed as well as Electrostatic precipitators. These first assessments will serve as reference for future LCA to be developed. However, it already identifies some improvement areas such as the increase of secondary resources used, work on material mass or increased waste recovery;
- in the Renewable Power Sector:
  - in the Wind business, two of the three most recent platforms were assessed: the ECO 100 platform for the up to 3 MW-rated wind turbines and the wind off-shore platform concerning wind turbines producing 6 MW (Haliade™ 150);
  - in the Hydro business, preliminary studies were conducted on Francis turbines which represent about 60% of the hydro turbine world market.

Programmes at Project execution level

The Hydro business, for instance, promotes sustainability in hydro power implementation through its commitments to the Hydro Equipment Association (HEA) [2] and its promotion of the Hydropower Sustainability Assessment Protocol [3]. This tool is an enhanced sustainability assessment tool encouraging best practices in Hydro development projects, used to assess four main stages of hydro power development and guide performance in the hydro power sector. Alstom's efforts focus on propagating the wide application of the Protocol to encourage global recognition and develop the capacity of key internal staff to use the Protocol.

The International Hydropower Association conducted an assessment [4] of EDF's largest new installation project in France (Romanche Gavet, 94 MW), comprising Alstom equipment (turbines, generators, excitation system and valves) from May to July 2013. Based on the Hydropower Sustainability Assessment Protocol, the findings of this assessment reflect very high performance topics and criteria. EDF and its partners meet this high level of performance through a combination of EDF's corporate management systems, careful compliance with applicable legal requirements, and an open-working relationship between the EDF project office and the local community. Alstom actively participates with EDF in the development of EHS best practices on the construction site.

(1) IPCC: Intergovernmental panel on climate change.

(2) Alstom is a founding member of the HEA, which represents electro-mechanical equipment suppliers for hydropower globally. HEA embraces sustainability in hydro-power projects and has long favoured best practice in hydro projects by strongly supporting the International Hydropower Association (IHA), which promotes the Hydropower Sustainability Assessment Protocol.

(3) This protocol is the result of intensive work by a multi-stakeholder body with representatives from social and environmental NGOs, governments, commercial and development banks and the hydropower sector.

(4) For more information, please refer to the official assessment report, downloadable from: http://www.hydrosustainability.org/Protocol-Assessments.aspx.

Since 2013, Alstom has been progressing on a more extensive internal approach to anticipate and assess the environmental and social impacts of projects, through the design of internal tools and the integration of new routines in internal processes covering all aspects of operations from pre-tender phase to project execution. Alstom is currently doing a test-run on a few projects of one of its businesses; the aim is to develop the tool and extend it to all projects, giving priority to those involving high environmental and social risks.

Programmes at Portfolio level

Although Alstom Power Sectors believe that reducing environmental impact can be achieved at each step of product life cycle, the various assessments undertaken confirm that the main sustainability challenges and opportunities for a power generation OEM are associated with the use of the equipment, when operated by customers. The following sections provide an overview of key programmes on-going at portfolio level, which manage the performance of the existing offerings in addressing customers' key sustainability challenges.

Contribution of Alstom's offering to tackle climate change

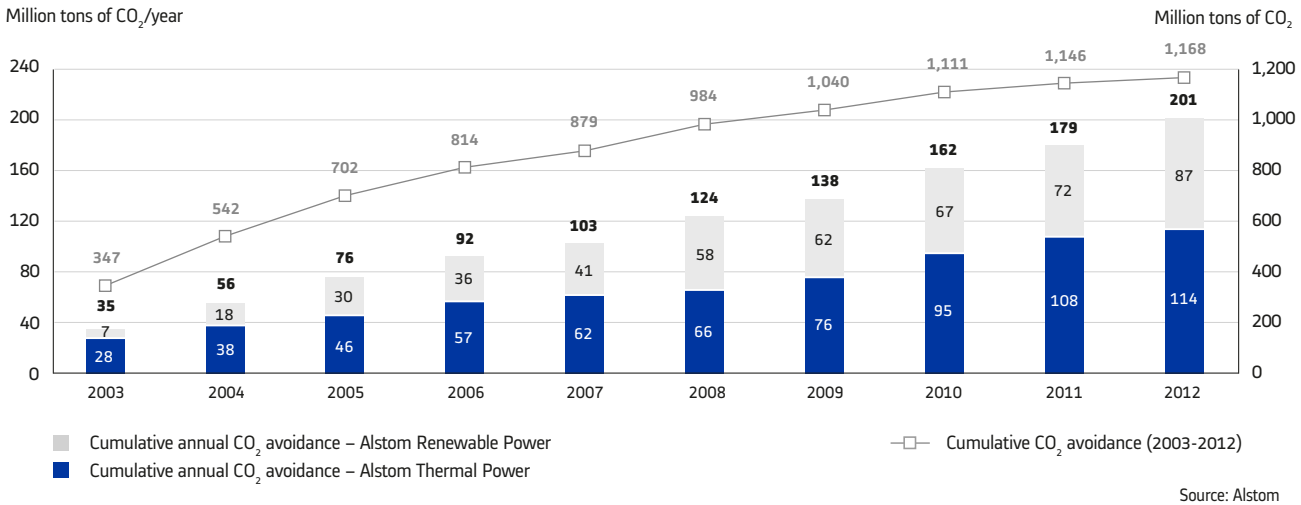
Energy related CO_2 emissions continued to increase between 2007 and 2011 by 8% with a steady share of emissions from power generation at 42% (1). The energy and particularly the power generation sector is key to achieving lower stabilisation levels of atmospheric CO_2 concentrations and reducing the risks of more severe impacts of climate change (2).

Since 2010, Alstom Power Sectors have continuously assessed their portfolio contribution to enabling CO_2 emission reduction for their customers (3). Based on the international standard "GHG Protocol", the Alstom assessment approach offers a unique worldwide database on Operating and Build Margin emission factors reflecting the yearly evolution of CO_2 emissions under a business-as-usual scenario at country level since 2002. The latest assessment (in 2013) covers relevant projects commissioned in 2012 and provides an overview of the achievements of the most recent 10 years (2003 to 2012) (4).

As for previous years, the results have been verified by PricewaterhouseCoopers Audit in accordance with the ISO 14064-3 standard. The corresponding "Reasonable Assessment Report" on 2012 projects, issued in March 2014, is available from Alstom Power Sectors.

For more than 1,500 new build and service projects completed, power plant owners were able to reduce a cumulative figure of 1.2 gigatons of CO_2 emissions over 2003-2012. On a yearly basis, plant owners were able to reduce a cumulative figure of over 200 million tons of CO_2 by the end of 2012, resulting in a Compound Annual Growth Rate (CAGR) of 22% (33% for Renewable Power and 17% for Thermal Power projects) over the period of analysis. The study proves that all fuels and technologies of the Power Sectors' portfolio can contribute to emission reduction. Only 6% of the projects accounted for (92 projects) are non-contributing and considered as business-as-usual.

CUMULATIVE ANNUAL AND TOTAL CO_2 AVOIDANCE FOR THE GLOBAL POWER GENERATION SECTOR ACHIEVED WITH THE OPERATION OF THERMAL POWER & RENEWABLE POWER OFFERINGS COMMISSIONED BETWEEN 2003 AND 2012 (BASED ON FIRST YEAR OF OPERATION VALUES)



Source: Alstom

(1) Alstom estimations based on data provided by the International Energy Agency (IEA).

(2) According to the IEA World Energy Outlook (IEA WEO) 2013, carbon intensity of the power generation sector is estimated to fall from 586 kg/MWh in 2011 to 409 kg/MWh in 2035 under the "New policies Scenario" (*vs.* 480 kg/MWh in the "Current Policy", business-as-usual scenario). However, an average of 156 kg/MWh would be required by 2035 to enable a plausible path to the 2°C climate stabilisation target ("450 Scenario").

(3) For more details on the Alstom Power Sectors' CO_2 emission reduction quantification approach, please refer to the Alstom registration documents 2011/12 & 2012/13 and to www.alstom.com.

(4) Compared to the previous year's assessment (2012) covering projects completed between 2002 and 2011, projects completed in 2002 are no longer considered in this assessment. Alstom is taking a conservative approach while considering only emission reduction contributions from the first ten years of operation. Although international carbon market standards (such as the Clean Development Mechanism) allow a revision of the baseline after a 1st crediting period (7 to 10 years after start of operation), the Alstom approach considers these projects becoming a part the baseline of their corresponding electricity grid after the first 10 operational years.

The accounted portfolio CO_2 emissions intensity [1] is estimated at 391 kg per MWh for new equipment and at 481 kg/MWh for all projects. Thanks to Alstom's progress on increasing the share of economically viable low and CO_2-free offerings and on improving the electricity generation efficiency of thermal power solutions, this figure is 18% below the global average of power generation in 2011 [2] (586 kg/MWh). Compared to the global power generation emission intensity by the end of 2002, the Alstom enabled path is equivalent to a compound annual emission intensity reduction of 2.2%. This yearly reduction rate is even higher than the one estimated by the IEA under the "New Policies Scenario" (1.5%) over 2012-2035 [3].

Contribution of Alstom's offering to conserve water resources

Population and economic growth are expected to increase competition for finite water resources across sectors. According to the IEA [4], water withdrawal in the energy sector would increase by about 20% between 2010 and 2035, but consumption by more than 85%. Particularly for power generation, the availability of the required water quantity and quality will also be challenged by many climate change impacts such as increasing air and water temperature, extreme weather, rising sea levels and more recurring and longer droughts. In order to support its customers to address their regional and site specific water needs, Alstom offers a wide range of solutions which allow it to [5]:

- **reduce water dependency and adapt to changes in water availability:** with a diversified portfolio of power generation technologies reducing the need for and the impact of water withdrawal from externalising sources. The Power Sectors' portfolio also enables it to deal with long-term climate change impact uncertainty and seasonal changes in water availability;
- **enhance water use efficiency:** with solutions to reduce the net consumption rate of high-quality water during plant operations;
- **lower the impact on water quality:** with solutions to control the thermal and chemical impact of operational discharge on the quality of surrounding water resources.

This commitment is based on many dedicated and comprehensive R&D programmes aiming at:

- providing an Alstom technical water dependency and use baseline for different types of power plants;
- identifying key water use improvement areas and;
- evaluating the most promising advanced technologies and developing future water solutions.

Building on these technical opportunities, Alstom is also actively engaged with key stakeholders towards an effective management of the water-energy nexus. In early 2014, Alstom was invited by the World Bank to launch the "Thirsty Energy Initiative" and to join the associated "Private Sector Reference Group".

Contribution of Alstom's offering to mitigate air pollution from fossil-fuel use

Clean water and clean air are essential to sustainable development and improved quality of life. The global power generation sector (and particularly fuel combustion in boilers) is a major source of air pollutants [6], since it is – and will continue to be – dominated by the use of fossil fuels through 2035 [7]. Among all harmful air toxics, four types of air pollutants are commonly considered to be of notorious significance for air quality: Particulate Matter (PM), Sulphur Oxides (SO_x), Nitrogen Oxides (NO_x), and heavy metals represented by Mercury (Hg).

With over 80 years of experience, Alstom is the market leading supplier of Air Quality Control Systems (AQCS). In order to assess the contribution of these solutions in mitigating air pollution, in 2013 Alstom developed and implemented a new credible and third-party verifiable methodology [8]. For this first-year quantification cycle, the approach focuses on NO_x and SO_2 emissions avoided for electric utilities and for society at large from the operation of AQCS commissioned by Alstom over the last ten years (2003–2012) for new and existing boiler-based steam power plants. Air pollutants avoidance is estimated through quantifying and comparing the power plant emission rate to the emission rate without operating the equipment (estimated amount of air pollution removal) and to the emission rate of the corresponding electricity grid at the start of equipment commercial operation (estimated amount of air pollution reduction).

The approach applied and the results were verified by a PricewaterhouseCoopers audit. The corresponding "Reasonable Assurance Report" was issued in March 2014. It is available from the Alstom Thermal Power Sector.

(1) Estimated as electricity generation weighted average.

(2) According to the IEA WEO 2013.

(3) This compound annual emission intensity reduction is estimated based on data provided by IEA WEO 2013 where the emission intensity of global generation drops from 586 kg/MWh in 2011 to 409 kg/MWh in 2035 under the "New Policies Scenario".

(4) IEA (International Energy Agency) – World Energy Outlook 2012 ("New Policies Scenario").

(5) For more details on the Alstom Power Sectors' approach to the water challenge of global power generation ,please refer to www.alstom.com.

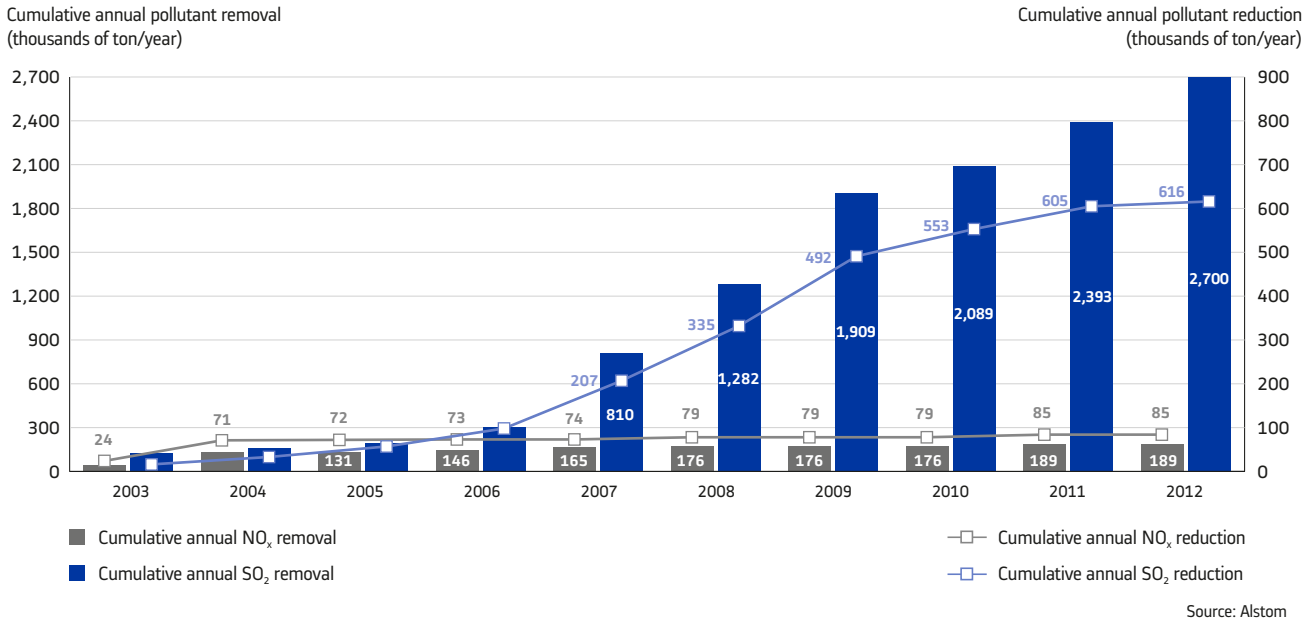
(6) As in the US, and despite the progress made in regulating and limiting air emissions from power plants since the introduction of the "Clean Air Act" in the 1990s (almost 80% decrease of NO_x and SO_2 emissions per MWh produced from contributing sources between 1995 and 2012), power plants still contribute to 13% of NO_x, 60% of SO_2 and 50% of mercury total air emissions (US Environmental Protection Agency, 2014).

(7) According to the International Energy Agency World Energy Outlook (IEA WEO, 2013), the share of electricity generation from fossil fuel sources is estimated at 68% in 2011 vs. 57% in 2035 for the New Policies Scenario.

(8) For more detailed information on the methodological approach, please refer to www.alstom.com.

42 Selective Catalytic Reduction Systems (SCR for NO_x/NO_2) and 96 Flue Gas Desulphurisation Systems (FGD for SO_2) have started commercial operation in 18 countries over the 10 years of analysis. By the end of 2012, the equipment owners were able to remove a cumulative amount of 189,000 tons of NO_x and 2.7 million tons of SO_2 per year. Thanks to the high removal efficiency rates up to 92% on NO_x and 99.5% on SO_2, the annual cumulative amount of NO_x emissions removed is equivalent to the total yearly power generation emissions from Germany or Spain in 2011 (1). The annual cumulative yearly SO_2 removal is 20% more than the total yearly power generation SO_2 emissions of the 28 EU member states in 2011 (1) and it is equivalent to 83% of the USA power generation SO_2 emissions in 2012 (2).

CUMULATIVE ANNUAL NO_x/SO_2 REMOVAL AND REDUCTION ACHIEVED FROM THE OPERATION OF AIR QUALITY CONTROL SYSTEM OFFERINGS COMMISSIONED BETWEEN 2003 AND 2012 (BASED ON FIRST YEAR OF OPERATION VALUES



Source: Alstom

Note:
– cumulative annual removal: quantity of air pollutant removed thanks to AQCS equipment,
– cumulative annual reduction: reduction in air pollutant emission compared to the emission rate of the corresponding electricity grid.

The impact on emission reductions is estimated for the top three regions (USA, Europe and China) in terms of the total accounted Alstom capacity over 2003-2012, covering 100% of the total installed capacity for NO_x and more than 85% for SO_2. Compared to the emission rates of their respective electricity grids, Alstom-equipped power plants let to a cumulative annual reduction of 85,000 tons of NO_x and 616,000 tons of SO_2 by the end of 2012. The reduced NO_x emissions are equivalent to 36% of the yearly emissions from passenger cars in France (3) during 2011.

The cumulative annual SO_2 reduction is comparable to the total SO_2 emissions from electricity production in fossil-fuel intensive countries such as Poland and Bulgaria combined in 2011 (4).

A generation-weighted average (remaining) emission rate of 0.44 kg/MWh for NO_x and 0.73 kg/MWh for SO_2 is estimated for all 138 projects. These rates are even 24% and 36% respectively below the average emission rates of all emitting electricity sources in the USA in 2012 (5) (6).

(1) According to the European Pollutant Release and Transfer Register (Nov. 2013).

(2) According to US Environmental Protection Agency (EPA) Air Market Program Data (Nov. 2013).

(3) According to the European Environment Protection Agency Air Pollutant Emission Data Viewer (Jan. 2014).

(4) According to the European Pollutant Release and Transfer Register (Nov. 2013).

(5) Estimated based on data provided by the US Environmental Protection Agency and ENERDATA (Dec. 2013).

(6) USA being a country with a long history in regulating air pollution (back to the early 1990s with the introduction of the "Clean Air Act") and with the highest abatement rates over the last 5 years (2008-2012): -13.6% compounded annual reduction rate on NO_x emissions and -18.8% on SO_2 emissions from the electric power sector (according to data provided by US EIA in 2013).

SUSTAINABLE DEVELOPMENT IN SOLUTIONS FROM THE GRID SECTOR

The energy industry is facing new and complex challenges: by 2035, global electricity demand will have increased by 33%, renewable energy production will account for almost 1/3 of total electricity output and electricity prices will have risen by 15% compared to now. Currently 1.3 billion people still lack access to electricity (1). Some countries have set targets to improve their energy efficiency, and the ageing infrastructure will have to be replaced (2).

The Grid Sector faces specific energy challenges. For instance:

- electricity is the fastest growing component of global energy demand, with electricity consumption expected to increase by 115% to 150% between 2007 and 2050, depending on the scenario (3). However, 8% of all generated energy is lost during transmission (4) and integrating intermittent renewable energy, such as wind and sun to the grid affects its stability. Moreover, in large countries, like China and India, where energy demand is sharply rising, thousands of kilometres can separate power generation units from customers. Now more pressing than ever, the global power grid must be reliable, efficient, and minimise energy losses and environmental impact;
- it must also integrate intermittent renewable energy sources without sacrificing grid stability, while managing rising energy consumption and related demand peaks in a sustainable way;
- there is also increasing concern in the electrical industry about the use of SF_6 for electrical equipment isolation due to its significant global warming properties. However, the use of SF_6 is essential to the high voltage grid sector due to its particular dielectric, breaking and insulation characteristics. SF_6 gas insulated substation (GIS) are more compact than air-insulated substation (AIS), and as such can be built closer to consumers, reducing network transmission losses, the major contributor to the total global warming potential of the entire system (or electrical grid). For the time-being, no alternative solution exists on the market.

Sustainable products, solutions and services

The Grid Sector's environmental-friendly solutions facilitate the integration of renewable energies into the grid, energy efficiency and reduction of CO_2 emissions. The Grid Sector is a leader in the new and highly competitive market of "Smart Solutions," including the Smart Grid, the Supergrid and the integration of renewable energies into the grid.

The Smart Grid

Worldwide, power grid infrastructures are evolving to adapt to aforementioned challenges: rising energy demand, need for integration of intermittent renewable energy sources, and increasing regional grid interconnections. Energy markets are increasingly deregulated and consumers are becoming more proactive in managing their electricity use. Smart Grids address these challenges and market evolutions: improved network efficiency, capacity and stability, which facilitate the development of a cleaner, more sustainable and cost-efficient energy supply.

The Grid Sector is at the fore of this transformation with a portfolio of key Smart Grid technologies: smart control rooms, smart power electronics and digital substation solutions. These systems, installed with major operators worldwide, are capable of tracking electricity supply and demand in real-time and optimally dispatching power, reducing CO_2 emissions associated with unnecessary energy generation. Moreover, Smart Grids enable utilities to control the exact operating conditions of their assets in real time. These operating conditions may greatly exceed the asset's design values; consequently, online asset monitoring helps customers operate their assets closer to the limit, allowing them greater flexibility and postponement of certain upgrade investments.

The Grid Sector is also a leader in smart city pilot projects, transforming existing or future urban districts into self-sustaining eco-cities. Examples include IssyGrid and Nice Grid in France and the Philadelphia Docks in the USA. These "microgrid" projects use smart control rooms to monitor and manage urban distributed energy resources, including smart buildings, electric vehicles, storage installations, demand response programs, local micro-generation, and smart meters. With these technologies, proactive consumers can monitor their energy consumption in real-time and to adjust their energy use as necessary.

At NiceGrid, the Grid Sector integrated Alstom Network Energy Manager (NEM), the smart energy management solution which optimises the full range of local energy resources available to the solar district of Carros in real time. Alstom also integrated its megawatt storage solution MaxSine™ eStorage converter to enable the French distribution utility ErDF to benefit from a 1 MWh storage capacity at the primary substation, supplying stable, reliable and clean power for a better managed grid.

(1) Source: "Achieving Universal Energy Access" – United Nations Foundations (unfoundation.org), 2012.
(2) Source: International Energy Agency 2012.
(3) Source: International Energy Agency 2010.
(4) Source: World Bank 2010.

The Supergrid

The second sustainable grid transformation is the development of the Supergrid, a high-efficiency power grid which interconnects national energy networks across regions and continents. These energy-efficient highways can transmit bulk-power over long distances and integrate large amounts of renewable energy sources. This is an important transformation as long-distance connections are the best way to connect remote energy production sites to dense urban centres; as such, it is also the best way to integrate offshore wind farms far from the coast.

The interconnections between national grids allow utilities to export energy to neighbouring markets, reduce the costs of energy production and transmission, and improve grid stability.

Supergrid solutions offer various environmental benefits:

- integration of distant large-scale renewable energy sources (hydro, wind or solar) *via* High Voltage Direct Current (HVDC) which transmits electricity with only 3% energy loss vs. 6% for the traditional Alternative Current (AC);
- power generation installed capacity reduction due to shared reserves between interconnected regions.

For example, Alstom was selected for the DolWin3 project in 2013 to connect the wind farm cluster in the North Sea to Germany's national grid. This strategic project increases Germany's renewable energy use while reducing fossil fuel dependency and greenhouse gas emissions. Alstom will use its HVDC solution to connect and transport this electricity from wind over 80 km to the onshore grid.

Another example is Rio Madeira, a strategic energy project for Brazil, as the country is ranking number 2 in hydroelectric capacity in the world. By constructing a 10 GW hydroelectric plant in the Amazon basin and transporting two-thirds of the energy produced to the south-east populated areas around São Paulo, it contributes to the economic development of the Amazon area as well as the populated urban region, while reducing Brazil's oil dependency and its GHG emissions.

Integration of wind and solar energy

Integrating increasing renewable energy sources into the grid is a priority for many countries, including the European Union and China. The Grid Sector has become one of the utilities' preferred partners in this field, with solutions for renewable energy integration including smart control room expertise and Direct Current (DC) connection.

Alstom provides intelligent software solutions, *i.e.* network management systems to manage intermittent electricity flows, transmission and distribution levels. The Renewable Desk (for transmission networks) and the Distributed Energy Resources Management System (DERMS), for instance monitor in real-time and integrate wind and solar-sourced energy with the base load – that is, the amount of power needed to meet minimum customer demands. These intelligent systems pave the way for renewable fleet management network protection and control. Smart online stability solutions help to avoid perturbations while integrating the renewable power flow into the grid.

The Grid Sector also offers a range of wind farms power transmission solutions compliant with feasibility studies, power connection design and power compensation solutions. Floating offshore electrical substations are provided to bring the grid closer to offshore wind turbines. Grid's first offshore substations were installed in the UK, and the North and Baltic seas off the German and Danish coasts. For the efficient transmission of offshore wind energy to the onshore grid, Alstom has developed HVDC MaxSine™ – a Voltage Source Converter (VSC) ideal for offshore wind integration due to its small footprint, and ability to carry power efficiently across distances above 50 km.

Green Services

The Grid Sector offers innovative and high quality service to optimise electrical infrastructure, heighten equipment return-on-investment and prolong asset service life.

Service solutions provide lifetime support on high voltage distribution equipment or entire networks, from inspections and tests to minor or major maintenance and repair work, in order to increase infrastructure reliability. Renovation, modernisation and extension services improve performance and resolve obsolescence issues. Equipment that is maintained throughout its lifecycle, replaced or updated as needed to keep pace with environmental standard is operates efficiently with less waste. The Grid Sector offers a wide range of consulting solutions to proactively ensure better, more energy-efficient performance.

The Grid Sector also offers green services to help customers reduce their environmental footprint throughout their equipment ownership, including SF_6 management (handling training and certification, top-up, quality check, recycling, leak detection and repair, and mobile decontamination workshop), vegetable oil as a replacement for mineral oil in transformers, and equipment decommissioning, refurbishing and recycling. Cost-efficient, these services help customers comply with environmental regulations, reduce SF_6 emissions, pollution and industrial waste, and improve their safety conditions by relying on Grid Sector experts and experienced field technicians.

Sustainable production methods: environmental-friendly product design and life-cycle assessment

Eco-design takes into account sustainability to minimise environmental impact at every stage of a product's lifecycle. The Grid Sector's eco-design process relies on the IEC 62430 standard, specifying the norms and procedures used to integrate environmental factors into product conception, development, and materials. The Grid Sector offers eco-design training to its product designers.

Eco-design uses the Life-Cycle Assessment (LCA) approach: to evaluate the environmental impacts of a product at every stage of its life cycle: raw materials, manufacturing (the reduction of natural resources in the components); product operations (lower CO_2 emissions, limits on environmental risks, greater energy efficiency, etc.) and end of life (product recycling capabilities). The LCA allows Grid R&D to precisely identify the processes and phases with the greatest environmental impact, and highlight priority areas for design improvement. Using the LCA methodology, Grid Sector has improved the environmental impact of an increasing number of its products resulting in the creation of product environmental profiles.

New Grid solutions thus provide significant environmental improvements compared to the previous versions, and respect international and local environmental regulations as well as Alstom's Environment, Health and Safety (EHS) rules.

As an example, the development of the SF_6-free circuit breaker up to 72,5 kV based on vacuum switches lowers overall environmental impact by 12% (for indicator such as global warming, ozone depletion, human toxicity, etc.). Moreover, the CO_2 equivalent of the new SF_6-free circuit breaker design is reduced by 26%.

Furthermore, the Grid Sector is also working actively on identifying alternative technologies with the same characteristics as SF_6 but with a reduced environmental impact.

Eco-design also helped to assess the environmental impact of a full 300 kV DC station based on the Alstom's HVDC MaxSineTM technology.

As for other Sectors, relationships with other stakeholders (such as customers, suppliers, external bodies) and local communities are part of the Grid Sector's sustainable development strategy. For more information, please refer to information provided in the section "Relationship with external stakeholders".

SUSTAINABLE DEVELOPMENT IN SOLUTIONS FROM THE TRANSPORT SECTOR

Worldwide demand for mobility is growing steadily in connection with demographic changes, urbanisation and economic development. Between now and 2050, the worldwide population is expected to reach 9 billion inhabitants, 8 billion of whom will live in non-OECD countries. In these countries, the demand for all modes of passenger transport combined could thus triple by comparison with 2010 (1). Public authorities everywhere are concerned about the environmental impacts of road transport due to factors such as traffic jams, air pollution and depletion of energy resources. The benefits of rail transport in terms of air pollution, use of space, safety, energy efficiency and CO_2 emissions (2) make it a true sustainable alternative.

Alstom designs and delivers comprehensive, efficient and sustainable railway systems for the benefit of all its stakeholders: rail operators, public authorities and passengers. By continuously improving the environmental performance of its solutions, Alstom also strives to reinforce their attractiveness while reducing their lifecycle cost.

Solutions for sustainable mobility

Smart transport systems should be fluid, efficient, eco-friendly, safe, connected and accessible. Alstom develops rail transport solutions which meet the social and environmental challenges of mobility.

Efficiency at the heart of the city

Throughout the world, tramway networks are an attractive solution for cities seeking a new mode of sustainable transport. They offer high capacity with long-term reliability and the potential for significant growth in order to accommodate future developments.

(1) Source: "Transport outlook – Seamless Transport for Greener Growth" – International Transport Forum – 2012.

(2) Source: "High Speed Rail – Fast Track to Sustainable Mobility" – UIC.

Alstom has now commissioned the 1,500th CITADIS™ tramset in Paris (France). With more than 6 billion passengers carried, it is estimated that the CITADIS™ range has allowed around 5 million tonnes of CO_2 emissions to be avoided up until now. All the tramsets provide a maximum level of comfort and fluidity, and guarantee easy access. With their customised livery and interior layouts, ground level power supply and vegetal cover on the tracks, these tramways are fully integrated into their surroundings.

Capitalising on its experience, dialogue with customers and analysis of the passenger experience, Alstom is developing its tramway range even further: improving passenger flow thanks to double doors, and optimising the traction system to lower energy consumption and reduce lifecycle costs.

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; and on-board batteries or super-capacitors for autonomous operation over short distances.

For example, in Rio de Janeiro (Brazil) for the Porto Maravilha project, the chosen solution combines APS and on-board super-capacitors to cover areas without an electricity supply.

In addition, a fly-wheel energy storage system made from composite materials is undergoing extensive tests at the Tarbes site (France) under an exclusive partnership with Williams Hybrid Power.

Metros provide an effective and balanced solution for high-capacity urban transport, with minimum space use and low environmental impact. Thanks to minimum local air emissions, metro networks actively contribute to improving air quality in city centres. Through turnkey projects involving its METROPOLIS™ range of trains and URBALIS™ signalling solutions, Alstom offers complex transport systems for reliable, seamless mobility and optimised ownership costs.

Alstom's URBALIS™ signalling solutions provide automatic control of train movement and safer traffic management. They also enable transport operators to increase network capacity by operating more trains on the same infrastructure, which optimises environmental impacts. URBALIS™ Fluence, the most recent development in the range, has even more integrated on-board intelligence, leading to a 20% reduction in equipment and up to 30% overall energy savings thanks to optimised operations. URBALIS™ Fluence is currently being implemented in the project to renew the French city of Lille's driverless Line 1 metro.

In 2013, Alstom also launched AXONIS™, a new light metro system which is economical, quick to build and fits smoothly into the cityscape. This system is particularly designed for cities with high population density and rapid expansion.

Aware that energy can represent up to 20% of operating costs, operators are paying increasing attention to the energy efficiency of the systems they purchase. The HESOP™ reversible substation developed by Alstom for urban networks enables almost all electrical energy recoverable from trains equipped with regenerative braking systems to be fed back into the grid. Italy's Milan-Desio-Seregno suburban tramway line will soon be equipped with eight HESOP™ substations for *Cooperativa Muratori e Cementisti* (CMC).

Building on its success in turnkey projects, Alstom will also provide Riyadh (Saudi Arabia) with its fully integrated metro solution to equip the city's three new lines. The solution combines Alstom's most efficient metro sub-systems: the METROPOLIS™ range of rolling stock, URBALIS™ signalling, HESOP™ energy recovery system and APPITRACK™ automated track laying technology which makes it possible to install tracks four times faster than with traditional methods, and ensures efficient installation while reducing works related disturbances.

For the long daily journeys within expanding suburban areas, Alstom also offers comfortable and reliable high-capacity public transport solutions. Its suburban trains (X'TRAPOLIS™) and tram-trains (CITADIS™ Dualis and CITADIS Spirit™), in service on urban networks and main lines, form an essential link in the intermodal system.

Regional transport for day-to-day travel

Regional trains connect territories and contribute to their economic growth. They provide daily commuting services between new urban areas. The needs they fulfil are as diverse as the areas they serve: high capacity and service frequency, high-speed travel for longer distances, modularity, extreme weather conditions, etc. With its CORADIA™ range, Alstom offers a range of solutions to give a very wide choice of technical configurations to meet all these needs.

The Regiolis version of the CORADIA™ Polyvalent platform has a high-performance environmental profile: good energy efficiency *via* an adjustable ventilation system to optimise air flows outside peak hours, optimised sleep modes, a specific approach to favour the use of clean, recyclable materials, and good performance in terms of external noise emissions.

The new CORADIA™ Lint, for the Cologne diesel network in Germany, launched in January 2014, is fitted with diesel engines that have catalytic converters to treat exhaust gases in order to comply with stage IIIB European regulations for non-road diesel engines. The new architecture also allows one engine to be switched off when full power is not needed, thus achieving up to 10% fuel savings.

High-speed rail linking regions

Contributing to making rail competitive compared with air and road transport is one of Alstom's strategic priorities as it strives to provide the most attractive solutions.

Alstom has sold more than 720 very high-speed trains, which gives it unrivalled experience in this market. The two products in its current range draw on the best of this expertise:

- the Euroduplex is the only double-decker very high-speed train which is fully interoperable within Europe. It has been in service since December 2013 on the new Paris (France)-Barcelona (Spain) line opened by SNCF and RENFE. This is the 16th border to be crossed by Alstom's high-speed fleets;
- the AGV™ combines articulated architecture with distributed power. It was designed with a strong focus on weight reduction and aerodynamic drag optimisation, which contributes to its very good energy-efficiency performance: its global energy consumption is around 20% lower than that of competitors' trains.

In this market segment, passenger comfort is key. Spacious interior compartments and wide aisles, large window surfaces, lower levels of interior noise and multimedia amenities enable the AGV™ to offer an unequalled level of comfort to the millions of passengers who use it.

A hybrid locomotive to reduce air emissions

Alstom has designed the 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. Contracts with Volkswagen and Deutsche Bahn Regio Bayern in Germany are currently ongoing for the delivery of three and five hybrid locomotives, respectively.

Designing sustainable railway systems

For its products and services, Alstom consistently promotes a lifecycle approach maximising environmental and economic benefits over time.

Eco-design for products and services

Alstom first began thinking in depth about eco-design in the mid-90s. Its eco-design policy was last updated in September 2013. The priorities it sets are to:

- improve the energy efficiency of rail transport systems;
- reduce noise and vibrations;
- use clean, recyclable, and natural materials;
- reduce air emissions;
- facilitate 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 60 experts (eco-designers, acoustics experts, materials experts, energy engineers, etc.).

Lifecycle assessments are conducted to support technical choices in many projects, such as the CITADIS™ Compact tramway for Aubagne, France, or new metros. Environmental Product Declarations (EPDs) provide customers with an in-depth picture of environmental impacts throughout the lifecycle. In 2013, Alstom published the Environmental Product Declaration for one of its metro solutions (DT5) (1).

In February 2014, Alstom's Villeurbanne site was the first in the Group and one of the first in France to extend its ISO 140001 certification for environmental management to its design and product development activities *via* eco-design.

The eco-design approach also applies to services. For example, the Spare Parts activity in France has launched initiatives in the consolidation of deliveries, utilisation of new packaging methods which avoid using tape, and recycled cardboard packing for a more environmental-friendly offer.

Improving energy efficiency

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 thanks to:

- weight reduction through composite materials and re-design of parts (*e.g.* the stainless steel light body shell of X'TRAPOLIS™ Mega designed for PRASA in South Africa);
- reduced aerodynamic drag;
- more efficient traction systems, either electric or diesel (permanent magnet motors, optimised power packs control system, new traction chains);
- energy-efficient auxiliaries (lighting, heating and air conditioning);
- braking energy recovery;
- optimised sleep modes.

To reduce the energy consumption of existing systems, Alstom has developed a complete range of services for energy efficiency which includes energy mapping and optimisation solutions, such as traction retrofit, implementation of eco-driving tools, as well as energy storage and energy control systems.

(1) www.environdec.com.

Through a joint programme with the Railway Procurement Agency, the Irish authority responsible for the development of railway infrastructure, two tramways in Dublin have been equipped with smart meters to analyse their main energy usages, identify potential areas for optimisation and evaluate the benefits of tested optimisation solutions (HVAC control system, light energy storage for recovery of braking energy).

Noise reduction

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

- redesigned HVAC (resonators, micro-perforated ducts) for reduced interior noise;
- new wheel dampers for tramways to avoid squeal;
- redesigned traction motor rotors (regional trains, metros);
- reduced electro-magnetic noise during acceleration phases (METROPOLIS™ Amsterdam);
- optimised doors;
- optimised ventilation: natural or switched off during stops;
- development of quiet roof-mounted power packs (CORADIA™ Regiolis);
- high attenuation sleepers to mitigate vibrations from the tracks, which deliver an equivalent performance to floating slab track systems at a lower cost.

On average, new trains are now 3-5 dB more silent than previous generations.

Use of clean, recyclable materials

Alstom is proactive in its design choices to favour recyclable materials. Its trains are now more than 90% recyclable and 97% recoverable (including energy recovery).

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

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

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

Putting the passenger at the heart of innovation

Alstom believes that passenger comfort is the key element in changing behaviours in favour of sustainable mobility. That is why it puts the passenger at the heart of its innovation policy.

The new Alstom products offer large windows and wide aisles, reduced noise emissions, video-monitoring and new passenger information systems, and guaranteed accessibility for all. Alstom's engineers design products which anticipate the needs of users tomorrow. They particularly take into account the increase in average height of passengers and the ageing of the population.

Alstom is committed to facilitating access and on-board movement, to adapting ergonomics, notably *via* touch-sensitive and visual push-buttons, and to improving passenger information systems through real-time maps and visual and auditory signals.

For example, the new PENDOLINO™ for the Polish operator PKP Intercity offers specific adaptations for visually impaired passengers, such as information in Braille to identify seats.

These innovations, combined with the elimination of controversial substances (see dedicated paragraph in the Environmental section), are in favour of the safety and comfort of passengers, which are the end-users of Alstom products.

As in the other Sectors, relationships with other stakeholders (customers, suppliers, external institutions) and local communities form an integral part of the Transport Sector's sustainable development strategy. For more information, please refer to information provided in the section "Relationship with external stakeholders".

(1) European Regulation number 1907/2006 of the European Parlement and Council, dated 18 December 2006, for Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

CLIMATE CHANGE STRATEGY

The Group is taking a pragmatic approach to make sure it is well prepared for all potential consequences of climate change and how they will affect Alstom and its stakeholders. At Group level, the focus is on mitigating the impact on its operations. The Sectors and businesses must be prepared for the impacts on operations, and also have a strategy in place to adapt their product portfolio in view of climate change. In short, climate change leads to additional risks for which Alstom is ready, but also leads to new business opportunities that Alstom will benefit from.

Risks

At Group level, a rigorous approach is in place to deal with risks.

On an overall scale, Alstom has a yearly company-wide risk assessment process in place; in order to address the climate change challenge, the Group implemented for the first time in fiscal year 2013/14 a "Climate change risk" as a new risk factor. Climate change risk has been assessed to evaluate the exposure of Alstom's manufacturing activities, sites and buildings to extreme weather conditions such as tropical cyclone, extra-tropical cyclone, hail storm, storm surge, flash flood, and tsunami. The evaluation method took into consideration facilities with over €50 million of property damage and business interruption values in relation with geographical risk indexes provided by insurance companies and combined to probability ratio, in order to determine the range of the most exposed facilities of the Group.

In addition, Alstom takes immediate action to modify processes when and wherever necessary. The main example is the management of Alstom's industrial locations. For the selection of new sites or for major structural investments in existing sites, the Group has integrated the site's "preparedness" and "exposure" to climate change effects as one of its ranking criteria.

With further proactive risk management practices and assessments, the Group expects to decrease the likelihood of adverse impacts; mitigation/protective measures should contribute to reducing their magnitude.

Opportunities

Alstom is well prepared to benefit from new opportunities arising from changing conditions, and will be well positioned to gain a competitive advantage.

First, the increasingly visible climate change perspective will drive actions from governments and regulation bodies to limit the magnitude of this climate change by reducing greenhouse gas emissions. The type of actions and regulations will vary with the outcomes of international conferences such as COP20 and 21, but, in any case, decisions will be made, as in China (carbon emission trading schemes in some regions) or in California (where a strict environmental regulation has been put in place). This will increase the demand for all products and services that Alstom has been working on for many years, with a strategy to make these as environment-friendly as possible. Alstom's Renewable Power Sector will grow significantly through higher demand for renewable energy, but the other Sectors also have new solutions under development to address specific environmental concerns. This strategy has already been addressed exhaustively in the above sub-sections "Sustainable Development in solutions from the Sectors", as well as in chapter 1 – Description of Activities, Thermal Power Sector, but this presentation can be completed by two significant examples:

- Thermal Power: Carbon Capture and Storage/Utilisation (CCS/U) is an entire new business segment in which Alstom is taking a leading role. Several Alstom demonstrators are successfully operating, and the Group has the technology and know-how to deploy these on a commercial scale, as soon as demand (driven by regulations or higher CO_2 prices) increases;
- Grid: regarding SF_6, the evolution of regulations could seriously impact the business of products containing this gas (banned or more probably taxed). The Grid Sector is anticipating with its R&D programme moving up voltage limit for SF_6-free products and reducing the volume of SF_6 in its new products. However, as previously mentioned, the Grid Sector is working actively on identifying alternative technologies with the same characteristics as SF_6 but with a reduced environmental impact.

In addition, climate change will lead to a demand for products and services better adapted to the new conditions. Alstom is diligently taking on board these new requirements in its R&D roadmaps. This can be illustrated in the following examples:

- Transport: rolling-stock and railway infrastructures need to be designed to resist more frequent climatic events such as storms, floods or extreme temperatures. Alstom has extensive experience in providing railway systems adapted to local weather conditions, both in high-temperature climates (*e.g.* Dubai, United Arab Emirates; Caracas, Venezuela) or very cold environment (Russia, Kazakhstan). In addition, Alstom actively participates in UNIFE discussions on the need to adapt railway systems to climate change and supports the Climate Change & Standardisation Sector Position Paper issued on 20 December 2012 by CER and UNIFE;
- Thermal Power: thanks to Alstom's strong positioning in the Middle-East for its thermal activities, the Group proposes thermal power plants able to run with low water requirements as these regions have water scarcity issues. In a world where water will increasingly become an issue and not only in the Middle-East, Alstom will have a competitive advantage of having developed these solutions.

STRATEGY FOR EMERGING MARKETS

The Group's overall strategic priorities and actions that serve as an enabler and support for Alstom's four Sectors, should be considered separately from the actual strategies of the various activities in these Sectors (which are addressed in chapter 1).

Alstom's development in emerging markets is a main driver for its growth. As a global player, the Group has a major presence in all leading growth economies. This does not mean only commercial presence, but also significant R&D, engineering, manufacturing, project execution, as well as service resources. The share of emerging markets in Alstom's headcount, CAPEX and orders has increased in recent years, and will remain at a high level in the foreseeable future.

Moreover, to stress the importance of Asia as the main global cluster of emerging economies, many of the Group's businesses have regional headquarters in emerging markets; the Boiler business has even established its global headquarters in Asia.

ENVIRONMENTAL PERFORMANCE

The report presents the results of the Group on the environmental footprint of permanent facilities.

Five environmental indicators are monitored, for which the Group has set objectives to reduce its environmental impact; other indicators and actions taken in favour of the environment are also presented, including compliance with new regulations or directives.

In this section, environmental results are presented by calendar year and certification results by fiscal year.

In 2013, the Group was in line with its objectives with regards to reducing energy greenhouse gas (GHG) consumption intensity, volatile organic compounds (VOC) emission reduction and increasing the waste recovery rate. All large manufacturing sites (> 200 employees) are now certified ISO 14001 and water consumption of permanent sites is decreasing. The specific target related to the GHG emissions from the Grid Sector's sulphur hexafluoride (SF_6) has not been reached but strong actions are being implemented to close the gap.

This section has been reviewed by PricewaterhouseCoopers as an independent third party in regard to Article 225 of the French Grenelle law. A sample of 44 units in 10 countries has been examined. The review report is available at the end of this chapter.

CERTIFICATION OF UNITS

Objective: all manufacturing sites over 200 employees certified ISO 14001

Results: at the end of fiscal year 2013/14, 100% of the manufacturing sites over 200 employees are certified ISO14001. This programme supports the reduction in environmental impacts from the Group's operations. The requirements for ISO 14001 and OHSAS 18001 (Safety) certifications are integrated in the Alstom EHS Roadmap and contribute to the improvement process of Environment, Health and Safety on sites.

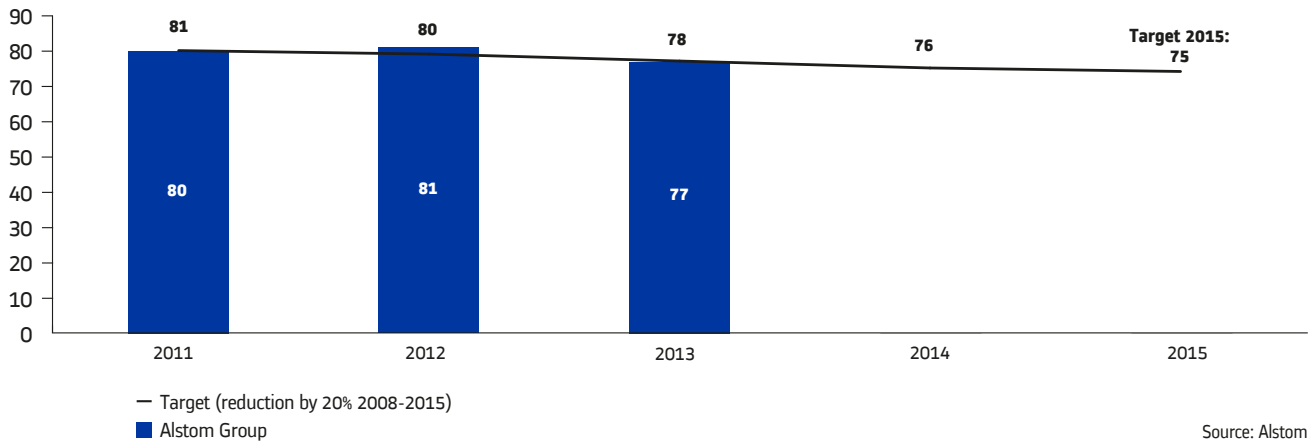
ENERGY CONSUMPTION

Objective: reduce energy intensity by 20% in permanent facilities by 2015 (reference year 2008)

Energy intensity is measured in terms of the amount of energy used in relation to sales. The indicators are calculated with regard to the sales of the fiscal year.

Result: at the end of 2013, a reduction in energy intensity (77) by 18% was achieved compared to the 2008 base year (94); the results are on track to reach the target of 75 in energy intensity by 2015. The energy intensity of all Sectors decreased this year with numerous action plans driving 80% of the results, 20% coming from a warmer winter in Europe which contributes to moderate gas and steam utilisation for heating of the buildings compared to last year.

ENERGY INTENSITY (*) *(in MWh/sales in € million)*



Source: Alstom

(*) Excluding the energy used by the Birr (Switzerland) Research & Development (R&D) test activity (gas and diesel oil as fuel).

Details of energy consumption

ENERGY CONSUMPTION IN PERMANENT FACILITIES (*)

(in GWh)	2011	2012	2013
Natural gas	630	685	621
Butane, propane and other gases	47	44	43
Heavy fuel and diesel oil	76	66	51
Steam/heat	124	134	134
Electricity	717	706	703
Coal & other fuels	7	8	4
TOTAL ENERGY CONSUMPTION	**1,600**	**1,642**	**1,555**

Source: Alstom.
(*) Excluding the energy used by the Birr (Switzerland) Research & Development test activity (gas and diesel oil as fuel).

The Group total energy consumption decreased between 2012 and 2013 (-5%).

Natural gas consumption decreased by 9%, electricity usage remained stable and the use of heavy fuel has been reduced. The ongoing application of energy saving programmes contributed to these results.

The Birr (Switzerland) Research & Development activity tests gas turbine prototypes in real operating conditions using natural gas and diesel fuel oil. Electricity is produced and sent into the Swiss distribution network with no significant impact on the country's electricity CO_2 emission factor.

Since this activity is intermittent, it varies significantly from one year to another; it cannot be integrated into the global objective of the Group and is therefore counted separately. No major test activities have been performed this year, which leads to a natural gas consumption of 21 GWh in 2013.

Find out more about Sectors' detailed results, best practices and the programmes which contribute to reach the Group's targets: www.alstom.com.

GREENHOUSE GAS (GHG) EMISSIONS

GHG emissions related to operations

Objective: reduce GHG emission intensity by 20% in permanent facilities by 2015 (reference year 2008) (1).

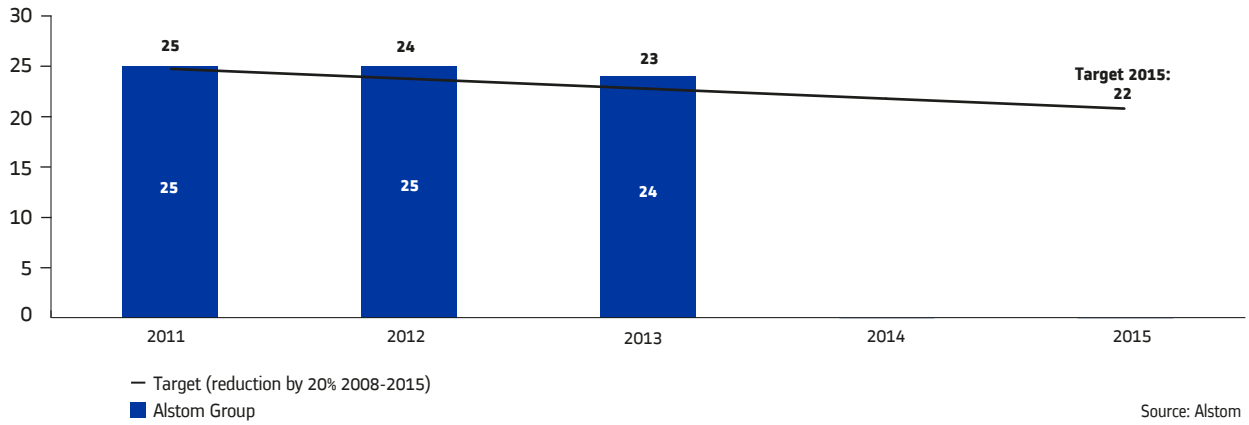
GHG emission intensity is measured in terms of tons of CO_2 equivalent produced in relation to sales at the end of fiscal year.

The Group measures separately the GHG attributable to energy usage, fugitive emissions of perfluorocarbons gases (PFC) and hydrofluorocarbons (HFC) (Ktons CO_2 eq) and the GHG from fugitive emissions of SF_6 (SF_6 gas is specific to the Grid Sector). As such, the comparison with the 2008 objective is limited to GHG emissions from energy consumption (Ktons CO_2 eq) in permanent facilities.

(1) Excluding the CO_2 emissions due to the Grid Sector's SF_6 fugitive emissions and the CO_2 emissions related to the energy used by the Birr R&D test activity (emissions due to gas and diesel oil usage) – updated compared to previous years' registration documents.

Result: at the end of 2013, the reduction in GHG emission intensity attributable to energy consumption was an 11% reduction (24) compared to the reference year, 2008 (27).

GREENHOUSE GAS EMISSIONS INTENSITY (**) *(in tons CO_2 equivalent/sales in € million)*



(*) Excluding the CO_2 emissions due to the Grid Sector's SF_6 fugitive emissions and the CO_2 emissions related to the energy used by the Birr R&D test activity (emissions due to gas and diesel oil usage) – updated compared to previous years' registration documents.

GHG emissions details

GHG EMISSIONS FROM ENERGY USAGE IN PERMANENT FACILITIES (*)

(in kilotons CO_2 eq)	2011	2012	2013
Direct CO_2 emissions from natural gas, butane, propane, coal and oil consumption	173	181	162
Indirect CO_2 emissions from steam, heat and electricity consumption	344	326	324
Total CO_2 emissions from energy consumption	**517**	**508**	**486**
Other Direct CO_2 fugitive emissions from PFC and HFC	2	2	1
TOTAL CO_2 EMISSIONS FROM ENERGY CONSUMPTION AND OTHER DIRECT EMISSIONS EXCEPT SF_6	**520**	**510**	**488**

Source: Alstom.
(*) Excluding the CO_2 emissions due to the Grid Sector's SF_6 fugitive emissions and the CO_2 emissions related to the energy used by the Birr R&D test activity (emissions due to gas and diesel oil usage) which amounts to 5 kilotons CO_2 eq.

Direct and indirect CO_2 emissions from energy consumption decreased by 4% between 2012 and 2013.

GHG emissions related to the use of SF_6

Objective: reduce SF_6 intensity by 8% between 2012 and 2015.

The Grid Sector was integrated in Alstom in June 2010. This makes the comparison to the 2008 base year impossible.

59% of the total emissions of greenhouse gases (direct and indirect) of the Grid Sector are due to SF_6 usage.

No other Alstom Sectors use SF_6, and this gas is essential to the Grid business and its customers, due to its particular dielectric properties. It is used in high- and medium-voltage switchgears and in all components of Gas Insulated Substations (GIS) for its insulation characteristics. However, it presents a global warming potential, nearly 24,000 times more than CO_2. Therefore its importance as a greenhouse gas is critical and the emission of SF_6 into the atmosphere must be prevented as much as possible.

The ongoing goal of the Grid Sector is to minimise its impact on the environment; the priority is the reduction of SF_6 contained in products, and SF_6 losses through processes, production and testing equipment and commissioning techniques.

The day-to-day implementation of best-handling practices by all those involved in the gas life cycle is, nevertheless, the most important factor in a continuous, environmental-friendly improvement process.

In 2013, the Grid Sector handled approximately 870 tons of SF_6, of which 6.3 tons were released into the atmosphere on Grid's permanent sites during testing and filling operations. This represents a leakage rate of 0.7% (same rate in 2012).

For the Grid Sector, those emissions represent approximately 80% of the total direct emissions in CO_2 equivalent. Grid commits to reduce them by reducing the SF_6 mass in sub-stations thanks to its eco-design approach, as well as by the implementation of best-handling practices on Grid sites to reduce leakages.

Since 2012, this indicator has been monitored each year with an objective that is in line with the Group's greenhouse gas initial objective of -8% between 2012 and 2015 (*i.e.* an average of -2.5% per year).

In 2013, analysis confirmed that the GIS product line masters SF_6 management. Consequently the priority was to ensure the reliability of SF_6 emission measurement in the Air Insulated Substation (AIS) product line, which is now the main contributor and not as advanced on the subject.

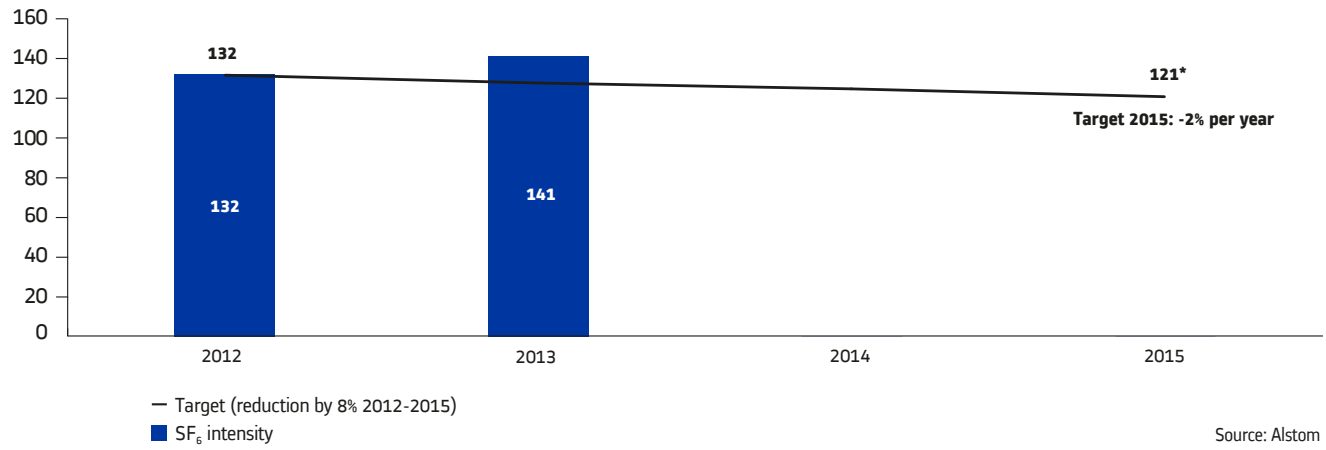
The Group's reported SF_6 emissions have increased this year as a consequence of improved SF_6 monitoring in the AIS product line.

An example of SF_6 management improvement was identified at an American site. Thanks to improved SF_6 monitoring, SF_6 leaks were identified by Infrared camera and immediate remedial measures were implemented.

Going beyond the European fluorinated greenhouse gas certification regulation, the Grid Sector is deploying a worldwide training programme on SF_6 management to ensure that Grid employees are well aware of this gas' environmental impacts and safety risks and of proper handling techniques to reduce leaks. In addition to existing training programmes, a new, three-level e-learning programme on SF_6 is being launched in 2014. The second part of the training will be hands-on.

The Grid Sector is also working actively on identifying alternative technologies with the same characteristics as SF_6 but with a reduced environmental impact.

INTENSITY OF GREENHOUSE GAS EMISSIONS FROM SF_6 *(in tons CO_2 equivalent/SF_6 equipment sales in € million)*



Source: Alstom

(*) The 2015 target was decided based on 2012 figures, but in 2013 inaccuracies in the 2012 data were discovered at certain sites.

SF_6 FUGITIVE EMISSIONS

(in tons)	2011	2012	2013
SF_6 fugitive emissions	4.97 (*)	5.77	6.34

Source: Alstom.
(*) Reported values are based on the best estimations collected on the scope of reporting of the considered year.

CO_2 emissions related to business travels

CO_2 EMISSIONS FROM BUSINESS TRAVELS

(in kilotons)	2011	2012	2013
CO_2 emissions from air travels (*)	-	131	115
CO_2 emissions from train travels	-	-	2
CO_2 emissions from company cars using gasoline	8	8	6
CO_2 emissions from company cars using diesel oil	14	16	16

Source: Alstom.
(*) Source: Carlson Wagonlit Travel (CWT) – CO_2 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.

It is important to note that, in 2013, an enhanced selectivity in the air travel policy, combined with an increasing use of alternative means of communication has contributed to reducing the Group's CO_2 emissions related to air travel and the related cost (-12% of CO_2 emissions from air travel).

The actions detailed below also represent alternatives that contribute to avoid CO_2 emissions linked to business travels.

Development of virtual meetings through the Group

Starting in 2009, Alstom has invested in an innovative communication tool – telepresence – that helps reduce the Group's CO_2 emissions, while reducing travel time and expenses. This CISCO® technology offers a high resolution and sound that enable virtual meetings to take place as efficiently as face-to-face meetings, thereby accelerating the decision-making process.

The increasing use of internal messenger's applications such as Lync® or Communicator® widely deployed within the Group contributes to avoid travels.

For detailed information, see in "Social Performance section", paragraph dedicated to Alstom Collaborative Way (ACW).

Use of renewable energies

The Group has signed contracts for usage of electricity from renewable sources where economically bearable: Alstom is fully supplied with green electricity in the UK (40 GWh from renewable sources: 74% coming from Wind, 14% from biomass, 7% from Hydro and 5% from other sources) as well as in Belgium. These contracts cover 2013 and 2014.

In Germany, the Kassel site uses renewable energy sources and has had a 100% Green Power hydro energy contract since 2008.

The Group has also signed in France an electricity contract for those main sites including 30% of renewable energy sources for 2014 and 2015.

WATER CONSUMPTION

Consumption of permanent sites located in water-stressed areas

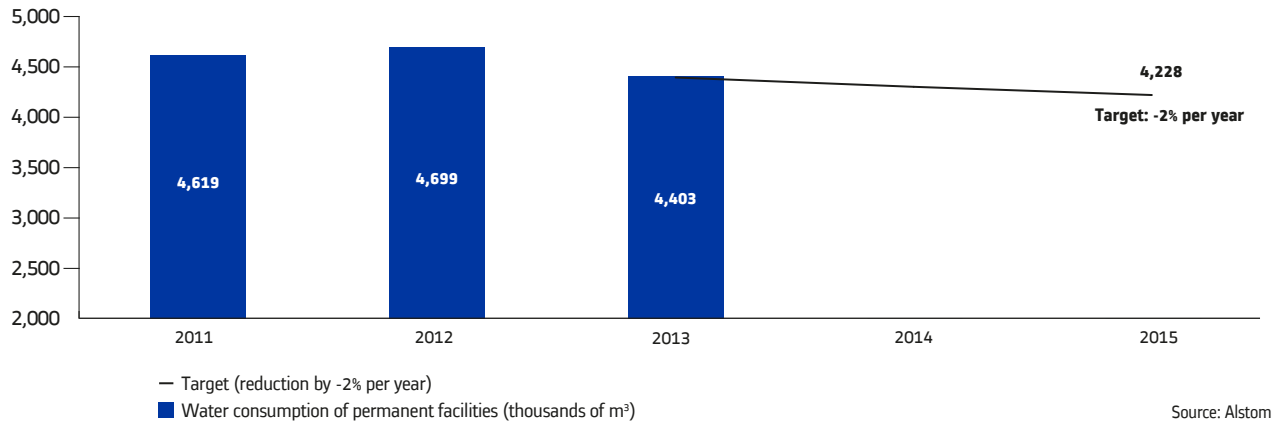
The Group has updated its water-stressed area mapping as per the new World Resources Institute map reference 2012 (1). A first simulation based on extremely high, high and medium-high water stress categories shows that 80 locations (>200 employees) are concerned, representing a global water consumption of 966 thousands of cubic meters, 22% of the overall water consumption of the Group's permanent sites.

In 2013, Alstom decided that following only the water stressed area was too restrictive and as a consequence has extended its water consumption reduction target to all its sites.

Water consumption in the whole Group (all permanent sites)

Objective updated: water consumption reduction by 2% per year.

WATER CONSUMPTION OF PERMANENT FACILITIES *(in thousands of cubic meters)*



Source: Alstom

In 2013, the overall water consumption decreased by 6%. Around 35% of water usage is impacted by a small number of large volume users, which use water for R&D activities in open-circuit cooling systems or for test purposes, with no significant impact on the water quality, temperature or on the natural environment.

(1) WRI Aqueduct™ project.

Details of water consumption

WATER CONSUMPTION IN PERMANENT FACILITIES

(in thousands of cubic meters)	2011	2012	2013
Public network	2,200	2,224	2,244
Ground water	1,872	2,058	1,765
Surface water	547	387	394
TOTAL WATER CONSUMPTION	**4,619**	**4,699**	**4,403**

Source: Alstom.

WATER CONSUMPTION USED FOR TESTS OR IN OPEN-CIRCUIT COOLING SYSTEMS INCLUDED IN TOTAL WATER CONSUMPTION

(in thousands of cubic meters)	2011	2012	2013
Water used for tests or in open-circuit cooling systems	1,432	1,785	1,527

Source: Alstom.

Waterborne discharges

WATERBORNE DISCHARGES IN PERMANENT FACILITIES

(in tons)	2011	2012	2013
Chemical Oxygen Demand	204	98	72
Suspended matters	40	55	41
Hydrocarbons	1	1	1
Metals	1	3	0.5

Source: Alstom.

The impact on the water discharged by the Group's production facilities is globally considered as limited, relatively to the size of Alstom operations.

AIRBORNE EMISSIONS

Non-methane Volatile Organic Compounds (VOC) emissions

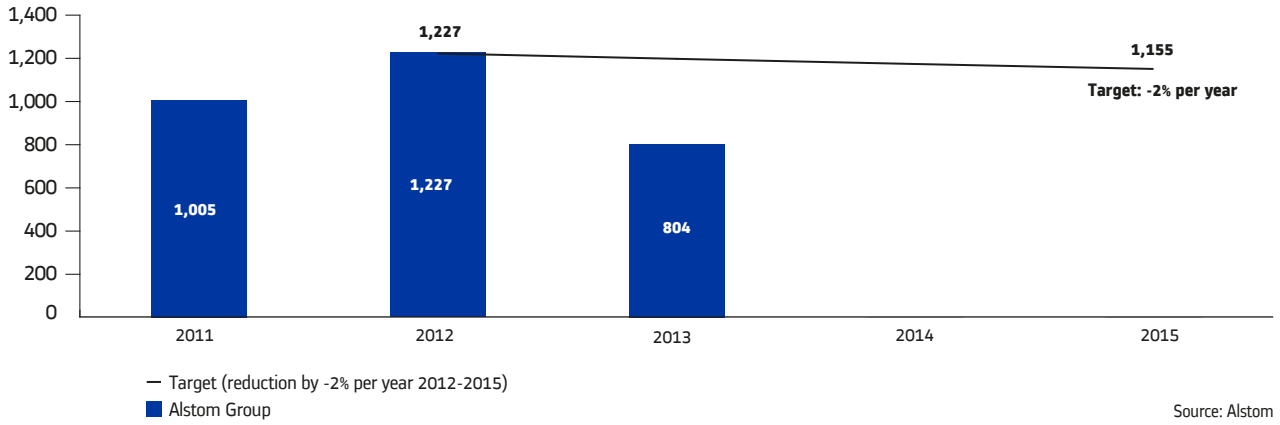
Objective: reduce non-methane VOC emissions by 2% each year until 2015.

In 2013, the Group improved both VOC emissions data accuracy and measure thanks to the Renewable Power Sector VOC's in-depth study and the use of a new VOC methodology. In the Thermal Power Sector, VOCs' capture systems newly installed on a major site led to significant emission reduction.

As a result, VOC emissions have significantly decreased compared to 2012 (-35%).

Detail of non-methane VOC emissions

VOC EMISSIONS IN PERMANENT FACILITIES *(in metric tons)*



Source: Alstom

Find out more about VOC detailed results, best practices and the programmes which contribute to reach the Group's targets: www.alstom.com.

SO_2 and NO_x emissions

SO_2 AND NO_x EMISSIONS IN PERMANENT FACILITIES EXCLUDING THE BIRR R&D TEST ACTIVITY (explanations are provided in the Energy intensity part)

(in metric tons)	2011	2012	2013
SO_2	45	20	15
NO_x	152	114	117

Source: Alstom.

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.

NOISE POLLUTION

Part of Alstom's continuous improvement process, the EHS referential "EHS Roadmap" covers "noise management" as a specific chapter of the Environmental management chapter. Noise analysis is also covered by Alstom EHS risk assessments and impact analysis processes.

GROUND FOOTPRINT

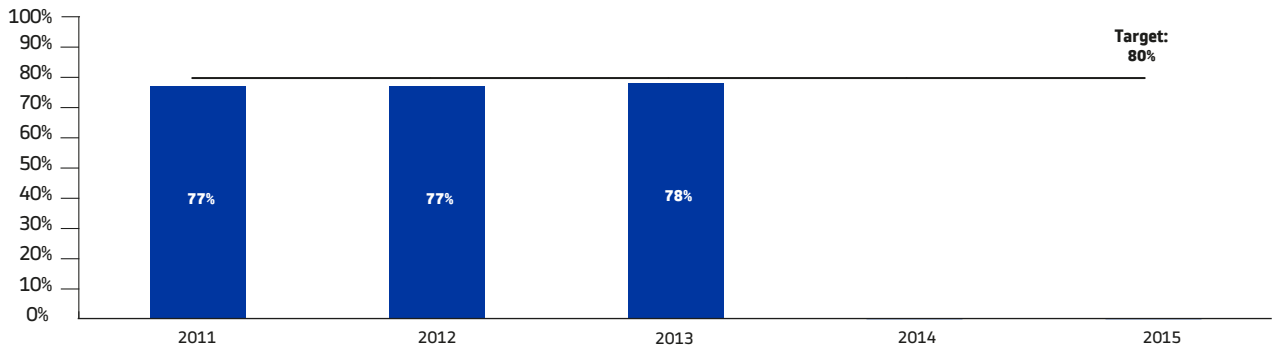
The Ground footprint is not relevant or extensive in Alstom's industrial activity sector; therefore no detailed ground footprint analysis needs to be carried out at Alstom's operation sites.

WASTE MANAGEMENT

Percentage of recovered waste

Objective: recovery of 80% of the total waste by 2015.

PERCENTAGE OF RECOVERED WASTE



Source: Alstom

Waste recovery rate increases this year with a 78% recovery rate in line with the objective set by the Group in 2015.

Waste generation

WASTE GENERATION IN PERMANENT FACILITIES

(in metric tons)	2012	2013
Hazardous waste	19,809	11,062
Non-hazardous waste	127,808	116,524
TOTAL WASTE PRODUCTION	**147,617**	**127,586**

Source: Alstom.

Waste sent to waste disposal (not recovered)

(in metric tons)	2012	2013
Waste sent to waste disposal (not recovered)	34,650	28,056

Source: Alstom.

MANAGEMENT OF CONTROVERSIAL SUBSTANCES

Elimination of asbestos

Utilisation of any asbestos or asbestos containing material has been prohibited in Alstom's products since 2006.

It has been Alstom's policy for many years to ban the presence of asbestos in all its operational units and to have asbestos-free materials in its buildings (leased or owned) and equipment used by the Group worldwide, including in countries where asbestos is not prohibited.

As far back as 2006 and 2007, the Group wrote instructions to frame the monitoring process and workers' protection; these instructions have been updated and improved since then.

Within this framework, Alstom has set an ambitious objective: the eradication of asbestos, as much as reasonably and economically practicable. To reach this target, asbestos surveys have been organised at all units and have been followed by financially assessed abatement plans.

REACH regulation management

As a complex product and service supplier working in an international environment, Alstom is impacted by the REACH [1] regulation in its conception activities and project implementations carried out within and from Europe.

There are two main prospective impacts:

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

It is generally estimated that:

- Alstom does not need to register any substance because it does not import or manufacture any chemical substance in quantities above 1t/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 Group does not supply products containing more than 0.1% of these identified substances;
- 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 deals with exclusive representatives for chemicals importation into the European Economic Area, prescriptions to suppliers concerning substances and articles listed in the REACH regulation, information gathering from suppliers about the possible presence of hazardous substances in the products, identification of hazardous articles by internal experts, implementation of substitution programmes when it is necessary and the update of the internal process of chemical hazard management.

For three years, the Transport Sector'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 21,000 usages of authorisation candidate substances in articles are now under observation. Concerning substances subject to authorisation, published in Annex XIV of the REACH regulation, 960 have been detected and are currently being addressed with suppliers. Thus 82% of Annex XIV cases are now secured and 100% will be secured before the legal deadlines.

Nanotechnologies

Alstom does not add for the time being engineered nanomaterials in its products.

However, on-going Research & Development in components of electrical insulators (for power electronics, switchgears, bushings, etc.) or studies for use in paintings or coatings (hydrophobic or heal coating properties), involve some very small quantities of nanotechnologies, a few hundred grams that are included in laboratory samples of small polymer components.

BIODIVERSITY

A biodiversity assessment conducted in March 2013 to evaluate Alstom's 70 major manufacturing sites (>200 employees) impact, highlighted that 63 of them are located at more than one kilometre from legally protected areas [2] and/or priority sites for biodiversity [3]. Consequently, 90% of Alstom major sites do not operate in or adjacently to legally protected areas [2] or priority sites for biodiversity [3]. Alstom currently does not own any site within the sub-categories of legally protected areas *e.g.* IUCN I, II, III and VI and also those of priority sites for biodiversity *e.g.* Important Bird Area and Alliance Zero Extinction sites.

Alstom sites in Brazil, Mexico, Indonesia, Spain, Portugal and Turkey are located within vast Biodiversity hotspots (Regions of Conservation Importance [4]; but they cover minimal areas compared to the size of biodiversity hotspots.

The biodiversity Graph is available on www.alstom.com.

Source for definitions of IUCN I-VI, Natura 2000, Biodiversity hotspots etc.: http://www.biodiversitya-z.org/area_types/1.

(1) European Regulation number 1907/2006 of the European Parliament and Council, dated 18 December 2006, for Registration, Evaluation, Authorization and Registration of Chemicals (REACH).

(2) Legally protected areas (PA): IUCN I-VI, World heritage sites, Natura 2000, Ramsar, OSPAR, Barcelona convention, ASEAN heritage sites.

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

(4) *"Régions d'importance pour la conservation"* (CI): Endemic bird areas, High biodiversity wilderness areas and Biodiversity hotspots.

EMPLOYEE AWARENESS

In 2011, Renewable Power sector launched the "We Share the Power" project whose aim is to reduce the consumption of energy in order to give a better access to energy and support Alstom's objective to reduce energy intensity. The project is going along keeping the three main goals:

- encourage to implement energy efficiency actions in factories, through "quick wins";
- create a community of employees that exchange good practices not only in factories, but also in buildings and at home;
- use the savings to give a better access to power around Alstom's operations (*e.g.* dams, factories, etc.).

In 2013, the project was extended to other Sectors with Energy Saving Days taking place in France, Spain, India, China, Canada and Brazil. These involve teams of volunteers which compete against each other to find the best ways to reduce energy costs.

Awareness through conferences on energy savings took place in Paris Headquarters (two 1 hour-conferences in 2013).

EXAMPLE OF ACTION TO OFFSET THE ENVIRONMENTAL IMPACT OF OPERATIONS

In 2012, the Thermal Power Sector drafted Alstom green building guideline which is currently being reviewed for update and completion. This document would comprise Alstom's prerequisites that have to be implemented on each site on a mandatory basis. Moreover, it would be based on credit system where a final assessment would take place at the end of project completion to identify the number of credits that a particular site can achieve.

However, Alstom has several numbers of sites that have already been certified with green building labels:

- Chattanooga – USA (Thermal Power), 2013: LEED [1] (Gold level);
- Shanghai – China (Grid), 2011: LEED (Gold level);
- New Castle – USA (Transport), 2010: LEED (Silver level).

In addition, there are several ongoing projects that are targeting to get certification:

- Villeurbanne – France (Transport): BREAM [2] & HQE [3];
- Milan – Italy (Grid), 2014: LEED;
- Saint-Nazaire – France (Renewable Power): LEED/HQE.

Thanks to Alstom's green building new guidelines, the number of green buildings will significantly increase in the coming years.

(1) LEED (Leadership in Energy and Environmental design) certification agency; USGBC (United States Green building council), US, 1999.

(2) BREAM (Building Research Establishment Assessment Method) certification agency; BRE (Building Research Establishment), UK, 1990.

(3) HQE *(Haute qualité environnementale)* certification agency; Assohqe *(Association pour la haute qualité environnementale)*, France, 2002.

SOCIAL PERFORMANCE

GROUP HUMAN RESOURCES POLICY

Whilst continuing to shape the Group to its environment, Alstom has carried on the implementation of its Human Resources (HR) policy.

Covering the whole Group, the HR vision has been largely communicated within the HR teams and to Management. Its implementation enhances the employees' engagement and dedication. The objective is by 2020, all employees should recognise Alstom:

- as the place where people can have a direct impact on the success of the business;
- for its diversity, its dedication to innovation, learning and engaged workforce;
- as a company developing and promoting experts and leaders from the Group and all over the world;
- for its lean organisation facilitating the life of employees and the business;
- for its reward of performance and regular feedback;
- for its One Alstom HR organisation serving company needs at both global and local levels.

The HR strategy is based on staffing, knowledge, talent and engagement. It fully supports the main on-going programmes which are designed to:

- offer the best working conditions;
- adapt the workforce to the activities and markets;
- reinforce company culture;
- develop competencies and manage careers;
- promote equal opportunities.

During the fiscal year, the Group focused particularly on:

- deploying the Zero Deviation plan for high risk activities in all Sectors, countries and sites;
- adapting its organisation to better match the market and technology evolutions;
- preparing and deploying a leaner HR organisation to professionalise the HR teams;
- increasing operational efficiency: sharing experience and cross-Sector fertilisation;
- promoting internal mobility.

To foster and strengthen the implementation of its Human Resources policy, the Group organised the HR management through seven regions covering all of its sites: Asia-Pacific, France, Americas, Northern Europe, Eastern Europe, Middle East-Africa and Southern Europe. Each of those regions is led by one member of the HR Executive Committee to ensure a consistent deployment of the policy and the tools.

In order to drive its social policy, Alstom manages a network of 1,230 HR Managers. The intranet HR section describes the mandatory HR processes and rules. Its activity is supported by a single Human Resources Information System (HRIS) that encompasses all key processes and is deployed worldwide.

In this section, the results from the HRIS covering the whole Group are presented by fiscal year; the results from the social survey conducted in 26 countries representing 93% of the total headcount are presented by calendar year.

OFFERING THE BEST WORKING CONDITIONS

Occupational accidents prevention

Alstom's upmost priority is the prevention of occupational accidents and diseases. A successful safety performance cannot be considered as fully achieved if the physical integrity or health of Alstom employees and its contractors' has been affected during the course of activities.

This section has been reviewed by PricewaterhouseCoopers as an independent third party in regard to Article 225 of the French Grenelle law. A sample of 44 units in 10 countries has been examined. The review report is available at the end of this chapter.

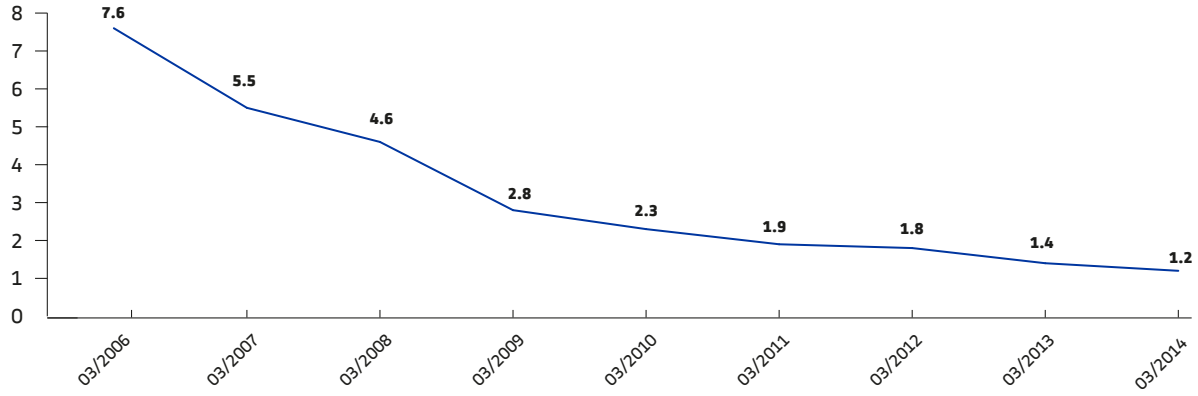
Alstom's safety goals and current situation

Safety Objectives

- No fatality (both for employees and contractors).
- Occupational injury frequency rate (IFR1) at level 1 at the end of 2015/2016.

Result: Injury Frequency Rate 1 (IFR1): 1.2 at March 2014.

INJURY FREQUENCY RATE 1 (IFR 1)
(Number of accidents with sick leave per million hours worked, Alstom employees up to 2009, employees & contractors as from 2010)



Source: Alstom

Alstom has put in place, following the same ambition as for its own employees, the monitoring of its contractors' safety performance. The IFR1 for contractors' employees is very close to that for Alstom employees. However, when it comes to severe accidents, the number of victims is significantly higher among contractors.

Thanks to the global reduction in the number of accidents, the Injury Frequency Rate has reduced by 74% since 2008; but the number of severe accidents remains still high. Therefore, safety remains an absolute priority for all Sectors.

KEY FIGURES ON OCCUPATIONAL ACCIDENT PREVENTION

	2011/12	2012/13	2013/14
Number of employees trained in EHS classroom trainings	1,700	3,358	2,914
Number of employees trained in EHS through e-learning trainings	-	-	35,196
Number of fatal accidents of employees (Alstom employees)	4	1	0
Number of fatal accidents linked with Alstom activities (contractors)	7	4	5
Number of occupational safety severe accidents reported (*) (incl. fatal accidents)	-	29	37
Injury Frequency Rate of lost-time accidents (employees and contractors)	1.8	1.4	1.2
Severity Rate of lost-time accidents (employees only)	0.06	0.06	0.06

Source: Alstom.

(*) Occupational safety severe accident definition: On Alstom sites or other companies' sites related to Alstom activities, whichever company (Alstom or other) employs the victim: Fatal accidents, 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, any accident causing fracture requiring surgery, whatever the length of the medical leave. The Severe Accidents' definition was changed in fiscal year 2012/13 and is therefore published for two years only.

Management of occupational safety

Occupational safety is managed through the Environment, Health and Safety (EHS) organisation. A network of approximately 800 managers and professionals in total is organised in each Sector and coordinated at Group level. This network is also in charge of managing environmental risks and preventing accidental pollutions from Alstom operations.

The management system for EHS is based on a reference guide (EHS reference standard) called "EHS Roadmap", in line with ISO 14001 and OHSAS 18001 requirements. Implementation is verified through self-assessment and audits.

"Alstom Zero Deviation Plan" (AZDP)

This plan launched in June 2012 in order to reduce the number of fatalities and severe accidents from Alstom activities (1) had a strong effect on the reduction in the number of fatalities. However, whereas during fiscal year 2013/14 no fatal accidents affected any Alstom employees, the Group was still faced with fatalities among contractors' employees and too many severe accidents.

As a consequence, AZDP remains the keystone of Alstom's global actions to reach "zero severe accidents".

(1) For more information on this programme, please refer to Registration Document 2012/13 (p. 249-250) and on www.alstom.com.

Alstom Safety Directives have been extended to cover two additional high-risk activities with 50 critical requirements, the application of which is supported by a "Zero Tolerance to Deviation" policy. In fiscal year 2013/14, Alstom organised a second wave of 169 audits to support AZDP. To conduct those audits, over 230 EHS professionals were trained during three-day sessions prior to the audit.

Occupational diseases

Due to the absence of an international definition of occupational diseases, it is difficult to aggregate the data in this domain. Therefore the following figures give an estimate of the number of occupational diseases registered and reported at Group level.

In 2013/14, 60 occupational diseases were registered as per Alstom Group reporting manual definition.

Safety awareness programmes and awards

Alstom strives for zero accidents. Here are some examples of Alstom's Health and Safety performance in fiscal year 2013/14:

- the Thermal Services team based at the Kalaeloa plant in Hawaii, USA, has completed eleven years, or 4,018 days, with no lost time accidents (LTAs). This 208 MW combined-cycle cogeneration plant operates 24 hours a day, all year round and completes a turbine major overhaul annually. This milestone equates to nearly three quarters of a million person-hours of safe work for the 30 full time Alstom employees and two customer representatives based in the plant. Over the last eleven years, the plant has completed twelve major turbine overhauls, two extensive heat recovery steam generator refurbishments, 1,200 combustion turbine start-ups, hundreds of fuel loads, multiple mechanical equipment replacements, electrical connections and work orders. Routine and overhaul work requires high-risk activities such as working at height, working near electrical equipment, lifting with cranes and entry to confined spaces. However, the team has built safety into the job, anticipating hazards and controlling them before they can cause an issue and encouraging the team to report near misses and maintain a questioning attitude. Communication has been a key contributor to this achievement, where regular short safety updates, as well as training, has kept the team informed. In accordance with the Alstom's Zero Deviation Plan, safety is emphasized as the top priority, where safe completion of work is as important as the speed of execution;
- safety is an on-going priority for Thermal Power's Nuclear business at EDF's Flamanville 3, the EPR nuclear power plant currently under construction in western France. Alstom's nuclear activity's continued efforts on EHS have been rewarded. A drop in the injury frequency rate (IFR) from 26 to 1.46 was achieved in just nine months and has created a strong safety culture among Alstom employees and sub-contractors.

Assessment on 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.

All operational managers whose action impacts EHS have one of their objectives related to EHS results or actions.

Life insurance

Objective: all employees receive at least one year salary in case of accidental death.

Results: the evolution of employee coverage is quite satisfactory.

	2011/12	2012/13	2013/14
Ratio of employees covered by a life insurance in case of accidental death	99%	99.5%	97.3%
Ratio of employees covered by a life insurance giving one year salary	94%	91%	93.7%

Source: Alstom social survey conducted in 24 countries representing 80% of the Group's total headcount (the perimeter of the initial social survey was reduced, as data for some countries were not reliable).

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

GROUP WORKFORCE AT 31 MARCH 2014

The figures in the following tables include permanent and fixed-term contracts.

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

Breakdown by region

	Africa/ Middle East	Asia/ Pacific	Europe	North America	Central & South America	Total	*Total at 31 March 2013*
Workforce	3,272	18,833	55,545	9,639	7,430	94,719	*94,545*
Out of which long-term absentees (LTA)	4	101	1,375	83	154	1,717	*1,639*
% of total workforce	3.45%	19.88%	58.64%	10.18%	7.84%		

Source: Alstom HRIS.

Breakdown by category (incl. LTA)

	Africa/ Middle East	Asia/ Pacific	Europe	North America	Central & South America	Total	% of total workforce	*% of total workforce at 31 March 2013*
Managers & Professionals	1,813	10,236	28,143	4,992	3,041	48,225	50.91%	*50.04%*
Other employees	1,459	8,597	27,402	4,647	4,389	46,494	49.09%	*49.96%*

Source: Alstom HRIS.

Breakdown by Sector (incl. LTA)

	Africa/ Middle East	Asia/ Pacific	Europe	North America	Central & South America	% of total workforce	*% of total workforce at 31 March 2013*
Thermal Power (36,963)	1,007	8,694	20,786	5,845	631	39.02%	*38.86%*
Renewable Power (9,209)	10	2,774	3,284	784	2,357	9.72%	*10.32%*
Grid (17,159)	1,079	5,036	7,968	1,516	1,560	18.12%	*19.02%*
Transport (28,341)	1,119	1,908	21,526	1,316	2,472	29.92%	*28.86%*
Corporate & others (3,047)	57	421	1,981	178	410	3.22%	*2.94%*

Source: Alstom HRIS.

Breakdown by gender (by region, incl. LTA)

	Africa/ Middle East	Asia/ Pacific	Europe	North America	Central & South America	% of total workforce	*% of total workforce at 31 March 2013*
Men	2,794	16,187	45,849	8,079	6,385	84%	*84%*
Women	478	2,646	9,696	1,560	1,045	16%	*16%*

Source: Alstom HRIS.

Breakdown by type of contract (incl. LTA)

	Africa/ Middle East	Asia/ Pacific	Europe	North America	Central & South America	Total	*Total at 31 March 2013*
Permanent contracts	2,285	15,772	52,856	8,002	7,210	86,125	86,252
Fixed-term contracts	987	3,061	2,689	1,637	220	8,594	8,293
Temporary workers	195	1,819	5,034	631	341	8,020	8,035
Interns	44	376	1,568	30	190	2,208	2,265

Source: Alstom HRIS.

Workforce changes during fiscal year (incl. LTA)

	Africa/ Middle East	Asia/ Pacific	Europe	North America	Central & South America	Total	*Total at 31 March 2013*
Hiring on permanent contracts	533	1,640	3,931	989	1,182	8,275	9,905
Hiring on fixed-term contracts	301	1,432	2,434	2,792	230	7,189	7,645
Resignations	80	938	1,544	385	265	3,212	3,274
Redundancies	25	181	190	244	53	693	837
Dismissals(1)	9	132	466	90	34	731	656
Other departures(2)	155	586	1,503	296	698	3,238	3,393

Source: Alstom HRIS.
(1) Calculated on permanent headcount only.
(2) Including retirements, not including disposals and acquisitions.

ADAPTING THE WORKFORCE TO THE MARKETS AND ACTIVITIES

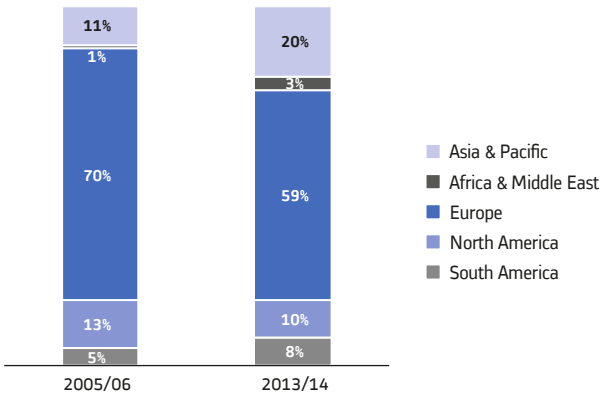
At 31 March 2014, Alstom employed 94,719 people.

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 eight years, which demonstrates the development of the Asia/Pacific region, which proportion has nearly doubled.

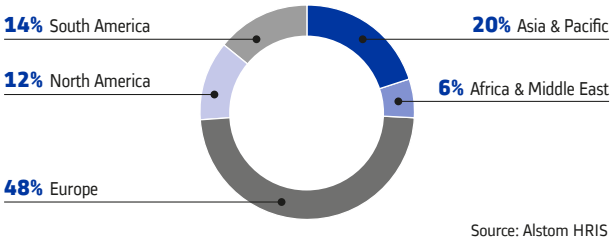
Alstom recruited over 8,200 permanent employees over fiscal year 2013/14. It does not face any difficulty in recruiting, due to its reputation and its active relationship and partnership with schools and universities.

WORKFORCE BREAKDOWN BY REGION (TOTAL WORKFORCE)



Source: Alstom HRIS

RECRUITMENT BY REGION IN 2013/14 (PERMANENT CONTRACTS)



Source: Alstom HRIS

Developing active relationships with universities

As Alstom has recruited over 8,200 permanent employees over the fiscal year, finding the right competencies is key. Relationships with schools and universities are actively managed in more than 35 countries, with a three-fold objective of:

- making Alstom well-known and identifying future employees;
- establishing partnerships, including in research and development;
- participating in the national effort for education and training in the countries where the Group operates.

Alstom has a long-lasting practice of partnerships with universities in countries where it is present. See examples on www.alstom.com.

In addition, Alstom is promoting apprenticeships and welcoming an increasing number of apprentices. Mentors are very involved in the follow-up of the apprentices. Sites such as La Courneuve (Thermal Power) and Reichshoffen (Transport) have already launched initiatives over a number of years to improve the recruitment and training of young people on work-study programmes. In Reichshoffen, the Group hosts an apprentice training centre (*CFA*) with 23 apprentices as of 31 March 2014. As a whole, more than 850 apprentices were hired worldwide during the fiscal year.

Integrating new employees

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

At Group level, Alstom conducts an induction programme called Alstom Connection, which gathers recently hired managers (between 12 to 18 months of seniority) to learn about the Group's activities and values, meet with senior management, visit Alstom sites and build a first network. During the fiscal year, no sessions were held, as the emphasis was put on individual induction into the teams and activities. Specific events are organised in order to facilitate the employee's integration, such as HR In Motion, a venue for new HR professionals.

In the Grid Sector, the Newcomer's Discovery Kitchen was launched in January 2013 and since then, over 800 new employees have had access to the online induction session, in addition to the welcome day.

In addition, local programmes are designed to facilitate the integration of newcomers. For instance, in India, 47 new engineers benefited from a comprehensive induction programme, the "Young Engineers Graduate (YEG) Integration Programme", to help them have a smooth transition from campus to corporate life. The programme focuses on behaviours rather than technical competencies, and includes a full-day EHS audit to highlight the importance of this matter for the Group. The programme lasts 49 days, followed by structured 'on-the-job' learning. It aims to promote a new generation of technical workforce, build a talent pool and prepare future leaders within the organisation.

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 across the whole Group.

Respecting business ethics

Alstom's culture and reputation for integrity are essential for the Group. Such a reputation can only be built through a permanent benchmark to meet the best 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 throughout the Group worldwide. The Group culture embraces all ethical best standards based on the Alstom values: Trust, Team, 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.

The Alstom Integrity Programme comprises:

- the **Code of Ethics**, which applies to every employee within the Group. Published in 2001, it was reviewed in 2007 and updated in March 2010. It is available in 22 languages: English, French, Arabic, Chinese, Brazilian-Portuguese, Croatian, Czech, Dutch, Finnish, German, Greek, Hungarian, Hindi/English, Indonesian, Italian, Japanese, Polish, Portuguese, Romanian, Russian, Spanish and Turkish.

  The Code of Ethics prescribes essential rules of conduct with regards to the relationships with business partners, Alstom commitments as a socially responsible company, human resources policies and commitment to protect the Group'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 violations of prevention of corruption, competition and securities and accounting laws and regulations. It was enhanced in July 2013 to add two additional means of reporting: a secure website (www.alstom.ethicspoint.com) and a toll-free hotline, both reachable 24 hours a day, 7 days a week, 365 days a year;

- **E&C Group 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, sales business partners, consulting companies and conflicts of interest. In 2013, two additional Group instructions were released on the prevention of corruption as regards relationships with suppliers and contractors and in joint venture and consortium;
- **training sessions and e-learning programmes** are essential to explain the Group's Ethics & Compliance policy. During fiscal year 2013/14, around 4,800 persons (*i.e.* a cumulative total of approximately 14,300 people since 2006) participated in a compliance session.

  The e-Ethics module related to the Code of Ethics, available in 9 languages, was launched in March 2010. It targets Managers & Professionals for whom it is compulsory. It has been completed by 60,200 employees since its launch;
- a **community of approximately 300 E&C Ambassadors**, all volunteers and coming mainly from the Legal, Finance and HR functions or being Alstom Country Presidents. Their main role is to promote the culture of integrity throughout the Group 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. For example, the E&C Ambassadors receive a monthly E&C Newsletter providing them with press articles and ethical real case studies;
- 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 Altair, Alstom's intranet, called "Ethics & Compliance", containing not only E&C Group Instructions, but also information on the prevention of corruption and competition law, a monthly newsletter, as well as E&C case studies, advice to employees on how to behave in case of ethical dilemma,
  - regular news in Alstom's weekly newsletter (Newsflash) and piece of news in local internal newsletters (at country or site level),
  - 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 displayed in all locations.

On 12 September 2011, the Alstom Integrity Programme was awarded a certificate from ETHIC Intelligence. Early 2014, Alstom has taken the necessary steps to renew the certificate. This certification is based on an audit of the procedures in various countries and on the recommendations of international and recognised anti-bribery experts.

Alstom is committed to promote ethics and compliance principles in business worldwide. The Senior Vice President of Ethics & Compliance is a member of the United Nations Global Compact Working Group on the Tenth Principle, of the ECOA (Ethics and Compliance Officers association in the USA), of the IBE (Institute of Business Ethics in the UK) and of the ICC France (International Chamber of Commerce).

On a local level:

- Alstom sponsors the Ethos Institute in Brazil and the Centre for Business Ethics and Corporate Governance in Russia;
- since July 2012, Alstom has been taking part in the Principle based initiative for Argentina's Electrical Energy Transportation Industry committed to the prevention of corruption together with other industry players;
- on 26 July 2012, Alstom signed the Corporate Integrity Pledge in Malaysia, witnessed by the Chief Commissioner of the Malaysian Anti-Corruption Commission (MACC);
- in addition, over the 2010-2013 period, Alstom has sponsored the Chair of Excellence of "Law and Business Ethics" of the University of Cergy-Pontoise, in France.

Respect of Human Rights

The respect of Human Rights is one of Alstom's fundamental commitments.

- the very first article of Alstom's Code of Ethics states that, as the Group is a multinational corporation with operations around the world, its high ethical goals require compliance with certain standards exceeding legal requirements. 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 complies with the guiding principles of the Organisation for economic cooperation and development (OECD), the United Nations Universal Declaration of Human Rights, the principles of the Global Compact and those of the International Chamber of Commerce (ICC);
- regarding the Human Resources policy, the Alstom's Code of Ethics states that "it is Alstom's policy to comply fully with the United Nations Universal Declaration of Human Rights and the Fundamental Conventions of the International Labour Organisation. In line with these principles, Alstom applies a human resources policy based on respect for individuals, their dignity, rights and individual liberties, and promotes their involvement in company life. The Group promotes all forms of dialogue with both individual employees and their representatives";
- Alstom is a member of the Global Compact, promoting the respect of human rights within its sphere of influence. Alstom encourages its managers to be involved in their local Global Compact network.

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

- Alstom conducts an annual survey to ensure the absence of any incident regarding child labour, forced labour, freedom of association or any kind of discrimination. This year, no incident was reported;
- an internal directive on Individual Data Protection, updated in 2012, 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 preferences.

  All recorded information shall reflect these principles in pre-formatted fields and/or as free-text. All employees have the right to request access to their own data and to obtain the rectification of such data when justified;

- the charter that Alstom's suppliers and contractors are requested to adhere to, stipulates that they must be compliant with the United nations' Universal declaration of human rights, the International labour organization's Fundamental conventions, the Guiding Principles of the OECD, the rules of conduct of the International chamber of commerce (ICC) and any other relevant international conventions and national or local regulations, which are applicable to their activities in the country(ies) in which they operate. Alstom's suppliers and contractors must in particular comply with the following rules:
  - elimination of all forms of illegal, forced or compulsory labour,
  - elimination of child labour: Alstom's Suppliers and Contractors must not employ persons under the minimum age required for work and must never support the use of child labour, except as part of an official educational youth training scheme approved by the government,
  - elimination of any kind of discrimination in respect to employment and occupation,
  - compliance with the applicable laws and regulations related to maximum working hours and minimum days of rest,
  - compliance with the applicable laws and regulations related to the minimum level of remuneration,
  - respect for freedom of association for their employees, in compliance with the applicable laws;
  - compliance with the applicable laws and regulations related to employment termination;
- the respect of human rights is one of the criteria examined by the monthly Corporate Risk Committee 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;
- in 2013, Alstom created a new position at Corporate level "Diversity and Equal opportunity" to enhance equal opportunity within the Group.

Sense of belonging

The creation of a common culture is important to hold the Group's employees together and reinforce their sense of belonging. This sense of belonging is founded on:

- a common culture based on the Group's values and its ethical principles (detailed above):

  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, supported by an e-learning programme. Since October 2011, 5,933 employees have been involved in this e-learning programme of which 1,585 in the fiscal year.

  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 HR team.

  Since fiscal year 2012/13, the performance review process has included a specific focus on the 'Values into Practice'. Not only do the manager and the team member review the global performance in the position but they also discuss how the team member has used and implemented Alstom's values in daily activities. As part of the performance review for the current fiscal year (that will end in April 2014 as per the HR cycle) and after in-depth discussion with the employee, the manager evaluates how values are put into practice.
- an action plan to encourage their involvement in the life of the Company – some major actions are detailed below – measured through specific indicators.

Involving employees in the company: specific actions

Employee involvement and motivation are also key for Alstom. The Group's strength is based on the dynamism and creativity of its employees and several actions have been taken to encourage them.

Well-being policy

In several countries, specific programmes are in place to improve employees' health and well-being at work. A few examples can be found on www.alstom.com.

Remuneration schemes

Remuneration evolution

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

Remuneration schemes based on performance criteria

Short-term incentive scheme

Alstom's annual short-term incentive scheme is based on two performance factors: financial 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. More than 32,800 employees (out of which 85% are managers) benefited from this remuneration scheme at 31 December 2013.

As safety and quality 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. Depending on the Sector, this may represent up to 20% of the variable remuneration.

Profit-sharing

Alstom's policy aims to recognise collective performance. Profit-sharing schemes are in place in 13 countries (namely France, Brazil, Canada, Chile, China, Croatia, Finland, Ireland, Italy, Mexico, Poland, the UK and the USA) covering about 52,000 of the Group's permanent employees, according to the Alstom social survey conducted in 27 countries covering 91% of the workforce. For fiscal year 2013/14, a total of 40,000 employees received a payment under a profit-sharing plan.

The profit-sharing schemes are often calculated on agreed criteria, including the injury frequency rate reduction or safety-related indicators such as the number of general safety inspections (Grid in France). These schemes also include business-related indicators such as the reduction of waste, and quality-related points.

Employee shareholding

Since its initial public offering and first listing, the Group has implemented five capital increases reserved for employees and a plan to allocate free shares to all employees (May 2006). At 31 March 2014, the current and former Group employees held 1.27% of the Alstom share capital, either directly or through mutual funds.

Communication campaigns have been launched around the employee shareholding programmes. These programmes include a retention period, at the end of which a new communication exercise towards the participants needs to be deployed.

Alstom Cultural Exchanges (ACE) programme for employees' children

Launched in February 2014, the Alstom Cultural Exchange Programme (ACE) is a CSR initiative implemented as part of the Group's well-being and diversity policies. The objective of the programme is to help employees around the world send their children abroad, hosted by a family of their colleagues, for linguistic or cultural purposes. Alstom believes education is crucial for young people as well as discovering new cultures, learning other languages and getting to know other countries.

The ACE programme is supported by an intranet platform where employees can find offers and/or post their own. A discussion forum enables to prepare the exchange.

Indicators to measure involvement

Regular indicators to measure motivation are the resignation rate at Group level and opinion surveys at Sector level.

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

Resignation rate

RESIGNATION RATE FOR EMPLOYEES ON PERMANENT CONTRACTS IN EACH REGION

	2011/12	2012/13	2013/14
Europe + Africa/Middle East	4.10%	3.08%	2.95%
Asia/Pacific	7.96%	5.75%	5.84%
Americas	4.41%	4.32%	4.31%
TOTAL	**4.92%**	**3.82%** (*)	**3.73%**

Source: Alstom HRIS.
(*) Data adjusted vs. last year's registration document.

The resignation rate is apparently stabilising, although the situation varies widely from country to country.

Absenteeism

A common definition of absenteeism has been put in place across the Group and the data is consolidated for the first time this year.

The reported absenteeism rate was 2.4 (1) at end of March 2014.
Source: Alstom.

Employee engagement survey

In order to foster the employees' involvement, Alstom has launched surveys at Sector level to measure it. These surveys lead to action plans where needed wich are communicated by the management.

Alstom deploys surveys focusing on employees' engagement which provides indications about the social climate among other indicators. Those surveys are not done at Group level due to Sectors' specificities; each Sector can deploy its own survey. The target of the surveys is to measure employees' opinion and to assess the employees' engagement on the Sector's decisions (vision, roadmap and strategy) in order to implement appropriate action plans.

Engagement surveys at Group level will be conducted regularly as part of the HR strategy that includes *Engagement* of one of its four pillars. It is considered to include, in the Sector surveys, common questions in order to get a global view.

Thermal Power

In March 2014, Thermal Power launched its second engagement survey (the previous one was in 2013) targeting all its employees; the response rate was up to 80% (compared to 69% the previous year). In order to enable all employees to participate, specific IT access for employees without a computer (mainly blue collars) was organised. This survey, like the previous one, will lead to action plans which will be adapted to each team.

(1) Absenteeism Rate definition: Number of days lost due to employees absences related to 1,000 hours scheduled to be worked by entire workforce for the same period (example for a country where the annual working hours are 1,800 hours this is equivalent to 4.3% people absent).

Grid

Employee surveys took place in 2006, 2008, and the most recent employee survey was in June 2011, with a 63% response rate. Four improvement domains have been identified and action plans were launched in February 2012: enhance a quality culture; foster direct communication between managers and their teams; improve the competitive image perception, develop individual skills and develop reward through remuneration.

Transport

The Transport Sector conducted an Employee Opinion Survey by all its employees in October 2012 with a 62% response rate. Actions were launched to improve in the CSR, Sourcing, Engineering, Information Technology domains as well as concerning Russia.

Company-wide Corporate Social Responsibility survey

In November 2011, Alstom conducted a survey targeting 60,000 employees in seven languages and focusing on measuring employees' awareness of CSR and sustainability matters, their knowledge of these topics in general and of Alstom's performance. The employees were also asked to propose suggestions for action and express willingness to actively contribute (for more details about results, please refer to Registration Document 2011/12).

The awareness campaign, which was the major action plan from this survey and started in 2012/13, continued this year through:

- the endorsement of the CSR policy by the Top Management with a renewed wide internal communication by all employees;
- a reinforced communication towards both internal and external audiences through:
  - a monthly CSR newsletter, distributed to all employees
  - five additional short animated feature films enabling viewers to grasp complex topics in a light-hearted way, result in a total of 10 videos (available on www.alstom.com) focused on:
    - eco-cities,
    - eco-design,
    - support to local communities around the company's activities,
    - solutions to reduce CO_2 emissions,
    - sustainable sourcing,
    - ethics and compliance,
    - sustainable mobility,
    - eco-friendly buildings,
    - the stakes of hydropower,
    - CSR policy;
- a CSR e-learning module targeting all employees, available in English, French and Spanish;
- a CSR presentation and a CSR factsheet, for employees to use internally and externally.

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 to the Group are crucial to its overall success.

A new Talent Management organisation was announced in July 2013. This organisation aims to support the Group in its talent development initiatives with a specific focus on diversity and talent pool management and development while optimising the Alstom ways of working.

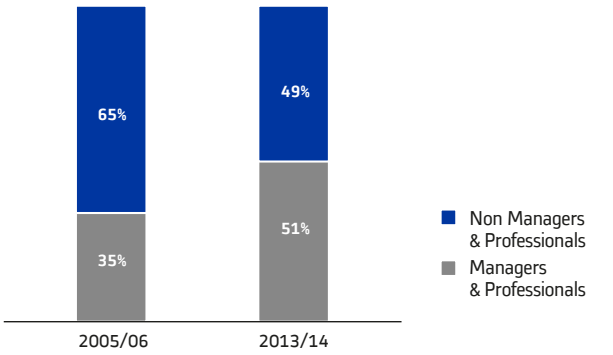
It is based around four pillars:

- community management;
- global recruitment;
- global leadership;
- learning solutions and Alstom University.

This global team has people based in India, Singapore and France (Levallois headquarters). It works in close relationship with the Talent Management teams in both Sectors and Countries.

Evolution of competencies between 2006 and 2014

WORKFORCE BREAKDOWN BY CATEGORY



Source: Alstom HRIS

Career management

Career development programmes

The HR Strategy supports the objective of one HR organisation, one Alstom Culture. Four pillars have been identified, e.g. Staffing, Knowledge, Engagement and Talent, and career management is a key target: Alstom encourages each employee to manage his/her own career in collaboration with his/her line manager, HR manager, and using the tools provided. This allows each employee to play a key role in his/her own performance and in his/her advancement. This policy is founded on a strong sense of commitment.

All employees are treated equally on the basis of their skills, in particular regard to employment, recruitment, talent identification, mobility, training, remuneration, health and safety, which rely on common processes and policies.

Alstom Jobs Online

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 talent and mobilising all employees around shared values (Trust, Team, Action) that are in line with the Group's strategic development.

All employees from more than 80 countries can access more than 12,500 open positions available in Alstom worldwide over the year – around 3,300 still open at March 2014.

Specific development programmes

Development programmes have been built for different communities, which address three different employee populations within the Group: Technical Experts, Functions, and Managers.

Technical expertise management

The high-technology products developed by Alstom, the need to be at the edge of the most sophisticated techniques and researches, have led the Group to have a particular focus on its Technical Expert community. Most experts are recognised worldwide as specialists in their domain. They have a duty to develop and maintain their expertise as well as to share it with internal and external specialists. That is why they often participate in international conferences, and publish articles in specialised magazines.

The Expert career path is as valuable as the management career path and the group of experts forms a specific community within Alstom.

Experts and Principal Engineers are organised in 81 critical technologies covering the most important technical disciplines used in the creation of the Alstom Products.

Thermal Power

- The Expert programme, covering 10 Senior Experts, 132 Experts and 430 Principal Engineers, promotes the high level of expertise that some employees have acquired.
- In the Thermal Service (TS) activity: the creation of *TS Technical Communities Career Management Platform*, is a joint initiative between the Engineering Office, R&D and HR. This is the first information platform of its kind dedicated to engineers in the Power Sectors.
- In the Engineering Community, 33 Engineering Fields have been identified and validated cross businesses. This enables community analysis as a basis for knowledge exchange and workload balance amongst Engineering Centres at different competency and capacity level.
- Scientific Disciplines (SD) community consists of 21 SDs established in 2007. Appointed Sector Mentors regularly lead workshops and provide platforms to coordinate technical training sessions, discuss technical problems and seek solutions. In 2013, the 21 SDs have been updated to be used in all Sectors.

Renewable Power

The Sector has launched a programme to secure "Expertise transfer practices" covering the three activities (Hydro, Wind and New Energies) around four domains of expertise which are of interest either by their magnitude or by the ways to capture or deliver the knowledge.

Grid

The Sector technical expert community now counts 8 Senior Fellows, 22 Fellows, 123 Senior Experts, 380 Experts and 522 Specialists coming from all product lines and all regions across the world.

Transport

The World Class Engineering Process launched in 2000, enabled to identify and develop within the engineering teams 28 Master Experts, 296 Senior Experts and about 1840 Experts.

In 2013, leveraging a Thermal Power practice, Alstom created a Group-wide single reference system consisting of 21 scientific disciplines, each comprising four or five sub-disciplines. As presented above, more than 3,000 experts are currently part of a Sector Technical Expert programme. Each of them has been assigned one or two scientific discipline. It complements the work already done around the critical technologies. The Group is now in a position to use its HR Information System to find out which experts work in a given scientific field in a very simple and fast manner. It eases and fosters cross-Sector collaboration around these scientific disciplines, but the journey around Technical Expertise management is not yet completed. Further solutions and programmes are still being developed to continue providing customers with innovative products and solutions based on cutting-edge technology.

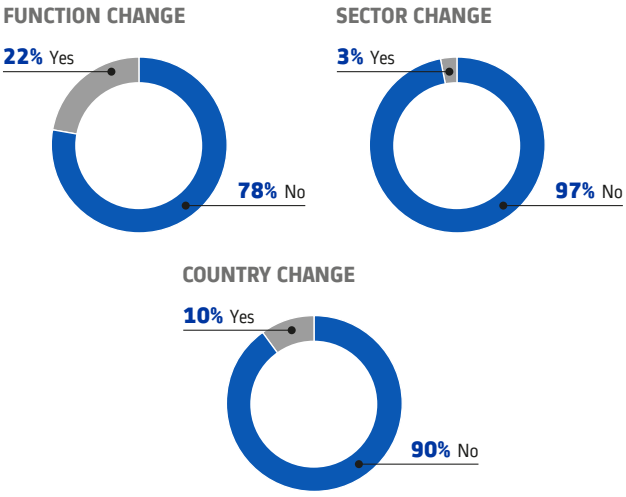
Function development programmes

The Group continues to deploy a strategy of career management for several core functions: Finance, HR, EHS, Legal, and Communication, in order to develop functional expert communities. These communities are led at Corporate level. In addition to the management of communities, "Operations" have been considered and a map of competencies with associated career paths has been designed in the Quality function. A new Quality competency model has been issued. The operational communities will be led by the different Sectors but will be deployed through a cross-cutting approach.

Managers' development programmes

As regards Management and Leadership skills:

- the "Future Technical" Leaders Program was designed together with MIT Sloan with the first delivery in March 2014 for 20 participants. This programme focuses on developing high potentials for technical leadership positions in R&D and Engineering functions;
- the AMP ("Accelerated Management Programme") entered its third year with a focus on trainees from BRIC countries who represented 60% of the participants in this programme. A new programme will be launched in 2014 maintaining the focus on diverse trainees (female and non-Western European). The objective is to focus on "Leadership": Leading self – leading others – change leadership and Transitional Leadership. 60 employees will have been trained this year through this programme. The Group also monitors the previous participants' evolution. Below an example of results for the first session:



Source: Alstom

- the AMS (Advanced Management Seminar) designed to prepare future top executives has been continued with one session gathering 41 managers among which eight of them are women. In 2014, it has been decided not to perform this programme but to capitalise on former participants' development;
- in the Grid Sector specifically: the FMP ("Future Management Programme") entered its second cycle of implementation in Eastern Asia/Pacific and first cycle in Near/Middle East. Other similar programmes were initiated in Germany, the UK and Brazil aimed at preparing future Line Managers.

Career path management

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

For this year PMC, Alstom proposes managers and employees to follow and e-learning module focusing on "Performance Management", new definitions of potential and a new structure for development plans.

Annual performance interview

Objective: all employees benefit from an annual performance interview.

Indicator: number of managers and professionals with an annual performance interview.

2011/12	2012/13	2013/14
38,800	42,500	43,900

Source: Alstom HRIS, round figures.

The 2013 and 2014 numbers represent only part of the final number, as the time frame to complete the performance review process has been moved to March and April.

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. The process is optional and recommended for all other employees.

As previously mentioned, the inclusion of a discussion about the Alstom Values into Practice in the 2013 process is an opportunity to refresh the knowledge of managers about the performance review process.

People Reviews

People Reviews allow to match the current and future needs of the Group (based on a competency mapping) with the available competent resources, and to set career paths with a cross-cutting vision.

The Group includes most of its managers in people reviews carried out in sites, businesses, Sectors, functions and the Group as a whole.

Internal mobility

Objective: appoint at least 60% of the Group's top managers through internal promotion.

Indicator: internal promotion rate of executive managers (1,596 people).

2011/12	2012/13	2013/14
85%	80%	75%

Source: Alstom HRIS.

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

In addition, thanks to the deployment of e-Talent (common resourcing software), the number of vacant positions posted on the intranet website increased from 20% in 2010 to 43% in 2011. The number of open positions decreased to 33% in 2012 (due to the experimentation of the use of social media to identify and attract candidates) and amounts to 48% in 2014. The objective is to reach 60% by 2015. The posting of vacant positions brings transparency, easier relocation, new career opportunities.

PERCENTAGE OF VACANT POSITIONS INTERNALLY POSTED

2011/12	2012/13	2013/14
43%	33%	48%

Source: Alstom HRIS.

Talent management

Objective: shape the competencies that the Group needs, taking into account the employees' expectations.

Indicators:

- ratio of employees trained during the fiscal year;
- average number of training hours per employee.

	2011	2012	2013 (*)
Percentage of employees who have had training	74%	68%	67%
Average number of training hours/employee	19 h	19 h	15 h
Total number of training hours	-	-	1,286,445 h

(*) Perimeter: social survey conducted in 26 countries representing 93% of the workforce.

Alstom University (AU)

In July 2013, AU and Talent Management merged in one single department "Learning Solutions and Alstom University" which is one of the four pillars of the Talent Management organisation.

The new vision is to provide the right learning solutions to build "One Alstom" and develop people in order to serve the business goals.

The new missions are thus to:

- define and ensure the consistency of the global learning strategy linked to the Group's strategic objectives;
- support the identification of training needs;
- build and manage the global learning offer;
- design and deploy learning solutions in order to develop employees and serve Alstom goals.

In order to be more efficient, the objective is to have a holistic approach of learning within the Group.

Objective: design and conduct common training for all Group activities.

Indicator: number of trainees in Alstom University campuses.

2011/12	2012/13	2013/14
8,231	15,817	11,191

Source: Alstom University.

Alstom University is managing also several projects in order to achieve two goals: put in place a "lean learning" approach and develop a new learning mindset within Alstom, which means:

- defining the new learning organisation within the Group;
- building one Alstom Learning offer structured in three levels: Group, Sector, Cluster/Country. The Alstom Learning offer will be communicated in September 2014;
- deploying curriculum: in order to localise the deployment of several Alstom University programmes in the main countries;
- identifying, developing and encouraging internal trainers in order to encourage employees to share their knowledge. Being an internal trainer has the added benefit of developing the trainers' skills and providing them with an opportunity to learn.

2013 achievements

Face-to-face training

- number of sessions: 770;
- in addition, Alstom University organised 190 test sessions for the delivery of "EHS passport" to more than 2,000 employees;

Distance Learning training

- number of Distance Learning licenses activated: 814;
- number of virtual sessions: 105, covering 1,258 trainees;
- number of trained participants e-learning customised by Alstom: 49,771 with E-ethics module (over 10,000) for the promotion of the Alstom's Code of Ethics and values, and High Risk Activities module (over 34,900) for the prevention of accidents.

In the Grid Sector, Competency Development Programmes have been launched for several functions: EHS and Sales. This aims to reinforce performance and operational excellence, as well as to develop individual competencies and careers. The programme starts with an online assessment of core function and technical competencies, and in comparison against the required levels, a gap analysis is then conducted between the employee and their line manager. The programme is supported by various developmental actions at individual and collective level.

Alstom collaborative way (ACW)

The "Alstom Collaborative Way" (ACW) initiated in 2008 had played a crucial role in the development of a culture based on sharing and learning amongst employees. The implementation of collaborative tools for communities of experts has allowed the promotion, development and sharing of best practices and know-how.

ALSTOM COLLABORATIVE WAY DEPLOYMENT

	2011/12	2012/13	2013/14
Telepresence: average hours/month per site	77 h (21 sites)	52 h (33 sites)	37 h (46 sites)
Web conferences	54,614 meetings 223,951 participants 32,000 accounts	82,000 meetings 328,088 participants 72,000 accounts	398,013 meetings 1,207,398 participants 93,519 accounts
Wikis	89	157	111
SharePoint collaborative platform	Community Site Project Site Team Site MySite	144 159 322 17,000	241 254 537 25,600

Source: Alstom University.

During the fiscal year, the usage of webconference has been generalised, therefore their increasing number has increased by 385% and the number of users has increased by 268%, enabling to reduce travel costs and to accelerate the decision-making process.

Knowledge management/transfer

Given the high technology product environment in which Alstom is doing business, as well as in the context of high competition and ageing workforce in some regions, Knowledge Management and Transfer is a critical activity. Since 2008, the Knowledge Transfer (KT) project targets to "Improving Alstom's capability to transfer knowledge in its global network in order to build fully operational local units on time, where the market is". A common framework (KT Handbook with model, process, guidelines and tools) based on internal good practices and lessons learned had been deployed as well as a collaborative platform (KT WiKi platform) connecting the community of managers, experts, specialists and key employees dealing with knowledge transfer.

In the Thermal Power and Renewable Power Sectors, the handbook was distributed to 1,900 managers in April 2012 across all businesses. This year, 52 KT training sessions on the processes and tools have been deployed for more than 390 managers (65% in receiver units in BRIC countries). More than 430 KT Community members are connected through the KT collaborative platform.

Currently more than 100 active KT projects are running with specific gate reviews and quarterly reviews; 13 KT projects have been closed through the 'closure gate review'. Most projects are delivered in China (48) and India (32).

EQUAL OPPORTUNITY

In September 2013, Alstom appointed an HR executive to lead its diversity engagement and initiatives. The roadmap as well as the targets proposed by the Diversity Steering Committee is being submitted to the Board for approval. These are the common KPIs for all countries. Country-specific diversity action plans are under preparation with a two-year roadmap taking into account the global diversity one. The plans will cover the six dimensions of diversity: nationality, gender, age/generations, educational background, social status and ability/disability. The plans must include a three-year plan to balance salary between men and women (already in progress within the current salary review process). In order to foster the awareness and plan implementation, a community of country diversity ambassadors is being created.

It is to be noted that, before this more visible action, Alstom had already started to enhance and promote diversity in its workforce and the past years initiatives have been continued during fiscal year 2013/14.

Promoting gender equality

It is the Group'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 HR policy but no target percentage of women has been set.

The question of professional equality between women and men has been at the heart of Alstom's social and HR policy for many years. It is nevertheless noteworthy that the training path leading to train the needed skills in most of Alstom positions are attracting mainly men. The proportion of women in those *curricula* is about 15%. This prevents from a quantitative meaningful comparison. Therefore, Alstom gives great importance to 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 Group levels. In addition, through its local presence and offer of high-quality jobs and career development, the Group is a strong contributor to the development of the countries in which it is located. Despite those efforts, the expected results of Alstom's action plan have not yet fully materialised.

Started in April 2012, discussions with the European Works Forum and the European Union representation to reach an agreement about Equal Opportunities within Europe have been continued.

INDICATORS RELATED TO WOMEN BY CATEGORY

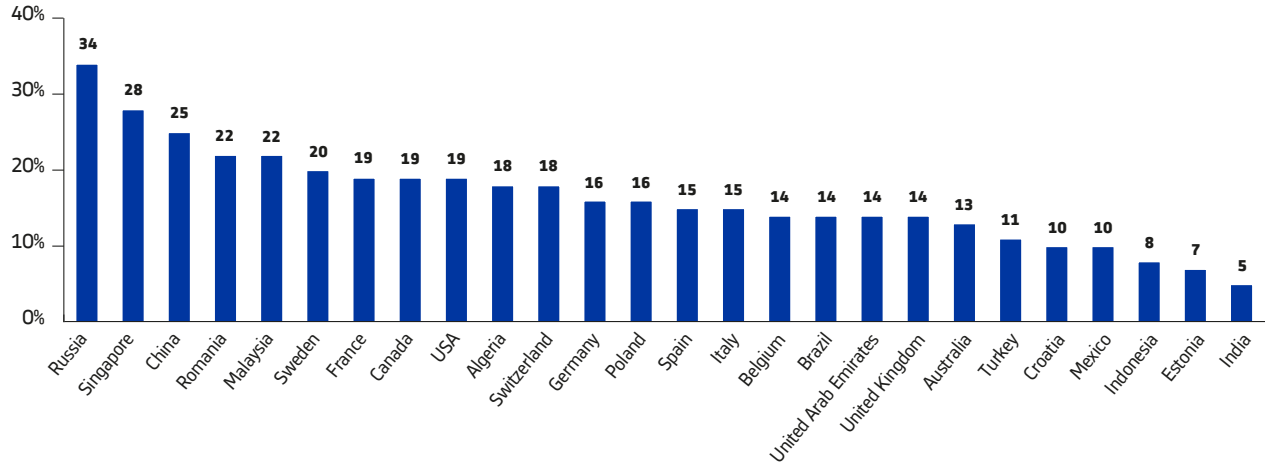
	2011/12	2012/13	2013/14
Percentage of women in the workforce	16.0%	16.0%	16.3%
Percentage of women: management	15.0%	15.3%	16.2%
Percentage of women: executives (1,596 people)	11.0%	11.6%	11.8%

Source: Alstom HRIS.

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

The Group has no specific targets for the percentage of women in its total workforce but it develops an active policy to favour their integration.

PERCENTAGE OF WOMEN PER COUNTRY (AS OF 31 DECEMBER 2013)



Source: Alstom social survey conducted in 26 countries, covering 93% of employees

Supporting initiatives dedicated to women promotion

To increase female applications, Alstom promotes industry careers among female students in several countries, in partnership with relevant associations.

- in the USA, Alstom has established numerous partnerships and participated in many programmes and activities that demonstrate its commitment to diversity and equal employment opportunities, and more specifically for women. Alstom is a member of the Equal Employment Advisory Council (EEAC), the nation's largest non-profit association of employers dedicated exclusively to the advancement of practical and effective programmes to eliminate workplace discrimination. Alstom is a member 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 Programs and Employment Opportunities Commission to:
  - advocate the positions and viewpoints of the constituents,
  - comment and provide feedback on Regulatory and Legislative initiatives,
  - educate the constituents on developments regarding equal employment opportunity, affirmative action and related regulatory changes;
- in France, a new partnership has been started with "Déployons nos Elles", a non-profit organisation which promotes industrial jobs in high schools by organising exchanges with engineer women and visits of workshops. The "Elles bougent" initiative has been continued;
- the Group is associated to the "EVE" programme, a women's leadership programme that helps "increase one's performance and become an actor of change".

Initiatives to fight discrimination

Concrete achievements have been accomplished in order to fight discrimination and harassment. The existing action plans and programmes have been continued. For further details, please refer to previous Registration Documents.

In France, agreements have been signed with the employee representatives to foster the fight against discrimination covering more than 2,800 employees.

Equal opportunity policy at Group level

In line with the already launched initiatives such as the WEB programme (Women Empowerment for Business), or the "EVE" programme (for more information, see previous paragraph) Alstom has started a project to enhance diversity in its workforce. The project is implemented through action plans in each country under the leadership of the country HR Director and is coordinated at Corporate level.

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

In addition, Alstom encourages the development of its parental policy by starting systems of assistance to find childcare solutions or inter-company day nurseries whenever possible (for example in La Courneuve in France).

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. Examples can be found on www.alstom.com.

Alstom has conducted a survey in 26 countries representing 93% of the total headcount, in order to assess possible salary discrepancies between men and women. The results are difficult to interpret for a number of reasons, in particular because of the very limited number of women in certain categories and of differences in positions and seniority.

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.

The following table shows the results of a survey conducted in 26 key countries, to measure the integration of people with disabilities in the total workforce. The data are significant only where local regulations have set minimum quotas.

PERCENTAGE OF EMPLOYEES WITH DISABILITIES

	2011	2012	2013
France	3.4%	3.9%	3.5%
Germany	5.5%	5.5%	5.6%
Italy	2.7%	2.4%	2.4%
Spain	0.4%	0.9%	0.6%

Source: Alstom social survey conducted in 26 countries representing 93% of the Group's total headcount.

For information, this report is available on the Internet site under a version accessible to the visually impaired.

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:

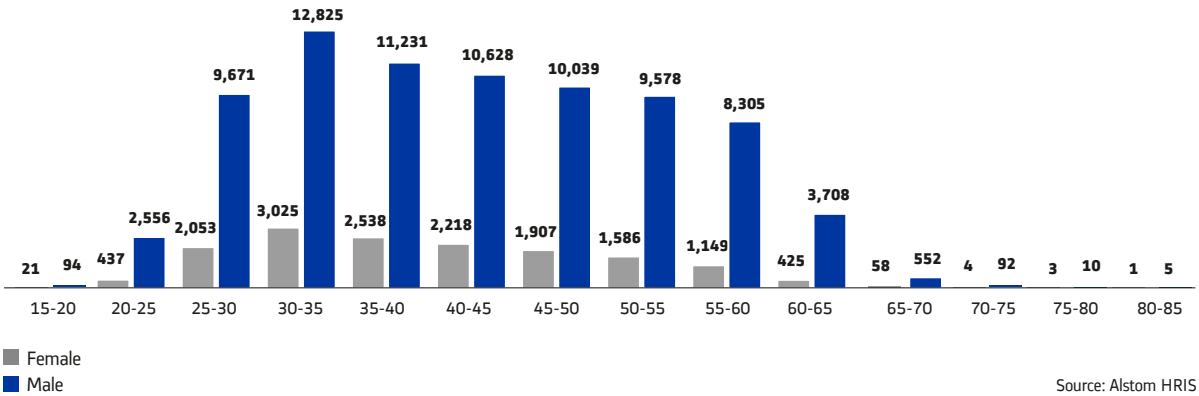
- the number of French senior executives has declined from 52% in 2006 to 45% in 2009 and 40% at 31 March 2014;
- the number of expatriates decreased from 946 at 31 March 2012 to 848 at 31 March 2014, as part of the Group's effort to empower local managers.

Actions and participations to bodies and organisations targeting the promotion of diversity have been continued in 2013/14. For more details, please consult www.alstom.com.

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. On a more general view, the women/men breakdown vs. age is identical.

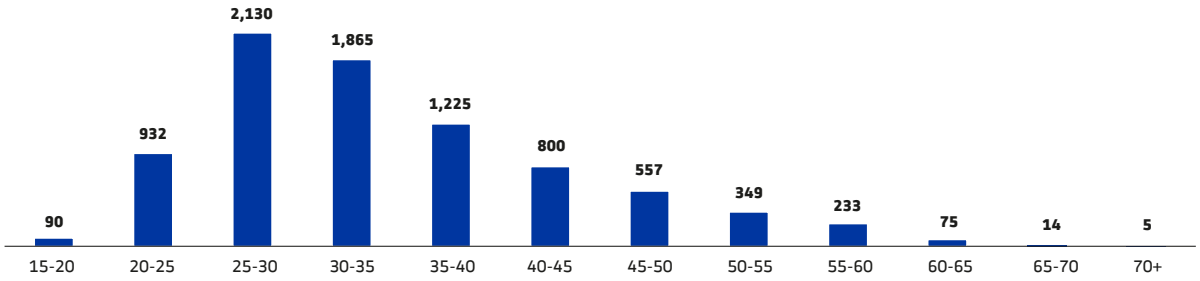
AGE PYRAMID BY GENDER (TOTAL WORKFORCE) – MARCH 2014



Source: Alstom HRIS

Besides, 1,233 people aged over 45 were hired over the fiscal year, corresponding to 15% of the new permanent recruits.

AGE PYRAMID OF NEW HIRES 2013/14 – PERMANENT CONTRACTS



Source: Alstom HRIS

EMPLOYEE RELATIONS

An internal survey, conducted in 26 countries and representing 93% of the Group headcount, showed that 81% of the Group's 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 the Group. The European Works Forum (EWF) met in various formats: seven select committees, two regular plenary sessions, three extraordinary plenary meetings, 14 meetings of four working groups and two focused on equal opportunities. The exchanges enabled to share the business situation and the impact on the workforce, in the frame of the agreement related to the Anticipation of Change and Evolution signed in February 2011. This agreement between Alstom and the EMF (European Metalworkers' Federation) is based on the good practices of countries, such as the workforce and competency planning in France, temporary work-time reduction in Germany or geographic mobility in Italy. The objective is to safeguard employment, accompany the redeployment of employees, increase employee competencies and organise the social dialogue at European, national and local levels.

Many agreements related to salaries, working time, medical care, restructuring and profit-sharing were signed at local level with the employee representatives during year 2013.

The list of the agreements signed in 2013 is available on www.alstom.com.

Management of restructuring impacts

Alstom strives to limit the social impact of decided restructurings. The principle driving the Group's policy is: "nobody is left to cope alone with an employment problem in case of restructuring". In February 2011, Alstom and the EMF signed an agreement related to the Anticipation of Change and Evolution (see above description). The restructuring plans therefore followed this guideline.

In October 2013, the Group announced 1,300 job losses mainly in Europe. The implementation of the accompanying measures is being negotiated with employee representatives according to the 2011 agreement guidelines.

LENGTH AND ORGANISATION OF WORKING TIME

Organisation of working time

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

In France, a total of 18,069 employees, 8% of the employees work on 2x8 shifts, 3% on 3x8 shifts and 1% on weekend shifts.

Overtime

Overtime refers to hours worked beyond the legal limits set by the relevant national legislations. 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 24 hours/per employee for calendar year 2013.

RELATIONSHIPS WITH **EXTERNAL STAKEHOLDERS**

RELATIONSHIPS WITH CUSTOMERS

For Alstom, customer satisfaction is a key priority. In this respect, the Group has put in place procedures to better anticipate the needs of its customers. These procedures must be assessed per Sector, as they correspond to different markets and product specificities. However, in all Sectors of the Group, relationships with customers are addressing the following objectives:

- understand customers' expectations and get their feedback through regular surveys and related improvement action plans;
- build a stronger relationship with them through regular events, technical meetings with groups of customers, "customer clubs" around a product, etc.;
- make them familiar with Alstom products and solutions and help them extract the best value through technical trainings provided either at the customer premises or in dedicated Alstom training centres.

The sections below give more details of the way each Sector deploys its customer relationship policy.

One common action covers Thermal Power, Renewable Power and Grid Sectors: Alstom's *Conseil Stratégique*. This yearly CEO-level event that has existed since 2010, was formally an Alstom Power event but, following the integration of the Grid Sector (2010) and the creation of the Renewable Power Sector (2011), became an Alstom Corporate event dealing with Energy. The top-30 customers from all around the globe are invited by the Group to discuss long-term *scenarii*. Some external stakeholders/experts also come to give their vision of the stakes in the energy world for the next decades. The *Conseil Stratégique* is limited to thirty customers and thirty Alstom top-managers in order to create an intimate event to discuss non-everyday business topics.

In the Power Sectors

Alstom Power Sectors are dedicated to building customer relationships based on trust and mutual understanding.

The Global Power Sales organisation, based in the countries, covering both the Thermal Power and Renewable Power Sectors, aims to be close to its customers, in order to better understand their needs and requirements and be in a position to answer in a timely manner. Global and Key Account Managers ensure a close and long-lasting relationship with these customers. The "One Face To the Customer" concept ensures the coordination of business activities and thus a better answer to customers' expectations and satisfaction. In addition, the following actions are carried out:

- for the past eight years, Alstom has organised regular **customer satisfaction surveys** to which nearly 500 people answer each time; the latest one was conducted in 2013. Results are analysed, working groups are put in place to define and implement action plans to increase the satisfaction level. Actions implemented following the 2011 survey are already showing results. Customers are provided with a feedback on their assessment. Customer satisfaction will be measured again in 2015 for the fifth time. Customer satisfaction surveys are also conducted at business level during and following the completion of most projects;
- a new global **"customer intimacy" programme** has been designed and implemented, aiming to understand how best to work together in the future and strengthen the relationship between Alstom and its customers by building mutual trust, while ensuring a joint vision of the future to open up more business opportunities. Some pilot actions took place in 2012/13 and it is now fully deployed. To further demonstrate its commitment to improving the quality of its relationship with its customers, Alstom Power has launched a Customer Charter, consisting of ten commitments to which employees are adhering;
- **working groups** comprising customers and Group experts discuss specific products and technologies. Sharing views and experience, particularly with regards to technical expectations, is extremely useful for Alstom to improve existing products and develop new offerings;
- **technical events** such as the Clean Power Days, Product Roadshows and Technical Seminars are organised worldwide, to encourage technical exchanges with customers and technical associations;
- both Power Sectors of Alstom propose a wide range of **training courses** to help customer getting familiar with their products. These trainings take place in dedicated training centres, but Alstom also offers on-site customer operation and maintenance training. For some of them, mobile power plant simulators are being used to enable operators to learn to respond to a variety of situations and to train them to operate power plants during the construction phase of a project.

In the Grid Sector

The Company aims to be recognised as a reference in grid performance, developing long-term relationships with its customers based on trust and understanding.

In 2013, Grid further put the customer at the centre of its processes through:

- the set-up and integration in the customer relationship management (CRM) of dedicated Transactional or Point Of Contact surveys which take place at delivery, erection & commissioning or other key project milestones;

- the new Act for Customer Trust (ACT) key performance and customer satisfaction indicators, reflecting what customers value: respecting commitment, shortening resolution lead time and minimising customer effort.

A few examples of actions:

- in addition to local actions the Grid Sector carries out yearly **customer quality surveys** that cover various customer satisfaction questions with 20,000 contacts worldwide. These surveys also include customers' perception of Grid's sustainable development performance. Customers' negative feedback is assessed on a one-to-one basis through a customer call-back process and is recorded in ACT if necessary. It is analysed through management meetings to define Grid's improvement plans;
- the Grid Sector strengthens customer intimacy through **Key Account Management** (between 150 and 180 Key Accounts which cover 80% of the business including utilities and industries). The mission of Key Account Management is to promote and develop customer intimacy to ensure customer loyalty and increase customer satisfaction. A yearly Key Account Plan ensures in-depth account review, including interviews with key customers to obtain feedback on cost, quality, delivery, service and relationships. The information is documented and reviewed to create clear action plans for each individual key account, used to fine-tune strategy and to develop tailored products and services. In a fast-moving international environment, Key Account Management regularly holds customer intimacy activities for each Strategic Key Account to better understand the customer's business, develop joint solutions and evaluate new technology;
- the Grid Sector also regularly holds **User Groups** worldwide in the fields of Network Management Solutions, Air-insulated Switchgear and Gas-insulated Substations. For instance, in 2013 the Network Management Solutions division held three User Groups that were attended by nearly 450 customers covering all regions. User Groups allow installed-base customers to exchange views with peers, discuss with Alstom experts, and keep abreast of the latest trends and developments in the industry. By regularly listening to customer feedback during User Groups, Alstom gains unique insight, which helps us ensure that the Grid Sector' solutions evolve with the needs and challenges of its customers. Furthermore, User Groups offer Alstom an opportunity to display its latest products and solutions, allowing its experts and sales teams to expand the customer base, develop relationships and identify business opportunities. For example, in November 2012, the Air Insulated Switchgear division demonstrated in Barcelona its digital substation technology to 80 customers from 35 countries. The Gas-insulated division showcased in Dubai its latest developments in terms of substations and digital options for smart grids in front of 180 delegates from 52 companies;
- the Grid Sector is an **active member of the CIGRE** (the International Council for Large Electricity Networks), where international experts exchange knowledge, share best practices and discuss the future of the power grid;
- finally, the Grid Sector also offers **technical training** through its Technical Institute to accompany customers throughout their equipment lifetime. A comprehensive network of 20 training centres worldwide ensures local accessibility to expert technical knowledge which is transferred through a proven pedagogical approach by a community of 200 certified trainers or *via* 40 e-learning modules. During the past year, over 20,000 training days were held around the world.

In the Transport Sector

The Transport Sector aims at sustaining a continuous relationship with its customers through all stages of their buying cycle – from business development to after-sales. For example:

- in 2013, a modern **Customer Relationship Management (CRM) tool** – called "wall.C" – was deployed across the Sales, Strategy and Marketing teams, encompassing over 500 employees. This first version of the CRM tool supports management of Accounts, Business Opportunities and Customer Satisfaction Surveys. wall.C gives users a 360° view on all customers and thus provides the foundation for enhanced collaboration within the company to better address customer needs. Since March 2014, wall.C's scope has been extended to include bid management and win-loss analyses. The wall.C user-base has doubled as additional departments become users;
- following the high-level survey carried out in 2012 with senior managers of the Transport Sector's customers around the world, the **Customer Satisfaction Surveys** were re-activated systematically in 2013 at working-level for all projects in execution. This initiative is not only a common framework to carry out what is already done in the context of the ISO 9001 certification; it aims to build a very concrete and shared operational approach to Customer Satisfaction in Alstom. Specifically, this programme is a cyclical annual process that is documented at each stage in wall.C. The Customer Account Managers are tasked to plan, on an annual basis, all the Satisfaction Surveys to be done for their customer projects. They do this in conjunction with each relevant Project Execution Manager. Surveys are then scheduled and conducted, the results are analysed and a project-specific action plan is defined. The Account Manager then informs the customer to explain the survey findings and present the remedial action plan;
- **"Customer Clubs"** have become part of the Transport Sector's commercial metabolism. Following a first edition of the "Metro Club" in February 2013, a first "Coradia Nordic Club" took place in May and the "Pendolino Club" was launched in November on the 25th birthday of the first Pendolino train. The objective for the Customer Clubs is to be worldwide forums for customers to share their professional know-how and opinions with their peers and with Alstom. Each Customer Club is run every 12 to 18 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. The profile of the customer participants are typically Strategy, Operations and Technical Directors. The second sessions of the Metro Club and Coradia Nordic Club will take place during the first half of 2014;
- in July 2013, the Transport Sector inaugurated its "**Knowledge Centre**", north of Paris. This site is shared with the Power and Grid Sectors. Equipped with modern training facilities, it is a new hub in which – and from which – **training programmes** for the Transport Sector's customers' staff are delivered and developed;

- for many years, the Transport Sector has run a broad range of **training courses** for customers as part of equipment supply contracts. Today these are managed on a structured and integrated basis. More significantly, in nations that are investing for the first time in public transport, demand is booming for the training of train drivers, technicians and train fleet & rail infrastructure maintainers. Alstom is responding to this demand with a dedicated team which tailors and delivers rail transport training programmes to meet this need of emerging countries.

RELATIONSHIPS WITH GOVERNMENTS, INTERNATIONAL ORGANISATIONS AND THINK TANKS

Contribution to the public debate on sustainable development policies

Alstom wants to be known for the quality of its contribution to the public debate around sustainable, environmentally sound power generation and transmission, as well as rail transport, engaging government and international organisations in the development of policies.

As a company with a long history and a unique portfolio of clean power and sustainable transport technologies, Alstom has the experience and expertise to help drive low-carbon development, mitigate climate change and ensure sustainable economic growth.

The Group therefore engages in advocacy, both directly with governments, international organisations and other influencers, and through memberships in selected coalitions that share the policy 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, and
  - 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 public and private R&D in sustainable technologies, particularly through:
  - targeted use of public funding and support for both early stage research and demonstration projects,
  - international financial institutions support for major infrastructure projects in developing countries,
  - leverage of private investment through innovative financial mechanisms and public-private risk-sharing;
- the importance of long-term, transparent and stable policy frameworks to support investment in sustainable development, particularly through:
  - CO_2 pricing,
  - balanced regulation and standard-setting to support a broad portfolio of sustainable, high-efficiency technologies, and
  - promotion of sustainable transport options such as rail.

Participation in leading bodies

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.

- 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 2009, Alstom joined the World Business Council for Sustainable Development (WBCSD), which comprises 190 international firms campaigning to promote the three pillars of sustainable development: economic growth, environmental balance and social progress;
- Alstom has signed the sustainable development charter drawn up by the International Association of Public Transport *(Union internationale des transports publics, UITP)*;
- Alstom is a founding member of the Australia-based Global Carbon Capture and Storage Institute;
- Alstom has been an active member of the International Emission Trading Association (IETA) for some years and is represented on its Board;
- in 2013, Alstom joined Econsense, the leading sustainability coalition for business in Germany.

Involvement in many programmes linked to Sustainable Development

During the fiscal year, Alstom was involved in many programmes directly linked to Sustainable Development:

- Alstom continued to participate actively in the United Nations Framework Convention on Climate Change (UNFCCC) *fora*, sponsoring the 19th Conference of Parties (COP19) in November 2013 in Warsaw, Poland and endorsing the Warsaw Statement adopted then, which aims to strengthen the integration of sustainable, low-carbon transport in the UNFCCC action as it moves towards a 2015 agreement. It also participated in business representation at meetings of the Technology Executive Committee and the Green Climate Fund;

- Alstom played a leading role in business support for the European Emission Trading Scheme (ETS), to support the Commission's proposal on "backloading" of allowances and the development of a stability mechanism;
- in 2013, Alstom participated in workshops in China to support emission trading pilot schemes run by the Business Partnership for Market Readiness (BPMR) and also by the Centre for Clean Air Policy;
- Alstom was the only OEM (Original Equipment Manufacturer) to submit comments to India's Chief Electricity Regulator on the Tariff Regulations for Control Period 2014-19 affecting renovation and modernisation of thermal plant to support efficiency improvements to plant;
- Alstom gave high profile public support to the proposal for a UK 2030 decarbonisation target (that ultimately failed to become enshrined in the Energy Act 2013) and also to the Committee on Climate Change's report on the UK's 4th Carbon Budget that recommended a 50% cut in UK emissions by 2027;
- Alstom submitted a detailed paper to the German Government and other stakeholders on Germany's Energy Turnaround and held three Alstom Future Dialogues on clean coal, offshore wind & pump storage technologies.

RELATIONSHIPS WITH SUPPLIERS AND CONTRACTORS

Since 2007, Alstom has been committed to integrating sustainable development in its purchases, and has made every effort to reduce the environmental, social and ethical risks in its supply chain.

Suppliers' contributions represent an important part of contract execution costs (around 60%). In large global contracts, Alstom needs to use contractors for the execution of work for which it does not have the necessary skills, such as civil works. This leads to a significant number of hours of contracting: for fiscal year 2013/14, contractors worked an estimated 125 million hours at Alstom sites and on construction sites, corresponding to the equivalent of 65,100 people on the basis of a 40-hour work week and 48 weeks/year (62,500 people in 2012/13).

The effective implementation of the sustainable sourcing approach relies upon collaboration between Alstom and its suppliers and contractors, which ensures a more responsible supply chain. These commitments are formalised in the "Alstom Sustainable Sourcing Policy" signed by the Chairman and CEO of the Group and available on www.alstom.com.

By establishing partnerships with its suppliers and contractors, Alstom wants to ensure continuous improvement in raising its suppliers' sustainable development performance and minimising its exposure to risks. This approach is also a driver for innovation and change management in the Group.

Risk reduction in the supply chain

Commitment and qualification of suppliers and contractors

The "Charter for Sustainable Development for Alstom's Suppliers and Contractors", to which all Alstom suppliers have to adhere, requires their compliance with the principles set forth in the United Nations Universal Declaration of Human Rights, the International Labour Organisation's (ILO) Fundamental Conventions, the Guiding Principles of the Organisation for Economic Cooperation and Development (OECD), the Rules of Conduct of the International Chamber of Commerce (ICC) and all of the values described in Alstom's Code of Ethics.

At 31 March 2014, more than 16,900 Alstom suppliers have already expressed their commitment by signing this charter. Compliance with the charter is also integrated in Alstom's general purchasing conditions in order to ensure adherence on a general level. Furthermore, social responsibility topics are incorporated in each Sector's supplier qualification processes. The audits conducted by Alstom auditors therefore include CSR criteria.

Risk mapping

Reducing environmental, social and ethical risks in its supply chain is one of Alstom's main priorities. With a wide range of sites worldwide, Alstom favours purchases from local, generally medium-sized companies. Alstom has a highly diverse pool of suppliers. It has thus become necessary to prioritise the assessment of suppliers located within the Group's sphere of influence and potentially presenting a significant risk factor. Alstom conducts a CSR risk mapping of its suppliers on an annual basis with three criteria:

- product family;
- supplier country;
- total purchasing volume with the Group.

The level of risk for each product family and country is determined by a third party and updated annually. Risk mapping allows the Group to establish priorities for supplier assessment. The Group has set rules and objectives on a three-year timescale. The analysis methodology is described on www.alstom.com. A total of 1,600 suppliers have been designated as assessment priorities through this risk mapping process, representing nearly 60% of Alstom's total purchasing volume.

Assessment of suppliers

To measure their sustainable development performance, suppliers undergo an assessment based on environmental, social and ethical criteria, including their own sustainable development requirements to be passed on to secondary suppliers. The assessments are conducted by EcoVadis, a company specialising in sustainable development evaluations.

They are led by a team of CSR experts, who analyse the suppliers' questionnaire responses, documentation and published information on their activities. The assessment process includes references to international standards such as the United Nations' Global Compact, ISO 26000 and the Global Reporting Initiative. The Group organises conference calls to present the assessment process to its suppliers. At the end of fiscal year 2013/14, 1,605 suppliers had been assessed, representing more than 50% of Alstom's total production purchasing volume.

Corrective action plans

When their assessment rating is considered unsatisfactory, suppliers must draft and implement action plans to address their identified weaknesses. Alstom's sourcing teams provide support on supplier's performance improvement efforts. For example, Alstom has worked with one of its Chinese aluminium casting suppliers to improve air quality and reduce safety risks in its workshop. This collaboration resulted in a 95% reduction in local pollutant emissions through the installation of a dust collection system.

Suppliers should be reassessed when they have completed their corrective action plan. In the event that a non-compliant supplier is not willing to implement a corrective action plan or to commit to making forward progress, Alstom may consider ceasing its collaboration with that supplier.

Integration of best practices and continuous improvement process

Change management with Alstom's buyers

Alstom works with a large number of suppliers worldwide; its entire process is then driven by buyers and aims to integrate sustainable development into the Group's sourcing culture. Alstom is aware that this dynamic requires strong involvement on the part of buyers, and thus, has developed a communication and training programme dedicated to sourcing and supplier-quality teams. The goal of such training is to provide a better understanding of Alstom's requirements in terms of sustainable purchasing, supplier assessment, and how to help suppliers develop corrective action plans. In order to be easily deployed in the various countries where Alstom operates, these training programmes are held either online or face-to-face. Their content is reviewed and updated each year to take into account the sustainable development maturity of buyers and suppliers. At 31 March 2014, 960 members of the sourcing community have been trained.

Development of partnerships with suppliers

In order to be recognised as partners of Alstom, suppliers and contractors must be integrated into the responsible value chain. This can increase their own competencies as local suppliers and foster the co-construction of innovative solutions. For instance:

- Alstom Morocco has put in place a team of three people dedicated to the development of French Small and Medium-sized Enterprises (SMEs) that want to grow with the Group through partial location in Morocco;
- in Russia, actions are being taken to help suppliers set up locally and possibly find local partners;
- in India, Alstom is now subject to a new legislation which requires that large companies invest a portion of their profits in CSR starting in 2014. Alstom has thus launched a working group on how this budget should be spent, which includes the local sourcing team. The goal is to support Alstom's Indian suppliers in improving their sustainable development performance on a voluntary basis: improvement plans, training, certifications, etc., with the help of external consultants hired by the Group.

Thinking as an extended enterprise, Alstom develops mid- and long-term partnerships with a limited panel of strategic suppliers. The Transport Sector's "Leading Partners" programme aims to identify and select best-in-class suppliers capable of strong differentiation. Capitalising on this sustainable operational excellence, Alstom works with its partners to develop competitive advantages in innovation and collaboration, engineering, processes, eco-design and international development.

Launching new initiatives

Alstom has also initiated new projects, related notably to "environmental-friendly sourcing", *i.e.* purchasing products or services with reduced or limited impact on the environment. Approximately 50 requests for quotation for "green products" were thus completed this year, in different countries and for product and service families such as printing, IT hardware, facilities management, catering, forklifts, etc. To support buyers in this approach, guidelines have been set up, explaining sustainable development challenges and selection criteria by product family. More information is available on www.alstom.com.

In order to sustain this process, Alstom collaborates with its partners in a "responsible product" approach, integrating eco-design and life-cycle analysis. This collaborative approach has also enabled the Group to develop more environmental-friendly technologies. For example, cork flooring solutions have been developed through cooperation between the Transport Sector and its supplier. In the Grid Sector, Alstom has developed with a partner, filters that can be used to purify SF_6 and to facilitate the recycling of it.

Key indicators

	2011/12	2012/13	2013/14
Number of charters signed by suppliers (cumulative figure)	8,500	10,900	16,900
Number of suppliers assessed (cumulative over 4 fiscal years)	1,225	1,515	1,605
Number of people trained in sustainable sourcing through a specific programme (cumulate figure over 4 fiscal years)	680	780	960

RELATIONSHIPS WITH LOCAL COMMUNITIES

In 2013, Alstom has defined a global policy which is implemented in a consistent way wherever the Group operates. However, being also a local player, Alstom implements local action plans in line with local stakeholders' expectations and its own policy.

To improve CSR performance in relationship with local communities and extract increasing benefits from, actions are taken at two levels.

At Group level

A commitment to education

During the Rio+20 meeting, in June 2012, Alstom committed to contribute to Education: all countries gathering above 1,000 Alstom employees [1] should have an action plan on that theme included in their global Country Action Plan.

A specific policy for community investment

The Community Investment Policy adopted in January 2013 sets three priorities:

- the first priority is contribution to education – key for the development everywhere in the world. Alstom joins forces with local schools and universities to train students in high-quality courses *via* scholarships, apprenticeships, internships, and by providing general educative means; it also support universities by developing joint research programmes in more than 90 universities – see list on www.alstom.com;
- the second priority is to support the local economic development and industrial activities. For example, Alstom supports small enterprises and innovative start-ups, strengthens its suppliers' skills, develops programmes related to technology and innovation in partnership with local institutions;
- the third priority consists in a pragmatic dialogue with the communities, in order to meet local social needs and protect the environment.

Alstom encourages its own employees to support these actions as volunteers.

At local level

A decentralised approach

Alstom strengthens its guidelines regarding the local initiatives with a formal country action plan, mandatory for the 15 countries with over 1,000 employees and strongly recommended for the others. The CSR action plan is defined after identification of stakeholders, their expectations and Alstom's own stakes in the given country.

Support to education

Dynamic relationships with schools and universities

Alstom has strong partnerships with schools and universities in order to:

- make Alstom well-known and identify future employees;
- establish partnerships, including in research and development (see more details in the section SD and Alstom's social responsibility – Innovation management);
- participate in the national programmes for education and training in the countries in which the Group operates.

See more details on www.alstom.com and in the section Social Performance – Relationship with universities.

In accordance with its commitment during the Rio+20 Summit, Alstom also supports elementary and high schools. For instance in 2013/14:

- in Norrköping (Sweden), a 80-hour programme to motivate 14-year-old pupils get them to learn about businesses and products in energy and rail transport and also job opportunities;
- in Korea, Alstom employees delivered lectures on Corporate Responsibility and Business leader's role to 50 students at International Graduate School of Seoul national university on 31 October 2013, and to 120 students for Elite Intensive Course at the Federation of Korean Industries on 27 December 2013;
- in Malaysia, a specific programme encourages educational performance, awarding employees' children who have excelled in their studies. The level of the award varies with the level of public examinations at primary, secondary and pre-university.

See more examples on www.alstom.com.

Local actions to support students

In addition to its relationships with schools and universities, Alstom is conscious of its responsibility to facilitate the access of people, especially young people, and implements programmes to help students develop their competencies.

In several countries such as the UK, Sweden and France, employees are involved as mentors in the promotion of industrial positions. In the UK, Alstom is member of Engineering UK and WISE (Women in Science and Engineering) and trained 125 STEM (Science, Technology, Engineering and Maths) ambassadors participating in a variety of outreach projects on a national and regional level to promote the interest of jobs in industry, for both women and men. This participation makes up 500 hours of volunteering per year.

(1) 15 countries, namely Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Mexico, Poland, Spain, Switzerland, Turkey, the United Kingdom, the United States of America.

In most countries, Alstom provides internships to students. For instance, in China, HUST (HuaZhong University of Science & Technology) and the Wuhan Boiler Company Ltd are ones of the first national experimental engineering education centres approved by the China Secondary Education Bureau. In the frame of this agreement, 90 undergraduate students were provided with professional training and internships.

This can also go through an internship opportunity for an immigrant person to help her/him find a job in Sweden, or support for local mathematic competition in Poland.

See more examples on www.alstom.com.

Impact on local development: supporting local companies

Alstom's Corporate Social Responsibility policy takes into account the impact of the Group's business operations on local development. In addition to supporting innovative start-ups and participating in local development by contribution to national or international programmes and clusters related to technology and research (see more details on the section Sustainable Development and Alstom's CSR – Innovation management), Alstom pays attention to the local market.

When Alstom develops new activities or new markets, it strives to look for local suppliers. For instance, in April 2012, Alstom (jointly with EDF) won three French state's calls for tenders for offshore wind power projects and therefore, it plans to create new industrial plants in Cherbourg and Saint-Nazaire, and an engineering centre, with an estimated creation of 1,000 direct jobs and 4,000 indirect jobs. Alstom decided to dedicate 5% of the working hours for the construction of the plants to people facing difficulties to access to employment. In addition, in the wake of the wind off-shore market, 13 days of BtoB meetings were held with more than 350 companies, to help local industry, suppliers and contractors, get future activities by disclosing market opportunities. 80 companies – among which 65 SMEs – answered calls for tenders. The objective is to build a French offshore wind industrial cluster.

Alstom also takes part in joint projects with SMEs within the programme of Investments for the Future (tidal energy substations).

Through the Aster Capital Investment Fund, Alstom invests in start-ups in the field of energy, mobility and green technologies.

Support of social local needs

As a tool to strengthen the support of social needs, in addition to usual charitable contribution, Alstom encourages volunteerism initiatives and employees' awareness on the importance of solidarity. A few examples:

- in Australia, the Group's employees decided to focus on only one NGO for charity and to select the Children's Cancer Institute Australia (CCIA). CCIA is an independent medical research institute focusing on the causes, treatments, prevention and cure of childhood cancer. The objective is to raise AUD35,000 (equivalent to €35 per employee) within one year;
- in China, on 18 May, 136 employees and their families participated in the 2013 Spring Charity Walking to raise funds for rural migrant children's education. In addition, 70 employees and their families supported the Sunvillage, dedicated to the children of Chinese convicts. The programme includes donation of cash, clothes, books and the living expenses of twin children, Li Yubin and Li Yufeng, for one year;
- in Germany, in July 2013, the contribution of Alstom employees who worked day and night during the severe River Elbe flooding was recognised by the Federal Minister of the Interior. Employees made also donations for the victims, matched by the Company;
- in Indonesia, in February 2014, collection of food and medicine was organised for victims of Sinabung Mountain eruption that had caused the evacuation of 20,000 persons since September 2013;
- in Italy, in January 2014, more than 600 employees in Bologna participated in the purchase of equipment which allows food preservation. The initiative aims to donate 30 meals/day coming from to the uneaten food of the canteen to the Soup Kitchen *(Mensa Della Fraternita)*;
- in Malaysia, 273 employees contribute to a programme aiming to raise the awareness of students on the protection of coral reefs in three islands;
- in both Malaysia and Indonesia, any employee who successfully refers a new recruitment is awarded a token sum, and selects the charity he/she would like to contribute to *via* this monetary award; the initiative seeks to promote a CSR culture in the local organisation;
- in Mexico in 2013, two "dia ecologico" were organised gathering 143 employees, to improve the living conditions of 12 disadvantaged families of the Piedra Grande community in the State of Mexico, through the construction of rainwater tanks and organic gardens, ecological stoves and solar dryers;
- in Poland, collection of goods and money among employees for families in need, orphanages and shelters for animals;
- in the UK and Ireland, in June 2013, a volunteering policy has been adopted, aiming for instance at supporting donation in cash and time (each employee is allowed one day per fiscal year to participate in the execution of volunteering project) and giving access to UK Intranet Space to promote charitable fundraising activities.

Facilitating access to employment

Alstom is well aware of its responsibility to facilitate the access of people, especially young people, to employment and develop local initiatives with this goal. The reason is the following: most jobs at Alstom are highly technical and finding seasoned specialists is not an easy task. It is thus vital to hire young people and provide them with the necessary training. It is a long-term investment. Alstom takes also into account the local authorities' expectations to provide jobs, for instance to young people from disadvantaged areas.

More information is available on www.alstom.com.

Charitable contributions

Alstom encourages initiatives to support local communities. The total budgeted contributions to charities are not completely identified at Group level. These initiatives, mainly social, are consistent with local needs and are developed in close cooperation with local associations.

The lists of country action plans and charitable contributions are available on www.alstom.com.

THE ALSTOM CORPORATE FOUNDATION

Around the world, Alstom and its partners lead actions with local organisations to improve the living conditions of the communities surrounding the Group's plants and sites. The Alstom Foundation enables the Group to strengthen these initiatives by providing finance for a variety of concrete actions in environmental protection.

Since its creation in 2007, the Alstom Corporate Foundation has financed a large number of projects: 11 in 2008, 13 in 2009, 19 in 2010, 16 in 2011, 15 in 2012 and 16 in 2013. All projects are presented and supported by Alstom employees. They must focus on environment protection, respond to local needs and be developed with local actors. The Foundation has a budget of €1 million per year.

Encouraged by the success of the Alstom Foundation, it was decided in 2012 to extend its operation for five more years with the same budget. The Foundation will gradually tend towards the support to innovation-oriented projects.

The Foundation's Board of Directors, which selects the projects to finance each year, is composed of internal representatives as well as external ones: Claude Mandil (former Director of the International Energy Agency), Cécile Vic (General Delegate of the Air France Foundation), Jacques Attali (President of PlaNet Finance). Robert Barbault (Director of the Biodiversity Department at the Museum of Natural History) who had participated in the Foundation Board since its creation and had been very active in the Foundation selection, passed away in December 2013.

The 16 projects supported by the Foundation in 2013/14 can be classified under three headings:

Access to energy

The eight projects in this category are intended to facilitate access to electricity and energy, taking into account the environment:

- electrification of a village of 17 homes by pico hydroelectricity, in Bhutan;
- electrification of a village of 200 homes by a 30 kW micro hydro plant, in Cameroon;
- electrification of 4 villages, 70 homes on average, with pico hydro turbines, in Laos;
- construction of a 900 kW dam, in Nepal;
- electrification of a school and creation of a 3 kW charging station with wind turbines, in Kenya;
- electrification of 30 health centres with solar panels in the AFAR area, in Ethiopia;
- electrification of an orphanage and a vocational training centre with solar panels, in Cambodia;
- biogas production from waste generated by a kitchen providing 130,000 meals per day for school children, in India.

Economic development

In this category, the Foundation projects are more focused on economic support while taking into account the other aspects of sustainable development:

- ecotourism development taking into account the Indigenous people's traditions, through a programme benefitting to 1,000 persons, in Brazil;
- refurbishment of an antique passenger train "*Petite Roselle*" to increase the activity of a touristic railway line, in France;
- comprehensive social and economic programme in a village next to the Durgapur site, in India;
- protection of the archaeological site "*Huacas Del Sol y de la Luna*" and the polychrome mural, in Peru;
- waste valorisation in schools and temples, in Thailand;
- creation of 20 model farms providing micronutrient-rich food and vitamin A to reduce blindness risk, in Vietnam.

Nature preservation

The two projects related to nature preservation selected this year aim to increase public awareness on the improvements that can be made to the environment:

- removal of debris and waste from two lakes in the Chennai area, in India;
- building of green parks in the surroundings of Lima, and support to an association training single mothers in building skills, in Peru.

Two other projects were abandoned because the factors of success were not present, and a project in Mexico was delayed due to the storm which hit the country last autumn.

More information about the projects can be found on the following link: www.foundation.alstom.com.

METHODOLOGY

Introduction

The content of this chapter dedicated to Sustainable Development and Alstom's Social Responsibility has been prepared by the CSR central team of Alstom with the collaboration of internal stakeholders: the Sectors for the description of their respective strategy and customer relationship management, as well as many support functions such as Sourcing, Human Resources, Strategy, Risk Control, Ethics & Compliance, Environment-Health & Safety (EHS) and the Alstom International Network (Country Presidents).

External stakeholders' views used to build the materiality matrix have been gathered from various surveys conducted between 2011 and 2013.

The information collection and consolidation were conducted along with a dedicated process between January and April 2014, under the supervision of an Editorial and Validation Committee led by the Senior Vice-President Strategy and Business Development, which validated the choices during three meetings over the period.

The whole chapter has been reviewed by PricewaterhouseCoopers as an independent third party in regard to Article 225 of the French Grenelle law.

Reporting principles

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

These indicators refer to the "Global Reporting Initiative" (GRI). However, some indicators are not yet available on a consolidated basis or have been considered irrelevant, either with regard to the Group's diversified operations or due to difficulties in adopting standard definitions for all sites worldwide. 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 "Décret no 2012-557" dated 24 April 2012 related to the obligation of companies' transparency in environmental and social matters.

Environmental performance and Health & Safety results

Data covering those topics are gathered with Alstom's reporting and consolidating system "Terenga" which is also used for financial reporting. This ensures the coverage of Alstom's activity very close to 100% of Alstom employees for Health and Safety. Employees of companies working under Alstom's responsibility (contractors) are also covered. For the environmental performance, all permanent activities of the Group are covered. Some temporary construction sites are not covered when Alstom's activity is only a part of a larger site.

On Health and Safety, the reporting is done every month on around 760 sub-units (elementary report units) with 15 basic indicators.

On Environment, the reporting is done by quarter on around 470 sub-units with 40 basic indicators.

The definition of indicators and reporting process are described in a Group-level document (EHS Reporting Manual) managed under the responsibility of the Group EHS Vice-President.

Social report and actions on local communities

Indicators for social report are coming from:

- the Alstom HR information system called ALPS, based on PeopleSoft software and operating in any Alstom facility;
- a social survey conducted in 26 countries on the figures of calendar year 2013 – Algeria, Australia, Belgium, Brazil, Canada, China, Croatia, Estonia, France, Germany, India, Indonesia, Italy, Malaysia, Mexico, Poland, Romania, Russia, Singapore, Spain, Sweden, Switzerland, Turkey, United Arab Emirates (UAE), United Kingdom (UK), United States of America (USA) -, representing 93% of Alstom's workforce. In some limited cases, the number of countries had to be reduced due to unreliable data provided, but the coverage remained significant enough.

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;
- a collection of all news related to CSR, published internally in the Group's weekly newsletter (Newsflash).

Limitation and difficulties

The reporting system for EHS and the HR information system are quite inclusive. However, information coming from contractors may be difficult to verify. Coming from "surveys", some information might be missing, but without having a significant impact on the results.

SYNTHESIS OF **INDICATORS/KEY FIGURES** 2013/14

Indicators	2011/12	2012/13	2013/14	GRI (2) reference	Page
ENVIRONMENTAL INDICATORS					
Energy (1)					
Energy consumption from natural gas *(in GWh)*	630	685	621	EN3	264
Energy consumption from butane/propane and other gases *(in GWh)*	47	44	43	EN3	264
Energy consumption from residual "heavy" fuel oil and diesel oil *(in GWh)*	76	66	51	EN3	264
Energy consumption from coal and other fuels *(in GWh)*	7	8	4	EN3	264
Energy consumption from imported steam and heat *(in GWh)*	124	134	134	EN4	264
Energy consumption from electricity *(in GWh)*	717	706	703	EN4	264
Total energy consumption *(in GWh)*	1,600	1,642	1,555	EN4	264
Energy intensity *(in GWh/sales in € million)*	80	81	77	EN3	264
Water					
Water consumption from public water supply *(in thousands of m³)*	2,200	2,224	2,244	EN8	268
Water consumption pumped from surface water *(in thousands of m³)*	547	387	394	EN8	268
Water consumption pumped from groundwater *(in thousands of m³)*	1,872	2,058	1,765	EN8	268
Total water consumption *(in thousands of m³)*	4,619	4,699	4,403	EN8	268
Emissions (2)**, effluents and waste**					
GHG emissions intensity *(in tons CO_2 equivalent/sales in € milllion)*	25	25	24	EN16	265
Direct CO_2 emissions from natural gas, butane, propane, coal and oil consumption *(in kilotons CO_2 eq)*	173	181	162	EN16	265
Indirect CO_2 emissions from steam, heat and electricity consumption *(in kilotons CO_2 eq)*	344	326	324	EN16	265
Total CO_2 emissions from energy consumption *(in kilotons CO_2 eq)*	517	508	486	EN16	265
Other direct CO_2 emissions from PFC and HFC *(in kilotons CO_2 eq)*	2	2	1	EN16	265
Total CO_2 emissions from energy consumption and other direct emissions except SF_6 *(in kilotons CO_2 eq)*	520	510	488	EN16	265
Intensity of GHG emissions from SF_6 *(in tons CO_2 equivalent/SF_6 equipment/sales in € million)*	-	132	141	EN16	266
Total SF_6 losses (fugitive emissions) *(in tons)*	4.97	5.77	6.34	EN16	266
Company cars CO_2 emissions from gasoline *(in kilotons)*	8	8	6	EN16	266
Company cars CO_2 emissions from diesel oil *(in kilotons)*	14	16	16	EN16	266
Total CO_2 Company cars emissions *(in kilotons)*	22	24	22	EN16	266
Water emissions – Metals *(in tons)*	1	3	0.5	EN21	268
Water emissions – Chemical oxygen demand *(in tons)*	204	98	72	EN21	268
Water emissions – Suspended matters *(in tons)*	40	55	41	EN21	268
Water emissions – Hydrocarbons *(in tons)*	1	1	1	EN21	268
Non-methane Volatile Organic Compounds (VOCs) emissions *(in tons)*	1,005	1,227	804	EN16	269
Air emissions – SO_2 *(in tons)*	45	20	15	EN20	269
Air emissions – NO_x *(in tons)*	152	114	117	EN20	269
Percentage of recovered waste	77%	77%	78%	EN22	270
Total hazardous waste production *(in tons)*	-	19,809	11,062	EN22	270
Total non-hazardous waste production *(in tons)*	-	127,808	116,524	EN22	270
Total waste production *(in tons)*	-	147,617	127,586	EN22	270
Total amount of waste sent to waste disposal *(in tons)*	-	34,650	28,056	EN22	270

(1) Excluding the energy used by the Birr (Switzerland) Research & Development test activity (gas and diesel oil as fuel) – updated compared to previous years' registration document.
(2) Excluding the CO_2 emissions due to the Grid Sector's SF_6 fugitive emissions and the CO_2 emissions related to the energy used by the Birr R&D test activity (emissions due to gas and diesel oil usage).

Indicators	2011/12	2012/13	2013/14	GRI (2) reference	Page
Non-GRI					
Total water used for open-circuit cooling and for test purpose with no environmental impact *(in thousands of m³)*	1,432	1,785	1,527	Non-GRI	268
Number of manufacturing sites with over 200 employees located at more than 1 km from legally protected areas	-	63	63	Non-GRI	271
Proportion of manufacturing sites with over 200 employees located at more than 1 km from legally protected areas *(in %)*	-	90%	90%	Non-GRI	271
CO_2 emissions from air travels *(in kilotons CO_2 eq)*	136	131	115	Non-GRI	266
CO_2 emissions from train travels *(in kilotons CO_2 eq)*	-	-	2	Non-GRI	266
SYSTEM INDICATORS					
Non-GRI					
Proportion of manufacturing sites of more than 200 employees certified ISO 14001 *(in %)*	83%	97%	100%	Non-GRI	263
Number of Alstom Zero Deviation Plan official evaluations	-	160	169	Non-GRI	275
SOCIAL INDICATORS					
Employment					
Total workforce incl. Long Term Absentees (LTA)	93,998	94,545	94,719	LA1	276
Workforce by region (incl. LTA)				LA1	276
• Europe	54,586	55,550	55,545		
• North America	10,306	10,266	9,639		
• Central and South America	5,763	5,954	7,430		
• Asia/Pacific	20,386	19,575	18,833		
• Africa/Middle East	2,957	3,200	3,272		
Workforce by category (managers, incl. LTA, *in %*)	47.21%	50.04%	50.91%	LA1	276
Workforce by Sector (incl. LTA)				LA1	276
• Thermal Power	37,991	36,741	36,963		
• Renewable Power	9,563	9,757	9,209		
• Grid	19,088	17,984	17,159		
• Transport	25,332	27,284	28,341		
• Corporate & others	2,024	2,779	3,047		
Total workforce by type of contract (incl. LTA)				LA1	277
• Permanent contracts	85,449	86,252	86,125		
• Fixed-term contracts	8,549	8,293	8,594		
• Temporary workers	8,401	8,035	8,020		
• Interns	2,388	2,265	2,208		
Workforce changes during fiscal year (incl. LTA)				LA2	277
• Hiring on permanent contracts	9,922	9,905	8,275		
• Hiring on fixed-term contracts	8,176	7,645	7,189		
• Resignations	4,200	3,274	3,212		
• Redundancies	651	837	693		
• Dismissals (permanent headcount)	-	656	731		
• Other departures (incl. retirements, excl. acquisitions/disposals)	4,505	3,393	3,238		
Number of annual performance interviews (managers & professionals)	38,800	42,500	43,900	LA2	284
Labour/Management relations					
Employees covered by a collective bargaining agreement *(in %)*	72%	71%	81%	LA4	289

Indicators	2011/12	2012/13	2013/14	GRI (2) reference	Page
Occupational Health and Safety					
Number of employees' fatalities (Alstom employees)	4	1	0	LA7	274
Other fatalities linked with Alstom activities (contractors)	7	4	5	LA7	274
Number of occupational safety severe accidents reported (incl. fatal accidents)	-	29	37	LA7	274
Occupational injury frequency rate 1 (IFR1) calculated (employees and contractors)	1.8	1.4	1.2	LA7	274
Severity Rate of lost-time accidents (employees)	0.06	0.06	0.06	LA7	274
Employees Long-term Absenteeism (LTA)	1,353	1,639	1,717	LA7	276
Absenteeism rate calculated	-	2.6	2.4	LA7	281
Training and education					
Number of employees trained in EHS classroom trainings	1,700	3,358	2,914	LA12	274
Number of employees trained in EHS e-learning courses	-	-	35,196	LA12	274
Average training hours per employee	19h	19h	15h	LA10	285
Total number of training hours	-	-	1,286,445h	LA10	285
Proportion of employees trained *(in %)*	74%	68%	67%	LA12	285
Number of employees trained by *Alstom University*	8,231	15,817	11,191	LA12	285
Diversity and equal opportunity					
Proportion of women in the Group *(in %)*	16%	16%	16.3%	LA13	287
Proportion of female managers or engineers *(in %)*	15%	15.3%	16.2%	LA13	287
Proportion of executive women *(in %)*	11%	11.6%	11.8%	LA13	287
Proportion of disabled people per country *(in %)*				LA13	288
• France	3.4%	3.9%	3.5%		
• Germany	5.5%	5.5%	5.6%		
• Italy	2.7%	2.4%	2.4%		
• Spain	0.4%	0.9%	0.6%		
Corruption					
Number of employees who have received training on ethics (cumulative figure since 2006, approx.)	7,200	9,500	14,300	SO3	279
Human Rights performance					
Number of assessed suppliers (cumulative figure over 4 fiscal years)	1,225	1,515	1,605	HR 2-6-7	294
Non-GRI					
Number of occupational diseases registered	-	82	60	Non-GRI	275
Rate of internal mobility (nomination of executives) *(in %)*	85%	80%	75%	Non-GRI	284
Number of employees under short-term incentive scheme	25,000	34,400	32,800	Non-GRI	280
Number of employees covered by a profit-sharing agreement	37,000	52,000	52,000	Non-GRI	280
Ratio of employees covered by a life insurance in case of accidental death *(in %)*	99%	99,5%	97.3%	Non-GRI	275
Ratio of employees covered by a life insurance giving one year salary *(in %)*	94%	91%	93.7%	Non-GRI	275
Proportion of vacant positions internally posted *(in %)*	43%	33%	48%	Non-GRI	284
Number of charters signed by suppliers (cumulative figure)	8,500	10,900	16,900	Non-GRI	294
Number of people trained in sustainable sourcing through a specific programme (cumulate figure over 4 fiscal years)	680	780	960	Non-GRI	294
Contractors' hours worked at Alstom sites and construction sites *(in million)*	115	120	125	Non-GRI	293

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

Year ended March 31, 2014

To the Shareholders,
Alstom
3, avenue André Malraux
92309 Levallois-Perret, Cedex.

(This is a free translation into English of the original report issued in the French language and it is provided solely for the convenience of English speaking users. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.)

Dear Sirs,

In our capacity as Statutory Auditor of Alstom, appointed as an independent third party and whose acceptance of the certification request has been approved by COFRAC, we hereby present our report on the consolidated environmental, labour and social information presented in chapter 6 of the management report, (hereafter referred to as the "CSR Information") for the year ended on March 31st, 2014 in accordance with Article L.225-102-1 of the French Commercial Code (*Code de commerce*).

Responsibility of the company

The Board of Directors is responsible for preparing the company's management report including CSR Information referred to in the article R.225-105-1 of the French Commercial Code (*Code de commerce*), in accordance with the "EHS Reporting Manual" used by the Group's sites as well as HR standard "Règles Census" and social study definitions used by the company, (hereafter the "Criteria"), available on request to the CSR direction of the company.

Independence and quality control

Our independence is defined by regulatory requirements, the French code of Ethics governing the audit profession and the provisions of Article L.822-11 of the French Commercial Code (*Code de commerce*). We have also implemented a quality control system comprising documented policies and procedures to ensure compliance with the ethical standards, professional auditing standards and applicable laws and regulations.

Responsibility of the Statutory Auditor

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

- certify that the required CSR Information is presented in the management report or, in the event that any CSR Information is not presented, that an appropriate explanation has been provided in accordance with the third paragraph of article R.225-105 of the French Commercial Code (*Code de commerce*) (the Statement of completeness of CSR Information);
- express moderate assurance that the CSR Information, taken as a whole, is, in all material respects, fairly presented in accordance with the Criteria (moderate assurance CSR Information).

Our work was carried out by a team of ten persons between end of November 2013 and mid April 2014 and took around seventeen weeks. We were assisted in our work by our specialists in corporate social responsibility.

We performed our work in accordance with the professional auditing standards applicable in France, with the decree of 13 May 2013 determining the conditions under which the independent third party performs its engagement and for the reasoned opinion on fairness, with the international standard ISAE 3000 (1).

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

1. Statement of completeness of CSR Information

We obtained an understanding of the company's CSR issues, based on interviews with the management of relevant departments, a presentation of the company's strategy on sustainable development based on the social and environmental consequences linked to the activities of the company and its societal commitments, as well as, where appropriate, resulting actions or programmes. We compared the CSR Information presented in the management report with the list as provided for in the Article R.225-105-1 of the French Commercial Code (*Code de commerce*).

For any consolidated Information that was not disclosed, we verified that the explanations provided complied with the provisions of Article R.225-105-1, paragraph 3 of the French Commercial Code (*Code de commerce*).

We ensured that the CSR Information covers the consolidated perimeter, *i.e.*, the company and its subsidiaries as defined by Article L.233-1 and the entities it controls as defined by Article L.233-3 of the French Commercial Code (*Code de commerce*) with the limitations set out in the methodological information section presented in the section methodology of chapter 6 of the management report.

Based on this work and given the limitations mentioned above, we attest to the completeness of the required CSR Information in the management report.

2. Reasoned opinion on the fairness of the CSR Information

Nature and scope of our work

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

- assess the suitability of the Criteria in the light of their relevance, completeness reliability, neutrality and understandability and taking industry standards into account when necessary;
- verify the implementation of a data-collection, compilation, processing and control procedure that is designed to produce CSR Information that is exhaustive and consistent, and familiarise ourselves with the internal control and risk management procedures involved in preparing the CSR Information.

We determined the nature and scope of our tests and controls according to the nature and importance of the CSR Information in the light of the nature of the Company, the social and environmental issues of its activities, its sustainable development strategy and good market practices.

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

- at the level of the consolidated entity, we consulted documentary sources and conducted interviews to substantiate the qualitative information (organisation, policy, action), we followed analytical procedures on the quantitative information and verified, using sampling techniques, the calculations and the consolidation of the data and we verified their consistency and concordance with the other information in the management report;
- at the level of a representative sample of entities including the sub-units of CAMACARI – BAHIA and TAUBATE in Brazil, of BEIJING, SUZHOU and WUHAN in China, of KARLOVAC in Croatia, of TAMPERE in Finland, of LA COURNEUVE, MASSY 1, MASSY 2, SAINT-OUEN, TARBES, VALENCIENNES, VILLEURBANNE and AIX-LES-BAINS GIS in France, of MANNHEIM and MONCHENGLADBACH in Germany, of CHENNAI, PALLAVARAM, DELHI – NOIDA, DURGAPUR and VADODARA in India, of ELBLAG et KATOWICE in Poland, of GEBZE in Turkey, of JUPITER – FLORIDA and WINDSOR in the USA, selected by activity, contribution to the consolidated indicators, location and risk analysis, we conducted interviews to ensure that procedures are followed correctly and we performed tests of details, using sampling techniques, in order to verify the calculations made and reconcile the data with the supporting documents. The selected sample represents on average 24% of total workforce and on average 21% of quantitative environmental data.

For the other consolidated CSR information, we assessed consistency based on our understanding of the company.

We also assessed the relevance of explanations given for any information that was not disclosed, either in whole or in part in the light of good professional standards.

We believe that the sampling methods and sample sizes used, in our professional judgement, allow us to express a moderate assurance conclusion; a higher level of assurance would have required us to carry out more extensive work. Because of the use of sampling techniques and other limitations intrinsic to the operation of any information and internal control system, we cannot completely rule out the possibility that a material irregularity has not been detected.

Conclusion

Based on our work, nothing has come to our attention that causes us to believe that the CSR Information, taken as a whole, is not presented fairly, in all material respects, in accordance with the Criteria.

Neuilly-sur-Seine, May 7th, 2014

One of the Statutory Auditors
PricewaterhouseCoopers Audit

Olivier Lotz
Partner

Thierry Raes
Partner in charge of the Sustainable Development Department

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

Labour information

- Total workforce, indicator group total workforce at the end of March 2014;
- Distribution of employees by sex, indicator distribution of total workforce men/women;
- Distribution of employees by geographic area, indicator distribution of total workforce by Region;
- Hiring and termination, indicators number of hiring and termination;
- Absenteeism, indicator absenteeism rate;
- Organization of labour relations, indicator percentage of employees covered by a collective agreement;
- Health and safety conditions;
- Work accident, especially frequency and severity, indicators number of fatal accident (Alstom employees), number of fatal accidents related to Alstom's activities (contractors), number of severe accident reported, frequency rate (Alstom employees), severity rate (Alstom employees);
- Number of training hours, indicator average number of training hours per employee;
- Measures taken in favor of the equality between men and women, indicator proportion of women, proportion of women managers, proportion of women executive officers;
- Respect for freedom of association and right to collective negotiation.

Environmental information

- Company organization to take into account environmental issues and if relevant, environmental evaluation and certification process;
- Amount of environmental provisions;
- Measures to prevent, reduce or repair releases in air, water and soil seriously affecting the environment, indicator VOC (1) emissions;
- Measures to prevent, recycle and eliminate waste, indicators hazardous and non-hazardous waste production, quantity of eliminated waste (not recovered);
- Water consumption and water procurement regarding local constraints, indicators consumption of water from public water supply, surface water and groundwater;
- Energy consumption and measures taken to improve energetic efficiency and the use of renewable energy, indicators consumptions of natural gas, butane/propane and other gas, oil, steam/heat, electricity, coal and other fuels;
- Greenhouse effect gas emissions, indicators direct (2) and indirect (3) emissions of CO_2, emission of SF_6.

Social information

- Territorial, economic and social impact of the company activity in terms of employment and regional development;
- Inclusion of social and environment issues in the purchase 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.

(1) Volatile Organic Compounds.

(2) Emissions due to natural gas, butane, propane, coal, oil and fugitive emissions of PFC and HFC.

(3) Emissions due to steam, heat and electricity consumption.

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(*) Not applicable.