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Performance summary

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ABB Report Review Panel statement

Introduction

ABB has a long history of stakeholder engagement. The company has conducted a variety of stakeholder dialogues and regularly consults a wide range of stakeholders to challenge strategy, and to review material issues and its sustainability performance reports.

In 2015, ABB invited a stakeholder panel to accompany its sustainability reporting process. The panel consists of the following members:

- Jermyn Brooks, Chair Business Advisory Board Transparency International
- Prof. Volker Hoffmann, Professor for Sustainability and Technology, ETH Zurich
- Dr. Ajay Mathur, Director General, The Energy and Resources Institute (TERI)
- Robbie Miles, Analyst, Allianz Asset Management
- Anna Nilsson, Head of Sustainability, Swedbank Robur
- Gianluigi Ravenna, VP Account Management, Enics
- Leah Seligmann, Chief Sustainability Officer, NRG
- Shankar Venkateswaran, Chief of Tata Sustainability Group, Tata Group

The panel's tasks were to:

- Review ABB's sustainability approach
- Provide feedback on ABB's reporting about its performance against targets, as well as the targets to achieve ambition 2020
- Observe the reporting process, including a review of the final draft of the report
- Agree upon a panel statement summarizing the findings of the panel

This statement provides an assessment of ABB's Sustainability Performance Report 2015 and reflects the views of the panel members as individuals, not on behalf of their organizations.

The review did not include verification of performance data underlying the report as DNV GL was commissioned to undertake independent assurance of the Sustainability Performance Report 2015. The panel welcomes the external assurance as a means of providing stakeholders with further confidence.

The engagement started in October 2015, when panel members were asked to review ABB's sustainability approach and to provide feedback on the progress towards targets, as well as new targets to achieve ambition 2020. In February 2016, the experts discussed the draft report during another consultation. During the first online consultation Jean-Christophe Deslarzes, ABB's Chief Human Resources Officer, was present and members of ABB's sustainability team attended both calls.

Based on the discussions and the feedback of panel members, this panel statement was drafted and circulated to all panel members for approval.

To ensure independence Barbara Dubach, engageability, facilitated the external panel process.

ABB's Report Review Panel is pleased to share its independent opinion on ABB's sustainability approach and its Sustainability Performance Report 2015.

ABB's sustainability approach

With its energy-efficient and renewable energy products, systems and services, ABB is well positioned to address major environmental and social challenges. The panel acknowledges the potential and the positive impact of ABB's products and services and at the same time expects ABB to reduce negative impacts of its operations and to do no harm.

In order to tap into this potential, more ambitious targets are expected such as a quantitative measure for energy-efficiency related products, a separate indicator for renewable energy products as well as a specific, quantitative greenhouse gas reduction target.

The panel would like to see the share of innovative, safe and resource-efficient products as it will further increase the understanding of the sources of ABB's revenue. ''

Progress towards targets

ABB's 'performance against targets' dashboard is still work in progress. Clearer linkages between the promises and the performance need to be established and the panel recommends formulating specific and measurable targets for each ambition. Absolute values, as well as reductions over the years, will help to judge the stringency of the targets and progress made. Challenges encountered or ambitions behind schedule should be highlighted and explained in the dashboard.

Governance and integrity

- ABB has worked to ensure that integrity concerns are addressed and its zero tolerance policy on violations is stringent. Instead of the current input-based target '100% of employees trained on integrity issues and processes,' the panel suggests reporting on measures to proactively assess possible integrity concerns, as well as how often hotlines or advice lines are consulted when employees are faced with dilemmas. Greater transparency on the type and number of concerns raised by employees, suppliers or

other stakeholders would be appreciated. The panel also calls for country-by-country reporting and information on the company's approach to determining where to pay taxation. Information about the sustainability oversight of ABB's Board of Directors should be added in this chapter.

Society

- ABB has made good progress in rolling out its supplier qualification scheme, its supplier sustainability performance program and in disclosing the number of blocked suppliers. ABB should show the impacts of its decisions on suppliers, as well as how the company is partnering with suppliers, for example, to reduce greenhouse gas emissions.
- In the area of human rights, ABB appears somewhat tentative and still only reaches a small portion of its employees. A new target to reach ambition 2020 could be 'We cut human rights controversies by x%' or 'no human rights violations by 2020.' ABB should acknowledge the challenges related to human rights and should be doing human rights impact assessments when new products are launched or when the company is entering new environments.
- In the area of community engagement, the panel suggests strengthening the target and to disclose information about the number of lives touched, transformed or changed.

Environment

- ABB should define and disclose the boundaries of its ambitions and targets. For example in the area of water, the panel suggests disclosing in how many water scarce or water stressed sites the company is operating.
- The panel applauds the disclosure of energy savings of ABB's variable speed drives in motors and suggests to include supporting data on avoided customers' emissions as a result of ABB's products and services in future reports.
- Targeting zero waste is ambitious. ABB could anchor its target around specific waste streams such as hazardous, industrial or electrical waste. To avoid an impression that ABB is outsourcing waste production to other companies, ABB should transparently disclose what is outsourced to other companies.
- The increase in the use of hazardous materials especially phthalates, lead and cadmium are concerning even though explanations are provided for the changes over prior years.

The panel looks forward to seeing progress towards targets in the next Sustainability Performance Report.

Report highlights and improvement potentials

ABB's Sustainability Performance Report is comprehensive and well structured. It addresses key areas and the chapter 'performance against targets' is the central information hub (see previous section). The report is an important information source and should be promoted actively internally and externally.

Future reports including the CEO statement should be more reflective and include achievements, as well as areas where ABB is not on track. The panel urges ABB to address the dilemmas it is facing, commit to corrective action and to add a section 'looking ahead.'

Other suggestions are to disclose the sustainability impacts of ABB's products and services across the whole life cycle and to highlight the linkages between financial and sustainability issues. Panel members recommend exploring the trajectory towards integrated reporting and to start by integrating specific sustainability metrics in ABB's annual report.

Concluding remarks

The panel encourages ABB to continue its sustainability journey and to maintain its ambitious level. The greatest improvement potentials are seen in streamlining and aligning its ambition and targets and in assessing the impact of the company's sustainability strategy.

Stakeholder engagement is an important enabler to achieve ABB's ambition 2020 and the panel appreciates ABB's stakeholder approach, including the establishment of the panel.

Panel members are pleased to see that ABB has started to incorporate comments raised during the process and look forward to assess how their recommendations will be taken up in the future.

DNV·GL

Independent assurance statement

Scope and approach

ABB Asea Brown Boveri Ltd (ABB) commissioned DNV GL Business Assurance Norway ("DNV GL") to undertake independent assurance of the Sustainability Performance Report 2015 (the "Report") for the year ended 31 December 2015. The scope of the Report is set out on page 69.

We performed our work using DNV GL's assurance methodology VeriSustain™, which is based on our professional experience, international assurance best practice including the AA1000 Assurance Standard, International Standard on Assurance Engagements 3000 (ISAE 3000), and the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines. We evaluated the report for adherence to the VeriSustain™ Principles (the "Principles") of stakeholder inclusiveness, materiality, responsiveness, completeness, neutrality and reliability.

We evaluated the performance data using the reliability principle together with ABB's data protocols for how the data are measured, recorded and reported. The performance data in scope were: The data reported for the GRI indicators noted in the summary table starting on page 62 (EN3 EN5 EN15 EN16 EN17 EN21(VOC) EN23 LA6) and the data reported for 2015 achievements against the nine Group Sustainability Objectives for 2020 (see objectives dashboard on pages 8-11 of the Report).

Our scope included all the information within the pdf version of the Report, but excluded additional information and case studies hyperlinked from the report, to illustrate the sustainability programme.

We understand that the reported financial data and information are based on data from ABB's Annual Report and Accounts, which are subject to a separate independent audit process. The review of financial data taken from the Annual Report and Accounts is not within the scope of our work.

We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our assurance opinion. We are providing a 'moderate level' of assurance. A 'high level' of assurance would have required additional work at Group and site level to gain further evidence to support the basis of our assurance opinion.

Responsibilities of the Directors of ABB and of the assurance providers

The Directors of ABB have sole responsibility for the preparation of the Report. In performing our assurance work, our responsibility is to the management of ABB; however our statement represents our independent opinion and is intended to inform all ABB stakeholders. DNV GL was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement.

DNV GL provides a range of other services to ABB, none of which constitute a conflict of interest with this assurance work. This is the second year that we have provided assurance of the full report. We have previously provided assurance services with respect to selected sustainability indicators for a number of years.

DNV GL's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been provided in good faith. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

Basis of our opinion

A multi-disciplinary team of sustainability and assurance specialists performed work at headquarters and site level. We undertook the following activities:

- Review of the current sustainability issues that could affect ABB and are of interest to stakeholders
- Review of ABB's approach to stakeholder engagement and recent outputs although we had no direct engagement with stakeholders
- Review of information provided to us by ABB on its reporting and management processes relating to the Principles
- Interviews with selected Directors and senior managers responsible for management of sustainability issues and review of selected evidence to support issues discussed. We were free to choose interviewees and interviewed those with overall responsibility for the programmes to deliver the nine Group Sustainability Objectives for 2020. We also interviewed management responsible for sustainability in Brazil, China, Poland and Switzerland
- Site visits conducted in: Guarulhos, Brazil; Beijing, China; Lodz, Poland and Lenzburg, Switzerland to review the process and systems for preparing site level sustainability data and implementation of the sustainability strategy. We were free to choose the sites we visited and they were selected on the basis of the significance of their contribution to ABB's overall environmental impacts, to provide a geographical and divisional spread in 2015, and a different geographical footprint to the 2014 site visits. The selected sites were all within the top 20 sites for impacts based on the data in scope
- Review of supporting evidence for key claims and data in the report. Our checking processes were prioritised according to the materiality of issues at a consolidated corporate level
- Review of the processes at Group level for gathering and consolidating the specified performance data and, for a sample, checking the data consolidation.

Opinion

On the basis of the work undertaken, nothing came to our attention to suggest that the Report does not properly describe ABB's adherence to the Principles. In terms of reliability of the performance data, with the exception of consolidated data for lost days, nothing came to our attention to suggest that these data have not been properly collated from information reported at operational level, nor that the assumptions used were inappropriate.

Observations

Without affecting our assurance opinion we also provide the following observations.

Stakeholder inclusiveness

The participation of stakeholders in developing and achieving an accountable and strategic response to sustainability.

ABB began working with a stakeholder panel at group level in 2015 which has strengthened its approach to stakeholder engagement. The statement from the panel is a positive addition and adds to the transparency of the report. The recommendations from the stakeholder panel are useful and include short and longer term points. In addition to addressing short term priorities, ABB should consider developing a roadmap for implementation of the longer term recommendations.

In addition, we recommend ABB consider extending its stakeholder engagement arrangements to more clearly include requirements with respect to local engagement. The outcomes of these engagements should be integrated into decision making at a global level.

Materiality

The process for determining the issues that are most relevant to an organisation and its stakeholders.

This year ABB sought input on the issues in its materiality matrix from the stakeholder panel, validating the priority issues it has identified. We restate our recommendation that ABB should report on the extent to which different material issues are relevant at local level across the organisation.

Management of the priority issues is well embedded within the business at a group and local level. However the connection between targets at a site, country and group level is not completely aligned, and there would be benefit in ensuring this is clearer.

Safety has again been an area of considerable focus for ABB with development of a number of new programmes to support the strategy. Reporting has been enhanced with the introduction of leading measures (hazards and safety observation tours) to support the existing lagging ones. Data accuracy in these indicators should improve as the systems become embedded.

ABB is planning to introduce peer to peer auditing programmes, initially in safety, to promote sharing and learning across operations. We recommend considering including performance data reviews in these to increase confidence in data reliability and consistency.

Responsiveness

The extent to which an organisation responds to stakeholder issues.

The ABB Sustainability Board meets annually and provides senior oversight of the sustainability strategy and progress. It has the capacity to oversee the process of understanding and responding to strategic engagement with stakeholders. ABB should consider whether more frequent meetings would enhance oversight of the strategy and programme. Meetings should be timed to allow review of stakeholder input, as well as the annual sustainability performance report.

The group level objectives are not consistently focused on the key programmes and activities covered by the relevant issue areas. We support the recommendation made by the ABB Sustainability Board to enhance the overall governance of the development of targets and tracking of progress against them. This should include ensuring the targets represent an appropriate challenge for the organisation.

While the objectives dashboard (page 8-11) provides a useful indication of performance against targets, ABB should ensure that each target is specific and measurable and that associated KPIs report actual performance against each target.

ABB has sought feedback on its sustainability approach and reporting through the introduction of a stakeholder panel and the move last year to assurance that considers its overall approach, as well as data accuracy. Some of the recommendations made will take time to implement. It will be important in demonstrating responsiveness, to report on how the company has responded to feedback.

Completeness

How much of all the information that has been identified as material to the organisation and its stakeholders is reported.

ABB's reporting of performance including the disclosure of data is comprehensive. This gives stakeholders confidence that these aspects are managed appropriately.

ABB has improved the basis for calculating Scope 2 GHG emissions by using local emission factors rather than a single global emission factor. We recommend that local factors are reviewed annually to account for any changes in the energy mix.

Although ABB has a target for decreasing energy intensity, there is currently no target for reducing Green House Gas (GHG) emissions. We recommend establishing a target for reducing GHG emissions. We also recommend ABB expand on its preparedness to respond to the outputs from COP21.

The analysis of where ABB believes it can support the realization of the UN Sustainable Development Goals (SDGs) is encouraging and we look forward to seeing this developed further.

We restate our recommendation that ABB should consider reporting on tax and include additional indicators related to integrity and human rights, in addition to training and capacity building.

Neutrality

The extent to which a report provides a balanced account of an organisation's performance, delivered in a neutral tone.

The section on challenges and progress adds to the overall balance of the report. Report users' understanding of the context for these could be improved by providing further detail throughout the report in future.

Reliability

The accuracy and comparability of information presented in the report, as well as the quality of underlying data management systems.

ABB has established a variety of process for collecting and consolidating the various data it reports. The company continued its well-established annual process for submission and approval of environmental data from its sites to a central database, including an annual training process for data owners at site level. For the environmental data in scope we saw evidence that the central team had undertaken further checks, and where necessary corrected data prior to consolidation. The Group intends to replace the existing database in 2016 which should further strengthen the reporting process.

The KPIs relating to the nine Group Sustainability Objectives have been internally developed and we restate our recommendation to report these definitions in future. Where data collection processes have already been established for reporting these KPIs, the processes were clearly described by data owners. We restate our recommendation to ensure these processes are documented for continuity.

Last year we noted that the data for CO_2 from transport by own fleet is an estimated figure, the basis for which has not been reviewed in the last 5 years. Given that this represents around 20% of the Group carbon footprint, we restate our recommendation that the basis for this estimation is reviewed.

This year, as last year, we noted a number of cases where data reported in the Global Incident Database (GID) were lower than local systems for lost days. We recommend considering how to raise visibility of this indicator at site and country level to improve accuracy of the consolidated global data.

For and on behalf of DNV GL Business Assurance Norway

Høvik, Norway

10th March 2016

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Summary of main performance indicators[1]

GRI ref.	Indicator description	2015 data assured	2015	2014	2013	2012	2011
Environmental							
	Materials						
	Phthalates (tons)	✓	878	258	21	28	47
	Brominated flame retardants (tons)	✓	0	1.9	2.9	~0	~0
	Lead in submarine cables (tons)	✓	8,376	7,842	7,236	5,633	5,725
	Organic lead in polymers (tons)	✓	1.4	0.1	0.6	0.9	1.3
	Lead in other products (tons), eg, backup batteries and counterweights in robots	✓	1,684	1,884	2,601	363	227
	Cadmium in industrial batteries (tons)	✓	0.8	4.4	4.4	5.6	1.6
	Cadmium in rechargeable batteries (tons)	✓	97.5	75.1	67.6	6.3	10
	Cadmium in lead alloy and other uses (tons)	✓	6.4	6.0	5.7	4.5	4.3
	Mercury in products (tons)	✓	0.007	0.071	0.012	0.011	0.030
	SF_6 insulation gas (inflow to ABB facilities) (tons)	✓	1,658	1,483	1,438	1,139	1,052
	SF_6 insulation gas (outflow to customers) (tons)	✓	1,648	1,466	1,425	1,118	1,040
	No. of transformers with PCB oil in ABB facilities	✓	0	0	1	1	2
	No. of capacitors with PCB oil in ABB facilities	✓	0	0	60	32	0
	Mercury in instruments in ABB facilities (tons)	✓	0.225	0.320	0.371	0.203	0.263
EN3	**Energy consumption (Gigawatt-hours – GWh)**						
	Oil (11.63 MWh/ton)	✓	79	85	94	93	92
	Diesel (11.75 MWh/ton)[a,b]	✓	8	11	0	0	0
	Coal (7.56 MWh/ton)	✓	0	0	4	0	0
	Gas[b]	✓	739	706	754	556	417
	District heat consumption[b,c]	✓	181	198	251	219	195
	Electricity consumption[b,c]	✓	1,610	1,629	1,705	1,599	1,447
	Total energy used	✓	**2,618**	**2,629**	**2,808**	**2,467**	**2,151**
	Electricity sold[d]	✓	1	2	n.a.	n.a.	n.a.
EN5	**Energy intensity (MWh/million USD)**						
	Megawatt-hours (MWh) per million USD sales	✓	73.79	66.01	67.10	65.25	59.68
EN6	**Reduction of energy consumption (GWh)[e]**						
			32.2	34.4	n.a.	n.a.	n.a.

[1] Note that in this table, data for the Thomas & Betts acquisition is included from 2013 onwards. Data for the Baldor acquisition is included from 2012 onwards.

[a] Diesel consumption was reported separately for the first time in 2014.

[b] Results for these indicators are based on reported data covering 95 percent of employees in 2015 (93 percent of employees in 2014, 85–88 percent in earlier years) plus estimated energy use per employee for the remaining employees. See the Approach to reporting section for more details.

[c] ABB Sustainability Performance Reports prior to 2014 included calculated "losses at utilities" for district heat and purchased electricity consumption in total energy consumption. In this report, those loss calculations have been removed for all years shown.

[d] Data for electricity sold was reported for the first time in 2014.

[e] Data for reduction of energy consumption was reported for the first time in 2014.

GRI ref.	Indicator description	2015 data assured	2015	2014	2013	2012	2011
EN8	**Water withdrawal (kilotons)**						
	Purchased from water companies[f]	✓	4,000	4,200	4,400	3,900	3,400
	Groundwater extracted by ABB	✓	3,200	3,100	3,200	3,000	3,200
	Surface water extracted by ABB	✓	2,400	2,800	2,700	2,800	2,600
	Collection of rain water	✓	<100	<100	<100	<100	<100
	Waste water from external source	✓	<100	<100	<100	<100	<100
	Total water withdrawal	✓	**9,700**	**10,100**	**10,300**	**9,700**	**9,200**
EN10	**Water recycled and reused**						
	Volume of water reused and recycled (kilotons)		5,200	5,200	5,900	3,700	3,900
	As percentage of total water withdrawal (%)		54	51	57	38	42
	Greenhouse gas emissions[g] (kilotons CO_2 equivalent)						
EN15	**Scope 1**						
	CO_2 from the use of energy	✓	174	169	180	n.a.	n.a.
	SF_6 (in CO_2 equivalents)[h]	✓	237	382	288	340	270
	CO_2 from transport by own fleet[i]	✓	350	350	350	350	350
EN16	**Scope 2**						
	District heat consumption	✓	29	35	45	n.a.	n.a.
	Electricity consumption	✓	685	682	680	n.a.	n.a.
EN17	**Scope 3**						
	Air travel[j,k]	✓	179	196	152	171	185
	Total greenhouse gas emissions	✓	**1,654**	**1,814**	**1,695**	**n.a.**	**n.a.**
EN18	**Greenhouse gas (GHG) emissions intensity (tons CO_2 equivalents/million USD)**						
	Tons CO_2 equivalents per million USD sales[l]	✓	46.60	45.60	40.50	n.a.	n.a.
EN21	**Emissions of volatile organic compounds (tons)**						
	Volatile organic compounds (VOC)	✓	1,223	1,291	1,210	1,355	810
	Chlorinated volatile organic compounds (VOC-Cl)	✓	13	20	20	12	13
	Emissions of NO_x and SO_x (tons SO_2 and NO_2)						
	SOx from burning coal		0	0	3	0	0
	SOx from burning oil		64	65	69	69	68
	NOx from burning coal		0	0	2	0	0
	NOx from burning oil		48	49	52	52	51
	NOx from burning gas		160	126	163	120	90

[f] Results for this indicator are based on reported data covering 95 percent of employees in 2015 (93 percent of employees in 2014, 85–88 percent in earlier years) plus estimated water purchased per employee for the remaining employees. See the Approach to reporting section for more details.

[g] See Approach to reporting chapter for more details on GHG emission calculation.

[h] In 2015, we updated the factor used to convert SF_6 emissions to CO_2 equivalents to 22,800 kg CO_2e/kg SF_6, as recommended by the UK Department of Energy & Climate Change in July 2014, and have applied that factor to SF_6 data reported for all years (2011 – 2015). Previously we used 22,200 kg CO_2e/kg SF_6.

[i] Estimated data.

[j] The air travel indicator includes data from ABB China and Thomas & Betts for the first time in 2014.

[k] 2014 and 2013 data for air travel are calculated using the emission factors published by the UK Department of Environment, Food and Rural Affairs (DEFRA in its "2012 Guidelines to DEFRA/DECC's GHG Conversion Factors for Company Reporting). Data from 2012 and 2011 were calculated using emission factors provided by DEFRA in its 2009 Guidelines. Use of the 2012 factors gives a slightly lower total. For comparison, ABB's air travel emissions for 2012, calculated using the 2012 emission factors = 165 kton CO_2 equivalent.

[l] Data is not available in this form for 2011 and 2012.

GRI ref.	Indicator description	2015 data assured	2015	2014	2013	2012	2011
EN22	**Water discharge by quality and destination (kilotons)**						
	Public sewer		3,100	3,000	3,600	2,800	n.a
	treated (percentage)		28%	30%	31%	29%	n.a
	untreated (percentage)		72%	70%	69%	71%	n.a
	Recipient		2,600	2,900	2,300	2,000	n.a
	treated (percentage)		90%	90%	87%	45%	n.a
	untreated (percentage)		10%	10%	13%	55%	n.a
	Hazardous treatment company		360	400	500	500	n.a
	treated (percentage)		90%	75%	60%	80%	n.a
	untreated (percentage)		10%	25%	40%	20%	n.a
	External use		<100	<100	<100	0	n.a
	treated (percentage)		63%	50%	50%	0%	n.a
	untreated (percentage)		37%	50%	50%	0%	n.a
EN23	**Waste (kilotons)**						
	Scrap metal recycled	✓	158	162	185	150	97
	Non-hazardous waste recycled[m]	✓	53	49	52	41	39
	Non-hazardous waste sent for disposal[m]	✓	44	44	50	43	45
	Hazardous waste recycled[n]	✓	5	5	5	0	0
	Hazardous waste sent for disposal[n]	✓	10	13	9	12	9
	Total waste (generated)	✓	**270**	**273**	**301**	**246**	**190**
EN24	**Numbers of significant spills**						
	Oil spills		11	7	13	6	5
	Chemical spills		1	0	0	0	0
	Emissions to air		11	3	3	5	4
	Others		0	0	4	0	0
	Total number of significant spills		**23**	**10**	**20**	**11**	**9**

[m] Results for these indicators are based on reported data covering 95 percent of employees in 2015 (93 percent of employees in 2014, 85–88 percent in earlier years) plus estimated data per employee for the remaining employees. See the Approach to reporting section for more details.
[n] Hazardous waste as classified in country where it is generated.

GRI ref.	Indicator description	2015 data assured	2015		2014		2013		2012		2011	
Social												
LA1	**Total number and rates of new employee hires and employee turnover**											
	Total workforce by region (ABB employees)											
	Europe		61,600		63,000		65,000		64,000		60,300	
	The Americas		30,900		32,200		34,400		34,400		25,900	
	Asia, Middle East and Africa		43,300		45,200		48,300		47,700		47,400	
	Total		**135,800**		**140,400**		**147,700**		**146,100**		**133,600**	
	Employee turnover											
	Turnover of all employees[o]											
	Europe		5,891	9%	5,877	9%	5,387	9%	5,083	8%	5,712	10%
	The Americas		5,409	17%	5,379	17%	4,760	14%	3,689	14%	2,823	15%
	Asia, Middle East and Africa		4,946	12%	5,701	13%	5,534	13%	5,060	12%	5,469	13%
	Total employee turnover: ABB Group		**16,246**	**12%**	**16,957**	**12%**	**15,681**	**11%**	**13,832**	**11%**	**14,004**	**12%**
	Turnover of all female employees[o]											
	Europe		1,498	2%	1,370	2%	1,217	2%	1,218	2%	1,364	2%
	The Americas		1,418	5%	1,307	4%	1,026	3%	676	3%	531	3%
	Asia		1,093	3%	1,311	6%	1,358	3%	1,093	3%	1,270	3%
	Total female employee turnover: ABB Group		**4,009**	**3%**	**3,882**	**3%**	**3,601**	**3%**	**2,987**	**2%**	**3,165**	**3%**
	Employee hires											
	Hires of all employees[o]											
	Europe		5,672	9%	6,195	10%	6,086	10%	6,793	11%	6,593	11%
	The Americas		3,573	11%	4,142	13%	4,246	12%	4,034	15%	4,462	23%
	Asia, Middle East and Africa		3,777	9%	5,493	13%	5,219	10%	5,875	14%	8,815	22%
	Total employee hires: ABB Group		**13,022**	**10%**	**15,830**	**12%**	**15,551**	**11%**	**16,702**	**13%**	**19,870**	**17%**
	Hires of all female employees[o]											
	Europe		1,520	2%	1,597	3%	1,453	2%	1,590	3%	1,493	3%
	The Americas		769	2%	1,010	3%	971	3%	821	3%	854	4%
	Asia, Middle East and Africa		761	2%	1,308	3%	1,467	3%	1,231	3%	1,866	5%
	Total female employee hires: ABB Group		**3,050**	**2%**	**3,915**	**3%**	**3,891**	**3%**	**3,624**	**3%**	**4,213**	**4%**

[o] Includes part-time employees. Turnover rate calculated as number of ABB employees (full- and part-time) leaving during the year/total number of ABB employees (full- and part-time) as at 31 December. For the purpose of this calculation, employees who leave the organization voluntarily or involuntarily whether due to dismissal, retirement, or death in service or any other reason, are included. However, involuntary turnover arising out of divestments is excluded from the definition.

GRI ref.	Indicator description	2015 data assured	2015	2014	2013[p]	2012[q]	2011
LA6	**Occupational health and safety: Injuries, lost days, diseases and fatalities**						
	Employee work-related fatalities[r]	✓	0	1	0	1	0
	Incident rate[s]	✓	0.00	0.01	0	0.01	0
	Employee business travel fatalities[r,u]	✓	0	0	0	1	0
	Incident rate[s]	✓	0.00	0	0	0.01	0
	Contractor work-related fatalities[r,t]	✓	2	2	7	2	0
	Contractor business travel fatalities[r,u]	✓	0	0	0	0	0
	Members of the public fatalities[r]	✓	1	0	1	0	0
	Employee total recordable incident number[t,v]	✓	1,310	1,500	1,664	1,750	1,505
	Incident rate[s]	✓	8.79	9.95	10.94	13.04	13.17
	Contractor total recordable incident number[t,v]	✓	343	333	310	348	307
	Incident rate[s]	✓	8.02	7.76	7.52	8.21	7.47
	Employee lost time incident number[t]	✓	531	652	686	683	722
	Incident rate[s]	✓	3.55	4.34	4.70	4.80	5.70
	Contractor lost time incident number[t]	✓	163	200	158	159	148
	Incident rate[s]	✓	3.81	4.65	3.83	3.76	3.60
	Employee lost days due to industrial incidents[w]	✓	7,831	8,415	10,591	10,345	9,478
	Days lost rate[s]	✓	52.56	55.220	77.500	74.640	69.560
	Employee occupational health diseases	✓	46	17	10	10	7
	Employee occupational health disease rate[s]	✓	0.31	0.11	0.14	0.07	0.06
	Safety Observation Tours (SOT) conducted[t]	✓	139,124	–	–	–	–
	SOT rate[x]	✓	0.92	–	–	–	–
	Hazards reported[t]	✓	520,942	–	–	–	–
	Hazards reporting rate[x]	✓	3.51	–	–	–	–
	Data by region						
	Employee work-related fatalities (total)	✓	0	1	–	–	–
	Europe	✓	0	0	–	–	–
	The Americas	✓	0	0	–	–	–
	Asia, Middle East and Africa	✓	0	1	–	–	–
	Employee business travel fatalities (total)	✓	0	0	–	–	–
	Europe	✓	0	0	–	–	–
	The Americas	✓	0	0	–	–	–
	Asia, Middle East and Africa	✓	0	0	–	–	–
	Contractor work-related fatalities	✓	2	2	–	–	–
	Europe	✓	0	0	–	–	–
	The Americas	✓	0	0	–	–	–
	Asia, Middle East and Africa	✓	2	2	–	–	–

[p] Data from Thomas & Betts, a company acquired by ABB during 2012, does not include contractors.
[q] This data does not include incidents from Thomas & Betts, a company acquired by ABB during 2012.
[r] Fatalities also include deaths occurring within one year as a result of injuries sustained.
[s] Incident rates are according to the ILO rate per 1,000 employees.
[t] Data covers incidents that happened at workplace (ABB facility, customer site, project site).
[u] Incidents during air travel on business trips are excluded.
[v] Total recordable incidents include fatal, lost time injuries, serious injuries, medical treatment injuries, occupational diseases and restricted work day cases.
[w] Days lost are calendar days and are counted from the day after the incident.
[x] Rate is calculated per employee.

GRI ref.	Indicator description	2015 data assured	2015	2014	2013	2012	2011
	Contractor business travel fatalities	✓	0	0	–	–	–
	Europe	✓	0	0	–	–	–
	The Americas	✓	0	0	–	–	–
	Asia, Middle East and Africa	✓	0	0	–	–	–
	Employee total recordable incident rate[t]	✓	8.79	9.95	–	–	–
	Europe	✓	10.18	11.55	–	–	–
	The Americas	✓	14.01	15.66	–	–	–
	Asia, Middle East and Africa	✓	3.08	3.93	–	–	–
	Contractor total recordable incident rate[t]	✓	8.02	7.76	–	–	–
	Europe	✓	18.77	19.72	–	–	–
	The Americas	✓	15.35	14.01	–	–	–
	Asia, Middle East and Africa	✓	3.71	3.46	–	–	–
	Employee lost time incident rate[t]	✓	3.55	4.34	–	–	–
	Europe	✓	5.55	6.60	–	–	–
	The Americas	✓	3.30	4.00	–	–	–
	Asia, Middle East and Africa	✓	0.84	1.21	–	–	–
	Contractor lost time incident rate[t]	✓	3.81	4.65	–	–	–
	Europe	✓	10.34	13.76	–	–	–
	The Americas	✓	8.39	8.60	–	–	–
	Asia, Middle East and Africa	✓	1.17	1.52	–	–	–
	Employee days lost rate	✓	52.56	55.22	–	–	–
	Europe	✓	73.24	82.53	–	–	–
	The Americas	✓	60.16	82.82	–	–	–
	Asia, Middle East and Africa	✓	17.38	17.20	–	–	–
	Employee occupational health disease rate	✓	0.31	0.11	–	–	–
	Europe	✓	0.56	0.22	–	–	–
	The Americas	✓	0.24	0.28	–	–	–
	Asia, Middle East and Africa	✓	0	0	–	–	–
	SOT rate	✓	0.92	–	–	–	–
	Europe	✓	0.51	–	–	–	–
	The Americas	✓	1.41	–	–	–	–
	Asia, Middle East and Africa	✓	1.17	–	–	–	–
	Hazard rate	✓	3.51	–	–	–	–
	Europe	✓	2.67	–	–	–	–
	The Americas	✓	4.25	–	–	–	–
	Asia, Middle East and Africa	✓	4.19	–	–	–	–

GRI ref.	Indicator description	2015 data assured	2015	2014	2013	2012	2011
HR3	**Non-discrimination**						
	Total number of incidents of discrimination		0	1	1	2	5
	Total number of incidents of harassment		8	10	10	13	32
SO6	**Public policy**						
	Financial and in-kind political contributions		$12,600	$13,000	0	$30,000	$500
LA9	**Training and education**						
	Training per year per employee (average hours)						
	Canada		30	20	18	22	21
	China		22	26	27	31	34
	Finland		17	19	18	14	13
	Germany		18	18	16	16	16
	India		2	12	12	18	5
	Italy		12	12	19	16	17
	Poland		10	11	12	10	10
	Sweden		10	12	12	12	12
	Switzerland		14	16	20	19	17
	US		27	32	28	24	25
LA12	**Diversity and equal opportunity**						
	Composition of governance bodies						
	Board of Directors						
	Women in Board (percentage)		13%	13%	13%	13%	13%
	Age group diversity total (percentage)						
	<30 years old		0%	0%	0%	0%	0%
	30–50 years old		0%	0%	0%	0%	0%
	>50 years old		100%	100%	100%	100%	100%
	Number of nationalities total		8	7	7	7	7
	Executive Committee						
	Women in Executive Committee (percentage)		9%	9%	9%	8%	9%
	Age group diversity total (percentage)						
	<30 years old		0%	0%	0%	0%	0%
	30-50 years old		27%	36%	45%	25%	27%
	>50 years old		73%	64%	55%	75%	73%
	Number of nationalities total		8	8	8	8	8

Approach to sustainability reporting

Reporting boundaries

We aim to cover all ABB Group companies in our formal sustainability reporting system, including wholly owned subsidiaries and majority-owned joint ventures worldwide. In 2015, our environmental and social reporting did not cover SARPI – Société Algérienne pour la réalisation de projets industriels, Alger. A full list of direct and indirect subsidiaries is shown in our Annual Report 2015.

Changes in 2015

Entities acquired during 2014, the most significant of which was Spirit IT of the Netherlands, are now integrated into ABB's sustainability reporting system. Integration of companies acquired during 2015, including Striebel and John, CGM Group, gomtec GmbH and Viola Systems, is continuing. Data collection for environmental parameters, health and safety and corporate responsibility will be implemented during 2016.

Data collection processes

We use three online data reporting questionnaires to measure and collect performance data throughout the Group via the ABB intranet: an annual social report from every country; an annual environment report from every manufacturing and service site and the majority of office locations; a monthly health and safety report from every country, which consolidates inputs from all entities in the respective country.

Data in this report relating to social performance covers substantially all ABB employees, whereas data relating to environmental performance was sourced from more than 600 ABB sites and offices, covering approximately 95 percent of employees. The environmental performance of the remaining employees, located in non-manufacturing entities without significant impacts, is covered by estimated data for energy, water and waste parameters.

The estimation factors used for 2015 are as follows:

	Unit	Factor
Electricity consumption	MWh/employee	2.9
District heat consumption	MWh/employee	1.3
Gas consumption	MWh/employee	0.6
Water purchased from utilities	tons/employee	13.8
General waste sent for disposal	tons/employee	0.09
General waste sent for recycling	tons/employee	0.05

Calculation of energy and greenhouse gas data

In this report, we have used an updated methodology to account for greenhouse gas emissions (GHG). For purchased electricity and district heat, we have obtained local CO_2 emission factors from suppliers. Where those factors were not available, we have sourced factors from the IEA CO_2 Emissions from Fuel Combustion, 2013. Fuel emission factors are sourced from the GHG Protocol's Emission Factors from Cross Sector Tools (April 2014).

For purchased electricity and district heat, we have used local CO_2 emission factors for 2014 to calculate GHG emissions for both 2013 and 2014. Factors for 2015 were used to calculate the 2015 data using the updated methodology.

To enable comparison of the results, the table below shows 2013 and 2014 GHG data calculated according to the updated methodology and according to our previous methodology using global GHG emission factors.

	2013 (kilotons CO_2 equivalents)		2014 (kilotons CO_2 equivalents)	
	Old method	New method	Old method	New method
CO_2 from use of energy	179	180	169	169
District heat consumption	63	45	50	35
Electricity consumption	850	680	816	682

Additionally, in this report we have updated the factor used to convert SF_6 emissions to CO_2 equivalents. We have used 22,800 kg CO_2e/kg SF_6, as recommended by the UK Department of Energy & Climate Change in July 2014, and have applied that factor to SF_6 data reported for all years (2011 – 2015). In previous reports we have used 22,200 kg CO_2e/kg SF_6.

Assurance process

ABB believes in the importance of independent external assurance to enhance the credibility of our sustainability report. The independent assurance provider DNV GL has provided assurance of environmental and social performance indicators, as shown in the Summary of performance indicators table, and has reviewed key data and claims in the report and the data reported against our Sustainability Objectives 2014–2020. Their statement appears on page 58 of this report.

Global Reporting Initiative G4 application

ABB's sustainability performance reporting is guided by the Global Reporting Initiative's (GRI) G4 Guidelines. Accordingly, we use a materiality assessment to help us focus this report on those issues that are most important to our internal and external stakeholders. Omission from the material issues covered in our report does not mean that the issue is not managed by the company. The GRI content index for this report is available online.

UN Global Compact Communication on Progress for 2015

The company

ABB (www.abb.com) is a leader in power and automation technologies that enable utility, industry, and transport and infrastructure customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in roughly 100 countries and employs about 135,000 people.

Statement of support

Ulrich Spiesshofer, ABB Chief Executive Officer

"ABB was one of the founder members of the UN Global Compact, joining the organization in 2000, and we continue to work on embedding the 10 core principles into our business operations and company as a whole. ABB's sustainability objectives reflect these principles, covering environmental, human rights and labor issues, and integrity among other issues. As part of our ongoing commitment, we are involved in a number of focused initiatives within the Global Compact such as the Human Rights and Labor Working Group, as well as local networks."

Human rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights

- Human rights policy and public statement adopted by ABB Group in 2007. Statement updated in 2013.
- Further work to embed human rights into business decision-making processes, including risk review for projects. Human rights considerations integrated in supply chain questionnaire, the Supplier Code of Conduct, and the mergers and acquisitions process.
- Human rights considerations embedded in internal protocol for deciding where ABB should have business activities.
- Global human rights training continued in 2015. An awareness-raising program for senior managers has so far been delivered in 15 countries and will continue in 2016; the training is aimed at business managers, and key functions such as Supply Chain Management, Human Resources, Legal and Integrity, Communications and Sustainability.
- A capacity building program to raise human rights capability continued in 2015 with several courses focused on country sustainability specialists. A network of internal specialists was launched towards the end of 2014. An e-learning human rights module was launched in early 2015.
- Active participation in international meetings, organizations and workshops seeking to promote business awareness and respect for human rights.

Principle 2: Make sure they are not complicit in human rights abuses

- Human rights policy adopted in 2007 is designed to raise performance and avoid complicity.
- Global human rights training continued in ABB in 2015. The target group is as above in Principle 1. Central to all such trainings is the issue of potential complicity.
- Ongoing work to understand and limit ABB exposure to Conflict Minerals, as defined by section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.
- In-depth due diligence carried out on several proposed projects and business partners to avoid potential complicity.

Labor

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

- Embedded in Code of Conduct, Principle 1 of ABB Human Rights Policy and Principle 6 of ABB Social Policy. All countries were asked to formally report on this principle. No violations were reported in 2015.
- In countries where law does not permit this right, ABB facilitates regular consultation with employees to address areas of concern.

Principle 4: The elimination of all forms of forced and compulsory labor

- Covered by ABB Group Code of Conduct, Principle 1 of ABB Human Rights Policy and Principle 4 of ABB Social Policy. All countries were asked to formally report on this principle. No violations were reported in 2015.
- The principle of "no forced or compulsory labor" is included in ABB's Supplier Code of Conduct and a protocol for supplier audits.

Principle 5: The effective abolition of child labor

- Included in ABB Group Code of Conduct, Principle 1 of the ABB Human Rights Policy and Principle 3 of ABB Social Policy.
- All countries were asked to formally report on this principle. A total of 200 audits of suppliers were carried out in 2015, and no violations were reported.
- The principle of "no child labor" is included in ABB's Supplier Code of Conduct as well as a protocol for supplier audits.

Principle 6: Eliminate discrimination in respect of employment and occupation

- Contained in ABB Group Code of Conduct, Principle 1 of the ABB Human Rights Policy and Principle 7 of ABB Social Policy. All countries were asked to formally report on this principle. There were eight substantiated cases of harassment in 2015, resulting in five terminations, and a range of other measures, including formal warnings, counseling and further training.
- ABB also has country-specific procedures and programs to ensure that policies are fully observed and comply with national legislation.

Environment

Principle 7: Business should support a precautionary approach to environmental challenges

- Environmental considerations mandatory in the ABB GATE model for product and process development. Supporting tools and training materials have been developed to further improve application of checklist.
- Standardized Life Cycle Assessment procedures used to assess new products' environmental impact throughout their life cycle.
- Group-wide list of prohibited substances for products and processes is continually reviewed and updated. The phasing out of hazardous substances is part of ABB sustainability objectives.
- ABB continuing its internal energy efficiency program, with target to reduce energy use by 20 percent by 2020, and increase focus on resource efficiency (namely improve materials and water use, and reduce waste)
- Environmental experts at country and Group level provide environmental expertise, guidelines and tools to business units to ensure they meet upcoming environmental requirements and challenges, and customer demand for compliance and other environmental information.

Principle 8: Undertake initiatives to promote greater environmental responsibility

- Work with international organizations and initiatives, such as the World Business Council for Sustainable Development, German Climate Service Center, ISO and Chalmers University's Swedish Life Cycle Center.
- ABB has implemented a strengthened protocol for auditing of suppliers' environmental performance, auditing a further 200 suppliers during 2015.
- ABB's ongoing Access to Electricity rural electrification programs in India and Tanzania.

Principle 9: Encourage the development and diffusion of environmentally friendly technologies

- Covered by Code of Conduct and Principle 5 of ABB Environment Policy.
- Energy-efficient products and renewable energy equipment identified as key driver for ABB's business opportunities.
- Transfer of technologies and best practices between countries to ensure same level of environmental performance throughout Group.
- Group-wide list of prohibited substances for products and processes is continually reviewed and updated. The phasing out of hazardous substances is part of ABB sustainability objectives.
- ABB GATE model for product and process development contains defined steps for considering improvements in environment and safety performance. The health, safety and environment checklist for the GATE model was strengthened during 2014.

Anti-corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery

- Covered by ABB Group Code of Conduct, the ABB Supplier Code of Conduct, Principle 4 of ABB Human Rights Policy, and Principle 13 of Social Policy.
- Underpinned by zero tolerance policy on non-compliance.
- During 2015 ABB continued roll out of the global anti-bribery e-learning module launched during 2014 across ABB Group. The completion status at year-end was over 97 percent.
- ABB offers a number of different reporting channels, including a third party-held Business Ethics hotline available 24/7 where employees can report concerns confidentially.
- As part of the anti-corruption program, ABB continued to carry out several additional training and communication initiatives in 2015, focusing on company leadership and middle management, and including Code of Conduct and anti-bribery e-learning, integrity films and case studies published on the intranet, and proactive action such as anti-bribery compliance reviews of ABB units around the world.
- ABB was recognized as one of The World's Most Ethical Companies by the Ethisphere Institute in 2015. The NYSE Governance Services reviewed ABB's integrity program in 2014 and, as a result, ABB will once again be recognized with the Ethisphere Anti-corruption Program Verification and Compliance Leader Verification seals in 2015 and 2016.
- ABB is one of the founding members of Ethics and Compliance Switzerland (ECS; May 2014). ECS promotes the development of a compliance community across all sectors and organizations in Switzerland and the establishment and sharing of compliance best practices. It is the first NGO in Switzerland connecting private and public sector organizations and their officers and employees who share an interest in best practice on integrity and compliance management.