## Our business



### This is ABB Shaping a global leader in power and automation

As one of the world's leading manufacturers of power and automation technologies, we work to ensure reliable and efficient transmission and distribution of electricity and increased productivity in industrial, commercial and utility operations, at the same time as lowering our customers' environmental impact.

We necessarily work and interact with a wide range of business partners as part of our efforts to deliver sustainable profitable growth. Our approach to value creation is based on partnerships and exchanges – of goods, services, skills and information – which benefit both ABB and our industry, utility, infrastructure and transportation customers. This is sometimes described as creating shared value; it is mutually interdependent.

Our success is based on constant and innovative interaction: with our researchers who provide the backbone for technology leadership and enable us to serve our customers better; with our suppliers who commit to providing their services in an economical, high quality and on-time manner, using the materials and processes agreed with ABB; and with our employees and contractors who are responsible for developing and delivering the systems, products, solutions and services to our global customers. Our operating parameters are determined by partners such as governments, which provide the regulatory frameworks for our business, and investors, institutional and individual, who provide the lifeblood for our operations. We need to satisfy their demands to prosper.

Central to our ability to maintain technology leadership and create value – for ourselves and for society – is our ability to attract, develop and retain the right people in the right jobs. Our interaction with different parts of society helps us to attract the best employees and secure our standing in the communities where we operate.

These are some of the factors which help us to derive value from and create value for our customers, through whichever channel we serve them, and they underscore our daily efforts to create "Power and productivity for a better world."

### ABB value chain



In 2014, ABB laid the foundations to take the company to the next level, with a new strategy aimed at accelerating sustainable value creation to deliver attractive shareholder returns. To provide us with a systematic and robust approach for value creation, enhanced earnings per share and cash return on invested capital, ABB defined three focus areas: profitable growth, relentless execution and business-led collaboration.

### ABB vision

Our Next Level strategy is built around ABB's vision: "Power and productivity for a better world." This describes what we stand for: Power, because we are a leader in addressing power infrastructure and control needs for utilities, industry, and transport and infrastructure; and Productivity, because ABB is a leader in operational asset effectiveness – supporting our customers in achieving high uptime and speed while reducing waste.

"Better world" refers primarily to our value proposition to decouple economic growth from environmental impact. Based on our offerings and technologies, we are well positioned to enable growth with less relative energy consumption and make the energy supplied cleaner and more sustainable.

### Profitable growth

To achieve the next level, ABB is targeting profitable growth by shifting our center of gravity – through strengthening competitiveness, driving organic growth and lowering risk.

We are enhancing competitiveness in areas such as technology, service and software. We will expand our customer value proposition with new engineering and consulting services and advanced software-based services. Our offerings are also addressing the big shift in the electrical value chain – for instance with more efficient, long-distance power transmission and microgrids – and we are innovating to help our customers derive the benefits of the "internet of things, services and people."

ABB's strong global presence means we are well positioned to access high-growth segments, where we are driving momentum by selling more of our existing offering to customers, developing innovative new offers and value propositions, and expanding into additional, high growth segments.

Alongside our focus on organic growth, we are also reducing intrinsic business risks by, for example, aligning business models more closely with our core competencies.

We are complementing our focus on organic growth by targeting incremental strategic acquisitions that contribute value in line with the new strategy. We are also extending partnerships with other leading global companies.

### Relentless execution and business-led collaboration

Our second strategic focus area is execution. We have been successful in our programs to reduce costs and improve customer service. We intend to broaden those efforts by developing a leading operating model across ABB, starting with the areas of white-collar productivity, net working capital management and quality.

Our third focus area is aimed at simplifying how the organization works together and at achieving a more market focused organization. We have introduced undiluted and clear business-line responsibility as the core of ABB, along with strengthened cross-business collaboration.

### Big shifts in power and automation

ABB's future business prospects are promising, thanks to the big shifts taking place in the electricity value chain and industrial automation. The rise of the emerging economies is also a tremendous opportunity; in Africa and India alone, nearly one billion people are waiting for access to electricity.

Electricity supply is undergoing seismic changes as the power generation mix shifts towards renewables and more feed-in nodes increase the complexity of the grid. By 2035, renewables are expected to account for 40 percent of new power generation, meaning electricity will have to be transported over longer distances and at higher voltages. Renewables are also making stand-alone grids possible for remote, off-grid communities and innovations in power storage technology promise to dramatically expand the application of these micro-grids.

Thanks to the internet, the world is on the cusp of a new revolution in digital technology. The next step will be the optimization of industry: from a central control center and using algorithmic reasoning, we will be able to help our customers get more out of their devices and maximize the performance of their plants and machinery. A new era in industrial automation is just around the corner.

In terms of markets, emerging economies are expected to account for two-thirds of global GDP growth in the next five years. We can expect demand for electricity to soar as incomes rise and economic development advances.

The long-term demand outlook in our three major customer sectors – utilities, industry, and transport and infrastructure – remains clearly positive. We are well-positioned to tap these opportunities for long-term profitable growth, with our strong market presence, broad geographic and business scope, technology leadership and financial strength. ABB technologies contribute to the development of a cleaner, more reliable and efficient power supply. Our high-voltage transmission systems help transport power and connect transmission grids over land, underground and even under the sea.

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## Well positioned in attractive markets

ABB is a leading provider of power and automation technologies for power utilities, industrial enterprises, and transport and infrastructure customers. They are attractive sectors – the market served by ABB is forecast to grow from about \$600 billion in 2014 to \$750 billion in 2020.

### Utilities

ABB serves utilities and industrial and commercial customers with products, systems and services for the generation, transmission and distribution of electricity. Turnkey solutions include power plant electrics and automation, bulk power transmission, substations and network management.

The product offering across voltage levels includes circuit breakers, switchgear, capacitors, instrument transformers, power, distribution and traction transformers, and a complete range of medium-voltage products. With a 130-year heritage of technology and innovation and a presence in more than 100 countries, ABB continues to shape the grid of the future, by facilitating power capacity, enhancing reliability, improving energy efficiency and lowering environmental impact.

### Power generation

ABB provides integrated power and automation solutions for all types of power generation plants, including coal, gas, combined-cycle, nuclear, waste-to-energy and a range of renewables including solar, wind and biomass. ABB technologies help optimize performance, improve reliability, enhance efficiency and minimize emissions throughout the plant life cycle.

### Power transmission

ABB's comprehensive offering includes both AC and DC products, systems and services, which help customers maximize efficiency, reduce transmission losses, and improve grid reliability. Sixty years ago, ABB pioneered high-voltage direct current (HVDC) transmission, an essential technology in the efficient transportation of large amounts of power over long distances with minimal losses. Our high-voltage technologies, such as switchgear and transformers up to 1,200 kilovolts (kV), help transport power and connect transmission grids over land, underground and even under the sea.

In 2014, ABB launched the world's most powerful submersible power transmission cable system, a 525-kV extruded HVDC cable that doubles power flow and extends range significantly, enabling greater integration of distant renewable energy sources into the grid and improving grid interconnections. ABB's substation offering includes flexible alternating current transmission systems (FACTS) technologies that help improve power quality and can significantly increase the capacity of existing AC transmission systems – by as much as 50 percent. FACTS solutions can also be used for the safe integration of intermittent power sources, such as wind and solar, into the grid.

### **Power distribution**

ABB's distribution offering includes a complete range of medium-voltage products as well as network management and utility communications solutions to monitor, control, operate and protect power systems. These solutions are designed to manage power networks intelligently, ensure the reliability of electricity supplies and enable real time management of transmission grids and distribution networks. The portfolio also includes supervisory control and data acquisition (SCADA) systems, and enterprise software solutions that facilitate the convergence of operational and information technologies.

### Industry

ABB technologies are key enablers of industrial productivity, increasing the output, quality, variety and affordability of goods, and helping to raise living standards around the world. They power manufacturing and processing plants, monitor and manage the processes to maximize efficiency, ensure people, process and product safety, and drive key equipment.

Energy efficiency and productivity are the hallmarks of ABB's offerings for industry. Our energy efficient products, systems and services reduce consumption and therefore electricity bills and carbon emissions, while our automation systems increase productivity, quality and efficiency, and keep work-places safe.

### Productivity

Thanks to its long history of developing automation solutions for industry, ABB is today the global leader in distributed control systems, with more than 20 percent market share\*. Our systems measure, analyze, diagnose, and provide full control of industrial plants in industries from chemicals, pulp and paper, mining, minerals processing (e.g., cement making), to pharmaceuticals and food and beverage.

### **Energy efficient**

Complementing our portfolio of control systems are our energy efficient motors and drives, where we are also global



### **Redefining robotics**

As the company that pioneered the world's first electrically powered industrial robot in 1974, ABB supplies robots for industries as diverse as automotive, packaging and palletizing, and consumer electronics. Now we are again redefining robotics with YuMi, an innovative dual-arm collaborative robot. YuMi is designed for a new era of automation; for example, in small parts assembly, where people and robots safely work alongside each other on the same tasks.

### Service

Tying together ABB's portfolio of automated systems is our comprehensive range of service offerings. Our life-cycle services ensure the health, reliability and continual evolution of installed equipment, while our experts can be called on to help customers reduce energy consumption and improve process efficiency and reliability. ABB also offers a host of remote monitoring and predictive maintenance services that can alert and dispatch service experts to resolve potential issues before a shutdown occurs.

\* According to leading technology research and advisory firm ARC Advisory Group



ABB's industrial motors drive key equipment, and frequency converters deliver precise and dependable motor control while helping to reduce energy consumption.



ABB provides systems and solutions for the automation and electrification of industrial processes across industries as diverse as oil and gas (pictured), pulp and paper, metals, minerals and mining, chemical and marine.

ABB automation systems increase productivity, improve energy efficiency and keep workplaces safe. Our PLC (programmable logic control) systems reduce production costs with better scheduling, execution and management of industrial processes, and improve customer service and product quality. ABB's building automation systems allow full control of electrical systems, from blinds and lighting to heating, ventilation and air conditioning. When combined with ABB's efficient motors and drives, energy savings can be dramatic.

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### Transport and infrastructure

Alongside its offerings for utilities and industry, ABB plays an important role in providing technology for sustainable marine, rail and vehicle transport, and in powering the world's cities and improving the urban environment.

Our expertise in power and automation has given us the edge when it comes to providing clean and reliable power solutions for transport networks and infrastructure.

### **Emission-free transport**

ABB's electric traction systems for trains and high-speed locomotives support the construction of clean, safe railway networks, linking urban centers and districts. Our wayside energy management systems can reduce overall power consumption by 10–30 percent through recuperating energy normally lost when a train brakes.

As the market and technology leader in electric-vehicle charging, we provide fast-charging infrastructure for electric vehicles and battery-powered buses, cutting carbon emissions and providing real alternatives to gasolinepowered cars.

### Power and propulsion systems for ships

ABB technologies extend to electrical power and propulsion systems for ships, dramatically reducing marine emissions, while our turbochargers improve gas and diesel engine performance while lowering fuel consumption and nitrogen oxide (NOx) emissions. We also supply fast, cost-effective crane systems for loading and unloading vessels in port.

### Intelligent building systems

In buildings, which account for about 40 percent of total energy consumption, ABB's intelligent automation systems enable control of all electrical systems, including blinds, lighting, heating, air conditioning and ventilation, helping cut power consumption and reduce energy bills. Installing systems powered by ABB's energy efficient motors and drives (see page 14) can further cut power consumption by half, and in extreme cases by up to 90 percent.

#### **Power supply**

Our compact substations are designed to fit into built-up areas and can easily be installed underground, and their automated control systems mean they can be remotely monitored and left to run themselves. ABB's power equipment ensures the safe, efficient and reliable distribution of electricity throughout cities and large buildings.



ABB has a long history of providing innovative and energy-efficient technologies to the rail sector, both for rail infrastructure and rolling stock.



ABB also provides life-cycle service support including maintenance and retrofits for its large, global installed base.

### Products and services Creating value through innovation and partnerships

ABB has identified several key drivers and growth opportunities for our business. These include mitigation of climate change, the shift towards more renewables and increasing complexity of the electrical grid, the rise of emerging economies and their need for electrification, and the increasing digitalization and automation of industry.

ABB has a long heritage of technological innovation in renewable energy, efficient use of energy and sustainable transport. We are working to broaden the impact of clean technologies so that we can help our customers grow, while saving energy and resources, and lowering environmental impact.

Innovation is one of the pillars of ABB's Next Level growth strategy, hence research and development (R&D) is a critical strategic resource for the Group. To support our R&D effort, we maintain seven corporate research centers, employ some 8,500 researchers and developers in more than 30 countries and collaborate with more than 70 universities across the world. ABB's R&D investments in 2014 totaled \$1.5 billion, representing 3.8 percent of revenues.

These investments bring results. In 2014, ABB filed more patent applications in Europe than any other Swiss-based company, which reflects our efforts to serve the market with innovative products and solutions. This was reinforced in 2014 when ABB was awarded the Zayed Future Energy Prize as well as Thomson Reuters recognizing ABB as one of the world's top innovators for a third year.

Alongside our Next Level growth strategy, we are also committed to increase our revenue from energy efficiency-related products, systems and services by 20 percent by 2020. In 2014, 51 percent of our revenues were already related to products and services in our energy efficiency portfolio. In the coming year, we will work to expand the scope of this portfolio, further formalizing processes and definitions for the methodology, and investigating ways to assess the portfolio's contribution to the environment, the economy and society.

### Pushing the boundaries of technology and innovation

In 2014, we took further important steps to strengthen our future growth. We unveiled groundbreaking new technologies, expanded our global presence with new manufacturing facilities and sales and service capabilities in high-growth markets, and forged partnerships with other leading global companies to increase value for our customers and enhance growth momentum as part of our new strategy.

On the innovation side, we launched the world's most powerful submersible power transmission cable system. Our new 525-kilovolt (kV) extruded high-voltage direct current (HVDC)

cable doubles power flow and extends range, enabling greater integration of distant renewable energy sources into the grid and improving intergrid connections.

ABB pioneered HVDC technology over 60 years ago and to this day continues to develop this technology. As an additional demonstration of ABB's innovation in this area, HVDC Light<sup>®</sup> was launched in 1990. This voltage-source converter (VSC) technology improves the flexibility and controllability of HVDC transmission to allow for the connection of weak grids prone to stability issues with stronger grids.

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# 445 TWh of electric power saved by our variable speed drives

In 2014, ABB set a new record in transmission voltage using HVDC Light when we commissioned the 500 kV Skagerrak 4 link between Norway and Denmark. The link increases the availability of renewable hydroelectric and wind power in the region's electricity grid. In future, use of 500 kV VSC opens up new possibilities, especially when combined with our new extruded 525 kV HVDC cable.

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ABB achieved a significant breakthrough in switchgear technology with the development of a solution that deploys a new insulation gas medium as a substitute for sulfur hexafluoride (SF<sub>6</sub>). This alternate gas mixture has similar insulation properties to SF<sub>6</sub> now used in gas-insulated switchgear, but with substantially lower environmental impact due to its much-reduced global warming potential. The new technology will be deployed for the first time at a substation located in Zurich, Switzerland, as a pilot installation for the leading Swiss utility ewz.

Another groundbreaking innovation is our YuMi<sup>®</sup> robot, a new dual-armed industrial robot that uses innovative force-sensing technology to work safely alongside people for small-parts assembly. YuMi has been developed in the first instance to meet the flexible and agile production needs of the consumer electronics industry and will increasingly be rolled out to cover other market sectors.

Serving the mining sector, our "mining integrated distributed automation system" (MIDAS) is an application giving plant operators better information about the state of their electrical systems, allowing them to remotely control and correct identified problems. This remote substation monitoring allows the plant operators to solve problems safely at a distance from the electrical substation in the mine, thus reducing the time for electrical fault diagnosis and problem solving. Also in 2014, we announced a \$300 million R&D and production hub in China for power and low-voltage products. We also extended our network of sales and service operations in China, targeting faster-growing cities in the country's interior. In Brazil, we opened a production site as part of a \$200 million expansion plan to further extend our offering of locally produced products.

### Collaboration for a better world

ABB is actively driving our technology development through our own research and by working with leading institutions such as the Federal Institute of Technology in Zurich (ETH), with business partners, and with multi-stakeholder programs such as the United Nations Sustainable Energy for All (SE4ALL) initiative.

Our investments in research initiatives, fellowships and strategic partnerships with over 70 universities and research institutions around the world continue to enhance the ABB portfolio and lead to international and cross-industrial cooperation in almost every ABB business. For example, in 2014 ABB in Switzerland contributed five million Swiss Francs to the ETH Zurich Foundation, creating a professorship to support the development of high-performance power semiconductors to improve the efficiency of power conversion systems and energy transmission over long distances. In China, ABB has established an annual, nationwide university innovation contest to cultivate talent and promote technological innovation.

We announced several innovative business partnerships in 2014, focused on increasing customer value and reducing environmental impacts. A strategic collaboration with BYD Co. Ltd., aims at joint development of new solutions for energy storage. ABB's products and technology for grid storage, electric vehicle charging and integrated marine systems, combined with BYD's knowledge in battery technology, will accelerate new solutions for electric vehicle charging, the fast ramp-up of renewables combined with energy storage in off-grid and ongrid solutions, as well as battery and energy storage solutions for the fast growing marine segment.

ABB is also partnering with Volvo Buses to co-develop and commercialize electric and hybrid buses with open standards-based direct current fast charging systems. This approach enables maximum reuse of existing e-mobility technologies, thereby assuring rapid deployment of urban e-mobility. The first joint project for Luxembourg's public transportation system is planned for 2015.

In Japan, ABB and Hitachi have agreed to form a joint venture for HVDC system solutions. The new entity will be responsible for the design, engineering, supply and after-sales services related to the DC system of HVDC projects, bringing ABB's latest technologies to the Japanese market where Hitachi will be the prime contractor. With the increasing introduction of renewable energy and innovation in electric power systems, demand for these systems is expected to increase for applications such as wide-area power transmission and connection of offshore wind farms.

In the automation area, Philips will combine its LED lighting expertise with ABB's building automation technologies and know-how to simplify the integration of connected lighting systems and building device control for commercial buildings. Lighting, heating, ventilation and air conditioning constitute 70 percent of the energy consumption in commercial buildings and the introduction of building device control along with efficient lighting technology can significantly improve energy efficiency.

ABB's commitment to the UN's SE4ALL initiative also focuses on promoting energy efficiency. We will support the Global Efficient Appliances and Equipment Partnership Programme, offering our technical expertise on energy efficient motors and transformers. The initiative aims to assist developing countries and emerging economies to devise policies that accelerate energy savings.

### Investing in technology leadership

Additional key components of ABB's innovation strategy are investments around inorganic growth (mergers and acquisitions) and venture capital investment. ABB has executed more than \$10 billion of strategic acquisitions since 2010, expanding our portfolio in efficient motors, solar inverters, measurement products, building automation and other areas.

Our corporate venture capital unit, ABB Technology Ventures, makes early- and growth-stage investments in novel companies introducing new technologies or improvements to existing technologies. In 2014, we made key investments in Persimmon Technologies, to help develop its 3D deposition technology for motor component manufacturing, and in the artificial intelligence research company, Vicarious.

ABB's investments, along with recognition by Thomson Reuters and other innovation awards, reaffirm our commitment to innovation and the future success of ABB and our customers. Together, we are pushing the boundaries of technology and innovation to decouple economic growth from energy consumption and environmental impact, and to achieve a better world.

Examples of achievements and innovations announced in 2014 are shown on the following pages.

### Achievements and innovations in 2014









### An eco-efficient switchgear insulation gas

A new gas mixture developed by ABB can replace sulfur hexafluoride (SF<sub>6</sub>) in high-voltage switchgear, significantly reducing the risk of greenhouse gas emissions. For decades, SF<sub>6</sub> gas has been used extensively in the electrical industry for its superior insulation properties, which make it possible to reduce the size of switchgear installations and enable installation in areas where space is at a premium. The new gas mixture with its lower global warming potential can reduce  $CO_2$  equivalent emissions by up to 50 percent through the equipment lifecycle, paving the way for more eco-efficient switchgear in the years ahead.

#### Most powerful submersible power transmission cable

ABB has successfully developed and tested a 525 kilovolt extruded high-voltage direct current cable system to make renewable energy installations more efficient and cost-effective. This innovation will more than double the power capacity and expand the cable's reach to distances of up to 1,500 kilometers, while keeping transmission losses under 5 percent. The new technology offers savings in capital and operational costs which will, in turn, improve the feasibility of some renewable energy projects. The cable system can be deployed in subsea and underground applications, making it ideal for efficient power delivery through densely populated or environmentally sensitive areas.

### ABB wins Zayed Future energy Prize 2014

ABB was awarded the Zayed Future Energy Prize 2014 in recognition of our efforts to drive innovation, renewable energy and energy efficiency. The award, in the category "Large Corporations", was based on achievements that reflect impact, innovation, long-term vision and leadership in renewable energy and sustainability. The Zayed Future Energy Prize was launched in 2008 and was named in honor of the late Sheikh Zayed bin Sultan al Nahyan, who was a founder of the UAE, ruler of Abu Dhabi, and the UAE's first president from 1971 until his death in 2004.

### ABB technology keeps the lights on in La Gomera

ABB's PowerStoreTM system is employed on the Canary Island of La Gomera, where load fluctuations and variable supply from renewables have posed ongoing challenges. These rapid power fluctuations can dramatically affect system stability and lead to outages or equipment damage. PowerStore's inverter-based technology combined with flywheel storage capability can instantly stabilize the microgrid by very rapidly absorbing power surges from the wind turbines or by supplying power to make up for short-term lulls. This gives the island's 22,000 inhabitants a more stable, reliable and uninterrupted supply of clean electricity.

### "YuMi" heralds new era of human-robot collaboration

ABB has unveiled the world's first truly collaborative robot: YuMi<sup>®</sup>. An innovative, people-friendly dual arm robot with breakthrough functionality, YuMi will unlock vast additional automation potential in industry. The robot's soft, padded dual arms, and innovative force-sensing technology ensure the safety of YuMi's human coworkers so that it can work cage-free. Capable of handling everything from the delicate and precise parts of a mechanical wristwatch to the components used in mobile phones and computers, the robot is designed for a new era of automation, where people and robots work hand-in-hand on the same tasks.

### SmartVentilation in mines

ABB's SmartVentilation is a complete solution to the challenge of providing fresh air and venting toxic gases from subterranean mines. The modular system can be fully integrated into ABB's 800xA control system to regulate the operation of the mine's intake and exhaust fans. This provides operators, engineers and mine managers with an easy way to supervise and control the ventilation system, either from a central location or using mobile devices. The solution also minimizes energy use by ventilating only those areas of a mine that require it, reducing an operator's electricity bill by up to half.

### Taking analyzers aloft to measure gas emissions

A research aircraft outfitted with a Fast Methane Analyzer from ABB's Los Gatos Research is clarifying the pattern of Switzerland's methane emissions. The nation's agriculture sector is responsible for 80 percent of Swiss emissions of this potent greenhouse gas and the country aims to reduce them, for example by experimenting with different dairy feed. Using ABB's airborne analyzer, scientists can measure emission rates from a broader area, more quickly and comprehensively than relying on conventional flask samples collected on the ground. These high resolution data now enable more accurate tracking of experimental trials.

### Controlling the home at the touch of a button

ABB's free@home<sup>®</sup> system provides full control of all electrical systems, from blinds to lighting, heating, air-conditioning and door communication via a switch, smartphone or tablet. An easy to install, simple interface makes home automation a reality for many households and a business opportunity for many installers. The solution provides on-site or remote control for improved comfort, energy efficiency and security, and reduced costs.









### Governance and material issues Committed to high standards of integrity

At ABB, performance is measured not only by the results achieved, but also how these results were achieved. A culture of integrity is a prerequisite for a world-class business and ABB's strength and future success depend on our reputation as a trusted and reliable business partner.

ABB's Next Level strategy reinforces the importance of integrity as a core value of our organization. We remain firmly committed to our integrity program and the activities to support global communication of the integrity message. Worldwide, ABB operates in over 100 countries, with around 140,000 employees. Managing the complexity of our risk profile requires a dedicated staff and a robust program. Our integrity program is fundamental within the company, and is based on three pillars: Prevention, Detection and Resolution.

### Prevention

ABB's integrity program is based on a clear set of values and unequivocal tone from the top. Commitment to these values is fostered by strong communication from top leadership throughout the organization – not only to our employees but also to our business partners. Our clear position on issues such as improper payments, gifts, entertainment, and expenses, and managing third parties is visible and clear to external parties and sets the right tone from the outset of any negotiation. Our values and expectations are expressed in a publicly available <u>Code of Conduct</u> and a <u>Supplier Code of Conduct</u>, as well as policies and standards.

Training and communications are key to ensuring ABB's values are received and understood, and this requires constant innovation and follow up. Policies cannot be effective without a commitment from employees to embed rules and standards into every aspect of their work. This can only be achieved through strong messaging that is engaging and practical.

Upon joining the company, every ABB employee must complete two online eLearning programs and one face-to-face training on the ABB Code of Conduct including anti-bribery. In addition, employees in sensitive roles receive specialized online and face-to-face trainings for specific risk areas, for example antitrust. In 2014, over 94,000 employees (nearly 93 percent of all employees with an e-mail address) completed the Global Anti-bribery: Don't Look the Other Way online training. These messages are then supplemented on at least a bi-annual basis through new e-learning modules, face-to-face training initiatives, and other integrity initiatives such as "Integrity on the LBU (Local Business Unit) Agenda," and integrity modules in inhouse learning and development programs. Our training efforts are refined over time, according to feedback on risks identified globally and locally. In 2013, we conducted an in-depth Integrity Culture and Risk Survey to understand the success of the integrity program. With responses from over 24,000 participants globally, we have been able to adapt and target the training to specific risk areas identified for ABB employees. Throughout 2014, Country Integrity Officers provided local specialized training and communications on risk-based subjects identified in the survey, including but not limited to respect in the workplace, working with third parties, and self-enrichment/misuse of company resources.

### WEB

During 2014 we also worked hard to deliver our integrity message in new, positive and collaborative ways. This updated communication and engagement strategy built upon our past successes using cases of consequence and blog posts, but also used new platforms and leveraged the changing IT landscape to attract more attention to our integrity message.

### Detection

While prevention is important to minimize the incidents of misconduct, we nonetheless need a robust system in place to detect ongoing misconduct. ABB's internal audit team carries out anti-bribery compliance reviews of business units and countries globally, and conducts an annual risk assessment as the basis for its audit planning for the following year. In these reviews, ABB's internal auditors review business processes, accounts and balances, and test transactions to assess the robustness of controls and identify possible violations of ABB's anti-bribery procedures.

Our detection efforts are supported by the availability of multiple reporting channels, including line managers, Human Resources, representatives of the Legal and Integrity function, the Chief Integrity Officer, the Integrity Office at headquarters, the Business Ethics Hotline, or the local ombudsperson. ABB employees are encouraged to use one of the reporting channels whenever they suspect misconduct and whistleblowers are promised protection from any retaliation. The multiple reporting channels are advertised through a hotline poster campaign, this year created using integrity dilemma cartoons, and rolled out worldwide in multiple languages. A stakeholder hotline is available to our external business partners, with details of our reporting channels available on our website.



# 94,000+ employees trained on anti-bribery principles in 2014

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### Resolution

All allegations are investigated. The Office of Special Investigations (OSI), part of our Legal and Integrity team, is responsible for conducting internal investigations and consists of 18 professionals located in four different regions globally. Cases that are handled by OSI or by Country Integrity Officers are brought to closure through investigation and remediation, resulting in disciplinary action where appropriate. There is a strict zero tolerance policy for violations of the law or the ABB Code of Conduct.

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Cases that are substantiated are often used in our integrity communications activities as a learning experience for the business and for employees, to illustrate our Code of Conduct in action and to demonstrate the consequences of violations.

### Engagement and external recognition

ABB's integrity program has been benchmarked and recognized externally. In 2013, we received the Ethisphere Compliance Leader Verification and Anti-Corruption Program Verification seals based on a review of our integrity program by NYSE Governance Services; we were also recognized as one of the World's Most Ethical Companies. This was followed in 2014 with a second World's Most Ethical Companies award.

ABB also supports international efforts at collective action and projects aimed at promoting integrity in the industries where we work and in the public sector. To that end, we are a founding member of the Partnering Against Corruption Initiative, with support from the World Economic Forum. We also became a founding member in 2014 of Ethics and Compliance Switzerland, a professional society whose goals are to promote ethics and integrity in both private and public organizations, as well as to promote sustainable best practices in compliance. This enables ABB to develop and contribute to the overall development of systematic values and integrity in various organizations throughout Switzerland and abroad.

### Sustainability governance

Sustainability principles and considerations are embedded in ABB's business strategy and guide what we manufacture, how we operate the company and the way we behave towards stakeholders.

ETHISPHERE 2014

ANTI-CORRUPTION

PRUGRAM VERIFICATION

Our sustainability strategy is aligned with corporate strategy and is supported by objectives that address ABB's activities and impacts along the value chain. Progress towards our objectives is driven through all levels of the business, from Executive Committee endorsement, through operational review and target setting in business units and countries to local training and execution at sites, supported by sustainability specialists at Group, country and local level. We rely on every employee to take responsibility to help us achieve our goal: A better world.

Our Sustainability Board, comprising the ABB Executive Committee, oversees sustainability policies and programs, reviews developments and monitors progress towards our targets on an annual basis.

The ABB Sustainability Affairs organization is responsible for the development and coordination of policies and programs covering health and safety, environment, corporate responsibility and security and crisis management. Sustainability Affairs reports directly to Executive Committee member Jean-Christophe Deslarzes.

A network of sustainability specialists worldwide reports to and supports the Sustainability Affairs management team. In countries where ABB entities have or could have significant sustainability impacts, we have appointed country sustainability controllers, country health and safety advisors and country security managers responsible for ABB's sustainability management program and for gathering the data consolidated in this report. All regions where ABB operates have region health and safety advisors and corporate security managers.

The country and regional specialists are supported by local sustainability officers and health and safety advisors. Overall, the sustainability network is supported by a team of some 950 employees, full-time and part-time, at headquarters and around the world.



Sustainability policies, principles and external initiatives We have implemented environmental, social, human rights, and health and safety policies and a Supplier Code of Conduct. These policies include references to the international standards to which they relate.

As a founder member of the United Nations Global Compact, ABB has been closely involved in its development. ABB's understanding of human rights and day-to-day business benefits from involvement in such organizations. We have also taken note of the UN Guiding Principles on Business and Human Rights and use its recommendations to assess expectations of corporate behavior.

# 375+ locations certified to ISO 14001 and OHSAS 18001

ABB has adopted ISO 14001 for environmental management systems; ISO/TR 14025 for Environmental Product Declarations; ISO 14040–45 for Life Cycle Assessments; and ISO 19011 for environmental auditing of organizations. We have incorporated the principles of OHSAS 18001, the International Labour Organization (ILO) guidelines on occupational health and safety management systems, and the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases into our health and safety program.

All ABB facilities are encouraged to implement management systems for environmental, health and safety and quality issues, while manufacturing and service locations are required to implement such systems. Globally, we have achieved external certification for environmental management systems at 390 sites and offices and for health and safety management systems at 378 locations.

### Approach to sustainability reporting

We aim to cover all ABB Group companies in our formal sustainability reporting system, including wholly owned subsidiaries and majority-owned joint ventures worldwide that might have significant sustainability impacts. Power-One, and other entities acquired during 2013, are now integrated into this system. Integration of companies acquired during 2014 is continuing and data collection for environmental parameters, health and safety and corporate responsibility will be implemented during 2015.

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 site and a monthly health and safety report from every country which consolidates inputs from all entities in the respective country. Further details on scope and approach can be found in the Performance Summary section of this report.

### Activities in 2014

During the year, the ABB Sustainability Board reviewed the Group sustainability strategy and objectives and confirmed the proposed 2015 focus activities and performance metrics. The Board agreed to include the safety metric 'hazard reporting' in the Group-wide 'Relentless Execution' dashboard – a panel of business-related metrics that will be reported regularly by all businesses in 2015. This is the first time a sustainabilityrelated metric has been included in a set of Group metrics.

The Sustainability Affairs organization was strengthened in order to focus activity on the constituent areas of Health, Safety and Environment, and to reflect the importance attached by the CEO and Executive Committee to safety improvement. Leaders have been appointed to drive Group activities in these three areas, working with our businesses and with the respective sustainability networks on improvement projects and initiatives, and reporting to the head of Sustainability Affairs.

As part of our continuing work to strengthen the capability of our sustainability network, more than 80 of the top sustainability leaders in ABB undertook 360 degree assessments during 2014. Results were shared with each participant during a one hour session with a 360 degree feedback coach, who assisted with analysis of results and identification of suitable development activities. Consolidated results are also being reviewed at Group level to identify any common development requirements.

To ensure that we have the right sustainability resources and structures in place to support our businesses with implementation of the Next Level strategy, we have kicked off a comprehensive workforce mapping and skills inventory. The results, available in the first half of 2015, will guide development programs and allocation of resources at different levels in our businesses.

### Material issues

We have undertaken considerable work in recent years to understand what internal and external stakeholders expect of ABB's sustainability performance and where we should focus our strategy and improvement goals. We regularly review and evaluate these material issues to determine if they remain consistent and relevant, and if there are any new and emerging issues we need to address. In 2011, we conducted a materiality assessment with input from nearly 600 people, including senior ABB executives and employees from all parts of the business, customers, and external stakeholders specialized in key sustainability areas. We also mapped regulatory risks and macro trends, and benchmarked against peer companies to help us establish a comprehensive sustainability issues landscape. The resulting materiality matrix then shaped the development of our sustainability strategy during 2011.

We undertook a further review with our stakeholders during 2013 to update our assessment of material aspects and to seek their views on how best to report on our sustainability strategy, performance and progress. The results from interviews with ABB employees, investors, customers and external sustainability experts, in the main, confirmed the conclusions from our 2011 consultation and helped us to shape our Sustainability Objectives 2014–2020.

In 2014, we consulted our stakeholders again: to gauge their views on the newly-released sustainability objectives and the 2013 matrix, and how we report on our sustainability performance. We also sought to assess any changes in their evaluation of ABB's material issues following the release of ABB's Next Level strategy.

This consultation focused solely on external stakeholders, as leaders from ABB's business, countries and functions were extensively involved in the development of the Group Sustainability Objectives and the new business strategy.

A third party conducted 29 interviews with representatives across our key constituencies: Customers, suppliers, investors, civil society, including NGOs, international organizations, sustainability experts and young people. Around 40 percent of participants had been involved in previous consultations.

Overall, stakeholders found that the 2013 matrix provided a good snapshot of relevant issues for ABB, although a number of stakeholders requested better definition of the specifics considered within each issue.

### Feedback from stakeholders

Eight of the material issues were considered by some stakeholders as more important – developing our people, waste and recycling, hazardous substances, innovation, human rights, working in the community, water, and health, safety and security – whereas only governance was considered slightly less important. Stakeholder views differed on the placement of three specific issues – stakeholder relations, energy efficiency and risk management.

Stakeholders expressed diverse views about new or missing issues, with some topics already encompassed in the existing material issue categories. However, there was insufficient support on any new single issue to justify its addition to the matrix.

We have updated our materiality matrix accordingly. Ratings of various issues have been adjusted in line with the feedback outlined above. We have also harmonized the terms used in the matrix with the language of our sustainability objectives to increase understanding and have developed <u>definitions</u> of the material issues. However, we have kept the internal and external constituencies of "People and society" separate to ensure a better focus on actions and outcomes. Other key changes are:

- "Water" and "Waste and recycling" now combined under "Resource efficiency"
- "Stakeholder relations" and "Working in the community" now combined under "Stakeholder engagement"
- "Risk management" removed from the matrix in response to commentary from stakeholders that the relevant risk – and opportunity – should be dealt with within each issue category

Regarding ABB's Sustainability Objectives 2014–2020, stakeholders considered our 2020 ambitions highly relevant, reflecting the key issues on which the Group should focus. Products and services was clearly identified as the most important objective. However, stakeholders also told us that we have further work to do to ensure the KPIs and targets underpinning the objectives match our ambition levels. We acknowledge this point and, as noted throughout this report, we continue to develop the KPIs, targets and underlying programs to achieve our objectives.

Stakeholders also wanted to understand ABB's contribution to broader societal goals and emphasized the importance of responsibility and collaboration along the value chain.

These stakeholder views are helping us to further shape the targets underpinning our Sustainability Objectives 2014–2020 and have helped to determine the structure and content of this report. We will continue to review these issues with our stakeholders at regular intervals and will use this input to inform our improvement goals and reporting activities.



Relevance to stakeholders

Energy efficiency Supply chain Governance Stakeholder relations High Health, safety & security Human rights Innovation Waste and recycling **Risk management** Working in the community Medium Developing our people Water Hazardous substances Medium High Impact on ABB

### 2014 materiality matrix

