Working for a sustainable world

ABB in Finland 2016
ABB 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, of whom around 5,100 in Finland.

ABB’s solutions and applications are used in many fields deeply integrated in our everyday life. ABB technologies are used in homes, facilities, factories, power plants, trains, ships and even at the bottom of the sea.

ABB leads the way in smart grids: reliable distribution of electricity, energy efficiency and energy production based on renewable energy sources are the very core of our expertise.

Our industrial solutions and applications improve the efficiency, quality and safety of the customers’ processes – and save energy. We also offer service for supporting the efficiency of the customer’s production equipment throughout its service life.

The greatest challenges of the future lie in climate change and the increased dependence on electricity. We cannot provide all the answers alone, but our products and solutions play a major role in coping with these challenges now and in the future. This brochure introduces you to ABB’s solution offering and operations in Finland.

Tauno Heinola
Country Manager
ABB Oy
In 2015, the power saved by our drives cut global carbon dioxide emissions by about 410 million tons.

Our building automation technology (KNX) cuts up to 30% from the energy consumption of homes and facilities.

Our network management solutions keep electricity moving all around the world. We offer the right equipment for high quality power transmission and distribution even in extreme weather conditions.

For wind power, our induction and synchronous generators lower carbon dioxide emissions and help save the environment even more.

ABB has continued successfully in Strömberg’s footsteps since 1889.

ABB Finland in figures

Revenues
2,2 € billion

138 € million in research and development
ABB products, systems and services guarantee reliable power transmission and distribution from production to end customers

Discrete Automation and Motion
The Discrete Automation and Motion division provides products, solutions and related services that increase industrial productivity and energy efficiency. Its motors, generators, drives, power electronics and robotics provide power, motion and control for a wide range of automation applications. The leading position in wind generators and a growing offering in solar complement the industrial focus, leveraging joint technology, channels and operations platforms.

Process Automation
The main focus of this ABB business is to provide customers with products and solutions for instrumentation, automation and optimization of industrial processes. The industries served include oil and gas, power, chemicals and pharmaceuticals, pulp and paper, metals and minerals, marine and turbocharging. Key customer benefits include improved asset productivity and energy savings.

Electrification Products
Electrification Products offers a full range of low- and medium-voltage solutions to connect, protect, control and measure a wide range of electrical systems for all major industries, including the residential sector. The business improves the reliability and efficiency of electrical installations through modular substation packages, distribution automation products, switchgear, circuit breakers, measuring and sensing devices, control products, wiring accessories, and enclosures and cabling systems, including KNX systems designed to integrate and automate a building’s lighting, ventilation, heating, and security and data communication networks.
Power Grids

The Power Grids division is the world’s leading supplier of power and automation products, systems and service solutions across the power value chain of generation, transmission and distribution serving utility, industry, transportation and infrastructure customers directly and through channel partners. The division is focused on addressing key areas such as the integration of renewable energies, growing network complexity, grid automation, and microgrids. This division also offers a full range of consulting, service and asset management solutions based on a lifecycle approach.
Sustainable energy for the world

Energy efficiency, high industrial productivity and smart grids are the core of ABB expertise. ABB technology doubles the energy efficiency.

The biggest energy challenges are increasing demand, availability, price and climate change. Improvement of energy efficiency on a global scale is the fastest, cheapest and most sustainable way to cut greenhouse emissions and guarantee the availability of energy.

Top efficiency
ABB delivers software and control systems to boost the operations of power plants and industrial production units. With these systems, various industries can achieve top efficiency, steady quality and effective prediction of maintenance needs. A successful combination of control systems, efficient electrical motors and drives can multiply the energy savings. More than 40% of global consumption of electricity takes place in industry; electrical motors are responsible for two-thirds of the total. They are the tireless machines that keep industry going, and can be best controlled by drives. Drives may lower the energy consumption of pump, fan and conveyor motors by 50%.

Lower investments and lower life cycle costs
Products, systems and services developed for process control, protection and operation help industrial customers improve the availability, productivity and energy efficiency of factories. As a leading provider of technology, ABB is able to assume responsibility for efficient production operations throughout the life cycle of the production equipment. Product maintenance is a major area of focus for our customer services. Our services span from lifecycle services of systems and equipment to improving production efficiency and increasing productivity.

ABB designs and produces modernizations and upgrades of equipment and systems. ABB specialists are available to help with problems 24/7 with rapid response times.

By using intelligent motor control systems, the same amount of electricity could be saved each year worldwide that equals to half of the EU’s annual electricity production or annual production of 312 average nuclear power plants.

1,718 billion kWh = 312 nuclear power plants

Sources:
The IEA WEO 2013: EU electricity generation = 3,261 TWh
The IAEA: In 2014, altogether 443 nuclear reactors produced a total of 2,410.37 TWh of electricity, that is, an average of 5.5 TWh.
According to calculations, 1,718 billion kWh is average annual output of 312 reactors.
Building a smarter grid
Renewable energy sources, improved energy efficiency and consumers’ prospects of managing their own energy usage mean significant changes in power networks.

 Distributed power generation based on renewable energy sources is an integral part of a smart grid. It is a necessary response to the growing need for electricity and helps lower greenhouse emissions together with energy efficiency. Our advanced control and storage technology allows us to make major improvements to the reliability of the grid.

Together with renewable energy sources, reliability of power distribution is a core component of a smart grid. New distribution network technologies such as remote monitoring and control, automatic switching and fast location of faults are what we do best. They improve the quality of electricity, shorten outages and keep maintenance operations efficient.

1 | At an ABB charging station a car can be charged in 15 minutes to drive more than 100 kilometers. 2 | A vessel with an ABB Azipod® propulsion system saves up to 20% of fuel compared to traditional propellers. The system could reduce the carbon dioxide emissions of a typical Baltic Sea passenger ship by 10,000 tons per year. 3 | ABB connects wind power plants to the grid and delivers remote control systems, transformers and power transmission systems for offshore wind farms.
Sustainable development – an integral part of our business

1 | In 2015, ABB’s installed frequency converter base saved about 490 TWh of electricity. The amount corresponds to the annual consumption of more than 120 European households. If this electricity had been generated by fossil fuel power plants, ABB’s frequency converters would have reduced carbon dioxide emissions by 410 million tons, which corresponds to the annual emissions of over 100 million cars.

2 | In Kalasatama’s buildings Fregatti and Fiskari, building automation leads to 15 percent less use of electricity and water. Energy saving potential is based on the possibility to monitor consumption data over the Internet in real-time and also using mobile devices outside the home.

3 | The power produced by the solar power plant on the roof of the ABB Pitäjänmäki facilities helps balance the factory’s consumption peaks. Solar energy also keeps the factory’s forklift trucks running.

4 | ABB’s offices and factories offer safe and healthy working environments. We aim at zero accidents. All of our 5,100 employees in Finland have completed the national occupational safety card training.

Sustainability is about balancing economic success, environmental stewardship and social progress.
Customers are at the center of all our activities. We are committed to achieving world-class quality in everything we do. In the future, the most significant elements of growth are changes in the power generation, transmission and distribution value chain, innovations to improve industrial productivity, rapid urbanization, and the trend towards a more sustainable and energy efficient transport. In all these areas ABB is actively building a better world.
Innovation capability, co-operative skills, ability to act responsibly and pay attention to customers and other stakeholders are important values for us and help support the traditional strengths of ABB.

**Work with the best**
ABB is a technology leader who operates at the very peak of technological development. In Finland, ABB employs thousands of R&D engineers, many of them the top experts of their fields in the world. In 2015 alone we invested EUR 138 million in product development operations in Finland.

**Inclusive**
ABB is at home everywhere. We act as a global family, strongly relying on each other and inspired by our diversity. Our successful worldwide presence is based on our spirit of openness, tolerance and inclusiveness – and on our ability to orchestrate our multi-cultural network.

**Passionate**
ABB is driven by passion and commitment. ABB is a cradle for innovation. We continuously strengthen our reputation as an attractive global player that is full of ideas and driven by the pioneering spirit that has been its hallmark from the start.

**Competence development**
We offer our personnel the opportunity to develop as a part of an international and innovative organization. Each member of our organization plays an important role in keeping ABB at the top of technological advancement. When working in a global company, you gain both domestic and international experience. A personal development plan supports your career and helps you achieve your objectives.

**ABB for students**
Active cooperation with various educational institutions has given us a positive employer image among students. We offer many opportunities for working life experience through internships, diploma works and company visits. We also have trainee programs as well as international work opportunities and internships.
Personnel development, world-class performance at all levels, health and safety, and integrity are ABB’s first priority.

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Personnel

5100
in 22
locations

~1/5
of personnel in research and development

~ 900
summer trainees

ABB invests in personnel development in total nearly 9 million € annually, about 1700 € / employee.

The factories are located in Helsinki, Vaasa, Porvoo and Hamina. ABB is one of the largest industrial employers in Finland and the largest in the Helsinki metropolitan area.

Check out ABB as an employer at
www.abb.com/careers or
www.facebook.com/ABB