

This is ABB

Driving today's technological revolutions

ABB's customer markets are undergoing a paradigm shift as internet-based technologies take hold in the industrial sector, revolutionizing the production and supply of energy and of goods and services.

Our markets

As a pioneering technology leader serving utilities, industry, and transport and infrastructure, ABB is at the heart of the Energy and Fourth Industrial Revolutions. With its leading market position in power transmission, industrial control systems, robotics, marine and electric vehicle (EV) charging, ABB helps its customers take advantage of the efficiency and performance improvements that digitalization delivers.

Utilities

The rise of renewable energy is dramatically increasing the complexity of the electricity grid, as the number of feed-in points from solar and wind sources multiply and transmission distances lengthen. At the same time, demand for electricity is rising exponentially, driven by massive increases in the volume of data and the accelerating take-up of electric vehicles.

For utilities, these developments pose huge challenges: on sunny and windy days, energy production typically surges, and may threaten to overwhelm the grid, only to drop precipitously when the sun goes down and the wind stops blowing. Balancing such intermittency requires a complex combination of technologies, from long-distance power transmission – to transport electricity to where it is needed most at any given time – to stabilizing microgrids that integrate multiple generation sources, to energy storage solutions.

For ABB, which pioneered high-voltage direct current (HVDC) transmission, and is a leader in grid stabilizing technologies, the Energy Revolution offers tremendous opportunities. Over the next 25 years, some \$7 trillion is expected to be invested in renewables globally, and by 2025 the market for microgrids should be worth \$5 billion.

Industry

In industry, the impact of digitalization is accelerating as more and more devices and systems are equipped with sensors and connected to the cloud. With the massive increase in processing power, it is now possible to remotely monitor the health of equipment, machines and robots,

and through state-of-the-art performance modelling, to diagnose potential problems and to intervene before an interruption of service. By providing actionable information to operators, ABB's smart sensor solution (see page 25) for electric motors can deliver downtime reductions of up to 70 percent, extend the lifetime of the motors by up to 30 percent, and reduce energy consumption by 10 percent.

As a world leader in industrial robotics, with a global installed base of more than 70 million connected devices and more than 70,000 installed control systems, ABB is ideally positioned at the forefront of the Fourth Industrial Revolution. By 2020, the number of industrial robots is expected to more than double to 2.6 million compared with 1.2 million today, and there will be 26 billion connected devices worldwide.

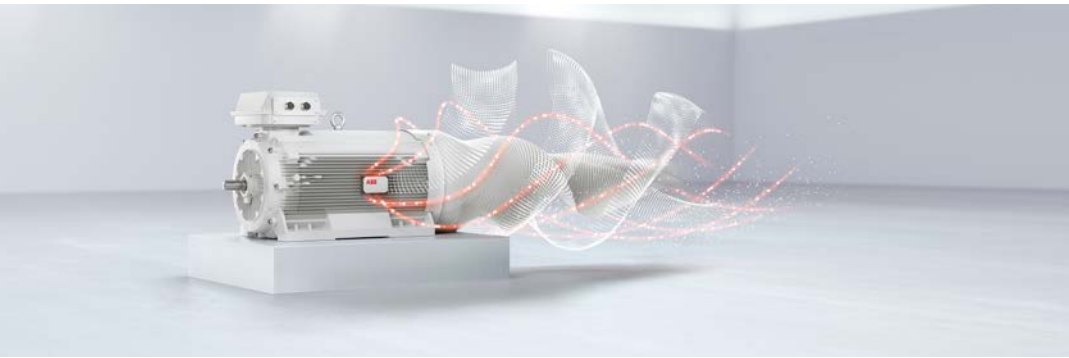
Transport and infrastructure

The technologies enabling the Energy and Fourth Industrial Revolutions are set to transform the urban environment as governments, city planners and developers seek solutions to the challenges of urban development. With two thirds of the world's population expected to be living in cities by 2050, the urban environment will increasingly be characterized by electric mobility, and low-energy smart homes.

For ABB, a world leader in fast-charging systems for electric vehicles, energy management solutions and smart home automation, the opportunities are tremendous. By 2020, the energy management and smart home markets are expected to double and triple in value to \$44 billion and \$36 billion respectively, while by 2030 50 percent of cars sold are expected to be EVs.

Delivering sustainable value

To enable us to deliver value for our customers and to provide sustainable, profitable growth for our shareholders, ABB interacts with a wide range of business partners along our value chain. We aim to build long-lasting partnerships to create shared value - with suppliers, customers, business partners, employees and the communities in which we operate.



When we source the raw materials, components and services for our operations, our strategy is to partner with best-in-class suppliers who adhere to similar standards of quality, operational excellence, business ethics, and social and environmental responsibility. ABB's Supplier Sustainability Development Program further supports performance improvement for selected suppliers, creating value for the suppliers, their employees and their local community.

When we design and manufacture products, our processes are designed to ensure appropriate consideration of legal, strategic, customer, environmental, and health and safety requirements. Dialogue with customers, suppliers and government regulators, as well as experts from the university sector and other relevant organizations helps us to respond to our changing environment and to retain our innovative edge and to create value for our customers and society.

Governments provide the regulatory frameworks for our business, including the determination of corporate income and other taxes. These taxes are a significant source of funding for public services by government institutions worldwide. The planning of ABB's tax position reflects our corporate strategy and is consistent with applicable tax laws and international best practice guidelines such as the OECD Guidelines for Multinational Enterprises. Further information about our [tax policy](#) is available on our website.

Central to our ability to maintain technology leadership and create value is our need 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.

It is these relationships that help us to drive the future of industrial digitalization and create sustainable, mutual value.

ABB value chain

