LEADING TECHNOLOGY

Making the world's cities and industries smarter and more efficient

ABB provides products, solutions and services that are enabling the cities and
industries of the future to be cleaner, safer, more resilient and less resource intensive

For more than 130 years, ABB has created technologies that stimulate economic growth and improve people's lives. Today, we remain focused on delivering leading-edge solutions for our customers and are working to further enhance the eco-efficiency of these offerings to support the fight against climate change. Our extensive portfolio of products, solutions and services contributes to the economy and raises people's standard of living, while contributing to delivering the energy efficiency and resource conservation the world needs to achieve the goals of the 2015 Paris Agreement.

In 2014, we set a target to increase our revenues from energy efficiency and eco-efficiency related products, services and solutions by 20 percent. In 2017, we made this target more ambitious, aiming for our eco-efficiency portfolio to account for 60 percent of ABB's total revenue by 2020. This portfolio delivers positive use-phase impacts in three areas: energy efficiency, renewable energy and resource efficiency. Our eco-efficiency portfolio accounted for 57 percent of ABB's revenue in 2019, remaining on track to achieve our target by the end of 2020.

We continue to tailor our portfolio in line with the changes that are rapidly reshaping the world, while making progress toward our target.

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Urbanization, population growth and economic expansion are surging even as the public, private and civil sectors are nearing consensus on the need to significantly reduce our reliance on the outdated technologies that contribute to climate change. For utilities and the construction, mobility and industrial sectors, among others, climate change and the responsible use of resources have moved to the top of the global agenda.
In addressing these new priorities, sustainable operations and products increasingly represent a competitive advantage in and of themselves.

The global consensus on climate change is driving demand for products, solutions and services that increase energy efficiency and reduce consumption of non-renewable resources. Technological innovation will play a critical role in meeting these needs – improving people's living standards while simultaneously reducing their impact on the environment. With this in mind, we believe ABB's mission is fully aligned with global efforts to bring the Sustainable Development Goals (SDGs) within reach by 2030.

Energizing SDGs 11 and 9

The ABB Sustainability Report this year largely focuses on how ABB's technologies contribute to SDG 11, which calls for sustainable and resilient cities and communities, and SDG 9, which calls for resilient infrastructure and inclusive and sustainable industrialization.

SDG 11 encourages the transition to smart cities, which leverage innovations in transport, renewable energy, waste management and digital technologies to manage resources more efficiently. The smart cities of tomorrow should be more livable, attractive and affordable, as well as sustainable.

Today, half the world's population lives in towns and cities. According to the International Energy Agency, urban areas, which are at the center of most economic activity, account for 64 percent of global energy consumption and are responsible for 70 percent of global carbon dioxide emissions. The smart, energy-efficient and low-carbon technologies required to significantly reduce the environmental impact of cities already exist, and they must be rapidly deployed on a wider scale to achieve the underlying targets associated with SDG 11 by 2030.

SDG 9 emphasizes the urgent need for industry and infrastructure to become cleaner and more efficient, even while contributing to economic growth and inclusivity. According to the Intergovernmental Panel on Climate Change, industry generates about 21 percent of global greenhouse gas emissions – not just from burning fossil fuels, but also from chemical processes, waste management and other production related activities. The advanced solutions required to make industry smarter and cleaner have also already been developed.

Cleaner industries can be located closer to urban areas, which can in turn provide manufacturers with access to the deep talent pools that will be needed to operate and maintain the digital factories of the future. Moving production sites closer to cities would also enhance employment opportunities for rural-to-urban migrants.

With respect to cleaner and more efficient infrastructure, existing technologies can be used to optimize water and waste treatment, energy services and other resources of critical importance to cities. New solutions can reduce the amount of electricity and water that is lost, either in transmission or due to extreme differences between peak and off-peak demand.

At ABB, we understand that SDGs 9 and 11 are interlocking and mutually supporting goals. Sustainable and resilient cities not only need buildings, transportation options and infrastructure that minimize emissions and conserve energy and non-renewable resources, but also need local industries that can provide residents with economic opportunities and an accessible supply of essential goods. Cities that are cleaner, safer and less polluted improve the quality of inhabitants' lives, and are thus in everyone's interest.

ABB supplies many of the products, solutions, services and systems that serve these needs. In fact, a large part of ABB's technologies relate directly to matters of sustainability, so it would not be practical to provide a comprehensive listing of them in this report. Nonetheless, in this chapter we highlight some of the key technologies that contributed in 2019 to achieving the targets associated with SDGs 9 and 11. These include smart and sustainable technologies for buildings, electric vehicles, water, power, and waste infrastructure, data centers and factories.

Underpinning nearly all of these solutions is our comprehensive digital offering, ABB Ability™, which drives substantial gains in efficiency. Solutions under the ABB Ability™ brand collect and analyze data from across the industrial internet and provide our customers with automated insights into their processes and equipment in order to increase the uptime, speed and yield of their operations. ABB Ability™ connects one of the world's largest installed bases of industrial devices – around 70 million of them – to industry-leading digital solutions in a wide range of sectors, including utilities, transportation, energy, construction and industry.

But while ABB Ability™ ties together many of our company's innovations through connectivity and

the digital cloud, it represents just one aspect of what can be done to make the future a brighter place for us all. We recognize that policy is just as important as technology in paving the way for successful smart cities, infrastructure and industries.

Accordingly, ABB collaborates with policymakers around the world to realize a collective vision for modern smart cities that can combine data, people and technology. ABB is also working towards inclusive and sustainable solutions as an Associate Partner of the Smart Cities Council, a collaboration among technology companies that is developing a policy framework for the future, including the Smart Cities Readiness Guide.

To help further develop smart infrastructure and industry, ABB is closely cooperating with other leading, global companies. ABB has entered into strategic partnerships with digital market leaders Dassault Systèmes, Ericsson, Hewlett Packard Enterprise, Huawei, IBM and Microsoft to drive the digital transformation and enable customers to unlock unprecedented improvements in performance and productivity. Each strategic partnership brings ABB together with a world-class organization to create an unmatchable combination of technological expertise and domain knowledge focused on developing enhanced digital solutions.

Smart buildings

ABB remains firmly committed to SDG 11 – making cities and human settlements inclusive, safe, resilient and sustainable. We recognize that cities are facing unprecedented challenges that threaten their ability to achieve SDG 11. According to the United Nations, one in eight of the world's 7.6 billion inhabitants lives in a megacity today – 33 sprawling urban areas with populations of more

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