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CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

Geared to help solve humanity's most pressing challenges

ABB's smart technologies are helping to meet many of the underlying targets of the Sustainable Development Goals (SDGs)

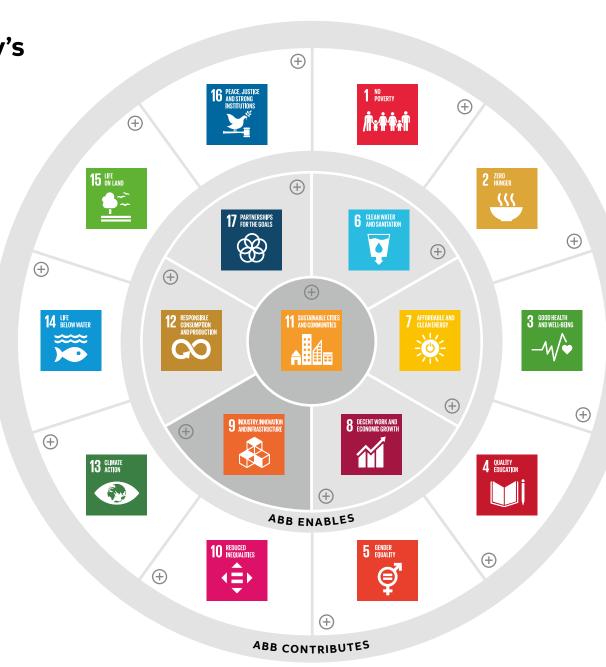
Adopted by the member states of the United Nations in 2016, the 17 SDGs are a blueprint for achieving peace and prosperity by 2030. ABB is cognizant these goals cannot be met without support from the global business community. Our approach to supporting the SDGs is to focus on the goals where we can have the most impact, while screening and implementing actions that contribute to the other goals as well.

While there is a moral imperative to support the SDGs, there are also material incentives. SDG-related opportunities involving building solutions, urban infrastructure, clean energy, energy efficiency and mobility are estimated to exceed \$5 trillion.

To identify the SDGs where ABB can make the most difference, we used the <u>GAPFRAME</u> framework to identify five "grand challenges" (waste, equal opportunity, clean energy, innovation and carbon) in response to our materiality mix.

These challenges point to the seven SDGs where we can have the most impact: SDG 7 (energy), 11 (cities), 9 (industry and infrastructure), 6 (water), 8 (work) and 12 (production). And through our behavior and values, we contribute to SDG 17 (partnerships).

Click on the icons on this page for stories about how we contribute to the SDGs.



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ABB enables seven of the United Nations' Sustainable Development Goals

The following case studies illustrate just some of the many ways ABB is enabling the global community to meet many of the underlying SDG targets. To read more, visit the online version of this report at www.sustainabilityreport2019.abb.com



Clean water and sanitation

At the ABB Ability™ Collaborative Operations Center in Genoa, Italy, experts are on call 24/7 to provide water utilities with data-driven insights. These insights enable utilities to keep water stress levels as low as possible and to ensure their water facilities are operating in line with all relevant regulatory, load, environmental and cybersecurity requirements.



Affordable and clean energy

The Indian Institute of Technology Madras (IITM) partnered with ABB to develop and pilot a model solar-based village microgrid to generate and augment power availability and resiliency, as well as to conduct joint R&D in the fields of rural electrification, utilization of natural, non-fossil resources, battery energy storage and their connections to loads and the main grid. Thousands of Indian villages are still off the grid and rely on expensive diesel fuel for power; ABB's decentralized microgrids are a viable solution for these communities and can serve as the starting point for additional development activities in villages. This project is a part of ABB's "Access to Energy" community initiative in India.



Decent work and economic growth

ABB is donating software solutions and pulp and paper automation expertise to the Sappi Skills Centre, based in Umkomaas, South Africa, near Sappi's Saiccor Mill – the world's largest single site dedicated to dissolving wood pulp. The donation supports the Skills Centre, which was established by Sappi in 2018 to equip local youth with the basic technical skills needed to prepare them for meaningful employment.



Industry, innovation and infrastructure

ABB is piloting its new ABB AbilityTM Data Center Automation solution with a leading colocation data center in Singapore. Designed to help meet the challenges related to the rapid growth of data centers, ABB's new solution makes it possible to view and monitor power, cooling and environmental metrics from data centers, thus enabling the identification of opportunities for improvement.



Sustainable cities and communities

Aiming to achieve the full electrification of its bus fleet by 2030, German public transport operator Hamburger Hochbahn AG has asked ABB to install a turnkey solution that will supply 44 of its highpower 150C chargers for the network. This will allow 44 buses in the fleet, each with a range of up to 150 km under normal conditions, to be charged overnight in the central bus depot.



Responsible consumption and production

ABB is supplying the new voestalpine BÖHLER Edelstahl steel plant in Kapfenberg, Austria, with its ABB ArcSave® electromagnetic stirrer technology. This technology, which will be installed on an energy-efficient 55-ton electric arc furnace, will reduce the environmental impact of the steel manufacturing process by reducing electricity usage, process additions such as alloys and lime and consumables such as electrodes.



Partnerships for the goals

ABB is a founding partner of United for Efficiency (U4E), a public-private multi-stakeholder collaboration partnership led by the United Nations Environment Programme. U4E helps governments develop and implement national and regional strategies for improved energy efficiency, and ABB is sharing its know-how in motors and transformers, policies, regulations and standards, as well as potential applications for the best available technologies.

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ABB contributes to 10 of the United Nations' Sustainable Development Goals

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No poverty

For more than 20 years, Instituto ABB, a project funded exclusively by our company, has been leveraging the power of education to transform the lives of children in the impoverished neighborhoods near our facilities in São Paulo, Brazil. The project is impactful, as Lucas Azevedo can attest. He was once an underprivileged youth participating in our "Mais Energia" two-year vocational program.

Today, he is a proud ABB employee, thanks in part to the hands-on experience the program provided him at ABB facilities, together with technical courses at a renowned educational center located nearby.



Gender equality

Early in the academic careers of young girls, ABB in Switzerland raises their interest in technology by carrying out "Girls Technician Days" and by taking part in the annual national Future Day, which addresses pupils of both genders. In partnership with the Lila Poonawalla Foundation, ABB provides scholarships for talented but financially disadvantaged women to earn undergraduate engineering degrees. The program not only provides financial support, but also skills development training and mentoring to empower the women and build self-confidence and independence. ABB contributes financial resources, mentoring and industrial visits to ABB factories and locations.



Peace, justice and strong institutions

ABB has maintained a decade-long partnership with the International Committee of the Red Cross (ICRC) that was renewed for three years at the end of 2017. Regular exchanges between ABB and ICRC staff have helped identify focus areas to improve ICRC's energy efficiency. We will expand our exchanges to include human resources challenges related to leadership development and diversity and inclusion.



Zero hunger

The Akshaya Patra Foundation's new centralized kitchen in the Mohan Cooperative Industrial Area of New Delhi was inaugurated in 2019. Sponsored by ABB India, the kitchen has the capacity to cater to the nutritional needs of students by serving 25,000 midday meals across various government schools in the surrounding area. Initially it will serve over 21,000 children at 24 government schools in the national capital and will gradually extend its reach.



Good health and well-being

In October 2019, ABB opened its first global healthcare research hub on the Texas Medical Center (TMC) campus, in Houston, Texas. Together with its partners at TMC, ABB will work to develop cuttingedge robotics solutions that will reduce the number of manual procedures performed by medical staff, improve the accuracy of laboratory work and enhance patient satisfaction and ultimately patient safety.



Quality education

ABB started its first youth apprenticeship program in the United States in Fort Smith, Arkansas, in June 2019. In partnership with the University of Arkansas at Fort Smith and the local school district, ABB hosted nine local apprentices as part of its long-term effort to strengthen the area's pipeline of young talent. ABB is keen to continue to promote the benefits of the Swiss-style vocational system for the countries in which it works.



Climate action

The United States has begun its formal withdrawal from the Paris Agreement after stating its intention to do so in 2017. That is why, in December 2019, ABB's CEO Peter Voser added his voice to more than 70 CEOs in the US who came together to call for the country to remain within the landmark climate agreement.



Reduced inequality

Students from the Warsaw University of Technology, with support from ABB, engineered an electric racing car for a 10-year old boy who suffers from muscular dystrophy. This project demonstrated how e-mobility can help us create a more inclusive society. During the project, the students consulted with ABB on how to integrate components in a way that would make them compatible with the ABB Wallbox charger in the future.



Life on land

ABB and Sweden's Stena Recycling have forged a long-term partnership focused on the recycling of old electric motors. While outdated low-voltage motors are responsible for massive energy losses, they also contain large quantities of recyclable valuable metals. When recycled, aluminum, copper and iron deliver energy savings of between 75 and 95 percent, compared to new production of these metals. ABB and Stena will work together to take old motors out of service, recycle them and then replace them with advanced, high-efficiency motors.



Life below water

ABB won a contract from Arctic Offshore Farming to power its first-ever remote-controlled, submersible, offshore salmon farm in the Arctic Ocean. ABB will provide a comprehensive package of its leading electrical, automation, instrumentation and telecom technologies that ensure maximum efficiency and minimal environmental impact. The submerged fish pens are less prone to sea lice, which have been linked to a decline in salmon production in Norway – one of the top salmon exporters in the world.



Watch video