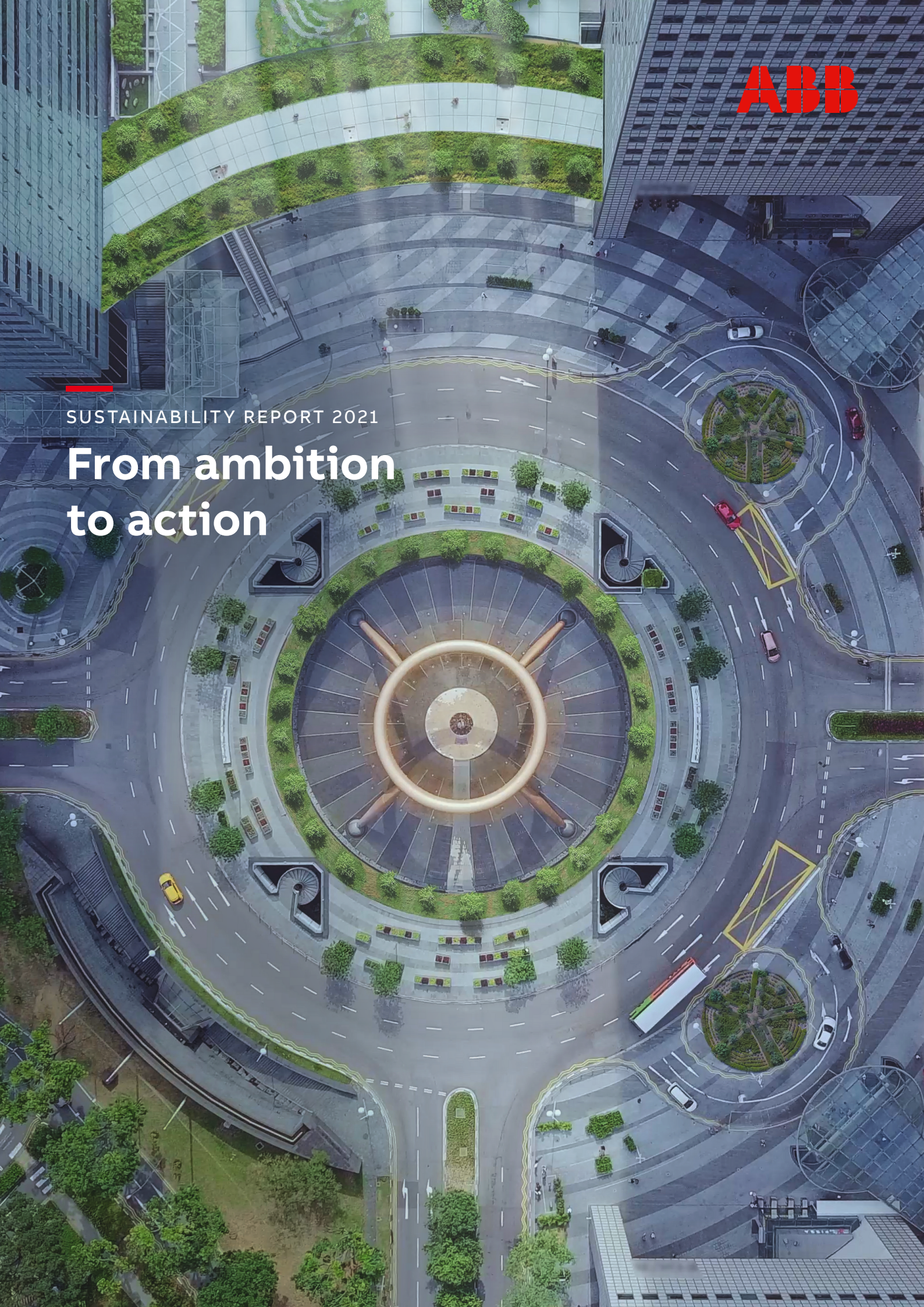

SUSTAINABILITY REPORT 2021

From ambition to action

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CEO message

Dear Stakeholders,

One year into ABB's 2030 sustainability strategy, we are off to an excellent start in the pursuit of our ambitious targets. Compared with our baseline year of 2019, we have cut our greenhouse gas (GHG) emissions by 39 percent and reduced lost time from injuries by 44 percent. Last year, we recorded no work-related fatalities for the first time since 2011. We also increased the number of women in senior management positions to 16.3 percent, up from 13.5 percent a year ago, in line with our goal of having 25 percent of senior management roles filled by women by 2030.

Alongside these headline achievements, we made strong progress in laying the foundations to embed sustainability across all of our Divisions as well as our value chain. Our 2030 GHG emissions reduction target was validated by the Science Based Targets initiative (SBTi) as being in line with the 1.5°C goal of the Paris Agreement. We also joined the SBTi's Business Ambition for 1.5°C, an urgent call to action from a global coalition of United Nations agencies and business and industry leaders, in partnership with the "Race to Zero" campaign. Our participation in this initiative reinforces our longstanding support for the 10 core principles of the Global Compact, which covers human rights, labor, environment, anti-corruption and other societal goals.

Reducing customer emissions

While we are on track to achieve carbon neutrality by 2030, our greatest contribution to sustainable development is through our offerings to customers. By 2030, our target is to help our customers reduce their annual GHG emissions by at least 100 megatons, equal to the annual emissions of 30 million combustion cars.

In 2021, we identified a basket of products, services and solutions from our portfolio that deliver substantial reductions in GHG emissions of our customers. Based on sales of ABB offerings from this basket in 2021, we calculated that they will enable our customers to reduce their GHG emissions by 11.5 megatons after the first year. The methodology for this assessment has been verified by a third party. We are well on the way to enabling our

customers to deliver annual savings of 100 megatons of GHG emissions by 2030. In the coming years, we expect savings of GHG emissions from our offerings to increase as new products and solutions are added to the basket.

ABB has assessed the extent to which our activities are reflected in the European Union's new classification system for sustainable economic activities, known as the "EU taxonomy." We found that 36 percent of our revenue in 2021 was eligible under the objective of "climate change mitigation." We consider this to be a significant underestimate of the contribution that our products, solutions and services make in reducing our customers' carbon footprint and in aligning their activities with the EU taxonomy. We estimate that a further 31 percent of ABB's revenue could be attributed to solutions that are indirect enablers of climate change mitigation, which would mean that 67 percent of our revenue comes from solutions that mitigate climate change (see ABB's EU taxonomy disclosure).

Towards circular business models

A second goal of our 2030 sustainability strategy is to preserve resources at every stage of the value chain. In December 2021, we unveiled a new company-wide approach to drive circularity in our own, our customers' and our suppliers' operations. By 2030, at least 80 percent of ABB's products and solutions will be evaluated against a clear set of key performance indicators (KPIs), corresponding to each stage of the product lifecycle. We will also send no waste to landfill, wherever this is compatible with local conditions. Today, 40 percent of our around 440 sites around the world are already sending zero waste to landfill.

Along with the actions we are taking to reduce carbon emissions and preserve resources, we aim to promote social progress across our value chain as well as in the more than 100 countries where ABB is present. Our human rights training program is embedding awareness and expertise in all our businesses across the globe. We now run community engagement programs in more than 40 countries where we do business, providing support for education, diversity and inclusion, poverty alleviation and disaster relief.

We continued to train, coach and assess selected high-risk suppliers on sustainability topics, keeping us on track towards our goal of covering 80 percent of supply chain spend in focus countries by 2030.

Building safe, equitable and inclusive working environments

Our highest priority at ABB is the safety of our people. In 2021, we reduced the number of lost-time injuries per 200,000 hours worked to 0.14 from a 2019 baseline of 0.25. Our high level of preparedness also helped us protect most of our people from COVID-19 and keep our operations running. Tragically, we lost several colleagues to COVID-19. On behalf of ABB, I extend our deepest sympathies to their families.

As part of our commitment to establish a more inclusive and equitable working environment, we not only increased the proportion of women in senior management

positions, as mentioned above, but we also launched a new gender-neutral parental leave program for all employees around the world.

To drive the achievement of our sustainability goals, we are progressively integrating KPIs for sustainability into our performance management planning. Our Business Areas now report on these in conjunction with their financial KPIs. Sustainability KPIs are also part of our senior management incentives, and a selection of KPIs is included in our quarterly financial reports.

Finally, we launched our Sustainability Changemaker Award, inviting our people to submit ideas and innovations that support the achievement of our 2030 sustainability goals.

On behalf of the ABB Executive Committee, I want to thank our people for their excellent performance in 2021 and all of our stakeholders for their collaboration, support and trust. Together, we are leading the way to a sustainable future.

Best regards,

Björn Rosengren
Chief Executive Officer

Sustainability at ABB

About ABB

ABB is a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future. By connecting software to its electrification, robotics, automation and motion portfolio, ABB pushes the boundaries of technology to drive performance to new levels. With a history of excellence stretching back more than 130 years, ABB's success is driven by about 105,000 talented employees in over 100 countries.

What sustainability means to ABB

Sustainability is central to ABB's Purpose and the value that we create for our stakeholders. To us, sustainable development means progress towards a healthier and more prosperous world, today and for future generations.

A sustainable society balances the needs of society, the environment and the economy. ABB achieves this by embedding sustainability in our value chain and by pushing the boundaries of technology to provide our customers with solutions that help preserve the earth's natural resources while contributing to an economically vibrant, low-carbon society.

Our focus on sustainability includes our commitment to responsible business practices. ABB's corporate governance and operating model are underpinned by integrity and transparency. Promoting social progress for our people and in the communities in which we operate is central to our Purpose and our identity as a company.

ABB's 2030 sustainability strategy positions our company to address the world's greatest challenges. As a technology leader, we focus on those areas where we can make the biggest impact: enabling a low-carbon society, preserving resources and promoting social progress, while complying with relevant regulations and applying our own standards wherever we operate. To meet our 2030 sustainability targets, we are taking action across the value chain because we believe we can have a greater impact by acting in coordination with our customers, suppliers and other stakeholders.

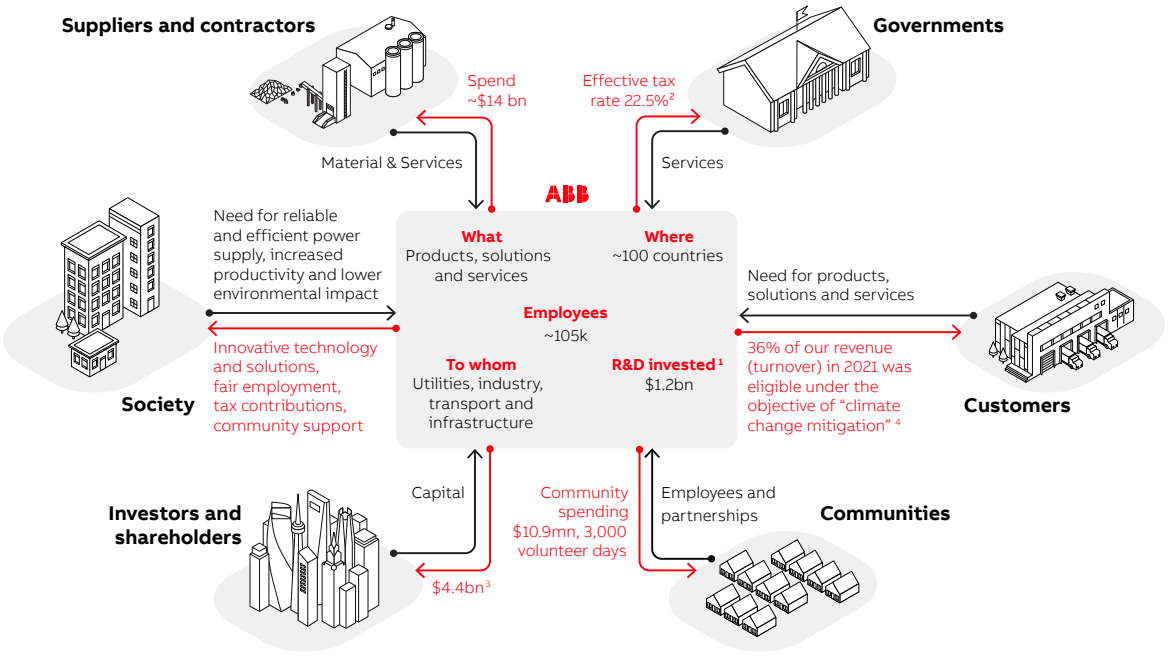
ABB has also assessed how its strategy and business could be affected by climate change. Based on the various scenarios, we consider it most unlikely that climate change would pose an existential threat to our business.

In 2021, we initiated our 2030 sustainability strategy by establishing new sustainability governance structures, by beginning to work towards our new targets, and by carrying out pilot studies for additional new targets. In the course of the year, concerted efforts were made to build awareness among our stakeholders of the scope of our ambitions.

Business model and value chain

Our operating model, the ABB Way, has our Purpose at its core and serves as a framework for implementing our strategy. By pushing the boundaries of technology and embedding sustainability in everything we do, we are raising the performance of our market-leading and empowered businesses to new heights. Alongside our values, governance framework and strong brand, the ABB Way is making ABB a more transparent and efficient company, driving a performance culture and creating value for all of its stakeholders.

ABB value chain



1 Non-order related R&D expenses
2 Adjusted Group effective tax rate, adjusted primarily to exclude gains and losses on sale of businesses
3 Consists of $2.7bn for the share buyback program and $1.7bn dividend payments
4 See chapter on EU taxonomy

Sustainability governance

With the organizational changes made in 2021, accountability for the implementation of Group requirements for health, safety and the environment (HSE) was transferred to the Business Areas and Divisions. The ABB Group Sustainability and HSE & Security functions are responsible for the development and coordination of the Group's policies and programs that address matters related to health, safety, the environment and corporate responsibility. These functions report directly to the Chief Communications and Sustainability Officer, who is a member of the Executive Committee.

Sustainability governance

Board of Directors

The **Governance and Nomination Committee** is responsible for overseeing corporate social responsibility (including health, safety and environment as well as sustainability), while ultimate responsibility for ABB's sustainability strategy, its sustainability targets and its annual Sustainability Report lies with the entire **Board of Directors**. The **Compensation Committee** ensures that ABB's remuneration policies are linked to the achievement of its sustainability targets.

Sustainability Board (full Executive Committee)

Implementation of the strategy is led by ABB's **Sustainability Board**, comprising the full Group Executive Committee. The Sustainability Board oversees policies and programs, reviews developments, and monitors progress towards targets.

HSE Council

The four Business Area HSE managers and the corporate HSE & Security function work together in an **HSE Council** that convenes twice yearly. The council reviews the function's steering committees, approves and monitors the common Annual Plan, and assesses risks and opportunities for the company. The work of the HSE Council is overseen by the HSE & Security Board, which meets twice yearly to perform a management review and consists of the four Business Area Presidents, the CEO, the Chief Communications and Sustainability Officer and the Head of Corporate HSE & Security.

Sustainability Council

The Sustainability Board is advised by a **Sustainability Council**, consisting of the Group Head of Sustainability and representatives from our four Business Areas. The Sustainability Council's purpose is to ensure alignment across Business Areas on the strategic direction of sustainability, common topics and sharing of best practices.

Business-level performance management

Efforts within the Business Areas are supported by a strong set of policies and procedures, along with sustainability leads in each Business Area and Division, responsible for driving the sustainability agenda and for representing the Division in Business Area and Group-wide discussions.

Topic-specific work groups

Thematic work groups are appointed by the Sustainability Council to provide expertise and develop methodologies on topics and initiatives linked to the sustainability targets. The work groups ensure their operational definition and implementation action plans. They share best practices and propose relevant KPIs.

Remuneration and incentives

In 2021, as in prior years, safety was one of the KPIs in our management incentives. As of 2021, additional sustainability KPIs are progressively being incorporated into our senior management incentives. For further information, please refer to "Senior Management Sustainability Incentives" in this report.

Division-level implementation

Based on the Group's and Business Areas' policies and procedures, each Division has developed its own sustainability governance and organizational model, suited to its operational approach. In some Divisions, a network of "sustainability champions" was formed and cross-Division workstreams have been created to ensure alignment and the sharing of best practices and to coordinate sustainability programs.

ABB employs a worldwide network of HSE and sustainability specialists, who report to each of the Business Areas and support the Sustainability and HSE & Security functions. In each of the regions in which ABB operates, ABB employs HSE & Security advisors or managers. The country and regional specialists are supported by sustainability officers and health and safety advisors. Overall, the sustainability network is supported by some 600 full-time and part-time employees. The impact of ABB's sustainability network has been expanded by our new strategy, which mobilizes ABB employees and all functions across our four Business Areas and throughout our corporate organization to act on our sustainability initiatives on a global basis.

In 2021, the Sustainability Council focused on deploying the action plans linked to the major targets of ABB's 2030 sustainability strategy - in particular, ABB's goals for carbon neutrality, on developing ways to measure ABB's contribution to reducing our customers' GHG emissions, and on further embedding circular economy principles within our businesses.

In 2021, our Sustainable Supply Base Management (SSBM) system replaced our Supplier Sustainability Development Program (SSDP). The process is governed by a steering committee and a working group comprised of representatives from the Business Areas and the Sustainability function. For further information, please refer to Responsible Sourcing in this report.

Contribution to the Sustainable Development Goals (SDGs)

Adopted by the member states of the United Nations in 2016, the 17 SDGs were developed as a blueprint for achieving peace and prosperity by 2030. ABB continues to align its sustainability strategy with the SDGs on which we can have the greatest impact.

In 2021, ABB contributed to the global effort to meet the SDGs by supporting policies that promote the electrification of land-based and marine transport systems, improvements in energy efficiency in industry and buildings, and industry-specific sustainable technologies. For example, we are promoting high electric charging infrastructure targets (including for e-trucks) in the revision of the EU's Alternative Fuels Infrastructure Regulation (AFIR), which is currently in the legislative process.

ABB also worked within industry associations to accelerate sustainable development. For instance, ABB is using its position as Chair of the Sustainable Mobility Task Force at Orgalim, Europe's technology industry association, to promote ambitious decarbonization and electrification commitments for road transport. ABB also participated in sector-specific working groups on energy, mobility, buildings and industry, which supported a major study on fighting climate change in Germany. ABB additionally became a founding member of the Zero Emission Transportation Association, an advocacy organization in the United States.

In 2021, as the world's major economies launched plans for sustainable development in the post-COVID-19 era, ABB engaged in an assessment of the associated risks and opportunities. Initiatives assessed included Next Generation EU, the EU's Green Deal policy initiatives, and the Infrastructure Investment and Jobs Act in the US, among others.

ABB ECOSYSTEM

Stakeholder engagement and material topics

Our approach to stakeholder engagement and determining materiality relies on meaningful dialogue and collaboration with stakeholders.

This dialogue serves to clarify ABB's positions and policies and, at times, to illuminate different viewpoints. For further information, please visit the page on **Stakeholder Engagement** on the ABB global website.

ABB's 2030 sustainability strategy, the implementation of which began in 2021, is based on new materiality matrices developed in 2020 through a comprehensive external stakeholder engagement process. The process provided a qualitative basis for the development of a matrix for each Business Area. As in the previous sustainability reporting cycle, we have left open the possibility of adjusting our sustainability strategy and its related KPIs to reflect significant changes in our material issues or our stakeholder's priorities. We plan to refresh the Group materiality matrix, which is available online **here**, on the basis of periodic engagement with our stakeholders.

As the implementation of our strategy got underway, we continued to consult with internal and external stakeholders in 2021 to refine our sustainability targets. A direct result of this engagement was the confirmation of our decision to include an **SASB table** in our 2021 Sustainability Report. We regularly interacted with our stakeholders, holding sustainability-specific meetings with our investors, customers and suppliers in 2021. We will follow up with them in 2022 to review ABB's sustainability performance in 2021.

Of special note, in 2021 we conducted an internal and external stakeholder review of ABB's participation in environmental, social and governance (ESG) rating schemes. In October 2021, the ABB Sustainability Board decided to re-evaluate ABB's engagement with ESG rating agencies to focus on requests for information from those agencies that are deemed the most important. As a result, we scheduled a series of interviews for late 2021 and early 2022 to obtain input from our main stakeholders on which ESG rating agencies they value most and which ESG criteria they expect us to report on.

In addition to its dialogues with stakeholder groups, ABB consults an external stakeholder panel for advice and input on sustainability issues. The panel also regularly reviews our materiality matrix and our annual Sustainability Report. ABB last engaged with this panel on the definition of our 2030 sustainability strategy at the end of 2020 and received positive feedback on the framework and the targets. There was no further engagement in 2021. As the implementation of the 2030 strategy progresses, we will re-define our collaboration with this panel.

In 2021, ABB engaged with key stakeholder groups in seven categories:

Customers

Over the past year, we continued to meet regularly with customers to discuss how ABB's offerings can be used to reduce their greenhouse gas (GHG) emissions, preserve resources and meet other sustainability requirements. In addition to providing valuable insights into our customers' operations and their sustainability challenges, these meetings provided our experts with opportunities to share advice and served to build and strengthen relationships of trust. Notably, our customers have also been reaching out to us to talk about their emissions; they expect leadership from us on this topic, which we provide by supporting their sustainability journeys with our knowledge and solutions. Most cases are based on products that improve energy efficiency. An example would be a variable speed drive produced by our Motion Business Area. The use of variable speed drives enables electric motors to adjust speed and torque during operations. When a drive is added to an existing motor, the electricity savings can be substantial.

Investors

In 2021, we engaged with investors and analysts on the subject of ABB's 2030 sustainability strategy and how our market-leading portfolio benefits from the fact that ESG concerns are driving demand for energy efficiency and automation. Among the main ESG topics of interest were ABB's own carbon footprint, our ability to support customers in reducing their emissions, our forward-looking corporate governance policies, including linking ESG to remuneration, and diversity and inclusion.

Suppliers

We recognize that ABB can only be as sustainable as its supply chain. Our Supplier Code of Conduct clearly outlines our expectations, based on the 10 principles of the UN Global Compact, and is updated periodically to address new developments. In 2021, we began to engage our suppliers on the topic of their own GHG emissions. Through these engagements, we seek to assess the status of their efforts on this front and to begin setting appropriate emissions reduction goals. In 2021, we also continued to help our suppliers improve their overall sustainability performance. To this end, we regularly conduct on-site evaluations, provide training and engage in special projects to address the root causes of persistent challenges. We track their improvement through risk-based monitoring plans using our Sustainable Supply Base Management system.

Employees

In 2021, ABB created the annual Sustainability Changemaker Award, which recognizes outstanding ideas from individuals or teams who display a strong commitment to sustainable progress and inspire others to follow their example. The award covers each of the four pillars of ABB's 2030 sustainability strategy. In addition to seeking out new ideas

from new sources, the award aims to promote and embed sustainability across ABB; to foster our entrepreneurial spirit and performance culture while maintaining clear ties to our values and Purpose; and to provide employees with more opportunities to participate in ABB's efforts to meet its 2030 sustainability ambitions. The winner of the 2021 Changemaker Award will be announced in spring 2022.

Also in 2021, we conducted our annual employee Engagement Survey. For further information, please refer to our **Employee Engagement Score** in this report.

Public policy

ABB continued to engage with civil society and government agencies on a number of fronts to contribute to the ongoing global dialogue on sustainability.

In 2021, ABB played an active role in the **CEO Alliance**, which promotes global targets and standards for climate protection via its advocacy initiatives and industrial projects.

ABB advocated for greater investment in electric distribution grids as a necessary step in the decarbonization of the energy system, transport and the built environment. This advocacy was pursued on multiple occasions by CEO Björn Rosengren, other members of the Executive Committee and Division presidents.

ABB engaged in advocacy on methane leak detection rules in the United States with the goal of minimizing methane leaks from pipeline infrastructure through the deployment of advanced leak detection technology.

ABB highlighted the contribution of its products and technologies to a low-carbon society in China while engaging with decision-makers in such forums as the Global CEO Council's roundtable summit, China Development Forum, China International Fair of Trade in Service, IBLAC Beijing, IBLAC Shanghai, International Consultative Conference on the Future Economic Development of Guangdong Province (ICCFED), Chongqing Mayor's International Economic Advisory Council (CMIA) and others.

At the COP26 climate conference in Glasgow, ABB focused on communicating the goals of its 2030 sustainability strategy as well as the technologies that help ABB's customers reduce their carbon footprints.

Community

ABB's approach to community engagement combines strategic corporate partnerships with country-level projects to address local needs. In 2021, we contributed to more than 400 community projects and charities worldwide, as well as a number of initiatives to help employees, contractors and communities address the challenges of the COVID-19 pandemic. Our employees and businesses donated approximately $10.9 million and around 3,000 person days in volunteer work, often under challenging circumstances.

ABB's 2030 sustainability strategy seeks to provide support for communities, among its other objectives. For further information, please refer to "**Provide Impactful Support for Community-Building Initiatives**" in this report.

External partnerships

In 2021, ABB supported multiple global initiatives that are paving the way to carbon neutrality, including the Business Ambition for 1.5°C and the Climate Group's RE100, EV100 and EP100 campaigns. Among our largest programs, we maintain a corporate-level agreement with the International Committee of the Red Cross to support humanitarian assistance in conflict zones. ABB is a member of many international organizations focused on sustainable development. We are starting a process to evaluate their climate-linked goals in relation to our own.

APPROACH TO REPORTING

Sustainability reporting

ABB has reported in accordance with the GRI Standards (2021) for the period January 1, 2021, to December 31, 2021. The EU Non-Financial Reporting Directive (NFRD) and the Sustainability Accounting Standards Board (SASB) provide the framework for our sustainability reporting. This report includes ABB's disclosures in accordance with EU taxonomy regulations.

We report on ABB's material economic, environmental and social impacts and how we manage them. We seek to maintain alignment between our sustainability reporting and changes that arise in international best practices – including the GRI Standards. ABB's 2030 greenhouse gas (GHG) emissions targets received approval from the Science Based Targets initiative (SBTi) in 2021, confirming that they are in line with the 1.5°C scenario of the Paris Agreement.

Omission from the material issues addressed in our report does not mean an issue is not managed. ABB reports quarterly on a selection of our KPIs and annually on all of our KPIs. The annual Sustainability Report for 2021 was published on March 14, 2022.

Our future reporting

In addition to the above-referenced standards and directives, for 2022, ABB's Sustainability Report will also incorporate the framework developed by the Task Force on Climate-Related Financial Disclosures (TCFD). We will continue to review the ongoing evolution of sustainability disclosure standards and requirements and will consider the possibility of incorporating additional reporting frameworks into our sustainability reporting in the future.

Reporting boundaries

Our formal sustainability reporting system covers all ABB Group companies worldwide, including wholly owned subsidiaries and majority-owned joint ventures and direct and indirect participations (as listed in the 2021 ABB Annual Report, pages 72-73 and 249-251).

Additional disclosures

All of ABB's policies, statements and declarations related to the topic of sustainability can be found on our Group's website.

Certified ABB management system information

- 73 percent of our manufacturing and service sites are covered by a certified environmental management system (ISO 14001 or equivalent)
- 75 percent of our employees at manufacturing or service sites are covered by a certified occupational health and safety management system (OHSAS 18000 or equivalent)
- 21 percent of employees at manufacturing or service sites are covered by a certified energy management system (ISO 50001 or equivalent)

Changes in 2021

ABB completed the divestment of its Mechanical Power Transmission Division (Dodge) to RBC Bearings Inc. in the second half of 2021. Dodge is not included in our sustainability reporting for 2021, except where specified.

Also in the second half of 2021, ABB closed its acquisition of ASTI Mobile Robotics Group, a leading manufacturer of autonomous mobile robots (AMRs). The activities of ASTI are not included in our sustainability reporting for 2021, except where specified.

Data collection processes

To measure and gather data from across ABB, we rely on a global, online data reporting system. The system is used to file reports on hazards, incidents, sustainability observation tours and environmental performance at every production and service site, as well as a majority of our office locations. It is also used to collect annual social data from every country. This centralized reporting system simplifies data collection and facilitates greater transparency.

The data in this report relating to health, safety and our social performance covers 96 percent of ABB employees. Data relating to our environmental performance was sourced from 447 ABB sites and offices, covering approximately 95 percent of employees. Data on the environmental performance of the remaining employees, who are located at non-manufacturing sites with limited impacts, is generated by estimating energy, water and waste parameters pro rata.

Calculation of energy and GHG data

ABB uses the market-based method to calculate and report Scope 2 GHG emissions. For purchased electricity and district heating, we have obtained local emission factors from utilities. All GHG emission factors for fuels used at our sites are sourced from the GHG Protocol's "Emission Factors from Cross-Sector Tools" (March 2017). They include the emissions of CO_2, CH_4 and N_2O. Biogenic emissions from biofuels include only CH_4 and N_2O emission factors. Global warming potential (GWP) factors for CH_4, N_2O and SF_6 follow the IPCC's AR5 report. Starting with 2017, emissions from ABB's vehicle fleet are based on lease contract distances and tank-to-wheel gCO_2/pkm (grams of CO_2 per passenger kilometer). We applied lab-to-road uplift factors from the International Council on Clean Transportation Europe to better reflect our vehicles' real emissions on the road vs. the laboratory.

Scope 2 GHG emissions for electricity have also been calculated using the location-based method (source: International Energy Agency 2021). The results are provided for comparison below.

Scope 2 GHG emissions from electricity	Kilotons CO_2e
Market-based:	195
Location-based:	351

GHG emissions from air travel are calculated using emission factors, with radiative forcing (RF), published by the UK Department for Business, Energy & Industrial Strategy (BEIS) in its 2021 Government GHG Conversion Factors for Company Reporting.

Definitions

Net-zero vs. zero emissions vs. carbon-neutral

"Net-zero" means that any carbon dioxide released into the atmosphere is balanced by an equivalent amount being removed. "Zero emissions" means that no GHGs are released into the atmosphere. "Carbon-neutral" means that carbon emissions can be offset by a reduction in emissions or a removal of carbon from the atmosphere, for instance through carbon sinks, which absorb more carbon than they emit. To achieve carbon neutrality, companies can buy carbon credits to cover the emissions they cannot eliminate. At ABB, one of our key sustainability targets is to achieve carbon neutrality in our own operations by 2030. We have identified areas that can reduce our CO_2e emissions (see "Greenhouse gas emissions" below) by at least 80 percent. We will make up the balance with new solutions or carbon credits.

Greenhouse gas emissions

GHG emissions refer to all emissions that have a warming effect on the earth's surface by trapping heat in the atmosphere. Carbon dioxide (CO_2) makes up the vast majority of GHG emissions, but other gases like methane (CH_4), nitrous oxide (N_2O) and sulfur hexafluoride (SF_6) also have a warming effect. CO_2, methane and nitrous oxide are released during the combustion of fossil fuels, such as coal, oil and natural gas, to produce electricity. At ABB, we use the metric measure CO_2-equivalent (CO_2e) to calculate our GHG emissions and progress towards our emissions reduction targets.

Independent assurance

DNV Business Assurance Services UK Limited ("DNV") has been engaged by ABB to provide independent assurance for ABB's 2021 Sustainability Report. The assurance was completed using DNV's assurance methodology, VeriSustain™, and the report was evaluated for adherence to the principles of stakeholder inclusiveness, materiality, sustainability context, completeness and reliability. Performance data's scope was evaluated against the reliability principle. DNV's full Assurance Statement, including opinion, observations and basis of opinion, is available here.

Progress against 2030 targets

Low-carbon society

Target text – detail	Target	2019 Baseline*	2021 Status
Support our customers in reducing their annual CO_2e emissions by >100 million tons CO_2e***	100 million tons CO_2e/year	n/a	11.5 Mt
Achieve ABB carbon neutrality** by 2030; reduce own emissions at least 80%	80%	668 kilotons CO_2e	39% (28% in 2021 alone)
Deploy a systematic approach on CO_2 emissions reduction with impactful suppliers	n/a	6,400 kilotons of CO_2e	The target for the reduction of upstream Scope 3 emissions is not yet defined. The production of steel, aluminum, copper and plastic materials make up the bulk of the emissions in our supply chain. In 2022, we will pinpoint a selection of our main suppliers to engage with to reduce the GHG emissions in our supply chain. Reducing GHG emissions in the supply chain for these materials can be achieved by switching to a higher recycled content, a low-carbon primary material, or low-carbon transportation between tiers of suppliers.

* where a baseline applies

** Approach to reporting

*** Savings in the year 2030 from solutions provided to customers 2021-30

Preserving resources

Target text – detail	Target	2019 Baseline*	2021 Status
Cover at least 80% of ABB's portfolio **of products, solutions and services** with circularity approach	80%	n/a	In 2021, we defined our circularity approach that applies to all four Business Areas at ABB. We also developed a qualification/scoring system to evaluate our products, solutions and services against our circularity approach. In 2022, we will calculate the baseline and will implement the methodology across the company. The value of sales of products, solutions and services covered by our circularity approach is targeted to represent 80% of total sales by 2030. The qualification process will cover all four

Target text – detail	Target	2019 Baseline*	2021 Status
			phases of the product lifecycle (supply - manufacturing - use - end of life).
Zero waste to landfill while taking measures to prevent waste generation	Zero waste to landfill where compatible with local conditions	17.6 KT (equivalent to 8.5%)	12.6 KT (equivalent to 6.9%)

* where a baseline applies

Social progress

Target text – detail	Target	2019 Baseline*	2021 Status
Zero harm through LTIFR	0	0.246	0.142
Increase proportion of women in senior management roles	25%	11.70%	16.30%
Top-tier employee engagement score (out of 100)	n/a	71	74
80% of supply spend in focus countries covered by Sustainable Supply Base Mgmt (SSBM) - covering topics from human rights to environment	80%	n/a	Using a risk-based approach, an interim 2025 target has been set, focusing on high-risk suppliers in focus countries**
Interim target for 2025 (spend on high-risk suppliers in focus countries**)	80%	n/a	27%
Common program for community engagement	Common programs in place	n/a	Common ABB program to be defined in 2022

* where a baseline applies

** Argentina, Brazil, Bulgaria, China, Colombia, India, Indonesia, Malaysia, Mexico, Peru, Poland, Saudi Arabia, South Africa, Thailand, Turkey, Vietnam

Integrity and transparency

Target text – detail	Target	2019 Baseline*	2021 Status
Include Supplier Code of Conduct (CoC) compliance in procurement T&Cs	n/a	n/a	Prepared stronger integrity and sustainability clauses for agreements, terms & conditions with counterparties to include: • clauses with regards to acknowledgement of ABB's Supplier Code of Conduct • agreement to comply with anti-bribery, anti-corruption (ABAC) and human rights laws and right to audit
Apply a CoC-based approach to projects and counterparties	n/a	n/a	• New procedures addressing both joint integrity and human rights associated with third party management • Training of our internal ABB stakeholders on the new process • Start testing compliance with the new process
Management sustainability incentive	Yearly rotating target	n/a	• Safety target by Division • ABB CO_2 Scope 1&2 action plan by Division as a "boundary condition" • Achievement against 2021 targets set has been assessed by the Board of Directors' Governance and Nomination Committee and Compensation Committee and are considered as reached

* where a baseline applies

AWARDS & ACHIEVEMENTS

Prize-winning sustainable value creation

In 2021, ABB reviewed the various ratings and acknowledgements it received in the course of the year to determine which of them were most relevant to ABB's key stakeholders. The recognition we received affirmed the validity of our Group's approach to sustainability while encouraging us to strive for even more rapid progress.

The below awards and achievements for 2021 are based on our 2020 performance and do not fully take into consideration the new ambitions and targets of our 2030 sustainability strategy.

Awards and achievements

Learn more about the 2021 awards and achievements by visiting the following websites:

www.msci.com/our-solutions/esg-investing/esg-ratings
www.issgovernance.com/esg
www.corporateknights.com/-clean-technology/2022-carbon-clean200
www.ftserussell.com/products/indices/ftse4good
www.vigeo-eiris.com
www.ecovadis.com
www.sustainalytics.com
www.spglobal.com/esg/csa
www.cdp.net/en

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Low-carbon society

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STRATEGY PILLAR OVERVIEW

We enable a low-carbon society

With our leading technologies, we are partnering with our customers and suppliers to reduce their emissions, and we are working to achieve carbon neutrality in our own operations by 2030.

Target overview

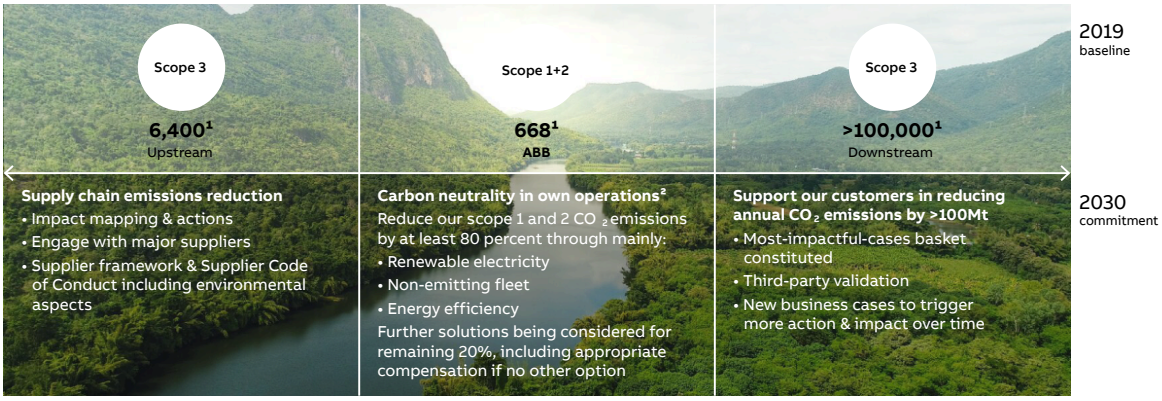
- **Supporting customers** to reduce their annual GHG emissions by **>100 Mt**
- Reducing **ABB's own GHG** emissions by **at least 80 percent**
- Engaging systematically with impactful suppliers on **GHG emissions reduction**

Ahead of the COP26 climate conference in November 2021, ABB CEO Björn Rosengren joined the WEF Alliance of CEO Climate Leaders in signing an open letter to governments proposing bold actions to achieve a net-zero economy by 2050. With our science-based emissions reduction targets, we are part of the United Nations Global Compact's Business Ambition for 1.5°C, as well as the UN-backed Race to Zero.

We have committed to three initiatives of the Climate Group of global companies – EV100, RE100 and EP100. In line with these commitments, by 2030 we will electrify our fleet of more than 10,000 vehicles, source 100 percent of our electricity from renewables, and improve energy productivity across our operations. In 2021, we refitted three major ABB facilities under the Mission to Zero™ program to reduce their carbon footprints and have plans to refit a growing list of sites by 2024. We are also on track to electrify our vehicle fleet, and we are engaging our suppliers on ways to evaluate and reduce their emissions.

While these are critical initiatives, we make our biggest impact through the leading technologies we provide to our customers. These technologies are driving the energy transition and reducing the energy consumption of industries, buildings, infrastructure and transport. Together, these sectors account for nearly 75 percent of global energy consumption.

Commitment to reducing emissions across the value chain



1 Greenhouse gas (GHG) emissions (kilotons CO_2 equivalent)
2 Identified areas where we can reduce our Scope 1 and 2 CO_2 emissions by at least 80 percent, and we continuously work on opportunities to do more

In 2022, we will further develop the action plans of each of our Divisions for reducing our Scope 1 and 2 GHG emissions. Additionally, we will continue to expand and refine the range of high-impact products, services and solutions from our portfolio that deliver significant reductions in GHG emissions for our customers. A working group is currently determining the steps necessary to achieve effective results on the supply side and engaging with selected suppliers.

ABB's activities aimed at enabling a low-carbon society support the achievement of the United Nation's Sustainable Development Goals, in particular, goals 6, 7, 9, 11, 12, 13 and 17.

CUSTOMER EMISSIONS

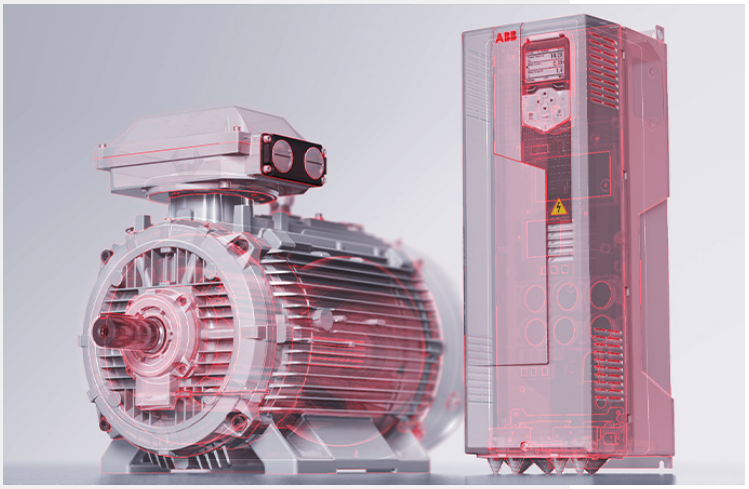
Supporting our customers in reducing their annual greenhouse gas emissions

Target: By 2030, we will support our customers in reducing their annual GHG emissions by at least 100 megatons

We are aiming to enable our customers to reduce their annual GHG emissions by an amount equivalent to that generated by 30 million internal combustion cars. These indirect, downstream GHG emissions represent by far ABB's largest potential impact on climate change.

CASE STUDY

Driving efficiency improvements for industry, cities and transport



ABB's Motion Business Area enables its customers to reduce their carbon emissions with a complete range of high-efficiency motors and drives. Found in a broad range of applications in industry and buildings, electric motors account for 45 percent of the world's consumption of electricity, meaning that even small efficiency improvements offer the potential for huge energy savings.

In Switzerland in 2021, Model Group, a manufacturer of paper packaging, deployed energy-efficient motors and drives from ABB to upgrade its paper machines. Papermaking is an energy-intensive process, and by replacing 36 motors and drives in its factory with new, IE4 super-premium-efficiency models and multidrives, Model Group has reduced its energy consumption by nearly 900,000 kWh per year – equivalent to the power consumption of about 200 single-family homes.

ABB Motion's work with Yara, a mineral fertilizer producer in Norway, illustrates another way we are helping customers save energy. Yara has begun to refit its largest production site with high-efficiency motors and drives from ABB; it has upgraded roughly 1,000 of the facility's motors so far. In the project's next phase, another 2,500 motors will be replaced with ultra-premium-efficiency IE5 SynRM motors and drives. The annual power savings at the company's site in Porsgrunn are expected to be on the order of 32 to 40 GWh, resulting in an annual CO_2 emissions reduction of 12 to 19 kilotons.

With these technologies, ABB is driving major efficiency improvements for industry, cities and transport. In 2021, ABB Motion launched the Energy Efficiency Movement. The goal of this multi-stakeholder initiative is to raise awareness of how advanced technologies can mitigate climate change and propel collective action to reduce global energy consumption.

We intend to achieve this target by equipping our customers with innovative solutions from all areas of our business. Our portfolio includes such energy-efficient innovations as robots equipped with regenerative braking and software for smart energy management, electric propulsion systems that can substantially reduce the emissions of ships, and cutting-edge technologies to detect methane leaks. Our advanced automation, digitalization and electrification solutions support traditionally energy-intensive industries on their journey to more sustainable operations.

Among our most important technologies for reducing energy consumption are our intelligent **motion** solutions, including **variable speed drives** for electric motors, which enable significant electricity savings. We also facilitate the reduction of emissions from cars, buses and heavy trucks with our market-leading portfolio of infrastructure solutions for AC and DC electric vehicle charging. And, crucially, we support the energy transition with technologies that integrate power from intermittent renewable sources into the electricity grid.

CASE STUDY

Automated solutions that boost productivity and reduce emissions

ABB's Process Automation Business Area's integrated automation, electrification and digitalization solutions have a central role to play in enabling more sustainable operations in the heavy industries. For customers in process, marine and hybrid industries, Process Automation's offerings – which include such ABB technologies as distributed control systems, marine propulsion, high-power rectifiers and data analyzers – enable their operations to be more productive while reducing environmental impacts.

In 2021, Process Automation's Process Industries Division launched ABB Ability™ eMine – a purposeful approach and an integrated portfolio of electrification and digital systems to electrify mining processes, from hoisting and grinding to hauling and material handling. As an example of what it achieves, the pilot technology eMine™ FastCharge is set to be the world's fastest and only fully automated charging system for mining trucks, offering up to 600 kW of power when it comes to the market. Process Automation is working closely with original equipment manufacturers Stäubli and MEDATech to ensure the requisite infrastructure is available for the sector to electrify a wide range of equipment, from drills to excavators and loaders. This infrastructure also includes solutions such as the eMine™ Trolley System, which can reduce diesel consumption, and thus GHG emissions, by up to 90 percent with trolley-assisted hauling, compared to diesel-only operations.

Drawing on ABB's 130 years of experience in the mining industry, eMine™ provides integral design planning that serves to maximize the value of electrification. By fully integrating electrification and digital systems from the mine to the port, eMine™ reduces CO_2 emissions as well as costs, promotes health and safety, and improves mine performance. It is underpinned by ABB Ability™ MineOptimize, a platform that optimizes the design of the plant or mine and facilitates the transition to the digital, CO_2-free mine of the future.

As an example of how Process Automation is making shipping more sustainable, the Business Area's Marine & Ports Division is working to deliver an integrated electric propulsion system and advanced vessel control technology for the pioneering eWolf tugboat being built for Crowley Maritime in the United States. Commissioned to support ship arrivals and departures in California's Port of San Diego, the eWolf will be the first all-electric, battery-powered harbor tug ever built and operated in the US, and the third of its kind in the world. The solution will include a 6 MWh energy storage system, providing power to the propulsion system almost instantaneously, making ship-assist operations more efficient and emission-free. The battery lets the tug complete a full day of typical work before needing to recharge, while the vessel's all-electric propulsion system is expected to eliminate the equivalent of over 3,100 metric tons of CO_2 emissions over its first 10 years of use.

In 2021, we identified a basket of these and other high-impact products, services and solutions from our portfolio that deliver substantial reductions in GHG emissions for our customers. Based on sales of ABB offerings from this basket in 2021, we calculated that they will enable our customers to reduce their GHG emissions by 11.5 megatons after the first year. The methodology for this assessment has been verified by a third party. Assuming a conservative 10-year lifetime for these offerings, the 11.5 megatons of annual savings would lead to a cumulative reduction of more than 100 megatons of GHG emissions over the 2021-2030 period from products sold in 2021 alone.

Applying the same logic to our 2030 target of 100 megatons of GHG emissions saved annually by our customers, the total impact of our products sold in 2030 will represent an emissions saving of over 1000 megatons (using the same 10-year average lifetime). In the coming years, we expect savings of GHG emissions from our offerings to increase as new products and solutions are added to the basket.

The process of estimating emissions reductions related to the use of our products, services and solutions is not without its challenges. The precise impact of ABB's solutions on GHG emissions depends heavily on the operational profile of a particular customer's assets. In 2022, we will seek to improve our estimates, not only by developing stronger internal GHG measurement methodologies, but also by working with our customers to facilitate the joint management of emissions data. To understand the methodology for calculating this target, please view the page "**2030 targets explained** " in this report.

CASE STUDY

Innovative charging infrastructure that brings e-mobility to the masses

ABB Electrification's E-mobility Division is a world leader in electric vehicle charging infrastructure, offering a full range of charging and electrification solutions for electric and hybrid-electric cars, buses, vans and trucks. ABB entered the e-mobility market in 2010 and as of December 31, 2021, has sold more than 500,000 electric vehicle chargers across more than 85 markets; these include over 25,000 DC fast chargers and 500,000 AC chargers, including those sold through Chinese EV charging company, Chargedot, in which ABB holds a majority stake.

As governments around the world enact policies that favor electric vehicles and charging networks in order to combat climate change, ABB in 2021 launched the world's fastest all-in-one electric car charger, the Terra 360, which can add up to 100 kilometers of range to a vehicle in less than three minutes. To meet the growing demand for EV charging infrastructure that is fast, convenient and easy to use, the Terra 360 can simultaneously charge up to four vehicles, making it ideal for charging private vehicles as well as fleets of cars, vans and trucks.

ABB's high-power chargers are being deployed around the world through the company's partnerships with international charging operators such as IONITY and EVgo. Capable of charging both commercial and passenger vehicles that use any of the major charging standards, ABB's high-power chargers will support the new GRIDSERVE Electric Highway charging network now being built in the United Kingdom.

In 2021, ABB Electrification entered an agreement with Norway's largest grocery wholesaler, ASKO, and its owner, NorgesGruppen, to supply charging infrastructure for its growing fleet of electric trucks. ASKO plans to achieve zero-emission distribution of its groceries by 2026. The first ABB HVC 150C (150 kW) high-power chargers are already in operation at ASKO's distribution center in Oslo, charging two battery-electric trucks, with many more to come. Deploying the ABB Ability™ offering of digital solutions and services, the chargers offer web-enabled connectivity that allows network operators to perform remote monitoring and configuration of charge points, thereby minimizing downtime and increasing efficiency. Norway has itself installed more than 1,000 ABB fast chargers during the last decade as part of its EV infrastructure.

The successful transition from traditional combustion engine vehicles to electric vehicles will depend on the deployment of reliable, widespread charging infrastructure. But building new charging stations can also require new connections to electric grids. Solutions from ABB can strengthen the distribution network by integrating renewables, energy storage and energy management, which can then be coupled with future-proof EV chargers that will be ready for the next generation of electric vehicles.

To help our customers leverage the full benefits of our products and services for their operations, we stay in close communication with them whenever possible. Our EnergySave Calculator is among the engagement tools that ABB relies on for this purpose. It helps customers calculate how much energy and money they could save by using variable speed drives from ABB. EnergySave offers a user-friendly way to compare modern AC drive controls with traditional flow control methods found in a range of applications, such as pumps, fans and compressors. The algorithms deployed by the calculator are refined and enhanced on an ongoing basis, with input from pump and fan manufacturers, to ensure a high level of accuracy.

CASE STUDY

Enabling the manufacture of vital low-carbon technologies

ABB's Robotics & Discrete Automation Business Area serves a diverse range of industries, from automotive and electronics to logistics, with innovative solutions that help reduce GHG emissions. It achieves this by enabling higher productivity, reductions in production waste, and improvements in product quality and durability.

In 2021, Robotics & Discrete Automation's state-of-the-art PixelPaint robotic non-overspray technology was recognized with an Innovation and Entrepreneurship in Robotics & Automation Award for Outstanding Achievement. PixelPaint's inkjet technology conserves resources by eliminating overspray. By increasing the productivity of customized paint jobs by 20 to 100 percent, it significantly reduces the CO_2 emitted from painting processes used by the automotive industry.

The Business Area's pioneering robotics, machine automation and digital services also enable a low-carbon society by allowing ABB's customers to efficiently produce some of the key technologies needed to reduce emissions and save energy and resources. For instance, automated production processes developed by ABB and Absolicon have radically reduced the cost of producing high-quality solar collectors, making it possible for solar energy to compete with conventional heating. At Absolicon's factory in Härnösand, Sweden, a robotic production line now uses two ABB robots to produce a solar collector panel every six minutes; previously, the line produced only three units a day using manual methods.

The project's next phase will supply complete robotic production lines to manufacturers across the globe to help make sustainable solar energy a viable form of heating worldwide. The first installation has already been delivered to a customer in China, and framework agreements for new production lines have now been signed with businesses in a dozen countries.

In 2021, ABB Robotics & Discrete Automation partnered with Intelligent City, which is seeking to transform the world's foremost source of greenhouse gas emissions – the construction industry. On the company's shop floor in Vancouver, Canada, ABB robots process, handle and assemble large sections of timber in a production line for prefabricated structural modules that can be used to construct buildings up to 18 stories tall. This solution also makes use of ABB's RobotStudio offline programming software to plan tasks and movements and to design the factory and the production line.

Robotic automation offers significant potential to enhance productivity, efficiency and manufacturing flexibility throughout the construction industry, including automating the fabrication of modular homes and building components off-site, robotic welding and material handling on building sites and robotic 3D printing of houses and customized structures. As well as making the industry safer and more cost effective, robots are improving sustainability and reducing environmental impact by enhancing quality and cutting waste.

ABB EMISSIONS

Achieving carbon neutrality across our operations

Target: By 2030, we will achieve carbon neutrality across our own operations

We have committed to neutralizing ABB's carbon footprint by 2030. From 2019 to 2021, we already reduced our own GHG emissions by 39 percent. In 2021, we reduced our GHG emissions by 28 percent. Our 2019 baseline for our Scope 1 and 2 GHG emissions was 668 kilotons, and we have already identified areas where we can reduce these direct and indirect emissions by at least 80 percent by 2030. These areas include the use of renewable energy, electrifying our entire vehicle fleet, and implementing energy-efficiency measures at our sites. Further solutions for the remaining emission will be explored. In the event that no other solutions are found, we will look for appropriate offset options.

In 2021, we worked to translate ABB's target of carbon neutrality in our own operations and our commitments to the EV100, RE100 and EP100 initiatives, among others, into specific programs and KPIs, for implementation by our Group's Business Areas and Divisions. In addition, we created an ABB-wide carbon emissions baselining and forecasting roadmap, which sets forth expected progress on a year-by-year basis at a granular level.

CASE STUDY

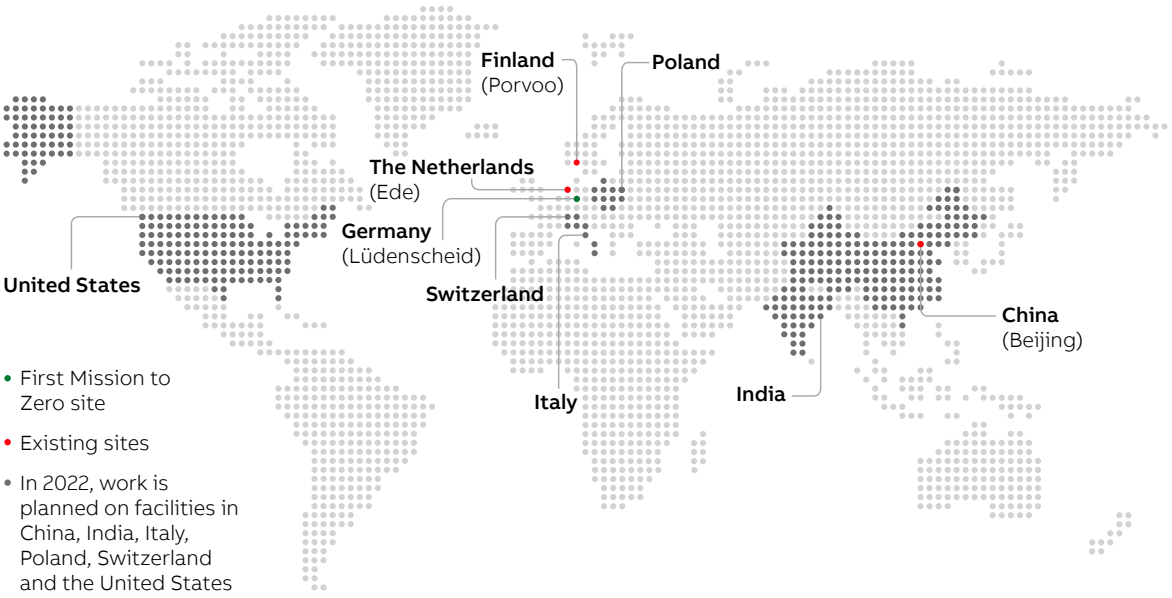
An innovative arrangement to reduce ABB's carbon emissions

ABB India's Distribution Solutions facility in Nashik (built in 1978) developed and implemented a unique project in 2021 to reduce the site's carbon emissions, by installing four photovoltaic power plants, with a capacity of 1,400 kWp, generating enough energy to cover up to 40 percent of the site's electricity needs.

This installation, carried out in different steps and completed in November 2021, has already saved 1,570 tons of GHG emissions in 2021. ABB will enhance this project by deploying a digital building and energy management solution, to further optimize and minimize energy consumption and costs.

In the course of making a major contribution to ABB's commitment to achieve carbon-neutral operations by 2030, the facility became the first of the approximately 10,000 factories that lie within the Nashik Industrial Area to be recognized with a gold certification by the Indian Green Building Council.

Mission to Zero sites



In 2021, we continued to improve the energy efficiency of ABB sites around the world. More than 100 energy-efficiency projects were implemented in 2021 across ABB, saving 17.5 GWh of energy. Additional energy reviews and audits at both the Business Area level and Group level are underway or scheduled. The results will be used to implement operational and infrastructure changes to reduce energy consumption. Related projects include installing energy management and monitoring systems, building on-site capacity to generate renewable energy, upgrading motors and drives, making changes to production processes and simply upgrading to LED lighting. Also in 2021, the ABB Real Estate function's energy savings program reaped a total of 83.5 GWh per year and $18.5 million in savings[1] between 2018 and 2021 from 243 completed, ongoing and

1 The reported figures should be considered as an indication of the potential impact resulting from EE-projects within ABB worldwide and not as resulting from project-specific measurement and verification (M&V) activities.

planned energy-saving projects in ABB buildings worldwide. Even considering the decreasing emission intensity of the energy purchased globally by ABB, these projects enable us to cut our GHG emissions by 22.2 kilotons[2] per year.

ABB electricity consumption and share of green electricity in 2021

We increased our share of certified green and self-generated solar electricity

from **31%** in **2020**

to **51%** in **2021**

In total, ABB consumed

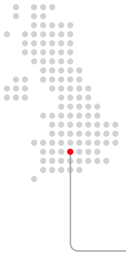
3,500,000
gigajoules (GJ)
of electricity in **2021**

The process of electrifying vehicle fleets across our Group is well underway. ABB is on track to fulfill its commitment to the EV100 initiative to electrify its fleet of more than 10,000 vehicles by 2030, with actions currently ongoing across the world, including Sweden and the United Kingdom. In 2021, 44 percent of ABB's global new vehicle orders were for either EVs or plug-in hybrid vehicles (PHEVs).

Sweden and United Kingdom fleet conversion

512
company cars

180
fully electric
15
plug-in hybrid



38%
of fleet electrified

United Kingdom

Sweden

60%
of fleet electrified

666
company cars

139
fully electric
263
plug-in hybrid

Similar initiatives are being planned or are underway at many additional ABB sites.

2 Regardless of the related energy source, the CO_2 emissions resulting from energy savings are estimated at a given emission intensity of 0.266 kilotons CO_2 per GWh – the average emission intensity of the ABB Group in 2020 (Source: ABB Sustainability Report 2020).

Our direct emissions of GHGs from on-site handling of sulfur hexafluoride (SF_6), as well as leakage of SF_6 from our production processes, were also addressed in a dedicated, global program. In total, we reduced ABB's direct emissions of SF_6 by 32 percent over the past year. In 2021, we emitted 2.21 tons of SF_6, down from 3.26 tons in 2020.

CASE STUDY

Blazing a trail to the low-carbon future

In 2019, ABB launched the Mission to Zero™ program at its Lüdenscheid, Germany site to meet the rising demand for sustainable, future-proof smart buildings. Mission to Zero provides comprehensive consulting and delivery services, technology, and financing for facilities seeking to reduce emissions and achieve carbon-neutral operations.

The program continues to expand, with three additional sites added in 2021 – Beijing (China), Porvoo (Finland) and Ede (Netherlands) – all of which are running ABB digital and smart energy management solutions. At present, and in addition to Nashik (India), the program is onboarding ABB sites in Dalmine and Frosinone (Italy), Senatobia, Mebane, Jonesboro and Vega Baja (USA), Xiamen (China) and Schaffhausen (Switzerland). While these examples illustrate how the Mission to Zero program will play a key role in helping ABB meet its commitment to carbon-neutral operations by 2030, its ultimate goal is to build on that success and make it available to our customers and suppliers in support of the global effort to mitigate climate change.

The Mission to Zero program builds on that success and seeks to deploy replicable, scalable and profitable solutions worldwide, which can also be integrated with third-party solutions. The program enables commercial and institutional buildings to be smarter, safer and more sustainable via a bundled modular offering of digital products and solutions that are easy to install and operate. Since many customers lack expertise in energy management, ABB offers an end-to-end approach and one-stop shopping for building automation and smart energy management solutions. These include ABB Ability™ Building Ecosystem, NeoGear low-voltage switchgear solutions and ABB Ability Energy and Asset Manager.

EMISSIONS IN THE SUPPLY CHAIN

Engaging with our suppliers to reduce their emissions

Target: We engage with our suppliers to amplify our impact in reducing emissions across the supply chain

To enable a low-carbon society, we also need to reduce emissions in our supply chain. When developing our science-based target, we estimated GHG emissions in our supply chain and are now working with our commodity experts and suppliers to develop a systematic approach to reduce these emissions. We have set a science-based target to cut our overall Scope 3 emissions by 15 percent by 2030, which will include important contributions from our suppliers.

Over the course of the year, ABB's four Business Areas began preparing to engage with suppliers on the topic of emissions. These preparations included forming dedicated teams and establishing priorities and action plans. Mapping potential impacts of commodities and processes in our supply chain, identifying the current performance of major suppliers, and evaluating their existing or planned emission reduction programs will form the basis for further discussions and help us finalize our overall emissions reduction goal. Furthermore, ABB has built up its internal capacity to conduct comprehensive life cycle assessments (LCAs). These LCAs are revealing the total contribution of raw material sourcing to the overall carbon footprints of our products, while also pointing out where we can conduct meaningful interventions with suppliers.

ABB's supply chain emissions reduction efforts have implications for our business. Above all, they will lead to further review and evaluation of our suppliers' positions and actions on sustainability topics. Eighty percent of our supply chain emissions (Scope 3) come from raw materials (62 percent) and transport (15 percent). The most important materials for our business are steel, aluminum, plastics and copper, in that order.

For more information about ABB's comprehensive approach to supplier engagement, please refer to "Responsible Sourcing" in this report.

03
Preserving resources

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STRATEGY PILLAR OVERVIEW

We preserve resources

To help preserve the earth's resources for future generations, ABB has defined a systematic, company-wide approach to circularity. We seek to minimize the quantity of resources consumed and to keep resources in use across the value chain.

Target overview

- Covering **at least 80 percent** of ABB products and solutions with **circularity approach**
- Sending **0 waste** from own operations to landfill
- Ensuring **80 percent** of supply spend in focus countries is covered by **SSBM**

By 2030, at least 80 percent of our products and solutions will be covered by our circularity approach and evaluated according to a set of KPIs, corresponding to each stage of the product lifecycle.

In our own operations, we will also send zero waste to landfill or to incineration without energy recovery, wherever this is compatible with local conditions and laws. Today, 40 percent of around 440 ABB sites around the world are already sending zero waste to landfill.

At the same time, we are making a concerted effort to identify our use of restricted or hazardous substances, which we aim to reduce and, where possible, eliminate from our operations.

ABB's circularity approach will be extended to our suppliers as well. Through a range of initiatives that we are implementing across our supply chain, we will ensure that the materials we use form part of our circularity approach, among other objectives. For further information on other objectives related to our supply chain, please refer to "Responsible Sourcing" in this report.

Our approach is built on principles that will drive circularity in our own operations and simultaneously enable our customers to become more circular. By 2030, we will additionally seek to develop innovations that will enable new, circular business models. These innovations will address all stages of a product's lifecycle. All of our KPIs in this area will be based on a clear and transparent scoring system that considers eight circularity levers – two for each stage of the product lifecycle. This systematic, holistic approach will allow for continuous improvement and tracking of progress.

For 2022, our main objective is to start the implementation of our circularity approach as follows:

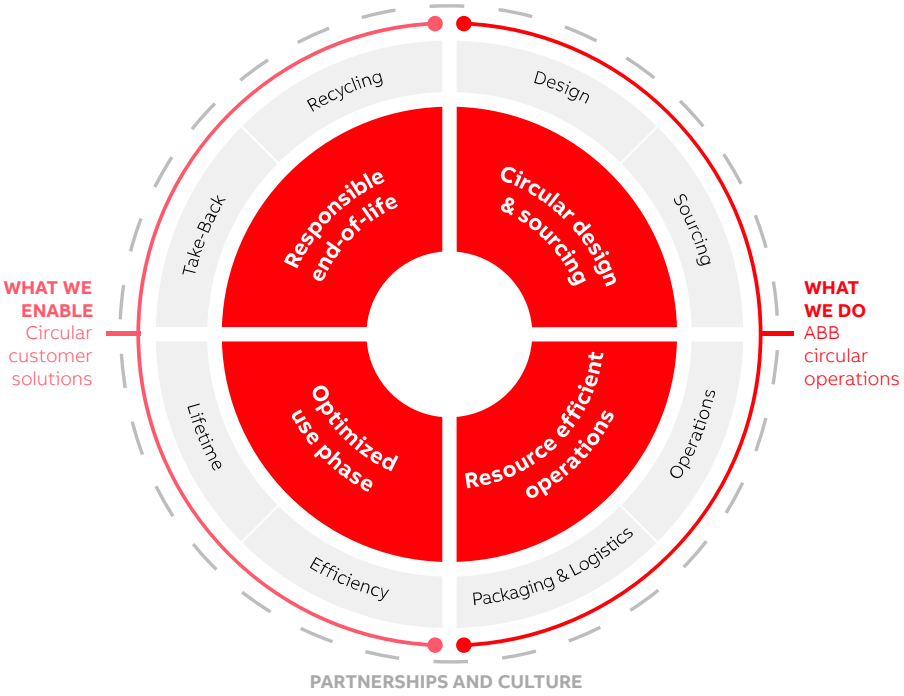
- Set up common governance rules for our circularity approach
- Continue mapping our initial baseline
- Expand our assessment of each of the eight circularity levers across all four Business Areas and set priorities in each Division

CIRCULARITY

Circularity approach

Target: 80 percent of ABB products and solutions are covered by our circularity approach

ABB circularity approach



Our comprehensive circularity approach is built around a framework that drives circularity in our own operations and enables our customers to become more circular. By 2030, we aim to innovate towards new circular business models, covering all stages of the product lifecycle:

- We consider the entire product lifecycle at the design and sourcing stage. Our goal is to develop products and solutions that can be produced in a resource-efficient manner that minimizes the use of virgin or hazardous materials. At the same time, we ensure that our product design takes various aspects of circularity into account, such as extended lifetime, repairability, modularity and recyclability, among others.
- In the production phase, we work to eliminate or recycle any waste generated by our processes and packaging.

- Once our products are in service, we help our customers maximize the efficiency and lifetime of their equipment.
- At the end of the product lifecycle, we seek to ensure that products can be refurbished whenever possible, or dismantled and recycled. Steel, aluminum, copper and plastics make up the majority of materials used in our products. Most of these materials are reclaimable at the end of a product's life, and we design our products with this in mind.

Examples of how we cover the four stages of the circularity approach at ABB

Product design and sourcing

In order to make our product design and sourcing processes more circular, in 2021, we continued to implement a series of projects intended to identify fully renewable, recyclable or biodegradable resource inputs for our manufactured products. At ABB's site in Porvoo, Finland, we are using post-consumer recycled (PCR) plastics for the manufacture of box supports and distance rings for our System Ideal range of flush-mounted electrical boxes. The System Ideal components are made of up to 50 percent recycled plastic, depending on the application. Thanks to circular product designs like System Ideal, in 2021, the total weight of recycled materials used in Porvoo was 64,000 kg, resulting in a reduction of some 96,000 kg of GHG emissions. We will continue to develop and release new products made from PCR plastics. Also in 2021, at our site in Ede in the Netherlands, in partnership with Ultrapolymers BC, we began to use PCR plastics for the production of surface-mounted junction boxes. By the third year of this project, we expect that each kilogram of recycled plastics used will result in an associated CO_2e reduction of 1.5 kg.

Production and packaging

In 2021, we carried out initiatives to make our production and packaging more circular. At our Ede site, for example, we made changes to ensure that input materials are reused to the fullest possible extent in our production processes. The materials left behind from our injection-molding processes are now shredded and reused; excess materials that fail to meet our production standards – such as those generated when the production equipment first starts up – are collected and shredded for reuse in non-critical items, such as marking jigs. At our Busch-Jaeger sites in Germany, we collected over 150 tons of plastic production waste and sent it for recycling by a partner, Geba Compounding, after which 43 percent was reused for production.

Water is necessary in many of our production processes and, in 2021, we continued to optimize our sites' use of this vital resource. In India, for example, our site in Nelamangala, Bangalore, has put in place water reduction, water recycling and rainwater harvesting processes, among other conservation measures. The site's water management system was assessed by The Energy and Resources Institute (TERI) and certified as a "Water Positive" factory. Water-saving initiatives such as these resulted in a reduction of

12 percent in ABB's total water withdrawals. Forty-seven percent of our water withdrawals were from stressed watersheds and amounted to 1,252 kilotons for the year, down 1.3 percent from 2020.

Packaging materials represented another focus area in 2021. Initiatives such as ABB Process Automation's "Think Outside the Box" program reduced the amount of cardboard used at the Business Area's site in Ossuccio, Italy, by an estimated 16.9 tons over the past year. Efforts to procure sustainably produced cardboard, certified by the Forest Stewardship Council (FSC), will result in facilities such as ABB Electrification's plant in Frosinone, Italy, using these materials exclusively starting in 2022.

Use phase

Once our products have been placed in service, we offer our customers a number of options to extend the lifecycle of their equipment. Retrofits, for example, extend the service life of existing drives and allow customers to replace only the essential components. By retaining the equipment's original cabinets and cabling, electrical components and automation systems, retrofits enable customers to modernize their machinery with a minimum of investment, waste and interruption to normal operations.

Digitalization plays an important role in augmenting the positive impact of our products and solutions. Our digital solutions enable our clients to extend the lifetime of their assets through optimization, remote operations and preventative maintenance. For example, one of our digital solutions, ABB Ability™ Genix, brings together the combined power of industrial analytics and artificial intelligence to help our customers unlock the value of contextualized data, improve industrial productivity and achieve operational excellence.

We also continued to explore new circular business models, such as outcome-based service models. Through this approach, customers could contract with ABB to deliver a specified level of cost savings, energy efficiency, water efficiency or raw material efficiency, among other actionable outcomes that relate to our domain expertise.

End-of-life phase

In 2021, we worked to incorporate products at the end of their lifecycle into our circularity approach by joining forces with sustainable recycling specialists and other partners. For example, in the Netherlands, ABB and HKS Metals forged a partnership that helps close the loop in the lifecycle of an electric motor. Through this agreement, HKS will collect and recycle obsolete ABB electric motors and then send the recovered raw materials to smelters across Europe to be melted down and made available to ABB for reuse in new products – including new motors.

In Sweden, ABB, Stena Recycling and SCA are also working together on motor recycling. Through this partnership, 11 tons of decommissioned motors have been processed by Stena Recycling. Nearly 100 percent of the material weight of these motors has been recycled, avoiding an estimated 34 tons of GHG emissions. In addition, an estimated 326 MWh of energy and more than 100,000 cubic meters of water were saved by not having to mine new metals.

In Italy, we collaborated with INTERSEROH TSR Italy for the collection and management of our products at the end of the lifecycle. Through this collaboration, ABB Electrification's Smart Power Division can guarantee its customers that, when they replace an ABB product at the end of its lifecycle with a new ABB product, the discarded ABB product will be collected and more than 80 percent of its components will be recycled. Additionally, INTERSEROH TSR Italy will issue the customer a certificate of proper waste management, specifying the calculated amount of avoided GHG emissions.

Over the last 25 years, thousands of used robots have been given a second life by ABB's remanufacturing teams, which refurbish and upgrade them. Peripheral equipment, such as controllers and manipulators, is also refurbished to "like-new" condition at ABB's Global Remanufacture & Workshop Repair Centers. Remanufacturing enables existing robot users to sell redundant robots to ABB rather than scrapping or mothballing them. A lifecycle assessment undertaken in 2021 revealed that the process of refurbishing a robot releases roughly 75 percent fewer GHG emissions compared with manufacturing a new robot.

CASE STUDY

Reinvigorating old equipment with new retrofit solutions

As part of ABB's commitment to cover 80 percent of products and services with its circularity approach by 2030, we are working closely with partners, customers and suppliers to extend the useful service life of equipment.

As an example of this approach, in 2021, ABB Motion's Services Division worked with Mondi SCP, the largest wood processor and producer of pulp and paper in Slovakia, to implement a retrofit solution for the ACS600 drive units used in Mondi's paper machines. The units were at the end of their lifecycle, so ABB's engineers helped Mondi determine the optimal scope and timing for a program of modernization, based on the condition of the existing drives. Together, the two teams agreed on which hardware solutions and control system updates to deploy before setting a detailed schedule for the installation. The retrofit solution was then carried out in just one week.

By offering thoughtfully tailored retrofits to extend the lifecycle of existing drives, ABB enables its customers to replace only the necessary components, while retaining most of their existing infrastructure, cabinets and cabling, electrical equipment and automation systems. Older generations of multidrives can be updated to the latest ACS880 technology, which is compatible with nearly any industrial process, automation system, user group or business requirement. The approach minimizes the costs of modernization, while limiting any interruption to operations. Best of all, it extends the useful life of valuable assets and enables greater circularity when it comes to managing the lifecycle of the equipment.

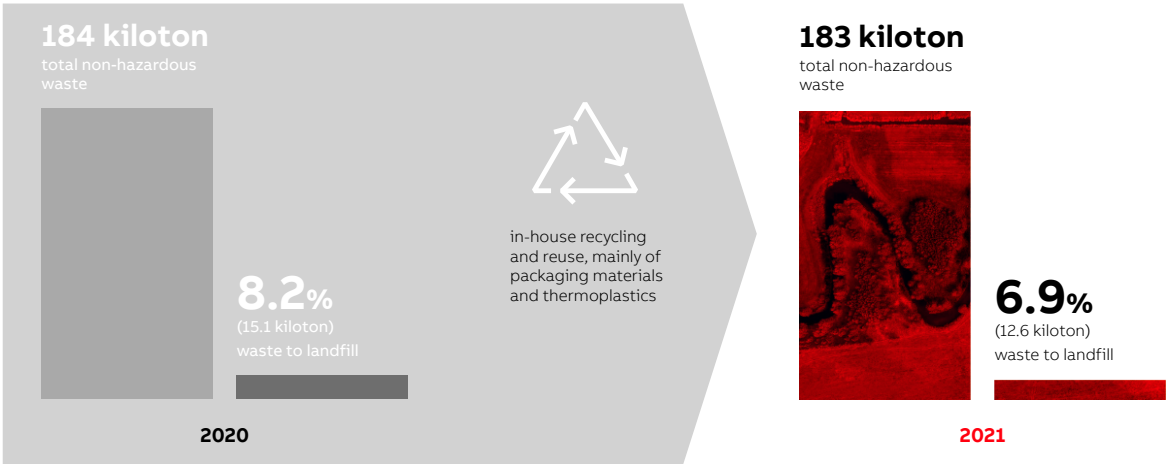
WASTE

Zero waste

Target: Zero waste from our own operations will be disposed of in landfills, wherever this is compatible with local conditions and regulations

We are committed to eliminating the impact of ABB's waste on the environment. We are working towards this target by means of a wide range of waste reduction and recycling programs at our sites around the world.

Total waste to landfill



Globally, we now have 185 sites that send zero waste to landfill, with around 255 making progress towards this goal. Over the past year, through in-house recycling and reuse, mainly of packaging materials and thermoplastics, we reduced the amount of waste that ABB generates by 2,300 tons.

We implemented more than 40 recycling and waste reduction projects in 2021. These projects reduced the waste we generate annually by 140 tons, while delivering annual savings of some $100,000. More than 40 percent of these projects have a payback period of less than two years.

Initiatives such as switching from polyurethane-based packaging to paper, as was done at our Ossuccio site in 2021, are helping us become a zero-waste enterprise. This one initiative alone eliminated 35 tons annually of non-recyclable waste produced from hazardous chemicals. In the United States, several ABB sites have opted to pay a premium to send their waste to an energy-recovery facility instead of the local landfill. Such initiatives demonstrate that we are willing to pay more to uphold our commitment to operating in an environmentally responsible manner.

CASE STUDY

Frosinone joins growing group of ABB zero-waste facilities

In 2020, ABB Smart Power's low-voltage circuit breaker factory in Frosinone, Italy, achieved its goal of disposing zero production waste to landfill. In operation since 1969, the 150,000-square-meter facility with more than 800 employees implemented a whole-factory program to do its part in meeting ABB's commitment to zero waste to landfill at all of its sites by 2030.

The site is recognized as a lighthouse plant by the Italian government, together with two other Electrification sites in Italy (Dalmine and Santa Palomba), and serves as a model for innovative digital transformation and Industry 4.0. In both its operations and its products, the Frosinone facility promotes smart, digital, connected operations that increase efficiency across the full value chain. To make the facility's production even more sustainable, the team established thorough waste-sorting and identification procedures at the key points where waste originated. The site now features roughly 150 differently-labeled production waste containers, and there are separate containers for paper and plastic waste at each workstation. Staff training was critical to making the project a success, as it empowered colleagues to make waste separation decisions and engaged them fully in the initiative.

In achieving zero production waste to landfill well ahead of ABB's commitment, as well as going beyond the European Union's Circular Economy Package target of no more than 10 percent to landfill by 2035, the facility demonstrated that fast and effective progress in preserving resources is well within reach.

RIGHT MATERIALS

Eliminating unsafe materials from our operations

The ABB List of Prohibited and Restricted Substances serves as our guide in reducing and, where possible, eliminating our use of hazardous materials. This list applies to all our operations, including procurement, product development, production processes, products, packaging materials, service activities and construction sites. We update the list twice a year in keeping with international regulations, in particular the EU REACH regulation.

To help suppliers meet their obligations – which include partnering with us to identify and prevent restricted substances and conflict minerals from entering ABB's supply chain – we have developed a companion guide to the above-mentioned list. ABB's Global Terms and Conditions for suppliers and our Supplier Code of Conduct address prohibited and restricted substances in the context of regulatory compliance.

In 2021, we launched 16 new projects to reduce and phase out hazardous substances. Due to the variety and specialized nature of our Group's products and processes, the reduction of hazardous substances is typically addressed on a site-by-site basis.

Under our new business model, described in ABB's 2020 Sustainability Report, our Business Areas assumed full ownership of their respective product material compliance duties. These include ensuring that ABB complies with EU requirements for chemicals and products listed in the Substances of Concern in Products (SCIP) database. One example of the success of this approach is the screening program developed by ABB Electrification and its suppliers, which monitors and eliminates hazardous substances from components supplied to ABB. In 2021, through this program, we gathered data on more than 370,000 components and worked with more than 10,000 active suppliers to satisfy our mutual obligations under the European Union's REACH and RoHS regulations.

04
Social progress

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STRATEGY PILLAR OVERVIEW

We promote social progress

At ABB, we are building safe, fair, equitable and inclusive working environments where our people can succeed and develop. That means continuously reducing workplace injuries, improving our employees' sense of well-being, increasing diversity & inclusion, promoting respect for human rights, and making ABB a place where people want to work and build their careers.

Target overview

- Achieving **zero harm** through yearly reduction in lost time from incidents
- Doubling **proportion of women** in senior management roles to **25 percent**
- Achieving **top-tier employee engagement score** in our industry
- Providing impactful support for **community-building** initiatives

Beyond our own operations, we support community development around the world through impactful initiatives focused on education, diversity and inclusion, and care in the community.

Additionally, we promote social progress in our supply chain through our Sustainable Supply Base Management system, which also drives broader environmental, social and governance performance (ESG).

In the field of human rights, ABB goes beyond compliance by embedding human rights considerations in our decision-making processes, by prioritizing human rights in the risk analyses we perform for our entire value chain, and by building human rights awareness, knowledge and expertise throughout our businesses. Respect for human rights - or, simply put, respect for people - underpins our approach to social progress.

Four of the targets in our 2030 sustainability strategy relate directly to how ABB is working to promote social progress. First among them is our effort to ensure a safe working environment: We aim to achieve a yearly reduction in lost-time incidents. Second, we are working to double the proportion of women in senior management roles to 25 percent. Third, we are seeking to achieve and maintain a top-tier employee engagement score in our industry. Fourth, we will provide impactful support for a range of community-building initiatives.

SAFETY

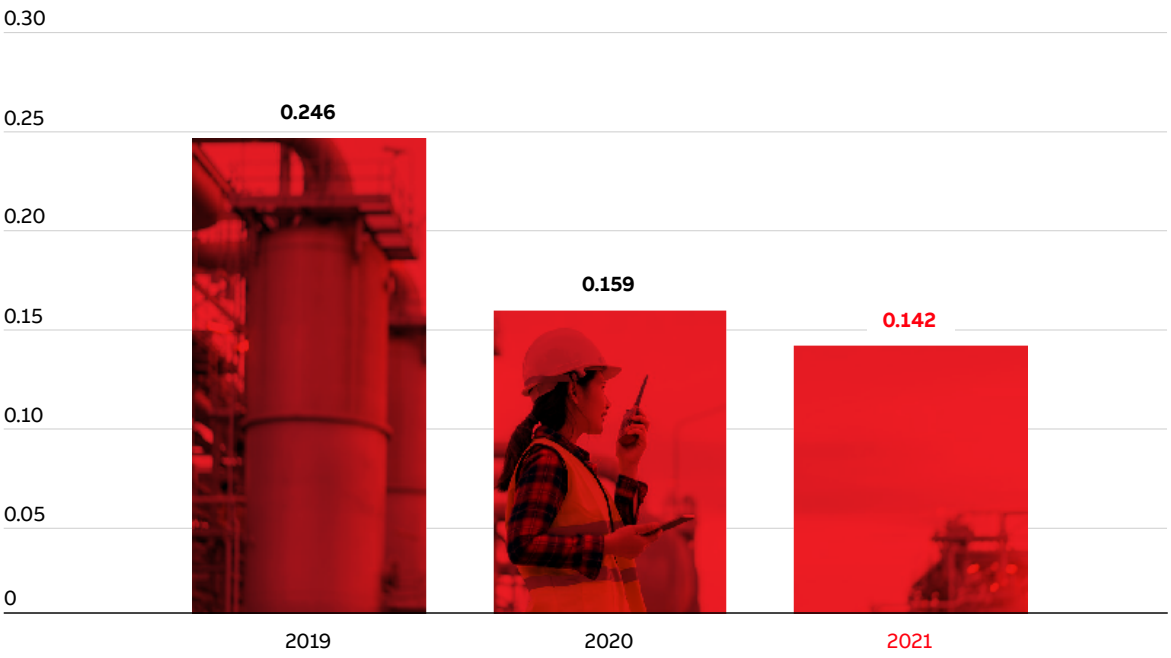
Zero fatalities for the first time in 10 years

Target: Zero harm is caused to our people and contractors; we aim for a yearly reduction in lost-time incidents

At ABB, safety is our highest priority and the foremost standard by which we measure our performance. Our ability to ensure the safety of our people is critical to our long-term success, reputation and standing as the best partner for our customers and other stakeholders.

In 2021, we recorded a lost-time injury frequency rate (LTIFR) of 0.14. In our previous sustainability reporting cycle, we used a total recorded injury frequency rate (TRIFR) to measure our progress in making ABB a safer place to work. We opted to use LTIFR for the current sustainability cycle because it is directly related to productivity and more widely accepted within our industry. Furthermore, LTIFR is generally more accurate, because in today's reporting culture, there is a minimal probability of a lost-time incident going unreported.

Safety at ABB



For the first time since 2011, ABB recorded zero employee fatalities and zero contractor fatalities for the year in 2021. While we are very pleased with this result, we are aware that any safety incident has the potential to lead to a fatality. With this caveat, we have reason to be proud of the robust safety culture ABB has built over the past decade. Our Business Areas' safety programs have been highly effective at reducing or eliminating conditions that can lead to incidents, for example by focusing on hazard reporting and conducting sustainability observation tours. This is also evidenced by the downward trend in the total number of serious incidents ABB has recorded since 2014.

Since they have the freedom to design and implement their own safety programs, our Business Areas and their Divisions were able to create a wide variety of thoughtfully targeted and granular approaches to the specific risks that each Division, service product group or industry faces. These programs are not required to conform to "one size fits all" prescriptions.

To mitigate the risks associated with this flexible, decentralized approach to safety, our Business Areas and their Divisions are required to take full ownership of their respective safety programs. They are thus fully accountable for delivering results commensurate with our Group's strong commitment to safety. Furthermore, to increase corporate monitoring of corrective actions and lessons learned, we are strengthening the governance of ABB's safety activities via regular council meetings and steering committees. In this way, ABB's corporate leadership and its Business Areas can identify, align and collaborate on company-wide improvement programs.

DIVERSITY & INCLUSION

Leveraging diversity and increasing female representation in management

Target: Double the proportion of women in senior management roles to 25 percent, within our comprehensive diversity and inclusion framework

Our aim to double the proportion of women in senior management roles is part of our broader Global Diversity and Inclusion Strategy 2030, which has the ambition to make ABB a truly diverse, fair and inclusive place to work for everyone. That strategy is underpinned by a comprehensive diversity and inclusion framework that recognizes diversity in all of its dimensions: gender, ethnicity, age, ability and sexual orientation. The strategy is based on three pillars:

1. Governance
2. Inclusive leadership and culture
3. Partnerships

Women in senior management (%)

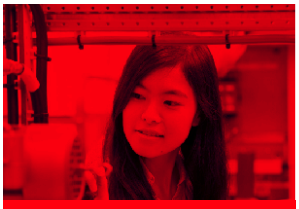
At ABB, senior managers are defined as employees in Hay grades 1-7.

In 2021, we ran mentoring and leadership development programs across all Business Areas to develop and strengthen our pipeline of female talent globally and regionally. These programs provide promising female employees with mentors for professional guidance, learning and support, as well as networking opportunities with ABB senior leaders. They also help our female team members become part of a mutually supportive community to enable them to realize their potential and assume more senior leadership positions.

Our Business Areas have embraced these programs. In 2021, more than 100 mentees and 100 mentors from both ABB Motion and ABB Robotics & Discrete Automation participated in ABB's Female Mentoring Development Program. In ABB Process Automation, 112 talented female employees joined the "PA Women Development Program" for a period of nine to 12 months. And ABB Electrification launched the Women's Leadership Development Program (WLDP) to strengthen its female talent pipeline, providing visibility, development, senior sponsorship and executive coaching for program participants.

Along with our 2030 target for increasing the representation of women in senior management, we have three additional targets for diversity, equality and inclusion (DEI): to achieve an equal gender balance among our early talent hires, to provide broader access for our people to Employee Resource Groups[3] (ERGs) and to improve employee perceptions of inclusiveness at ABB.

Diversity & inclusion highlights in 2021



40.5%
of early talent hires were women

Launch of new flexible work practices **first global, gender-neutral, parental leave program**

Official Global Partner of the **FIA Girls on Track** ABB Formula E Project

dedicated **D&I** initiatives within ABB's four Business Areas

moving ABB's culture of inclusion forward through dedicated activities during **Pride Month 2021**

Early talent hires, ERGs and inclusiveness at ABB

In 2021, we made good progress on all three of our internal DEI targets. Among our early talent hires, 40.5 percent were women; we now have 22 active ERGs in countries across the world; and we established a baseline for our inclusiveness target. In keeping with our efforts to build a robust culture of inclusion, more than 7,600 ABB managers and other employees have completed our "Interrupt Unconscious Bias" program. Diversity and inclusion are also among our core leadership competencies, and we have made a wide selection of learning paths on this topic available to all of our people.

3 Employee Resource Groups are voluntary, employee-led groups whose mission at ABB is to champion diversity initiatives and embrace the differences that make us unique, thereby fostering an environment of inclusion, equity and belonging at ABB.

Global, gender-neutral, parental leave program

Among other initiatives to make ABB more inclusive, in 2021, we revised our Group-wide guidelines for flexible work practices, which are now being rolled out across ABB and we launched a global, gender-neutral, parental leave program, providing 12 weeks of paid leave for primary caregivers and four weeks for secondary caregivers . Additionally, substantial work has been done in the past year to attract, recruit, develop and retain diverse talents.

ABB Pride

During Pride Month 2021 , thousands of our people participated in events aimed at promoting a culture of inclusion. ABB was recognized by Germany's Prout at Work Foundation as an LGBTQ+ ERG Global Leader for our efforts to support ERGs and mobilize our LGBTQ+ colleagues and allies in such a short time. In Switzerland, ABB was honored with the Swiss LGBTI-Label – a seal of approval awarded to organizations that actively promote equal opportunities and equity for LGBTI people within the organization.

Partnering to drive social progress

To drive social progress within our company and throughout society, ABB has partnered with the Society of Women Engineers, Society of Hispanic Professional Engineers, National Society of Black Engineers, Stonewall, Catalyst, FEMTEC, Parks and Open for Business, among many others. In May 2021, ABB announced that it had become the Official Global Partner of FIA Girls on Track , an ABB Formula E project to empower girls and promote gender equality in motorsport and beyond.

Initiatives within ABB's four Business Areas

At the Business Area level, ABB implemented a number of actions in 2021 linked to our D&I objectives.

ABB Motion piloted manager-led "Inclusive Teams Workshops" and ran leadership team engagement sessions on the topic of "LGBTQ+ Inclusive Leadership."

ABB Robotics & Discrete Automation celebrated Pride Month in 2021 by displaying Pride-themed YuMi and GoFa robots and hosting a panel discussion on LGBTQ+ issues; more than 900 participants attended the event virtually.

In addition to kicking off its "PA Women Development Program," ABB Process Automation actively supported its Divisions in setting up DEI councils and executive sponsorships.

As well as the establishment of the Women's Leadership Development Program, ABB Electrification initiated a working group on diversity, equity & inclusion and formed the ABB Executive Diversity & Inclusion Council in the United States. The Business Area also conducted unconscious bias training for nearly 1,600 Electrification colleagues around the world.

EMPLOYEE ENGAGEMENT SCORE

Engaging with our employees

Target: Achieve and maintain a top-tier employee engagement score in our industry

Our ambition is to rank consistently among the top quartile of companies in the Glint Global Benchmark.

In our 2021 employee Engagement Survey, ABB received a total employee engagement score of 74 out of 100, compared with scores of 75 in 2020 and 71 in 2019. We scored above the benchmark for six questions, at the benchmark for one question, and below the benchmark for 29 questions. Overall, we have made steady progress since the survey's launch in 2019, when many of our scores were significantly below the benchmark. We remain slightly under the external benchmark but our strong scores on the topics of role clarity and accountability are encouraging, as these two areas are among the cornerstones of our ABB Way operating model. Our efforts over the past two years to simplify our organizational structure and create clear roles and responsibilities for our people are reflected in these results.

More than 81,200 ABB employees took part in our 2021 Engagement Survey - a response rate of 78 percent. That compares favorably to the 73 percent response rate in 2020 and 65 percent in 2019, when the survey was launched.

Employee engagement survey highlights

147,803
comments received

78%
response rate
(=81,243 employees)
in **2021**

is an improvement
compared to
73%
achieved in **2020** and

65%
response rate in
2019 when the survey
was introduced

104,822
ABB employees
invited to the **2021**
Engagement Survey

In **2021** ABB received
a total employee
engagement score of
74/100

compared to
75/100
in **2020**

71/100
in **2019**

In addition, we received 147,803 comments, demonstrating a high level of engagement and a willingness among employees to embrace our "speak-up culture" and participate in a Group-wide dialogue. While the number of comments decreased from 279,170 in 2020 – mainly due to the elimination of some open-ended questions – the robust response is still indicative of strong commitment to ABB. The comments have provided valuable insights into what is working well and what we can still do to make ABB an even better place to work.

COMMUNITY ENGAGEMENT

Supporting community development

Target: Provide impactful support for community-building initiatives around the world

ABB has a long-standing tradition of active engagement in the communities in which its employees and customers live and work. As part of our 2030 sustainability strategy, we are reinforcing that engagement by providing impactful support for community-building initiatives.

Community engagement highlights

Together, our employees and our Business Areas supported our communities

>40
countries worldwide

$10.9
million donated

3,000
person-days volunteered

400+
community projects and charities

ABB's approach to community engagement combines strategic corporate partnerships with country-level projects to address local needs. We aim to assist the most vulnerable and to support community building in education, diversity and inclusion, and community healthcare, poverty and disaster relief.

Our largest program is a corporate-level agreement with the International Committee of the Red Cross (ICRC), which provides humanitarian protection and assistance for victims of armed conflict and other situations of violence. ABB also supports the World Childhood Foundation, a global children's rights organization.

Education has long been a focus of ABB's community engagement activities. One of the many initiatives we support is a new world-class master's program in mechatronics engineering at Ghana's Ashesi University in collaboration with the ETH Zurich. The program aims to promote a new generation of leaders in sub-Saharan Africa who will take responsibility for sustainable development in the region. Since 2007, ABB has also been funding the ABB Jürgen Dormann Foundation for Engineering Education, which helps financially disadvantaged engineering students in 12 countries. In 2021, the foundation supported 93 students at 15 universities.

ABB Jürgen Dormann Foundation

Wherever possible, we maintained our commitments to promote STEM education and careers, particularly for girls and women. ABB's scholarships and mentoring programs continued in China, Estonia, Hungary, India, Sweden and the United States, among other countries. Many of these academic programs include modules that provide students with practical experience in real industrial environments and assist them in developing soft skills to enhance their employability upon graduation.

In 2021, we added three major new initiatives to the large number of educational, technical, entrepreneurial and hands-on training programs that ABB runs for young people.

CASE STUDY

Supporting India's next generation of female engineers

In 2019, ABB India launched a scholarship program with the Lila Poonawalla Foundation (LPF) to promote more inclusive development, both in the workplace and the broader community. The program has been consistently and gradually expanded and now annually provides 200 scholarships to economically challenged young women to help them pursue degrees in the disciplines of their choice at engineering colleges in several regions of India. Each year, interested young women with strong academic backgrounds are encouraged to apply to LPF for the scholarships, which help them pursue careers as leaders in the fields of science and technology.

The new partnership extends well beyond providing the financial support that these young women need to complete their engineering degrees. The scholarship program takes a holistic approach and imparts additional technical training through structured online sessions with ABB employee volunteers. Through supplemental mentorship activities of this kind, the program seeks to help prepare young women for the workforce and develop their skills as future leaders. This program complements ABB's support for other educational initiatives around the world, including the ABB-run Jürgen Dormann Foundation, which operates a scholarship program for students from disadvantaged backgrounds. The foundation seeks to break down the barriers that prevent these students from entering careers in engineering and becoming future leaders in technology.

CASE STUDY

Forging stronger ties with academia

In 2021, ABB announced a new collaboration and a donation of CHF 2.5 million to help position Switzerland as one of the world's leading robotics research hubs. ABB has long worked with ETH Zurich, a leading research university, across multiple disciplines. The new partnership provides support for ETH's RobotX strategic initiative, launched in 2019, which is intended to serve as a global hub for research in advanced robotics. With its exceptional in-house expertise, ABB's Robotics & Discrete Automation Business Area will support ETH's ambition to train new talent and attract worldwide experts who can drive progress in a range of vital disciplines, including mobile robotics.

ABB already supports ETH's research in the use of robotic fabrication in architecture and construction. Our Group helped establish the world's first laboratory for collaborative robotic digital fabrication in architecture, which is hosted at ETH's Institute of Technology in Architecture. Together with ETH, ABB also participates in a project launched by Schindler, a leading manufacturer of elevators and escalators, to develop an automated robotic installation system for elevators. Such a system would improve final build quality and ease working conditions for elevator installers.

ABB is committed to supporting and working with more than 100 universities such as ETH as part of the company's technology ecosystem. These collaborations, which strengthen the ties between academia and industry, are essential to the future of innovation and provide students with new pathways to growth and employment.

CASE STUDY

Helping American students acquire real-world skills

ABB makes a point of investing in education in the communities where our people live and work. In 2021, ABB USA's NEMA Motors Division announced a $1 million donation to the Peak Innovation Center, a regional career and technology center in the public school system of Fort Smith, Arkansas. The center is expected to provide a sustainable boost to the economic landscape of the region by offering innovative, career-focused educational opportunities in the STEAM (science, technology, engineering, art and math) disciplines. The funds from ABB will be used to purchase advanced manufacturing equipment, including hands-on simulators, project control simulators, robotics, and more. This equipment will be used to teach students about real-world scenarios using state-of-the-art technology and equipment.

A collaboration between Fort Smith Public Schools and the University of Arkansas at Fort Smith, the Peak Innovation Center's educational programs will be available to approximately 43,000 students from 22 regional school districts. It will provide them with job-specific simulation training that will equip them with real-world skills for well-paying jobs in advanced manufacturing, health care, information technology, and visual arts or to pursue higher education in their chosen fields. The center will also help meet the reskilling and retraining needs of mid-career workers so they can build new skills and earn new certifications.

Across the world, we also made donations or provided services and other forms of support to vulnerable people and those affected by natural disasters, such as the 2021 floods in Henan, China, and the Ahr Valley in Germany. ABB's employees were particularly active over the past year. Many volunteered in Mexico to support emergency responder groups; in Canada, our people contributed more than CAD 170,000 to address poverty, health and the emergency needs of local communities.

Among the many actions taken by ABB in response to the ongoing COVID-19 pandemic, ABB's Board of Directors and Executive Committee, along with around 200 senior leaders, donated 10 percent of their compensation or salary to COVID-19 relief programs for employees worldwide. We raised $3.4 million through this initiative in 2020 and used these funds in 2021 to provide COVID-related assistance across the world.

Over the course of 2022, we intend to conduct additional research and consultations to develop our community engagement strategy further. These efforts will include the development of a harmonized approach to volunteer activities and of KPIs to measure the effectiveness and impact of our programs.

HUMAN RIGHTS

Integrating respect for human rights into our business

ABB's commitment to responsible business practices includes respecting and promoting human rights as expressed in the International Bill of Human Rights. We support the principles contained within the OECD Guidelines for Multinational Enterprises and the ILO Core Conventions on Labour Standards, and we are committed to implementing the United Nations Guiding Principles on Business and Human Rights (UNGPs) throughout our operations and our value chain. These commitments are underpinned by the ABB Code of Conduct, the Supplier Code of Conduct and the Human Rights policy and statement, which clearly set forth our expectations for every individual who works for ABB or engages with us as a business partner or through our supply chain.

To ensure that we understand our stakeholders' expectations and improve our effectiveness in safeguarding human rights, we stay in close contact with a wide variety of stakeholders, including customers, investors, suppliers, civil society representatives and international organizations. Our Group also engages with and learns from human rights specialists. These activities include peer learning reviews at the Global Business Initiative on Human Rights and participation in the annual United Nations stakeholder forum in Geneva, the World Business Council for Sustainable Development (WBCSD) and local network meetings of the UN Global Compact.

Our goal is for human rights to be well understood and managed in all ABB operations along the full value chain and integrated into ABB's daily business. To achieve this goal, we have developed a five-year plan for human rights activities that focuses on capacity building, risk identification and management, and monitoring performance. Early in 2021, we established a human rights working group to better support the implementation of our human rights plan. The working group consists of a representative from each Business Area and the Group Head of Corporate Responsibility and aims to ensure operational management review and coordination, to share best practices and monitor and report performance progress. The working group reports to the ABB Sustainability Council.

Building ABB's internal capacity regarding human rights

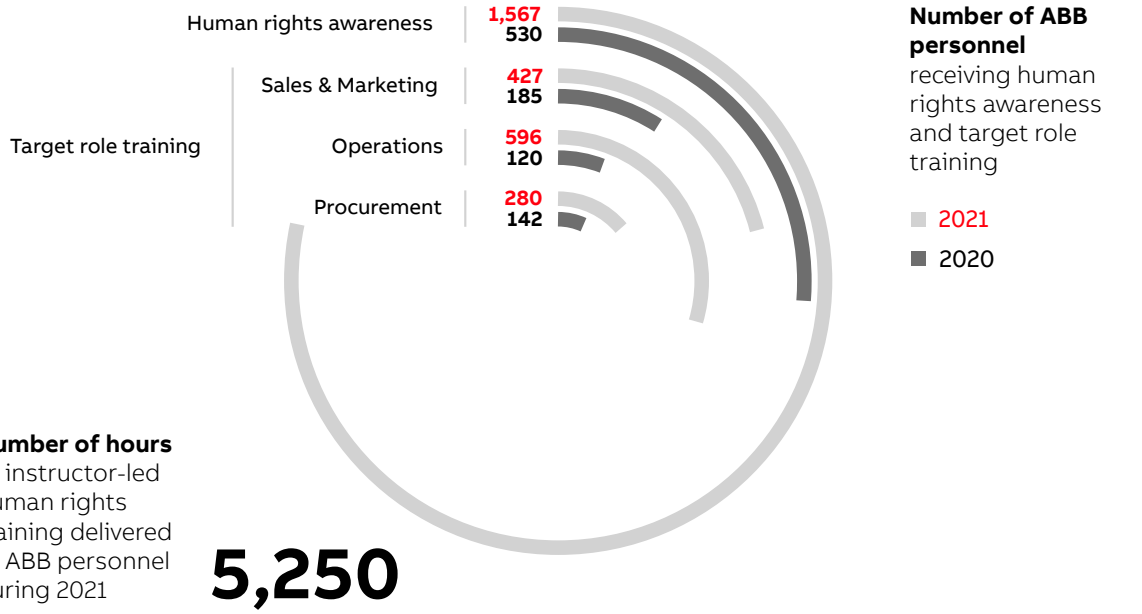
In 2021, we continued the extensive capacity-building program that we launched in 2019. This program targets both management and functional roles to raise awareness of human rights at all levels of our organization and to embed human rights expertise within each Business Area and Division.

Over the past year, we trained an additional 93 candidates to join our Human Rights Champions Network. These champions provide advice to our businesses on how to identify, mitigate and avoid human rights risks, among other activities. We continued to

make general human rights awareness training available to all ABB employees and managers and to provide targeted trainings and customized programs for management and job roles specifically exposed to human rights risks.

At the end of 2021, we surveyed our network to assess the effectiveness of training programs and to understand where further support or improvement were needed. While the results were encouraging regarding content and delivery, we also identified areas for improvement, such as the need to further define the role of the champions and to provide more practical case studies and online content to facilitate continuous learning.

Human rights training and capacity building in 2021



Number of hours
of instructor-led human rights training delivered to ABB personnel during 2021

5,250

Strengthening human rights risk management and mitigation processes

Human rights criteria are part of the standard risk review process for screening major ABB projects, for prequalification and assessment work with ABB suppliers, and for examining potential mergers and acquisitions. We are continually evaluating and adjusting these processes to ensure they meet legal requirements and the expectations of ABB's stakeholders.

To this end, in addition to the Group-wide initiative to develop new risk assessment methods for both our sales channels and supplier relationships, in 2021, we introduced a new review criterion based on country risk to reinforce our risk screening process for major projects. We also launched a program for conducting human rights self-assessments at selected ABB sites. In total, 50 sites in 26 countries undertook the assessments. This program will be expanded in 2022.

To address human rights risks related to our suppliers, we rely on our Sustainable Supply Base Management (SSBM) system and our conflict minerals management program. For further information on these two programs, please refer to "Responsible Sourcing" in this report.

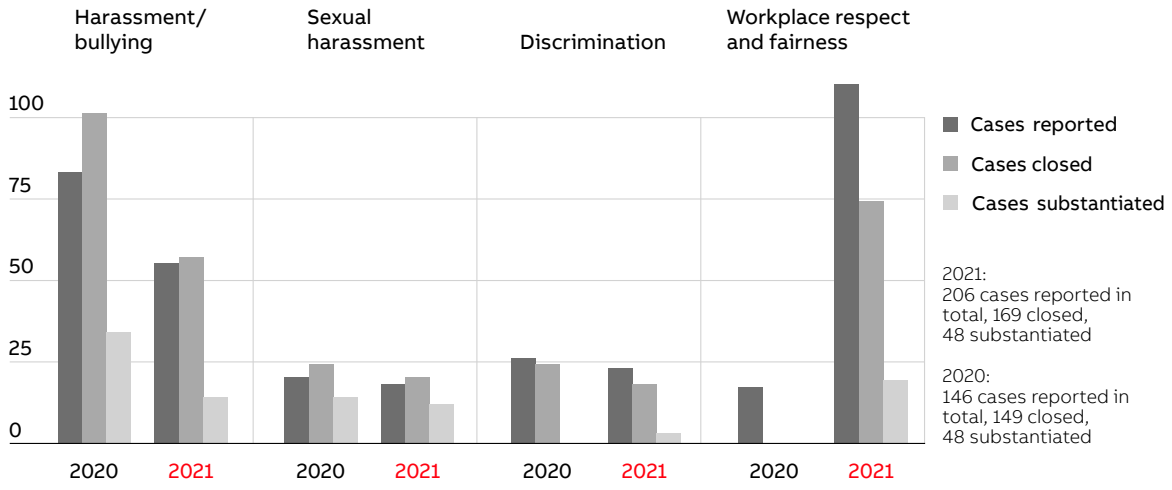
Due to the various projects underway across ABB to reinforce our risk identification and management processes, we postponed our planned review of ABB's salient human rights risks. However, our Motion Business Area undertook a pilot project to identify its own human rights risks, which it then used to reinforce its internal human rights governance structure and to set business-specific objectives. You can read more about this initiative in the case study below.

The results of Motion's project confirmed earlier findings that the main human rights issues of concern vary by business sector, portfolio, geographic location and the business partners we engage with directly or indirectly. In supply chains, the main human rights issues of interest include child labor, human trafficking and modern slavery, fair employment conditions, and health and safety. In customer-related business, the main issues include modern slavery, fair employment, impact on communities, and business-specific risks. Across ABB's operations, the main issues of interest include discrimination, fair employment, and health and safety.

ABB's 2021 human rights performance

In 2021, we reinforced ABB's internal reporting and allegation management processes concerning any alleged violations of ABB's Code of Conduct, including matters relating to human rights. As a result, we received more reports, saw better cooperation during our investigations and had more oversight of the handling and resolution of these matters.

Human rights related cases



Improvements made to our methods of categorizing cases resulted in the addition of nine new, substantiated cases of harassment to the data previously reported for 2020.

Investigations carried out in 2021 resulted in varying levels of corrective action, including retraining, demotion, reassignment and termination of employment. Remediation for parties subjected to harassment, discrimination or disrespectful behavior are dealt with on a case-by-case basis. We are working to ensure our company culture drives appropriate behaviors internally and externally. Read more about ABB's speak-up culture and reporting channels in "Integrity" in this report.

In the past year, we did not receive any reports of child labor, forced labor or threats to freedom of association. For further information about our findings of non-conformance within our supply chain, please refer to "Responsible Sourcing" in this report.

CASE STUDY

Strengthening human rights governance

ABB recognizes its responsibility to incorporate the principles of human rights into its day-to-day business around the world. While respect for human rights has long shaped ABB's values and policies, in recent years, to ensure that human rights risks are understood and managed across the Group, the ABB Way operating model has brought accountability for human rights governance to the Business Areas and Divisions.

In 2021, the Motion Business Area engaged in this responsibility with a high-level project to identify its salient human rights risks and define priorities for action. Drawing on analysis from the Business Area's growing network of human rights champions – internal business experts trained to identify human rights risks specific to their areas of work – as well as due diligence projects and additional desktop research, Motion developed a profile of its human rights risks.

This analysis mapped value chains associated with common business processes, identifying the relevant rights-holders and potential human rights impacts. It proceeded to evaluate the potential severity of risks by assessing scale of impact, the number of people who could be affected, and whether those potential impacts could be remediated.

The project then created actionable objectives and business targets to address the identified salient human rights issues and considered whether further action was required to ensure legal compliance, meet stakeholders' expectations and uphold ABB's license to operate. These objectives and targets have been embedded into the sustainability governance process that Motion has defined to drive sustainability as a key business strategic priority. This approach reinforced the business focus on human rights and ensured full business accountability to implement human rights targets and objectives in line with the ABB Way operating model.

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Integrity & transparency

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STRATEGY PILLAR OVERVIEW

We act with integrity and transparency

ABB's success as an enterprise depends on our status as a trusted and reliable business partner. By continuously strengthening our governance and integrity programs, we provide our employees with the culture and controls necessary to make fair and honest decisions every day.

Target overview

- Applying a **Code of Conduct-based approach** to projects and counterparties
- Ensuring **supplier compliance** with Supplier Code of Conduct in procurement terms and conditions
- Linking ESG targets to **senior management incentive awards**

We regularly evaluate ABB's operating environment to ensure that we have an integrity program in place that is fit for its purpose. The program is based on our Code of Conduct and supported by well-defined processes, key learnings, risk assessments, and reporting and monitoring activities. Our overriding objective is to ensure that everyone who works with or for ABB is personally accountable for upholding the highest standards of integrity.

At ABB, operating with integrity and transparency includes responsibly sourcing materials and services. We endeavor to understand and then minimize any environmental and social risks related to our procurement activities.

To this end, we have committed to ensuring our supply base is sustainable. By 2030, we will address sustainability-related risks and performance concerns linked to 80 percent of our supply spending in a basket of focus countries. ABB's comprehensive approach to suppliers goes far beyond a standard audit, covering every point in our relationship with the enterprises that comprise ABB's supply base – from initial selection and qualification processes to sustainability risk monitoring, on-site trainings, assessments and subsequent audits.

We make every effort to ensure that minerals mined in conflict zones and sold to prolong a conflict (i.e., conflict minerals) do not enter ABB's supply chain. Together with our suppliers, we are working to guarantee that the tin, tungsten, tantalum and gold we use in our products have been properly sourced.

Finally, to ensure that sustainability as a whole remains firmly at the center of our approach to conducting ABB's business, we make use of sustainability-linked financial incentives for senior management. These incentives represent just one of the many tools and strategies we have adopted to maintain our Group's sharp focus on meeting our 2030 sustainability targets.

INTEGRITY

Committed to the highest standards of business integrity

Target: Applying a Code of Conduct-based approach to projects and counterparties

ABB's integrity program forms part of the backbone of our company. We are committed to continuously enhancing our integrity program and our company culture. Over the past year, we invested in new measures to strengthen accountability for integrity, increase transparency, and expand our risk detection and prevention capabilities.

2021 integrity initiatives

Innovations in relationship risk management

In 2021, we enhanced our assessment and monitoring of the reputational and legal risks presented by third parties. Specifically, we began to incorporate smart, front-end risk and reputation assessments into our processes and to invest in continuous, risk-based monitoring over the lifecycle of our third-party relationships.

We assessed and categorized our global sales channels and designed new onboarding and lifecycle monitoring processes to mitigate fraud, corruption and associated human rights and reputational risks in both our sales channel and supplier relationships. Once these improvements have been fully implemented, third parties will be ranked according to risk. This will provide us with better insights at the time of selection, enable risk-based monitoring over the course of a relationship, and deliver actionable intelligence on our highest-risk third-party relationships.

In parallel, we developed new learning and guidance materials for the ABB employees who manage third-party relationships to help them meaningfully monitor and act on potential integrity warning signals. We also revised our standard terms and conditions for sales channel and supplier relationships to clarify our performance expectations and risk-management practices.

Strengthening our team

In 2021, we embedded senior integrity leaders within each of ABB's four Business Areas. We also added staff to support ABB's evolving legal and integrity needs. These professionals have expertise in the areas of antibribery/anticorruption, global trade, human rights, data privacy, investigations, forensics and analytics, and third-party management.

New approaches to employee learning

In 2021, we began to shift our approach to employee integrity learning from “pushing” content to “pulling” interest towards high-value content and innovative messaging. This new approach aims to keep integrity awareness high and has delivered measurable results. So far 30 percent of all ABB employees with regular email access have voluntarily engaged with our new content. We are continuing to develop this strategy of self-driven learning supported by bespoke content.

Bolstering integrity through transparency and accountability at ABB

Transparency is central to the continuous enhancements we make to ABB’s integrity program. In 2021, we implemented the following measures:

- We standardized a global conflict-of-interest disclosure tool to make our fair-play expectations easier to understand.
- We shared real-life integrity success stories and lessons learned, along with our root-cause analyses, with all ABB employees through our "Straight Talk" online platform for risk awareness and prevention. Read more about this initiative in the case study below.
- We harmonized our approach to accountability in connection with non-compliant incidents in the areas of integrity, health, safety and internal controls with the goal of ensuring a fair and coherent process.
- We updated our approach to testing and measuring the effectiveness of our integrity initiatives. For example, our new Integrity Leaderboard KPI assesses indicators of trust, engagement and transparency across our Business Areas, Divisions and the Group as a whole. The KPIs are incorporated into monthly business reviews and are made available to all employees.
- As part of our new approaches to both employee learning and accountability, we also publish quarterly assessments of our integrity communications' effectiveness and have created real-time dashboards to help managers leverage the metrics and insights provided by our investigations' portfolio, including activity on our Business Ethics Helpline.

Stronger privacy and data protection

Due to new and changing regulations around the world, compliance with privacy and data protection rules is becoming more complicated for global companies. Today, compliance requires both global standardization and adaptation to local requirements. We are well positioned to meet these challenges with our mature privacy and data protection program, which we continued to strengthen in 2021. Each of our Business Areas and corporate functions has a designated privacy lead person, who is responsible for implementing and maintaining our privacy and data protection standards and controls within the Business Areas, Divisions and functions. At country level, there are designated

privacy lead persons supporting the Business Areas, Divisions and functions to meet their responsibilities. All internal and external stakeholders continue to be supported by ABB's global privacy team. We apply the same strict privacy and data protection standards and controls globally across all our locations and comply with local requirements where these are different from or stricter than our global standards. ABB's global privacy and data protection standards and practices are described in full on the ABB Data Privacy Portal .

Encouraging whistleblowers

ABB's speak-up culture is a vital feature of the culture of integrity and transparency that we constantly seek to strengthen. It is critical to the smooth functioning of our enterprise as a whole. Employees are encouraged to report their integrity and compliance concerns and to seek further guidance from their manager, Human Resources, any member of the Legal & Integrity function or ABB's Business Ethics Helpline. External stakeholders also are encouraged to report any concerns via the Helpline. We vet and address reported concerns in a timely manner and enforce a rigorous non-retaliation policy. All reports that merit an investigation are pursued, and we apply a systematic approach to determining and executing disciplinary actions in response to all substantiated integrity violations. ABB cooperates fully with law enforcement agencies in these matters where applicable.

CASE STUDY

Peer-to-peer platform bolsters integrity culture at ABB

As part of ABB's 2021 strategy to develop a stronger culture of integrity, accountability and transparency throughout the Group, we launched Straight Talk, a new online platform. ABB is working to strengthen its culture of integrity through managerial leadership, accountability and self-driven employee learning. Building on our commitment to transparency, Straight Talk provides colleagues with an easy way to enhance their knowledge and exchange ideas in this vital area.

Functioning as a showcase for real-life integrity success stories and lessons learned at ABB and elsewhere in the sector, Straight Talk directs colleagues to a range of real-life case studies available on ABB's Inside+ intranet site. The cases can then be discussed on the ABB Yammer channel, incorporated into team meetings, and broadly disseminated for applied learning purposes. Through Straight Talk, ABB colleagues can champion good behavior, learn from behavior that failed to meet our integrity expectations, find and share key metrics about the Group's integrity practices, and also highlight and discuss external cases relevant to our business.

As a market leader in building sustainable, world-class businesses, ABB understands that integrity lies at the very core of our success, both globally and in our day-to-day work. By providing colleagues with another avenue to communicate transparently about lessons learned and risks and trends in the field of integrity, the Straight Talk platform offers a valuable new tool to help boost the profile and understanding of integrity practices across the Group.

RESPONSIBLE SOURCING

Raising the bar for our suppliers

Target: At least 80 percent of our supply spend in focus countries will be covered by our sustainable supply base management approach (SSBM), which includes surveillance of environmental, social and governance performance

We work closely with suppliers to ensure ABB's sustainability expectations, ambitions and targets are understood and met. As our suppliers are an extension of ABB, they are integral to our sustainable growth. To clarify our expectations, we published the ABB Supplier Code of Conduct (SCoC), which is available in multiple languages. This policy document reflects the 10 principles of the UN Global Compact and the essence of the ABB Code of Conduct.

Our approach is underpinned by ABB's supplier selection, qualification and performance improvement processes. Starting in 2010, our successful Supplier Sustainability Development Program (SSDP) was the focus of our efforts to ensure compliance with the SCoC and to support improvement in the sustainability performance of our suppliers. The program was structured around a combination of training, on-site assessments and monitoring of performance improvement plans. Suppliers were selected to participate in the program according to a risk matrix, which considered the criticality of the supplier, country risk, commodity risk, operational characteristics and spend volume.

In 2021, we replaced the SSDP with an expanded approach that we have designated Sustainable Supply Base Management (SSBM). Under the new SSBM, we aim to address sustainability topics and performance at each stage of supplier lifecycle management, as part of our "beyond audit" approach.

ABB's 2030 sustainability strategy includes an ambitious target to cover 80 percent of our supply spending in focus countries with SSBM by 2030. We have also introduced a medium-term target to cover 80 percent of our high-risk supply spending in focus countries by 2025.

To assess the effectiveness of our approach, we have set a goal of closing 75 percent or more identified risks from supplier assessments by 2025. Closure timelines for identified risks vary from a month to a year, depending on the severity of the case. Some complex issues may require a joint effort to resolve, under a longer timeline. Due to the ongoing identification of new risks and the time required to mitigate them, the closure rate of identified risks can never reach 100 percent.

2021 highlights in responsible sourcing

27% of high-risk supply spend in focus countries was covered by SSBM

Business terminated with **13** suppliers due to unsatisfactory progress on their respective corrective action plans

82% of identified risks were closed

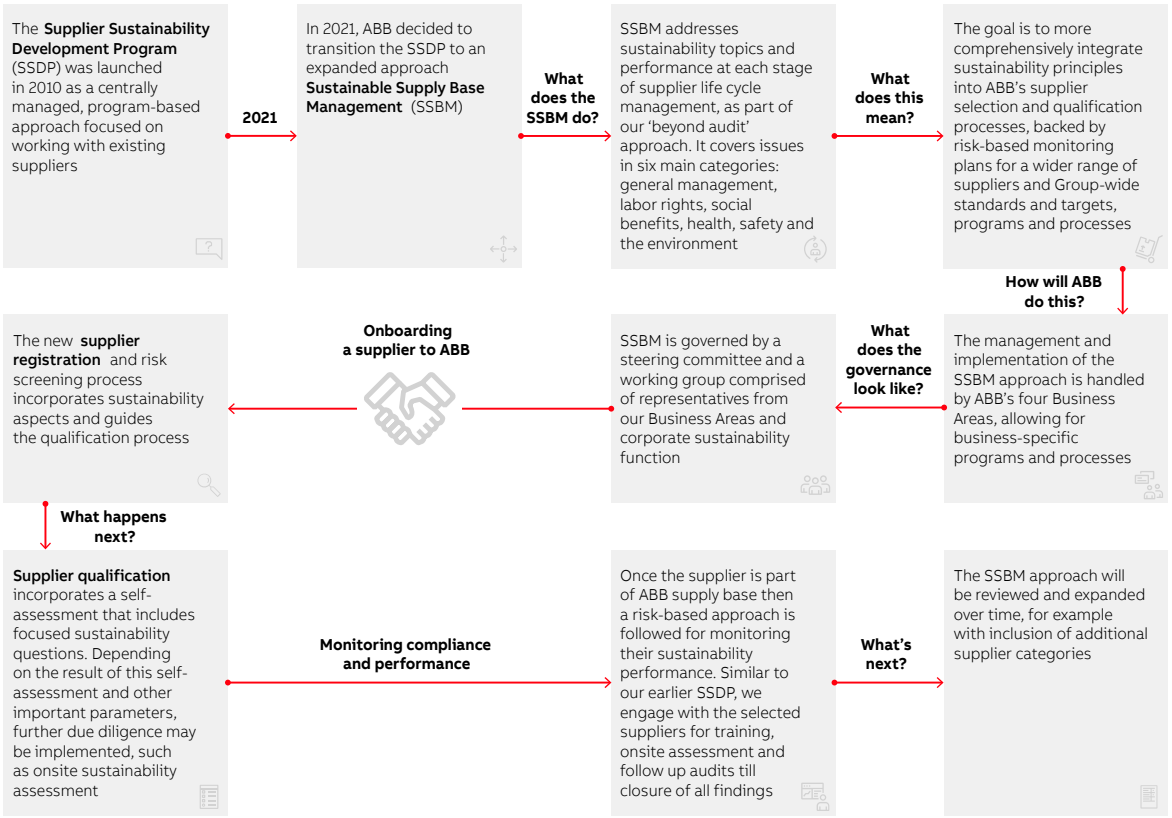
45 supplier teams trained in responsible sourcing during the year

By the end of 2021, 27 percent of high-risk supply spending in focus countries was covered by our SSBM system, and 82 percent of identified risks were closed. Plans are in place to ensure that we achieve our medium-term target by 2025.

In 2021, we assessed 81 suppliers, identifying 267 risks and mitigating 307 risks. In other activities related to responsible sourcing, we trained 126 ABB employees and 45 suppliers in the course of the year. ABB terminated relationships with 13 suppliers due to unsatisfactory progress on their corrective action plans.

To strengthen ABB's monitoring and evaluation capacity, in 2021, we held two courses of ABB's lead assessor qualification training program in India and China. The program combines classroom sessions with field experience. All program graduates are prepared to perform independent SSBM assessments and follow-up audits. During the year, 23 employees from India, China, Brazil and Mexico were either qualified or requalified to be ABB lead assessors.

From SSDP to SSBM



While implementing the program changes outlined above, we also took the opportunity to review individual elements of our approach as we transitioned from SSDP to SSBM. For example, we made improvements in our SSBM assessment checklist to sharpen our focus on sub-supplier (beyond tier 1) management and certain workplace safety topics. Related documents, such as implementation guides for our suppliers in focus countries and training materials for suppliers and assessors, were also revised accordingly.

With the help of internal and external experts, we also revisited the evaluation of commodity risks - the health, safety and environmental risks associated with the use of commodities in certain manufacturing processes. This commodity risk and geographical risk are used to prioritize the suppliers selected for on-site assessment as part of SSBM.

In response to the COVID-19 pandemic, we further developed the capacity to perform either on-site or remote SSBM assessments, according to local circumstances.

CASE STUDY

Identification of commodity risk

As part of our SSBM and earlier SSDP methodologies, ABB adopted a risk-based approach to prioritizing and selecting suppliers for participation in on-site assessment and sustainability performance improvement processes. “Commodity risk,” which encompasses the inherent health, safety and environmental risks associated with commodities used in various manufacturing processes, represents an important selection parameter.

ABB classifies commodities using our internal Material Description Framework (MDF) codes. The several hundred MDF codes specifically identify a wide range of raw materials, components and “indirect materials,” such as services, to help us procure the appropriate materials and services from our suppliers. Some years ago, with the assistance of external and internal experts, we evaluated the health, safety and environmental risks associated with each MDF code. To accomplish this, we mapped the processes used to produce the raw materials, components and services (where relevant) against each MDF code and separately assessed the environmental and the health and safety risks associated with each of those processes. We developed a statistical model to calculate an overall risk score for each MDF code.

In 2020, we updated these commodity risks. A project team was formed consisting of internal business colleagues, internal subject matter experts and external experts on manufacturing processes. The team revised the mapping of processes to individual MDF codes, reassessed the individual risk scores and reviewed the statistical model. Risk scores were updated accordingly and incorporated into ABB’s supplier prioritization processes starting from 2021.

In 2021, we analyzed the results from all of the supplier assessments performed by ABB over the past seven years to identify the 10 most common findings. We will create targeted workshops on selected topics for our suppliers to help them address these challenges.

Top 10 supplier compliance issues

We have also initiated a review of our SCoC to clarify our commitments in certain key areas and to address changes in the regulatory environment since the last revision. We expect to complete this review and to develop a comprehensive plan for rolling out these clarifications and adjustments in the course of 2022.

Conflict minerals

We continue our work to understand and limit ABB's exposure to conflict minerals, as defined by section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. We also request supplier information on tin, tungsten, tantalum and gold (which make up the most prominent conflict minerals, sometimes referred to as 3TG) imported from conflict-affected and high-risk areas (CAHRAs), as defined under EU Regulation 2017/821. We filed ABB's annual Conflict Minerals Report with the US Securities and Exchange Commission for the eighth consecutive year, summarizing ABB's approach to minerals and the status of our programs.

ABB's approach to the responsible sourcing of minerals is underpinned by the ABB Policy on Conflict Minerals and continued collaboration with the Responsible Minerals Initiative (RMI), which works to encourage smelters and refiners to undergo audits aligned with OECD guidelines.

Under ABB's own programs, we cooperate with our suppliers on an ongoing basis. Together we are working towards ensuring that our products avoid the use of minerals from mines that support or fund conflict within the Democratic Republic of Congo or adjoining countries and CAHRAs.

CASE STUDY

Sustainably sourcing artisanal gold

European Partnership for Responsible Minerals

Some 20 percent of the world's gold comes from artisanal mines. These small-scale mines have the potential to support the development of some of the world's poorest communities while leaving a very small environmental footprint. Gold is a critical mineral in many of ABB's technologies; however, it is often difficult to identify legitimate sources of artisanal gold and to conduct due diligence and ongoing assurance within the sector. As a result, our responsible buyers and other formal markets have not been engaging with artisanal producers.

In 2021, through our engagement with the **Responsible Minerals Initiative (RMI)**, we joined a European Partnership for Responsible Minerals (EPRM) funded project to create a commercially viable and sustainable sourcing system that could scale up legal trade in responsibly produced artisanal gold in Burkina Faso. The Scalable Trade in Artisanal Gold (STAG) project, executed by lead organization, **the Artisanal Gold Council (AGC)**, in partnership with RMI and **RESOLVE**, will create a scalable, replicable supply chain of artisanal gold that conforms with the RMI's standards and is aligned with the OECD's Due Diligence Guidance. This is expected to immediately benefit roughly 6,000 miners from various artisanal gold mining communities in Burkina Faso by establishing traceable, resilient and fair supply chains from mine to market.

ABB continues to lead the RMI Asia Smelter Engagement Team and to work closely with smelters and refiners who need assistance with the Responsible Minerals Assurance Process, which is the RMI audit program aligned with OECD requirements.

As part of our strategic approach to managing risks associated with the use of critical materials, we are expanding ABB's conflict minerals program. Beginning in 2022, we will release our first Cobalt Reporting Template for our stakeholders, with the first reports to cover activities during 2021. As with the development of our 3TG process, ABB will carry out due diligence on our cobalt supply chain and work closely with our suppliers to source minerals responsibly.

Senior management sustainability incentives

Target: Linking ESG targets to senior management incentive awards

Financial incentives are among the many tools that we use to ensure that ABB meets its 2030 sustainability targets.

In 2021, ABB designated progress towards defined ESG targets as a necessary "boundary condition" for Annual Incentive Plan (AIP) awards to all senior managers. ABB's Board of Directors must agree to specific ESG targets and will review whether the company made adequate progress to justify making the specified AIP award.

The ESG boundary condition for 2021 was the setting of strategic and implementation plans outlining the key actions and activities required to reduce or compensate for GHG Scope 1 and 2 emissions to achieve carbon neutrality in ABB's own operations by 2030 (vs. a 2019 baseline). At the end of the year, the Board of Directors determined that the terms for this condition had been fully met.

AIP payments are also awarded on the basis of individual performance. Individual awards are informed by a combination of up to three quantitative and qualitative objectives and are based on a discretionary judgment of the individual's combined performance against all objectives.

In 2021, all members of ABB's Executive Committee (EC) shared a single safety objective – namely, the percentage improvement in the lost-time incident frequency rate (LTIFR), underpinned by sustainability observation tours (SOTs)[4]. The safety objective for the CEO and other corporate officers was tied to Group-level results; the safety objective for Business Area presidents was tied to the results for their respective Business Areas.

In 2022, all EC members will have two or more ESG-related KPIs associated with the individual component of their AIPs. The past practice of subjectively adjusting the AIP individual component according to one's achievement against an ESG boundary condition will be discontinued.

A corporate ESG measure will also be added to the Long-Term Incentive Plan (LTIP) for all EC members and around 100 senior executives, with a material weighting of 20 percent. For 2022, the ESG measure will be the company's Scope 1 and 2 emissions reductions at the end of the three-year performance period (2022-2024), compared to the 2019 baseline, as illustrated in the table below.

4 SoTs are typically conducted by the line managers

ESG target points for the 2022 LTIP

Measure	Weighting	Threshold	Target	Maximum
ABB Scope 1&2 CO_2 emission reduction compared to 2019 baseline	20%	60%	70%	80%

For further information, please refer to ABB's Compensation Report 2021 .

06
Tables & figures

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SUMMARY OF GRI INDICATORS

ABB Group Sustainability Indicators 2021

Environmental

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	Hazardous materials[1,2]				
	Phthalates (tons)	✓	119	107	102
	Brominated flame retardants (tons)	✓	–	–	0.0
	Organic lead in polymers (tons)	✓	0.0	0.0	0.0
	Lead in other products (tons), e.g., backup batteries and counterweights in robots	✓	2,092	2,196	2,316
	Cadmium in batteries (tons)	✓	15	7	15
	Cadmium in lead alloy and other uses (tons)	✓	–	0.1	0.3
	Mercury in products (tons)	✓	–	–	0.001
	Mercury in instruments in ABB facilities (tons)	✓	0.01	0.01	0.0570
	Chlorinated volatile organic compounds (VOC-Cl)[3]	✓	1	2	2
	SF_6 insulation gas (inflow to ABB facilities) (tons)	✓	260	241	1,211

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	SF_6 insulation gas (outflow to customers) (tons)	✓	257	238	1,204
	No. of transformers with PCB oil in ABB facilities	✓	–	1	14
	No. of capacitors with PCB oil in ABB facilities	✓	–	–	89
302-1	**Energy consumption within the organization (gigawatt-hours – GWh)[1,2]**				
	Biofuels	✓	1.98	0.92	52.9
	Oil (11.63 MWh/ton)	✓	6.8	7.3	49.0
	Diesel (11.75 MWh/ton)	✓	2.0	3.5	4.4
	Coal (7.56 MWh/ton)	✓	–	–	0
	Gas	✓	435	448	728
	District heat consumption	✓	127	125	208
	Electricity consumption	✓	981	1,031	1,635
	Total energy used	✓	**1,553**	**1,616**	**2,677**
	Electricity sold	✓	2.2	2	2
	Total energy consumption within the organization from renewable sources		**503**	–	–
	Total energy consumption within the organization from non-renewable sources		**1,050**	–	–

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
302-4	**Amount of reductions in energy consumption achieved as a direct result of conservation and efficiency initiatives**		17.5		
302-3	**Energy intensity (MWh/million $ sales)[1]**	✓	52	62	72
303-3	**Water withdrawal (kilotons)[1,2]**				
	Purchased from water companies	✓	2,162	2,523	3,896
	Groundwater extracted by ABB	✓	585	576	2,066
	Surface water extracted by ABB	✓	76	109	2,406
	Collection of rainwater	✓	5.2	4.2	9.8
	Waste water from external source	✓	10.6	12.0	21.7
	Water withdrawal from areas of water stress	✓	1,252	1,268	2,711
	Total water withdrawal	✓	**2,839**	**3,224**	**8,401**
303-4	**Water discharge by quality and destination (kilotons)[1,2]**				
	Public sewer		1,840	2,018	3,591
	treated (percentage)		27%	25%	36%
	untreated (percentage)		73%	75%	64%
	Recipient		543	585	1,123
	treated (percentage)		29%	29%	84%

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	untreated (percentage)		72%	71%	16%
	Hazardous treatment company		43	47	140
	treated (percentage)		52%	45%	81%
	untreated (percentage)		48%	55%	19%
	External use		0.74	0.01	0
	treated (percentage)		99%	0%	0%
	untreated (percentage)		1%	100%	100%
303-5	**Water consumption**				
	Total water consumption from all areas		2,839		
	Total water consumption from all areas with water stress		1,252		
304-1	**Biodiversity**[13]				
	Number of ABB sites located in or bordering a protected area		9		
	Water recycled and reused[1,2]				
	Volume of water reused and recycled (kilotons)		953	1,033	8,051
	As percentage of total water withdrawal (percentage)		25%	25%	96%

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	Greenhouse gas (GHG) emissions[4] (kilotons CO_2 equivalent)				
305-1	**Scope 1[1]**				
	Use of energy	✓	90	94	162
	SF_6[5]	✓	52	77	159
	Transport by own fleet[6]	✓	48	55	75
	Other				
	Biogenic CO_2 emissions[7]		0.7		
305-2	**Scope 2[1]**				
	District heat consumption	✓	19	18	33
	Electricity consumption	✓	195	318	569
	Total Scope 1 and 2 GHG emissions	✓	**405**	**561**	**998**
305-3	**Scope 3[1]**				
	Purchased goods and services		5,193	4,751	4,104
	Capital goods[8]		420	420	
	Fuel and energy-related activities not in Scope 1/2		44	43	70
	Up- and downstream transportation[8]		760	800	1,150
	Waste generated in operations		19	17	12

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	Business travel[9]	✓	71	60	148
	Employee commuting		175	187	249
	Up- and downstream leased assets		233	273	219
	Processing of sold products		NA	NA	
	Use of sold products[8]		118,000	118,000	
	End-of-life treatment of sold products[8]		148	148	
	Franchises		NA	NA	
	Investments[8]		54	54	
	Total Scope 3 GHG emissions		**125,117**		
305-4	**GHG emissions intensity (tons CO_2 equivalent/ million $)[1]**				
	Tons CO_2 equivalent per million $ sales, Scope 1+2	✓	14	21	27
305-7	**Significant air emissions (tons)[1]**				
	Volatile organic compounds (VOC)	✓	592	668	1,128
	Emissions of NO_x and SO_x (tons SO_2 and NO_2)				
	SO_x from burning coal		–	–	0
	SO_x from burning oil and biofuels		8	8	77
	NO_x from burning coal		–	–	0
	NO_x from burning oil and biofuels		6	6	57

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	NO_x from burning gas		93	94	156
306-3	**Number of significant spills**[1,10]				
	Oil spills		8	–	9
	Chemical spills		–	5	4
	Emissions to air		–	–	6
	Others		2	–	7
	Total number of significant spills		**10**	**5**	**26**
306-4	**Waste (kilotons)**[1,2]				
	Scrap metal recycled	✓	124	124	167
	Non-hazardous waste recycled	✓	36	35	61
	Non-hazardous waste sent for disposal	✓	22	24	41
	- sent to incineration with energy recovery		9.8	9.3	17.1
	- sent to landfill or other disposal method[11]		12.6	15.1	24.2
	Hazardous waste recycled[12]	✓	4	3	7
	Hazardous waste sent for disposal[12]	✓	7	5	7
	Total waste (generated)	✓	**194**	**192**	**283**

Social

GRI ref.	Indicator description	2021 data assured	2021		2020		2019	
401-1	**Total number and rates of new employee hires and employee turnover**[1]							
	Total workforce by region (ABB employees)[1]							
	Europe		50,000		49,200		68,400	
	Americas		25,600		27,600		35,200	
	Asia, Middle East and Africa		28,800		28,800		40,800	
	Total		**104,400**		**105,600**		**144,400**	
	Employee turnover							
	Turnover of all employees[14]							
	Europe		7,129	14%	8,570	17%	9,732	14%
	Americas		5,805	23%	3,849	14%	5,443	16%
	Asia, Middle East and Africa		4,238	14%	4,252	15%	6,860	17%
	Total employee turnover: ABB Group		**17,172**	**16%**	**16,671**	**16%**	**22,035**	**15%**
	Turnover of all female employees[14]							
	Europe		2,303	4%	3,038	6%	2,871	4%
	Americas		1,920	7%	1,162	4%	1,553	4%
	Asia, Middle East and Africa		973	3%	906	3%	1,399	3%
	Total female employee turnover: ABB Group		**5,196**	**5%**	**5,106**	**5%**	**5,823**	**4%**

GRI ref.	Indicator description	2021 data assured	2021		2020		2019	
	Employee hires							
	Hires of all employees[14]							
	Europe		4,799	9%	7,649	15%	11,560	17%
	Americas		3,970	15%	2,106	8%	4,221	12%
	Asia, Middle East and Africa		4,732	16%	4,209	14%	6,121	15%
	Total employee hires: ABB Group		**13,501**	**13%**	**13,964**	**13%**	**21,902**	**15%**
	Hires of all female employees[14]							
	Europe		1,493	3%	2,799	6%	3,898	6%
	Americas		994	4%	742	3%	1,357	4%
	Asia, Middle East and Africa		1,598	5%	1,006	3%	1,275	3%
	Total female employee hires: ABB Group		**4,085**	**4%**	**4,547**	**4%**	**6,530**	**4%**
403-9	**Occupational health and safety: Injuries, lost days, diseases and fatalities[1]**							
	Employee work-related fatalities[15,17]	√	0		1		1	
	Incident rate[16]	√	0.00		0.00		0.01	
	Employee business travel fatalities[15,18]	√	0		0		0	
	Incident rate[16]	√	0.00		0.00		0.00	
	Contractor work-related fatalities[17]	√	0		1		1	

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	Contractor business travel fatalities[15,18]	✓	0	0	0
	Members of the public fatalities[15]	✓	0	0	0
	Employee total recordable incident number[17,19]	✓	332	410	744
	Injury rate[16]	✓	0.29	0.31	0.47
	Contractor total recordable incident number[17,19]	✓	86	100	149
	Injury rate[16]	✓	0.45	0.46	0.46
	Employee lost-time incident number[17]	✓	145	197	372
	Injury rate[16]	✓	0.13	0.15	0.23
	Contractor lost-time incident number[17]	✓	49	56	96
	Injury rate[16]	✓	0.26	0.26	0.29
	Combined lost-time incident number		195	253	468.00
	Combined lost-time injury rate		0.142	0.159	0.246
	Employee lost days due to industrial incidents[22]		1,334	2,014	6,757
	Days lost rate[16]		1.2	1.5	4.3
	Employee occupational health illness[17]	✓	10	5	16
	Employee occupational health illness rate[16,17]	✓	0.01	0	0.01

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	Sustainability Observation Tours (SOT) conducted[21]	✓	67,878	74,266	83,859
	SOT rate[21,23]	✓	5.15	4.31	5.52
	Hazards reported[17]	✓	248,038	270,985	336,747
	Hazards reporting rate[20]	✓	2.16	2.06	2.12
406-1	**Non-discrimination**[1]				
	Total number of incidents of discrimination		3	0	8
	Total number of incidents of harassment		26	36	19
415-1	**Public policy**[1]				
	Financial and in-kind political contributions		0	$14,908	$1,260
404-1	**Training and education**[1]				
	Training per year per employee (average hours)[26]				
	China		14	14	17
	Finland		10	10	12
	Germany		10	10	18
	India		23	23	10
	Italy		10	10	16
	Mexico		19	347	7
	Poland		7	4	10

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	Sweden		12	12	12
	Switzerland		14	13	12
	USA		16	16	16
404-3	**Employees receiving regular performance and career development reviews[1,24]**				
	Top and senior managers		96%	94%	73%
	Middle and lower managers		95%	92%	89%
	Other employees		87%	90%	89%
	Total workforce		**89%**	**92%**	**89%**
405-1	**Diversity and equal opportunity[1]**				
	Composition of governance bodies				
	Board of Directors				
	Women in Board (percentage)		20%	18%	18%
	Age group diversity (percentage)				
	<30 years old		0%	0%	0%
	30–50 years old		30%	9%	9%
	>50 years old		70%	91%	91%
	Number of nationalities		9	9	7
	Executive Committee				
	Women in Executive Committee (percentage)		22%	22%	16%

GRI ref.	Indicator description	2021 data assured	2021	2020	2019
	Age group diversity total (percentage)				
	<30 years old		0%	0%	0%
	30–50 years old		33%	33%	8%
	>50 years old		67%	67%	92%
	Number of nationalities		7	6	8
	Employees in senior and middle management[25]				
	Women in senior and middle management		22%	20%	18%
	Men in senior and middle management		78%	80%	82%
	Total workforce (ABB employees)				
	Women in total workforce		27%	26%	24%
	Men in total workforce		73%	74%	76%

1 Power Grids (PG) is included in 2019 data but excluded from 2020 data.

2 Results for these indicators are based on reported data covering 96 percent of employees in 2021, 95 percent of employees in 2020, 93 percent in 2019, plus an adjustment for the remaining employees pro rata. See the "Approach to reporting" section for more details.

3 Emissions of chlorinated volatile organic compounds (VOC-Cl) are included in the volatile organic compounds (VOC) reported under 305-7.

4 See "Approach to reporting" for more details on GHG emission calculation.

5 In 2019, we updated the factor used to convert SF_6 emissions to CO_2 equivalent to 23,500 kg CO_2e/kg SF_6, as recommended by the IPCC 2013 (Fifth Assessment Report).

6 Reported fleet emissions for 2020 and 2019 lag one year behind. See "Approach to reporting".

7 ABB considers only methane and N_2O emissions of biogenic emissions, following SBT guidance.

8 Data not yet calculated for 2021, which is why we have published 2020 data from our latest disclosure to CDP as our best estimate.

9 Assurance scope only covers air travel. As of 2021 business travel data includes air travel, rented vehicles and hotel nights. In 2020 and 2019, business travel included air travel only. Data for air travel is calculated using the emission factors published by the UK Department for Business, Energy & Industrial Strategy in its 2021 “Greenhouse gas reporting: conversion factors 2021”.

10 An environmental incident is regarded as significant if at least one of the following criteria applies to the incident: obligation to inform local authorities or a governmental agency about the incident and/ or regulatory violation; inspection by an environmental agency results in a formal complaint; environmental Notice of Violation, a Consent Order or a Potential Responsible Party (PRP) notification; imposition of a penalty or fine; significant impact on an ecosystem; costs related to the incident exceed, or may exceed, $10,000.

11 For 2019, waste sent to landfill or other disposal method was 17.6 kilotons without PG.

12 Hazardous waste as classified in the country where it is generated.

13 Sites responding "yes" to this question in yearly environmental questionnaire.

14 2020 data excludes PG. Includes part-time employees. Turnover rate calculated as number of ABB employees (full- and part-time) leaving during the year/total number of ABB employees (full- and part-time) as at 31 December. For the purpose of this calculation, employees and external workforce who leave the organization voluntarily or involuntarily whether due to dismissal, retirement, end of fixed-term contract or death in service or any other reason, are included. However, involuntary turnover arising out of divestments is excluded from the definition.

15 Fatalities include deaths occurring within one year as a result of injuries sustained; commuting is excluded.

16 Incident rates are according to the rate per 100 employees or per 200,000 contractor hours worked.

17 Data covers incidents that happened at workplace (ABB facility, customer site, project site) and excludes incidents that occurred during business travel.

18 Includes incidents during business travel by road. Air and rail travel are excluded.

19 Recordable incidents include fatalities, lost-time incidents, serious injury incidents, medical treatment injuries, occupational diseases and restricted workday cases.

20 Rate is calculated per employee.

21 SOTs are typically conducted by all line managers at all levels.

22 Days lost are calendar days and are counted from the day after the incident.

23 Rate per manager.

24 Eligible employees included in ABB HR system. Data covers previous year’s cycle with completion by Q1 of the reporting year.

25 This indicator focuses on senior and middle management and includes employees in Hay grades 1 to 10. 2019 data includes PG.

26 Ten largest countries by headcount.

SASB table

SASB requirement	SASB requirement – detail	ABB answer
Energy Management	a. Total Energy Consumed (Gigajoules) b. Percentage Grid Electricity (%) c. Percentage Renewable (%)	a. 5,591,776 GJ (1,553,271 MWh) Summary of GRI indicators – 302-1 b. 62% Summary of GRI indicators – 302-1 c. 32% Summary of GRI indicators – 302-1
Hazardous Waste Management	a. Amount of hazardous waste generated, percentage recycled (Metric tons, %) b. Number and aggregate quantity of reportable spills, quantity recovered (Number, Kilograms)	a. 11 kilotons, 36% – Summary of GRI indicators – 306-4 b. 8 quantified spills reported in 2021. Total release of 438 kg of substance, mostly oil and diesel fuel. Summary of GRI indicators – 306-3
Product Safety	a. Number of recalls issued, total units recalled (Number) b. Total amount of monetary losses as a result of legal proceedings associated with product safety	a. As of 2021, this number is not yet available for all Divisions but will be communicated in the 2022 Sustainability Report b. Not applicable. Due to NDA agreements with third parties we are unable to disclose monetary values resulting from legal proceedings with these third parties.
Product Lifecycle Management	a. Percentage of products by revenue that contain IEC 62474 declarable substances (% by revenue) b. Percentage of eligible products by revenue, that meet Energy Star® Criteria (% by revenue) c. Revenue from renewable energy-related and energy-efficiency-related products (Reporting currency)	a. Unable to respond to this question at the time of reporting. Processes are being put in place to collect this data. Earliest reporting possible in 2023. b. Only applicable to North America products. All ABB products are included in point c. c. Using the EU taxonomy as reference: 36% eligible – see EU taxonomy and details In the EU taxonomy standards and complementary references, ABB will report on product lifetime management.

SASB requirement	SASB requirement – detail	ABB answer
Material sourcing	a. Description of the management risks associated with the use of critical materials (Discussion & Analysis)	a. Responsible sourcing b. Right materials
Business ethics	Description of policies and practices for prevention of: a. corruption and bribery and anti-competitive behaviour (Discussion & Analysis) b. Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption (Reporting currency) c. Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behaviour regulations (Reporting currency)	a. Integrity b. and c. Please refer to the company's financial disclosures available at Q4&FY 2021: Financial information (abb.com)
Activity Metrics	a. **Number of units produced** (Production should be disclosed as number of units produced by product category, where relevant product categories include energy generation, energy delivery, and lighting and indoor climate control electronics.) b. **Number of Employees**	a. Please refer to the ABB Group Annual Report 2021 – English (Page 138) b. 105,000

EU TAXONOMY

ABB's position on the EU taxonomy

As a global technology company with sustainability at the center of its Purpose and value proposition, ABB welcomes the European Union's introduction of a common classification system for sustainable economic activities, known as the "EU taxonomy"

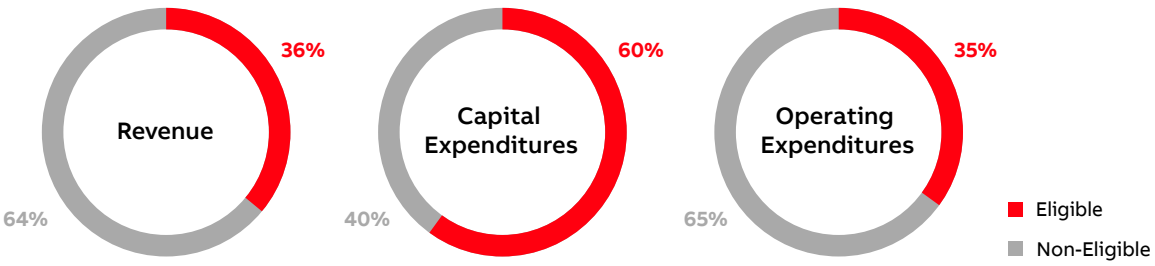
The goal of the EU taxonomy is to create a clear definition of what is "sustainable" in order to drive investment in economic activities that contribute to the EU's climate and energy targets and that support the European Green Deal. By clearly listing which activities and technologies are sustainable, the EU taxonomy should also help to limit "greenwashing" and make companies more climate-conscious.

How ABB adopted the EU taxonomy

To assess the extent to which ABB's activities are reflected in the EU taxonomy, we conducted a thorough analysis, supported by a third party, of our products, sites and activities around the world and reviewed them against the economic activities defined by the taxonomy. Based on this analysis, we determined that most of our products and services are classified as "enabling activities."

When we further broke down our activities to the level of granularity required to meet the EU taxonomy's definitions, we found that 36 percent of our revenue (turnover) in 2021 was eligible under the objective of "climate change mitigation" (see chart below for the results of our assessment on the eligibility of our offerings according to revenues, capex and opex).

Results of ABB's assessment of the eligibility of our offerings in the EU taxonomy:



Relevance of ABB's activities in the EU taxonomy and critical technologies absent from the taxonomy

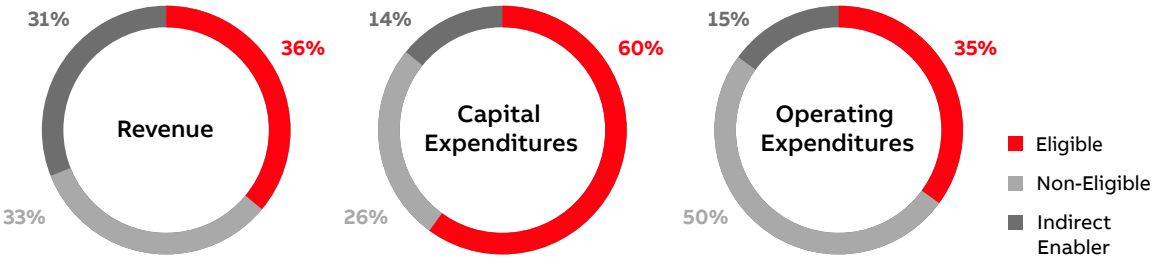
In our view, the EU taxonomy as it stands significantly underestimates the contribution that our products, solutions and services make in reducing our customers' carbon footprints and in aligning their activities with the EU taxonomy. In particular, the alignment criteria do not address many associated activities that will be important in decarbonizing the energy system.

The EU taxonomy would need to take account of all economic activities that play an important role in the transition towards net zero. Currently, the taxonomy focuses on sectors that are directly responsible for greenhouse gas emissions, but takes no account of many critical technologies, such as electrical equipment or industrial automation, that are needed to enable a renewable energy system.

The EU taxonomy also does not consider the management of electricity consumption, which could be substantially reduced in a short time frame through the deployment of readily available and cost-effective technologies. For example, upgrading an electric motor to a higher energy standard can deliver significant energy savings that recoup the cost of the motor in lower energy bills. The same applies to industrial automation, which in the process industries can deliver energy savings of up to 25 percent.

If ABB were to extend the eligibility analysis to cover such activities, we estimate that a further 31 percent of ABB's revenue could be attributed to solutions that are indirect enablers of climate change mitigation. The results could then be interpreted according to the chart below.

Results of ABB's portfolio analysis of the EU taxonomy including carbon emissions reduction-enabling activities:



Recommendations and way forward

In summary, we see the EU taxonomy as a significant step forward in developing a common classification system for sustainable economic activities. However, it needs to be expanded to include activities and sectors that contribute indirectly, but still significantly, to a low-carbon society – something that the EU acknowledges. ABB recommends and is ready to support greater private-sector involvement in determining which activities and sectors should be covered.

Climate change is a global challenge that requires a global approach. The end goal should be a common global classification system for sustainable activities that is comprehensive, credible and relevant to the entire world. If the gaps and shortcomings in the EU taxonomy are addressed, we believe that it has the potential to serve as a model for such a system as well as an important driver of investment in sustainable development.

The detailed EU taxonomy disclosure document is available for download here .

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