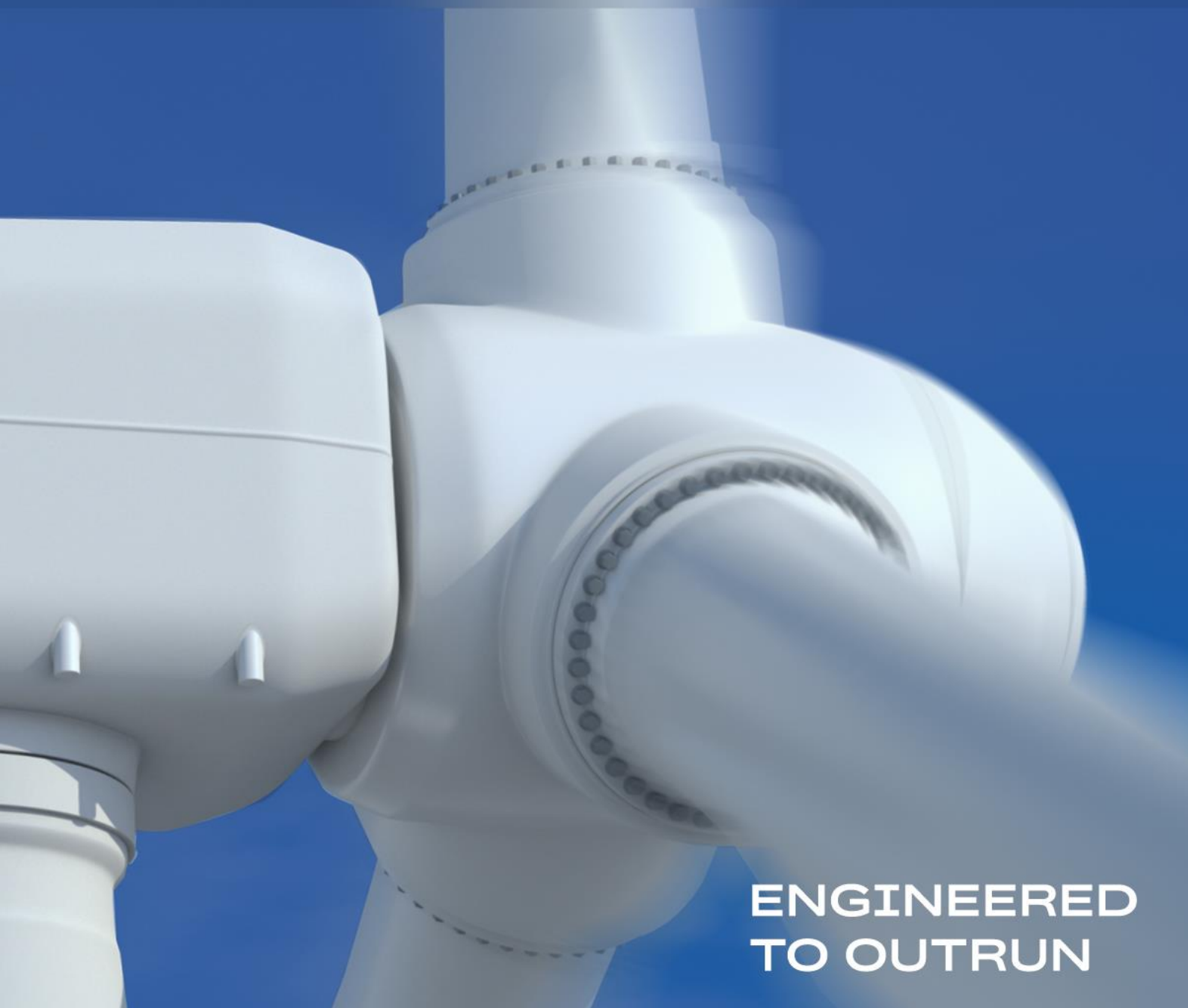




SUSTAINABILITY STATEMENT 2024



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SUSTAINABILITY AT ABB

This Sustainability Statement was compiled as of February 26, 2025. We prepared it in accordance with the provisions of the Swiss Code of Obligations (Art. 964b ss.) and related ordinances, and the requirements set out in the EU Non-Financial Reporting Directive (NFRD, Directive 2014/95 EU). The Sustainability Statement includes the disclosures in accordance with the EU Taxonomy Regulation (EU 2020/852) and the supplementary delegated acts. For the first time, the Sustainability Statement is also prepared with reference to the European Sustainability Reporting Standards (ESRS), in preparation for the mandatory reporting under Corporate Sustainability Reporting Directive (CSRD) starting from financial year 2025.

Approach to reporting

BP-1: GENERAL BASIS FOR PREPARATION OF THE SUSTAINABILITY STATEMENT

CONSOLIDATED REPORTING

This Sustainability Statement was prepared for the reporting period January 1 to December 31, 2024. The Statement covers ABB Ltd. and its consolidated subsidiaries worldwide (for a list of significant subsidiaries please see the Appendix to the ABB [Corporate Governance Report 2024](#)).

Newly acquired businesses as well as businesses that are divested are typically reflected in annual sustainability reporting in line with the financial reporting. For a list of acquisitions and divestments in 2024, please refer to the ABB [Integrated Report 2024](#).

The scope of consolidation in this Sustainability Statement is the same as for the annual audited Consolidated Financial Statement (please refer to section “Note 2 – Significant accounting policies” of our Consolidated Financial Statement for further details on the scope of financial consolidation, e.g., investments in joint ventures and affiliated companies). This Sustainability Statement, together with the Financial Report, constitutes the Management Report as required by the CSRD.

The report also includes our upstream and downstream value chains, in reference to ESRS and wherever required by the ESRS, unless otherwise stated.

No information was omitted to protect intellectual property, know-how or the results of innovation. No disclosure exemptions for impending developments or matters in the course of negotiation, as provided for in articles 19a(3) and 29a(3) of Directive 2013/34/EU, were applied.

In the ESRS index table, we have listed disclosures on which we have reported to date.

Other reporting principles

UNITS OF MEASURE

Greenhouse gas (GHG) emissions are presented throughout the statement in metric kilotons (kt) carbon dioxide equivalents (CO₂e) or metric megatons (mt), where 1 metric kiloton CO₂e equals 1000 metric tons CO₂e and 1 metric megaton CO₂e equals 1000 metric kilotons CO₂e.

Energy consumption is presented throughout the statement in gigawatt hours (GWh), where 1 GWh equals 1000 megawatt hours (MWh).

Waste is presented in metric tons (t) and metric kilotons (kt).

Materials used are presented in metric kilotons (kt).

BP-2: DISCLOSURES IN RELATION TO SPECIFIC CIRCUMSTANCES

TIME HORIZONS

In this statement, we comply with the medium- or long-term time horizons defined by ESRS 1 section 6.4 of short-, medium- and long-term for reporting purposes.

VALUE CHAIN ESTIMATION

We work with primary data as much as possible. Estimations based on indirect sources are used, e.g., to calculate scope 3 GHG emissions and avoided emissions datapoints. For further details of the basis for preparation and the methodology used in determining these metrics, please refer to “Greenhouse gas emissions” in the chapter “Protecting the climate”.

Currently, we have obtained only very limited primary data or direct information from third-party suppliers and partners to include in our emissions calculations. However, we are committed to improving the collection and quality of primary data or information from third parties and are actively preparing the next steps to achieve this.

The shift toward a scope 3 assessment increasingly based on primary data will be a gradual process and will be applied where reasonable, resulting in a hybrid approach based on a mix of primary and estimated data.

SOURCES OF ESTIMATION AND OUTCOME UNCERTAINTY

There is a high level of measurement uncertainty in this Sustainability Statement in the areas of scope 3 GHG emissions and in avoided emissions. For further details, please refer to the section “Value chain estimation” above and to the section “Greenhouse gas emissions”.

CHANGES COMPARED TO PREVIOUS SUSTAINABILITY REPORTING

This is the first Sustainability Statement of ABB with reference to the ESRS. In previous years, our main reporting framework was the Sustainability Reporting Standards of the Global Reporting Initiative (GRI). Wherever possible, comparable information for the previous year is provided. As part of the ESRS implementation, in 2024, we conducted a Double Materiality Assessment (DMA) and re-evaluated material topics in alignment with the ESRS.

REPORTING ERRORS IN PRIOR PERIODS

Certain figures that have been reported in the Sustainability Report 2023 have been reclassified or adjusted in the Sustainability Statement 2024 to conform to the current year’s presentation or due to refined calculation methods.

USE OF OTHER FRAMEWORKS

In addition to the regulatory requirements listed above, this Sustainability Statement was also prepared in reference to the GRI Standards, the IFRS Sustainability Disclosure Standards (also known as ISSB Standards) and in accordance with the Sustainability Accounting Standards Board (SASB). Information previously included in the Task Force for Climate-related Financial Disclosures (TCFD) section, is now covered by the Swiss Ordinance on Climate Disclosures as presented in the relevant ESRS sections.

An index table at the end of this Sustainability Statement maps our ESRS disclosures to relevant indicators of GRI and ISSB Standards. This voluntary interoperability table is complemented by additional tables for the Sustainability Accounting Standards Board.

INCORPORATION BY REFERENCE

Wherever we incorporate information by reference (to other parts of the Management Report), this is clearly indicated.

INDEPENDENT ASSURANCE

KPMG AG has been engaged by ABB to provide independent assurance for selected 2024 sustainability information disclosed in the Sustainability Statement, including reported progress for 2024 against certain sustainability targets, our compliance with the provisions of the Swiss Code of Obligations (Art. 964b ss.) and the Swiss Ordinance on Climate Disclosures, the process carried out by the management for the DMA and its alignment with ESRS, and the EU Taxonomy disclosures alignment with the EU Taxonomy Regulation. The relevant content subject to limited assurance has been marked as '**(assured)**' throughout the statement. KPMG AG's full Assurance Statement, including opinion and basis of opinion, is available in the "Assurance Opinion" section in this statement. KPMG AG's assurance did not extend to comparative periods within the 2024 Sustainability Statement.

Governance of sustainability at ABB

GOV-1: ROLE OF ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES

Sustainability at ABB is governed in the following hierarchy: ABB's **Board of Directors** (the Board) reviews and approves our Sustainability Agenda and related targets. Our Sustainability Agenda reflects the value we create for our stakeholders and considers insights of the DMA, which takes into account impacts, risks and opportunities (IROs) as identified for ABB. Board committees have specific roles in relation to sustainability: The Governance and Nomination Committee (GNC) is responsible for overseeing ABB's Sustainability Agenda. The GNC reviews and proposes to the Board the company's Sustainability Agenda and its targets and monitors target progress and achievements. The Finance, Audit and Compliance Committee (FACC) oversees the integrity of ABB's sustainability-related reporting, including its reporting processes, systems of internal controls as well as data processing. The Compensation Committee (CC) ensures that our executive compensation policies are appropriately aligned with the Sustainability Agenda. Ultimate responsibility for the company's Sustainability Agenda, its sustainability targets and its annual Sustainability Statement lies with the entire Board of Directors. In 2024, topics related to the Sustainability Agenda were discussed in every board meeting.

The **ABB Group Executive Committee** (the EC) validates the Sustainability Agenda and its implementation. It is responsible for reviewing sustainability targets in line with our performance management approach and our operating model, as well as for ensuring that a sustainability culture is embedded in our business decision-making. In every EC meeting held in 2024, topics related to the Sustainability Agenda were discussed. The Chief Communications and Sustainability Officer, who is a member of the EC, holds functional responsibility for sustainability and reports together with the Group Head of Sustainability to the GNC on topics and progress related to the Sustainability Agenda.

The **Sustainability Council** is the highest operational decision-making body for sustainability. It drives the development of the Sustainability Agenda based on evolving stakeholder requirements, oversees implementation and monitors progress towards targets. In line with our operating model – the ABB Way –, all business areas are represented in the Sustainability Council by their strategy heads as well as their sustainability leads. Additional members of the Sustainability Council include representatives of our corporate functions sustainability, strategy, sustainability reporting, as well as legal and integrity.

Topic-specific **Workstreams** establish targets and roadmaps across business areas and determine the governance for the respective sustainability topics. Additionally, they monitor emerging requirements and share best practices across business areas. The Workstreams include subject-matter experts from our business areas and divisions as well as members of the Corporate Sustainability team. They regularly report to the Sustainability Council on their progress and receive support from the Council where needed.

In line with the ABB Way and our decentralized operating model, our four business areas and their divisions are ultimately accountable for putting action plans in place and ensuring that appropriate resources are available to implement these plans and deliver on our targets.

The **Corporate Sustainability team** provides thought leadership and governance, sets targets and drives continuous improvement.

Finally, our **Sustainability Reporting team**, being part of ABB's Finance organization, is responsible for the preparation of our annual Sustainability Statement.

There is a dedicated procedure for the management of IROs applicable for these bodies in the form of the DMA Procedure adopted in 2024. Entity-level controls for this Procedure will be in place in the course of the financial year 2025.

BOARD AND EXECUTIVE COMMITTEE COMPOSITION

In proposing individuals for election, the Board seeks to align its composition, skills and experience with the company's strategic needs. The Board strives for diversity in all aspects including gender, nationalities, ethnicity and age. In addition, the tenure of the members of the Board should be well-balanced.

In 2024, the Board was composed of 70 percent male directors, while 30 percent of the positions were held by female directors. Furthermore, 60 percent of the Board members are in the age range of 50 to 59 years and 40 percent are between 60 and 69 years. All 10 members of our Board are independent and non-executive directors. We did not have employee representatives on our Board, as per Swiss corporate law, the Board of Directors is elected by the shareholders only and representation of employees is not foreseen.

Further, the composition of the Board in context of experience was as follows:

Board Member	Board Experience		Corporate Officer Experience		Other Business Experience				Global Experience	Country of Origin / Nationality
	ABB Board Tenure (years)	Other Public Board Experience	CEO	CFO	Operations	Risk Management	Sustainability	Digital / Technology		
Peter R. Voser	10	●	●	●	●	●	●	●	●	CH
David Constable	10	●	●		●	●	●		●	CA, US
Frederico Fleury Curado	9	●	●		●	●	●	●	●	BR, PT
Lars Förberg	8	●	●			●	●		●	SE, CH
Johan Forssell	1	●	●		●	●	●	●	●	SE
Denise C. Johnson	2	●			●	●	●	●	●	US
Jennifer Xin-Zhe Li	7	●		●	●	●	●	●	●	CN, CA
Geraldine Matchett	7	●	●	●		●	●		●	CH, UK, FR
David Meline	9	●		●		●	●	●	●	US, CH
Mats Rahmström	1	●	●		●	●	●	●	●	SE

For each Board member's biography, see [Corporate Governance Report 2024](#).

In line with the Board's leading example, ABB strives to have an equally diverse Executive Committee in all aspects. When appointing executives, the Board pays specific attention to relevant subject matter or business sector and products experience, as applicable, for each member.

In our EC, 78 percent of the positions were held by male executives and 22 percent by female executives in 2024. The age distribution showed 11 percent, equaling one of the members, being in the range of 40 to 49 years old, and 78 percent of EC members were between 50 to 59 years old. 11 percent of the members are in the range of 60 or above. All 9 EC members were active as executives and employed by ABB Ltd.

The following table gives a detailed overview of the experience of our EC members:

Name	Role	Business Experience							Country of Origin / Nationality
		Electrification ⁽¹⁾	Motion ⁽²⁾	Process Automation ⁽³⁾	Robotics & Discrete Automation ⁽⁴⁾	Corporate Officer Experience	Global Experience	Sustainability Experience	
Morten Wierod	Chief Executive Officer	●	●			●	●	●	NO
Timo Ihamuotila	Chief Financial Officer					●	●	●	FI
Carolina Granat	Chief Human Resources Officer					●	●	●	SE
Mathias Gaertner	General Counsel and Company Secretary					●	●	●	DE
Karin Lepasoon	Chief Communications and Sustainability Officer					●	●	●	SE
Giampiero Frisio	Business Area President Electrification	●	●				●	●	IT
Brandon Spencer	Business Area President Motion		●	●			●	●	US
Peter Terwiesch	Business Area President Process Automation			●		●	●	●	DE, CH
Sami Atiya	Business Area President Robotics & Discrete Automation		●		●		●	●	DE

1 Covering renewable power solutions, modular substation packages, switchboards and panelboards, switchgears, UPS solutions, breakers, control products, wiring accessories, enclosures and cabling systems, building automation, and similar products as well as related services.

2 Covering drives, motors, generators, traction converters, and similar products as well as related services.

3 Covering control technologies, industrial software, advanced analytics, sensing and measurement technology, marine propulsion systems, and similar products as well as related services.

4 Covering robots, mapping and navigation solutions, automation solutions, industrial PCs, transport systems, machine vision, and similar products as well as related services.

For each EC member's biography, see [Corporate Governance Report 2024](#).

SUSTAINABILITY EXPERIENCE AMONG ABB LEADERSHIP

Our Board of Directors annually evaluates the necessary competencies for its members. In 2024, the assessment of available sustainability competencies was refined to align with CSRD. The updated list of essential sustainability competencies encompasses our material topics:

- Environmental: Climate change, pollution, water and marine resources, resource use and circular economy.
- Social: Own workforce, workers in the value chain, affected communities, consumers and end-users.
- Governance: Business conduct.

We have expanded our annual Board and EC questionnaire accordingly in order to gain a better overview of sustainability-related experience in these bodies. Thereby we aim to strengthen our reporting basis and sharpen the sustainability focus of our education programs for Board and EC.

Sustainability is also considered in the Board's annual assessment, which includes evaluating whether the right level of experience is available and whether the Board is sufficiently informed about sustainability issues and its responsibilities. Both aspects were confirmed by the Board. Both our Board and our Executive Committee, as collective bodies, possess the necessary experience to cover all topics identified as material in our DMA including IROs. The Governance and Nomination Committee and the Board ensure that this experience is considered when proposing new Board candidates or appointing new EC members.

Sustainability as a management topic

GOV-2: INFORMATION REGARDING SUSTAINABILITY MATTERS

For sustainability matters addressed by the Board of Directors and the Executive Committee in general, including frequency of discussions, please see above under “Governance of sustainability at ABB”. For more details of these bodies’ roles and involvement in overseeing potential IROs, please see the discussion of our DMA in section “Double Materiality Assessment” below. The discussion of IROs in these bodies includes matters of due diligence and the results and effectiveness of policies, actions, metrics and targets adopted to address them.

Our sustainability-related IROs are reflected in our strategic approach, the Sustainability Agenda. In the course of its sessions during the reporting year, the EC evaluated the Sustainability Agenda and the progress in its implementation, including several topics of strategic relevance. For example, the EC approved the integration of sustainability metrics into the long-term performance planning, specifically scope 1, 2 and 3 emissions, circularity, zero waste to landfill and senior female leadership. The EC reviewed the proposed five-year glidepath for some of these metrics. It also reviewed the status of CSRD reporting and discussed the need for sustainability data automation. Further topics discussed included the climate transition plan and the 2027 Sustainability Roadmap. In preparation for CSRD reporting and in line with its responsibilities, CSRD was also on the agenda of every FACC meeting in 2024.

During the reporting period, the EC discussed all material IROs as they have been identified for the first time in 2024. The Board of Directors deals with IROs regularly as they arise. As those IROs have all been defined in the reporting year, all of them have been addressed accordingly.

Incentives for sustainability

GOV-3: SUSTAINABILITY-RELATED PERFORMANCE IN INCENTIVE SCHEMES

Building on our mindset of continuous improvement, ABB translates its strategic priorities – including financial performance and progress on sustainability – into short- and long-term targets, which are supported by appropriate incentives. A holistic set of key performance indicators (KPIs) enable us to plan, measure, monitor and review progress against these targets.

	Baseline (baseline year)	2023 status	2024 status
INTEGRITY AND TRANSPARENCY			
Linking sustainability targets to executives' variable pay	Under the Annual Incentive Plan (AIP), a safety goal was included within the individual measure for some members of ABB's Executive Committee (EC). The individual measure had a weighting of 20 percent of the executive's target AIP (2019).	Under the AIP, at least two sustainability-related performance goals are included within the individual measure for each member of ABB's EC. The individual measure has a weighting of 20 percent of the executive's target AIP.	Refer to AIP detailed update below
	Under the Long-Term Incentive Plan (LTIP), two performance measures with equal weighting of 50 percent were considered, namely average earnings per share and relative total shareholder return. The LTIP was awarded to around 100 executives, including EC members and division presidents. Vesting under the LTIP was subject to the achievement of the plan-specific targets over a period of three years (2019).	One of the three performance measures under ABB's LTIP is based on achievement of a corporate sustainability target and carries a weighting of 20 percent. The LTIP is awarded to around 100 executives, including EC members and division presidents. Vesting under the LTIP is subject to the achievement of the plan-specific targets over a period of three years.	Refer to LTIP detailed update below

Incentives enable us to maintain a strong link between strategy and compensation. This linkage includes our commitment to sustainability, which is embedded in both the Annual Incentive Plan (AIP) for Executive Committee members and the Long-Term Incentive Plan (LTIP).

Under the AIP, in 2024, all members of the EC had three sustainability goals (out of a maximum of three) in the individual measure of their respective plans. The individual measure has a weighting of 20 percent of the executive's target AIP award. In 2024, all EC members had an environmental goal referring to scope 1 and 2 GHG emissions reduction. In addition, all EC members had a governance goal designed to help deliver ABB's obligations under the Deferred Prosecution Agreement. Most EC members also had a social goal, which for the CEO and business area presidents related to safety, and for most corporate officers was an increase in the proportion of women in senior management roles (female leaders), while the CFO had a governance goal (related to internal controls).

Performance Share Units (PSU) under our LTIP are granted to around 100 executives, including EC members and division presidents. Vesting of the PSU grants is subject to the achievement of the plan's specific targets over a period of three years. One of the three performance measures under the LTIP is based on the achievement of a corporate sustainability target and carries a weighting of 20 percent. For the 2024 LTIP, the sustainability performance measure was ABB scope 1 and 2 GHG emissions reduction at the end of the three-year performance period (2024–2026), compared to the 2019 baseline.

To safeguard adherence to our Code of Conduct and compliance policies, the incentives offered to our Executive Committee members are subject to malus and claw-back provisions. For more details, please refer to our [Compensation Report 2024](#).

Due diligence statement

GOV-4: STATEMENT ON DUE DILIGENCE

Due diligence is a vital, cross-cutting process that ensures we identify and manage key impacts across our operations and value chain. The table below outlines the interdependence of these impacts, showing how due diligence is embedded across various topics deemed as material under CSRD, to facilitate informed decision-making. By mapping and highlighting these linkages, we mark the first step toward alignment with the upcoming Corporate Sustainability Due Diligence Directive (CSDDD).

Due diligence topics	Environment	People
Embedding due diligence in governance, strategy and business model(s)	<p>Sustainability is embedded in all governance bodies and defined as a key management topic. More information on this can be found in the section "Sustainability as a management topic" (p. 8).</p> <p>We integrate sustainability-related performance in our AIP and LTIP. For more information on this topic, please refer to section "Incentives for sustainability" (p. 8).</p> <p>An elaboration on how the identified material IROs interact with our strategy and business model can be found in section "Material impacts, risks, and opportunities" (p. 14) and in the respective IRO descriptions in the topical chapters ("Material impacts, risks and opportunities resulting from climate change", p. 26; "Strategic approach to circularity", p. 39; "Water as a material topic at ABB", p. 43; "Double Materiality Assessment for pollution", p. 45; "Identification of material IROs", p. 57; "Involvement of value chain workers", p. 68; "Impacts and opportunities", p. 73; "Management of consumer-related risks", p. 76; "Materiality", p. 79).</p>	
Engaging with affected stakeholders	<p>Our administrative, management and supervisory bodies are informed about sustainability matters regularly by the respective individuals and committees. We elaborate further on this topic in section "Sustainability as a management topic" (p. 8).</p> <p>At ABB, we value the interests and views of our stakeholders and take them into account for the further development of our strategy and business model. An explanation on how we do this can be found in the section "Stakeholder engagement" (p. 12).</p> <p>We closely involved our stakeholders in the DMA to identify IROs regarding our overall business activities, but also in regard to our stakeholder engagement. For more information, please refer to section "Double Materiality Assessment", p. 16.</p> <p>To provide an understanding of the policies in place to prevent, mitigate and remediate actual and potential adverse impacts, we set out the overarching policies in section "Sustainability-related policies" (p. 19). Furthermore, specific policies will be explained in the topical chapters ("Climate change-related policies", p. 29; "Policy commitments to circular resource management", p. 40; "Water-related policies", p. 43).</p> <p>In the environmental chapters, there are no IRO-1 disclosures related to understanding how engagement with specific stakeholder groups on specific (potential) adverse impacts are performed in scope for the present report.</p>	<p>To provide an understanding of the policies in place to prevent, mitigate and remediate actual and potential adverse impacts, we set out the overarching policies in section "Sustainability-related policies" (p. 19). Furthermore, specific policies will be explained in the topical chapters ("Employee-related policies", p. 58; "Supplier-related policies", p. 69; "Community-related policies", p. 74; "Consumer-related policies", p. 76; "Business conduct-related policies", p. 81).</p> <p>Information relevant to understanding how engagement with specific stakeholder groups on specific (potential) adverse impacts is performed can be found in section "Employee involvement in decision-making processes" (p. 60), "Engaging with value chain workers" (p. 69), "Management of supplier relationships" (p. 84). In the chapters on affected communities and our consumer and end-users, there are no disclosures related to stakeholder engagement in scope for the present report.</p>
Identifying and assessing negative impacts	<p>A description of our processes to identify and assess material adverse environmental impacts can be found in the section "Material impacts, risks and opportunities resulting from climate change" (p. 26), "Strategic approach to circularity" (p. 39) and "Water as a material topic at ABB" (p. 43).</p> <p>A description of material adverse impacts and how they interact with our strategy and business model can be found in section "Material impacts, risks, and opportunities" (p. 14) and in the respective IRO descriptions in the topical chapters ("Material impacts, risks and opportunities resulting from climate change", p. 26; "Strategic approach to circularity" (p. 39); "Water as a material topic at ABB" (p. 43); "Identification of material IROs", p. 57; "Involvement of value chain workers", p. 68; "Impacts and opportunities", p. 73; "Management of consumer-related risks", p. 76; "Materiality", p. 79).</p>	<p>A description of our processes to identify and assess material adverse impacts on people can be found in the section "Channels available to raise concerns" (p. 62), "Employee-related action" / "Human rights-related action" (p. 63), "Engaging with value chain workers" (p. 69) and in "Materiality" (p. 79).</p>

Due diligence topics	Environment	People
Taking action	We elaborate on some of our actions to combat climate change in section "Management of climate change" (p. 32). For the other environmental chapters, there are no disclosures related to actions in scope for the present report.	We reflect the range of actions, through which impacts are addressed in section "Employee-related action" (p. 62). For the other chapters on people, there are no disclosures related to actions in scope for the present report.
Tracking effectiveness	We track the effectiveness of our environmental measures and disclose our targets and metrics in the respective topical chapters ("Climate change-related targets", p. 30, "Facts & figures Energy", p. 33; "Circularity-related targets", p. 41, "Facts & figures Waste management", p. 41; "Facts & figures Water" p. 44).	We track the effectiveness of our social measures related to our own workforce in section "Employee-related action" / "Tracking the effectiveness of our approach" (p. 64) and disclose our metrics in "Facts & figures Own employees" (p. 65).

Risks and controls in sustainability reporting

GOV-5: INTERNAL CONTROLS OVER SUSTAINABILITY REPORTING

As defined in the ABB Ltd Board Governance Rules, the Board of Directors is responsible for establishing an internal control system to monitor and address financial operations and sustainability reporting processes. The Board has delegated roles and responsibilities for controls to the FACC. The FACC oversees the integrity of our reporting processes and systems of internal controls, including its internal and external assurance processes as well as manual and automated data processing.

We have adopted the integrated framework designed by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) for our internal controls over reporting. In 2024, we updated our "Internal control over reporting" policy to specify that defined internal control standards, requirements, certifications, governance, roles and responsibilities apply to all reporting processes of the Group, including sustainability reporting.

The scope of the environmental, social and governance topics disclosed in the Sustainability Statement has been defined by means of a DMA (see section "Double Materiality Assessment" below).

We conducted an Internal Controls over Sustainability Reporting (ICSR) risk assessment to determine the risk of material misstatements considering the risk profile of the datapoints and the related reporting process. Depending on the assessed risk level, we determined the required mitigation efforts.

The risk assessment considers to what extent inherent risks are likely to impact sustainability reporting processes. Based on the likelihood and magnitude, process level controls are defined to address the risk points identified.

We executed an internal controls self-assessment program on a quarterly and yearly basis to assess control design effectiveness and control performance. This program is overseen and monitored by the Corporate Assurance Risk & Internal Controls team. Since 2024, this program also covers key controls over sustainability reporting. We have established and implemented an internal assurance certification process in line with the Assurance and Disclosure Governance policy. Starting from 2024, the scope of assurance certification was extended to sustainability reporting. All required entities at different levels in the Group sign off on the fair representation of financial and sustainability information.

We extended the process to monitor internal control assessment results to sustainability reporting, to ensure that potential control weaknesses and deficiencies are addressed and corrected in a timely manner. The disclosure process is overseen by the relevant committees. The results of internal control assessments are regularly reviewed by the FACC.

The above-described approach applies to disclosures related to regulatory compliance as well as committed targets as published in this Sustainability Statement.

Stakeholder engagement

SBM-2: INTERESTS AND VIEWS OF STAKEHOLDERS

At ABB, we engage with our most relevant stakeholder groups, including collaborative partnerships, customers, employees, governments and civil society, the investment community, and suppliers.

We engage with governments and the local communities in which our products are manufactured and used, with the aim of fostering technology adoption, sound regulatory frameworks, job creation and economic growth.

We also engage with stakeholders along the value chain to drive sustainability topics such as decarbonization and respect of human rights.

The perspectives of our stakeholder groups are reflected in our policies and procedures.

Our different stakeholder groups and how we interact with them is shown in the table below.

Stakeholder group	Approach to engagement
Collaborative partners	<p>We collaborate with companies and academic institutions on a wide range of social, environmental, and technological activities and topics. These partnerships serve to foster knowledge exchange, enabling us to stay abreast of latest developments, contribute to innovation, provide access to talent, expand markets and address complex challenges in a more effective manner. The engagement is done both centrally and at divisional level.</p> <p>How we engage:</p> <ul style="list-style-type: none"> • Collaborations with academic institutions, to drive innovation, including themes related to sustainability. • Participation in industry groups, to drive innovation and advance policy. • Membership in sustainability-related international organizations such as Global Business Initiative on Human Rights (GBI), UN Global Compact, World Business Council for Sustainable Development (WBCSD) and the Responsible Minerals Initiative (RMI). We also collaborate with organizations such as the International Committee of the Red Cross (ICRC), the Science-Based Targets initiative (SBTi) and with ICoCA, the Responsible Security Association. • Technology and innovation partnerships with companies and startups to lay the basis for potential future direct investments or acquisitions. • Various organizations promoting Diversity, Equity and Inclusion. • Strategic corporate partnerships that enable the creation of local employment opportunities, infrastructure development and local economic value.
Customers	<p>Meeting customer needs and expectations is essential to our success. The engagement with customers on sustainability topics occurs primarily in the divisions and includes sustainability-focused meetings and projects.</p> <p>How we engage:</p> <ul style="list-style-type: none"> • Customer requests and collaborations around ABB's product offerings, such as an end-to-end approach and a one-stop-shop for building automation and smart energy management solutions. • Our Key Account Managers and our customer service organizations address sustainability questions with customers, including through customer trade shows. • Sustainability partnerships such as enabling take-back schemes. • Assessing the impact of our products on customers' sustainability performance (carbon footprint, circularity).

Stakeholder group	Approach to engagement
Employees	<p>Employees are vital for achieving our goals and staying competitive. In an ongoing dialogue, we aim to bring employee perspectives into our policies and procedures. Employee engagement takes place at different levels across the organization.</p> <p>How we engage:</p> <ul style="list-style-type: none"> • Annual Employee Engagement Survey, followed up with local workshops to discuss the results and define actions. • Targeted pulse surveys on specific topics. • Annual performance reviews. • Negotiating with collective bargaining associations. • Network of Employee Resource Groups promoting Diversity, Equity & Inclusion in the workplace. Feedback from these groups are collected through regular meetings and help inform policy and guidelines. • Learning and development opportunities. • Engagement and training on business conduct.
Governments and civil society	<p>We engage with governmental, regulatory, political and economic stakeholders, local communities, the media, non-governmental organizations (NGOs) etc. at global, national and local levels. These key stakeholders provide the political and regulatory support and public trust necessary to achieve sustainable growth. Engagement with government and civil society takes place both centrally and at a divisional level.</p> <p>How we engage:</p> <ul style="list-style-type: none"> • Direct dialogue with community representatives, where possible, to understand local and national needs both related to our own operations and to our value chain. • Donations and volunteering. • Meetings with regulators to understand their priorities and share our views on policy issues and advocate the deployment of low-carbon technology and energy-efficient solutions. • Participation in national and international initiatives to address global issues such as Diversity, Equity and Inclusion, climate change and other sustainability topics.
Investment community	<p>The investment community enables ABB's access to financial capital and includes such market participants as shareholders, debtholders, financial analysts, rating agencies and proxy advisors. Investor relations are managed on a corporate level through the Investor Relations team.</p> <p>How we engage:</p> <ul style="list-style-type: none"> • Annual General Meeting. • Capital markets days, including a specific section on sustainability. • Group reporting. • Investor relations website linking to our sustainability page. • Investor roadshows and conferences including sustainability themes. • One-on-one meetings, including requests from investors on specific meetings to understand sustainability performance. • Press releases. • Quarterly analyst and investor webcasts, including a specific section on sustainability.
Suppliers	<p>Our suppliers have a significant impact on our operations and success as well as our ability to meet our sustainability targets. Working with suppliers allows us to identify and mitigate risks in the supply chain. While day-to-day engagement with suppliers is primarily done in the divisions, several of the engagement programs and supplier-related policies are centrally coordinated through topic-specific workstreams.</p> <p>How we engage:</p> <ul style="list-style-type: none"> • Co-development of initiatives and early engagement during new product development. • Collaboration to drive GHG emissions reduction. • Monitoring and active engagement through our Sustainable Supply Base Management program, our Conflict Minerals program and Material Compliance program. • Partnerships to access more sustainable materials. • On-site evaluations and audits including interviews with the supplier's employees. • Town hall and supplier day events.

We engage with our stakeholders for specific strategic and reporting purposes to gain insights into how they perceive value and what matters to them most in terms of economic, environmental and social issues. This informs our strategic decision-making and the way we manage risks and opportunities. The stakeholder input shapes the actions we take. By engaging with our various stakeholders, we identify and anticipate emerging trends, shifting customer needs and changing market expectations.

Internal and external stakeholder input is considered, both for informing the sustainability-related work in the divisions as well as for the further development of our Sustainability Agenda. Internal and external stakeholder surveys and interviews serve as key input into our DMA process.

— Material impacts, risks, and opportunities

SBM-3: MATERIAL IROs AND INTERACTION WITH STRATEGY AND BUSINESS MODEL

The following is a summary of the material IROs, which were included in the IRO inventory for the purpose of the DMA performed in 2024. Further details, including a disclosure of the material IROs and their interaction with strategy and business model, is found in the respective topical standard chapters of this Sustainability Statement.

E1: CLIMATE CHANGE

ABB's value chain, from raw material extraction to end-of-life, impacts climate change. Manufacturing, assembly and logistics from our own operations contribute directly to greenhouse gas emissions. We mitigate this through energy-efficient processes, use of renewable energy, sustainable upstream practices and supplier engagement. At the same time, our technologies enhance customers' energy efficiency, leading to emissions reductions.

Climate change also poses risks to our infrastructure, operations and employee safety, but, acting on climate change provides opportunities. Collaboration with governments and NGOs aids the transition to a low-carbon economy, while innovations in renewable energy and efficiency secure our market leadership, reputation and talent attraction, alongside reducing carbon footprint and costs through diverse energy sourcing.

E2: POLLUTION

ABB's value chain and operations can have a negative effect on the environment through pollution. To address these challenges, we promote sustainable practices, such as supplier environmental criteria and circular economy principles, leading to the reduction and elimination of pollution.

There are risks associated with pollution. Stricter regulations, like the potential European ban on per- and polyfluoroalkyl substances (PFAS), can disrupt sourcing and materials. Compliance with new standards would demand significant adjustments. We pursue a proactive approach to sustainability and resource management to adapt to and mitigate these risks.

E3: WATER AND MARINE RESOURCES

Manufacturing processes, particularly those requiring substantial water use, strain freshwater resources and can affect local ecosystems. However, we commit to optimize water usage wherever possible.

Following the DMA, we concluded that all aspects relating to marine resources are not material to ABB.

E5: CIRCULAR ECONOMY AND RESOURCE USE

ABB's business practices have environmental implications through resource use and waste generation. The material consumption for manufacturing may deplete global resources and increase waste. However, our commitment to a circular economy, for instance through recyclable product design and energy efficiency, aims to mitigate these impacts.

We can face risks, like product obsolescence, slow market entry and resource scarcity, but we can also pursue opportunities, through setting leading practices in circularity. Innovations like robotics-as-a-service and circuit board take-back systems open new business avenues. Partnerships and startup investments improve market presence and cut raw material costs. Developing innovative, energy-efficient and recyclable products is a major ambition for us, enhancing revenue and supply chain resilience.

S1: OWN WORKFORCE

At ABB, we are positively impacting our employees through a strong diversity program, learning and development opportunities, and rigorous safety training. Our diversity initiatives ensure equal opportunities for our employees. We prioritize robust health and safety measures to minimize risks. Despite this, challenges like workload stress, labor rights issues and safety incidents can still occur. Inadequate training for technologies such as robotics may also lead to job losses. Balancing positive programs with proactive measures for these concerns is crucial for the workforce's wellbeing and operational success.

Besides the positive impacts on employees through our efforts, they also contribute to our business opportunities and success. For example, our Greener in Motion program boosts employee engagement and retention. Equality programs like Women in Motion and LeadHer enhance income and lower recruitment expenses by ensuring fair treatment and opportunities. Flexible work models attract and retain talent, promoting business growth and innovation. Not acting on these topics would adversely lead to risks, through talent retention, reputational damage, or even sanctions and fines.

S2: WORKERS IN THE VALUE CHAIN

In our value chain, there is a potential risk of negative impacts on individuals involved in labor, e.g., through health and safety risks in mining. Chemicals and heavy machinery usage in upstream processes can also pose health risks to workers. Our Sustainable Supply Base Management Program, audits, and supplier quality audits, and active membership of the Responsible Minerals Initiative, alongside our Business Ethics Helpline and training, demonstrate our commitment to the safety and wellbeing of all individuals in our value chain.

S3: AFFECTED COMMUNITIES

ABB's activities impact communities along its value chain. Negative impacts can arise through pollution or noise from operations or transportation. Positive impacts include creating local employment opportunities, infrastructure development and economic value. Forming partnerships with aligned companies and stakeholders enables us to grow as a company.

S4: CONSUMERS AND END-USERS

At ABB, we prioritize our customers' and end-users' privacy, fostering trust and security by protecting personal information and respecting individual rights with a transparent, ethical approach to data handling. Access to quality information for our customers empowers informed decisions, promoting transparency and confidence in our products. While safety incidents can occur with product misuse, especially among vulnerable users, our strong safety measures and clear usage instructions aim to mitigate risks, ensuring the wellbeing of all our consumers and end-users.

G1: BUSINESS CONDUCT

The impact of ABB's business conduct is vital for our social license to operate and sustainable growth. Ethical business conduct, transparency, prevention of corruption and bribery, a strong whistleblower system, and regulatory compliance are key. Lapses can lead to legal risks, financial penalties and brand damage.

Engagement and training on business conduct helps attract quality employees and enhance our culture. Integrity lapses, on the other hand, can cause financial and reputational harm. Our transparency and ethics build trust, combat corruption and limit financial risks.

For the current and anticipated effects of our IROs on our business model, value chain, strategy and decision-making, please see the respective IRO descriptions in the topical chapters.

The material impacts we are involved with relate to both our activities (own operations) and our business relationships (upstream and/or downstream value chains), depending on the concrete IRO in question. The nature of these relationships is disclosed in (a) the summary of IROs above and (b) in the respective IRO descriptions in the topical chapters.

Double Materiality Assessment (assured)

IRO-1: DESCRIPTION OF PROCESS TO IDENTIFY AND ASSESS MATERIAL IROs

In 2024, ABB performed a new DMA on Group level, including all subsidiaries, aligned with the ESRS. The process was changed for the fiscal year 2024 to reflect the DMA methodology aligned with ESRS requirements. We focused on both our own operations and our value chain. The process was structured into four phases, guided by due diligence activities and supported by key data sources at each phase, as outlined below:

The **understanding phase** considered the previously conducted Human Rights Risk Assessment (HRRRA) to map the value chain and incorporated the results of the 2023 stakeholder engagement. To understand the value chain, the previously conducted HRRRA was taken as a basis. The activities considered as upstream and downstream value chain were Research & Development/testing/support functions, components manufacturing and assembly, transport and logistics, bidding, sales and distribution, projects and services, raw material extraction and processing, use by ABB customers and end users, and end of life. Material topics from the previous materiality assessment were mapped to ESRS sub-topics and helped in the identification phase of the new DMA.

During the **identification phase**, potential IROs were identified through stakeholder input, internal analyses, interviews with representatives from our business areas and industry knowledge, to focus on specific activities, business relationships, geographies or other factors that give rise to a heightened risk of impacts. Impacts were identified through, for example, industry knowledge, the HRRRA and internal environmental research.

ABB's existing Enterprise Risk Management (ERM) process, which has integrated sustainability risks, identifies risks across all activities and geographies within ABB. Sustainability-related risks were mapped to relevant ESRS topics. The ERM is an overall approach to risk identification and assessment, which considers both internal and external sources of risks. The ERM process is embedded in our ABB Way operating model and encompasses all levels of our organization. The ERM provides our leadership with an overview of the most critical risks. It follows a bottom-up approach as all divisions, business areas and corporate functions are required to identify and assess their most critical risks based on our defined methodology. It starts with the identification of our strategic business objectives. Next, we identify the most critical risks, which could prevent us from achieving these objectives and lead to a potential material financial impact primarily over the short- and medium-term, as well as risks of a long-term nature, e.g., climate risks. We prioritize sustainability-related risks similar to other enterprise risks through our ERM process. We consider the connections between our impacts and dependencies with the risks and opportunities and consider the connection and dependencies between risks and impacts in an integrated way and not differentiating between the two when risks are identified and assessed. This ensures that both an outside-in and inside-out perspective is considered and supports a fuller assessment of the risks.

Similarly, opportunities connected to impacts were also considered for the DMA. This involved assessing how the identified opportunities could lead to potential impacts and integrating these considerations into the overall materiality assessment process. Opportunities across business areas were identified using our 2023 Integrated Report and Sustainability Report as well as the internal stakeholder survey.

During the **assessment phase**, negative impacts were assessed based on their relative severity (scale, scope, irremediability) and likelihood, and positive impacts based on their relative scale, scope and likelihood. Impacts were assessed using desktop research and industry knowledge. The assessment of impacts was validated through insights gathered from stakeholder surveys. In line with ESRS we have assessed risks based on the magnitude of their potential financial effect and the likelihood of their occurrence. For the assessment we drew upon the results of ABB's ERM process. Opportunities were evaluated based on their financial impact and likelihood, informed by stakeholder input.

In the **determination phase**, we have adopted thresholds to determine which of the sustainability topics will be covered in our Sustainability Statement. Different options for the scored IROs aggregated to ESRS subtopics were analyzed, including benchmarking against peers and prior materiality. Based on that assessment, the threshold at the 33.33rd percentile was selected. IROs below this threshold were considered not material. To decide on the most sensible threshold, different options for the cut-offs in the form of percentiles on the scored IROs aggregated to ESRS sub-topics were created, tested, discussed in working sessions and benchmarked. The DMA has been reviewed and approved by the ABB Sustainability Reporting Steering Committee. Impacts and opportunities are shared with the business areas for strategic considerations. The process described here was changed for the fiscal year 2024 to reflect the DMA methodology in line with ESRS requirements.

We have applied certain assumptions in the process outlined above. We have considered the findings from the 2023 materiality assessment and the supporting stakeholder engagement (described in detail in our 2023 Sustainability Report) and concluded they remain valid considering they have been conducted recently and there are no known significant changes. Additionally, the ERM process was deemed appropriate and the Human Rights Risk Assessment mapping across the value chain remains relevant.

Based on the aggregation results, the following ESRS subtopics were derived as material:

E1: Climate Change
1 Climate change adaptation
2 Climate change mitigation
3 Energy
E2: Pollution
4 Pollution of air
5 Pollution of soil
6 Pollution of water
E3: Water and marine resources
7 Water
E5: Resource Use and Circular Economy
8 Resource outflows related to products and services
9 Resource inflows, including resource use
10 Waste
S1: Own Employees
15 Equal treatment and opportunities for all
16 Other work-related rights
17 Working conditions
S2: Workers in the Value Chain
18 Equal treatment and opportunities for all
19 Other work-related rights
20 Working conditions
S3: Affected Communities
21 Communities' civil and political rights
22 Communities' economic, social and cultural rights
S4: Consumers and End-Users
23 Information-related impacts for consumers and/or end-users
24 Personal safety of consumers and/or end-users
G1: Business Conduct
11 Corporate culture
12 Corruption and bribery
13 Management of relationships with suppliers including payment practices
14 Protection of whistleblowers

The following table shows which IROs (identified by number) are located in which part of the value chain (own operations and upstream or downstream value chain) as well as the nature of these IROs (positive or negative impact, risk or opportunity).

Material IROs	Own operations	Upstream value chain	Downstream value chain
Positive impacts	2, 9, 11, 12, 13, 14, 15, 17, 22	2, 3, 8, 9, 12, 13, 14, 18, 19, 20, 22	2, 3, 8, 9, 10, 12, 13, 14, 18, 19, 20, 22, 23, 24
Negative impacts	2, 3, 4, 5, 6, 7, 9, 12, 13, 15, 17, 21	2, 3, 7, 9, 19, 20, 21, 22	2, 3, 4, 10, 20, 24
Risks	1, 2, 5, 8, 11, 15, 16, 23, 24	1, 5, 8, 9, 24	8, 23, 24
Opportunities	2, 3, 8, 9, 10, 11, 12, 15, 17, 21	2, 9, 10, 20, 21	2, 3, 8, 9, 10, 11, 12, 21

We are still in the process of fully integrating all new material topics into our sustainability approach. The development of concepts and key performance indicators as stipulated by Art. 964b of the Swiss Code of Obligations is an ongoing process. In 2025, we plan to perform an IRO review while future DMA revisions need to be assessed. Topical disclosures required in IRO-1 will be considered in the next reporting cycle.

— Disclosure Requirements used

IRO-2: DISCLOSURE REQUIREMENTS COVERED BY SUSTAINABILITY STATEMENT

Please see the ESRS Index in the appendix of this report for a full list of all Disclosure Requirements used in this Sustainability Statement.

To determine the final scope of datapoints, we used the ESRS dataset (version of December 2023, which was the latest version at the time) and mapped it to material ESRS subtopics. Voluntary datapoints were excluded, and phase-in provisions were applied as outlined in ESRS 1, Appendix C. All datapoints that were connected to the material sub-topics were evaluated individually, resulting in 62 in-scope quantitative datapoints and 220 in-scope qualitative datapoints.

We disclose information based on its significance in relation to our IROs and their importance to the needs of stakeholders.

— Sustainability-related policies

ABB's Sustainability Agenda is managed on the basis of established policies and procedures, which are continuously adapted to new developments and regulatory requirements. Several of these policies reappear in more than one topical chapter of this Sustainability Statement. To avoid repetition, they are introduced below.

ABB WAY

The ABB Way is our operating model, a governance framework that is designed to safeguard ABB from financial and reputational harm and to enable us to work closely with our customers and stakeholders. It defines how we operate and create value through our business model, people and culture, brand, and governance. To ensure strong governance, the ABB Way links mandatory documents such as policies and procedures. Depending on who issues them, they are applicable to one or more business areas or divisions. Policies describe what is and what is not allowed. Procedures explain how to implement and comply with the Code of Conduct or a policy. Both policies and procedures are mandatory.

SUSTAINABILITY POLICY

The Sustainability Policy aims to set out the core sustainability practices that drive the development and implementation of the Sustainability Agenda, ensuring that ABB is enabling a more sustainable and resource-efficient future, hereby meeting evolving stakeholder requirements. The policy is supported by mandatory sustainability procedures and annex documents and provides a model for functional governance and operational deployment of the Sustainability Agenda.

The policy is mandatory for the entire ABB Group, including joint ventures, consortia, working partnerships, and third-party service providers under ABB management control. The most senior level that is accountable for the implementation of the policy is the division presidents. There are no third-party standards referred to in this policy. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. It is an internal policy and is accessible to all ABB employees via the internal network.

CODE OF CONDUCT

The ABB Code of Conduct (CoC) is the foundation of our commitment to integrity. It provides practical guidance to our workforce, suppliers and other business partners in how we expect business to be conducted worldwide. We are convinced that, in order to continue to be an industry leader in a challenging environment, we must drive the highest standards of integrity, accountability, sustainability and transparency. The CoC stipulates five integrity principles:

- We behave and do business in an ethical way
- We work in a safe and sustainable way
- We build trust with all stakeholders
- We protect ABB's assets and reputation
- We speak up and do not retaliate

The CoC includes sixteen integrity focus areas including, among other aspects, anti-bribery and anti-corruption, communication, conflicts of interest, fair competition/antitrust, human rights, prevention of money-laundering, privacy, etc. It also outlines how individual concerns can be raised and how potential whistleblowers will be protected.

The CoC applies globally to all of ABB's employees, managers, officers, directors, consultants, self-employed contractors, casual workers, agency workers and volunteers. It also applies to ABB's wholly owned affiliates and subsidiaries as well as all employees of any joint venture or other entity in which ABB has majority ownership interest or exercises effective control. The most senior level that is accountable for the implementation of the CoC is the Chief Executive Officer. Third-party standards referred to in the CoC include the International Labour Organization's (ILO) Core Conventions on Labour Standards (in the fair employment and the human rights sections) and, for human rights specifically, the UN Global Compact and the Global Business Initiative for Human Rights. Relevant internal and external stakeholders are expected to benefit from the implementation of this Policy. The CoC is available to everyone, including ABB employees and stakeholders on the global ABB website.

SUPPLIER CODE OF CONDUCT

To make sure that we only work with suppliers who share our commitment to integrity, sustainability and human rights, we ask our suppliers to meet the requirements set out in our Supplier Code of Conduct (SCoC). The SCoC deals with human rights and decent work, health and safety, climate and environment, material compliance and responsible minerals, business ethics, business and information security, procurement by suppliers, documentation / inspections / reporting / corrective actions, reporting concerns and access to remedy. The SCoC states that we only enter into business relationships with third parties that share our ethical standards. Furthermore, our suppliers are urged to comply with all regulations and laws on reporting or disclosure of human rights and environmental due diligence and to take appropriate action in case of non-compliance.

The SCoC applies to all of ABB's suppliers. The term "suppliers" refers to third parties, including individual contractors, that we engage to purchase goods and/or services and/or works from. The most senior level that is accountable for the implementation of the policy is the Chief Executive Officer. As third-party frameworks, the SCoC refers explicitly to the International Bill of Human Rights, the UNGPs, the ILO Declaration on Fundamental Principles and Rights at Work, the United Nations Global Compact (UNGC), the Rio Declaration on Environment and Development, the UN Convention Against Corruption, the Convention on Biological Diversity, the UN Framework Convention on Climate Change (UNFCCC), the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Stockholm Convention on Persistent Organic Pollutants (POPs), and the Minamata Convention on Mercury. Relevant internal and external stakeholders are expected to benefit from the implementation of this Policy. The SCoC is included as a link in our procurement terms and conditions and therefore accessible for suppliers. As an additional source, we provide our procurement terms and conditions, our SCoC and the accompanying Implementation Guide on our website.

HUMAN RIGHTS POLICY AND DUE DILIGENCE FRAMEWORK

Our Human Rights Policy formalizes and specifies the commitment of ABB to support and respect the human rights of every individual and community as outlined in the ABB Code of Conduct. Furthermore, it provides a common framework that acknowledges the company's responsibility to respect human rights and it describes the management approach on human rights due diligence for the Group.

ABB's Human Rights Due Diligence Framework commits to implement Human Rights Due Diligence throughout its business to proactively assess, cease, prevent and mitigate actual and potential adverse human rights on rightsholders along our value chain. Furthermore, it lays out the governance of an embedded and integrated respect for human rights with a cross-business Human Rights Working Group. The Human Rights Working Group is responsible for defining the human rights roadmap, objectives and targets, including development programs, in collaboration with the Legal & Integrity function.

The Framework requires us to track and communicate our performance and it stipulates access to grievance and remedy.

Our Human Rights Policy applies globally to all employees, managers, officers, directors, consultants, self-employed contractors, casual workers, agency workers and volunteers. It also applies to our wholly owned affiliates and subsidiaries as well as all employees of any joint venture or other entity in which ABB has majority ownership interest or exercises effective control. The most senior level that is accountable for the implementation of the policy is the Chief Executive Officer. The policy supports and respects the following international human rights frameworks: International Bill of Human Rights; ILO Core Labour Conventions (including ILO Convention No. 138 on minimum age for admission to employment and ILO Convention No. 182 on the worst forms of child labor); OECD Guidelines for Multinational Enterprises; OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas; UN Convention on the Rights of the Child; United Nations Guiding Principles on Business and Human Rights (UNGPs); UN Global Compact (UNGC); UNICEF's Children's Rights and Business Principles (CRBP); Voluntary Principles on Security and Human Rights. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. The Human Rights Policy and ABB's Human Rights Due Diligence Framework are publicly available on ABB's corporate website for the company's external stakeholders, suppliers and business partners in all relevant languages. They are also available on the company's internal communications channels.

POLICY ON HEALTH, SAFETY, ENVIRONMENT & SECURITY

In our Group-wide HSE&S Policy, we confirm to be committed to putting health, safety, environment, and security (HSE&S) at the heart of all our activities. This includes materials sourcing, product design, operations, and services and climate change. Required by the policy is an HSE&S management system based on internationally recognized sustainability standards, principles and commitments and is prepared and maintained in collaboration with business areas.

The policy applies to all ABB subsidiaries worldwide, business areas, divisions, corporate functions and global business services. Furthermore, it is applicable and mandatory for all ABB units in all our legal entities, including joint ventures, consortia, working partnerships and third-party service providers under ABB management control. The most senior level that is accountable for the implementation of the policy is the division presidents. Our HSE&S management system is based on internationally recognized sustainability standards, principles and commitments including ISO 45001 and ISO 14001. Relevant internal and external stakeholders are expected to benefit indirectly from the implementation of this policy. The policy is an internal document and is accessible via the internal network for all employees.



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PROTECTING THE CLIMATE

Toward a low-carbon economy

Enabling a low-carbon society is at the center of our purpose and value proposition and a key pillar of our Sustainability Agenda. At ABB, we want to help our customers reduce and avoid emissions through our products, solutions and services. We also work toward reducing emissions in our own operations and in those of our suppliers.

We aim to drive the shift towards a low-carbon economy with innovative technologies. Our expertise in electrification and automation enables greater energy efficiency and the integration of renewable energies into the energy mix. We work with our customers and suppliers to help them save energy and reduce emissions across their value chains. Our commitment to supporting energy security and the transition to a low-carbon society is also demonstrated by the work we are doing to increase energy efficiency and reduce emissions in our own operations.

E1-1: TRANSITION PLAN IN PROGRESS

The basis for our climate transition plan is our set of near- and long-term greenhouse gas reduction targets (scope 1, 2 and 3), which were approved by the Executive Committee (EC) and the Board of Directors in 2023. These targets were validated by the Science-Based Targets initiative (SBTi) in June 2024 as being in line with the net-zero standard. Our long-term targets are also aligned with the Swiss climate goals. In 2024, our scope 1 and 2 targets were part of our annual incentive plan (AIP) and included in the long-term incentive plan (LTIP) for the top management (for AIP and LTIP, see p. 9). The 2024 forecast of scope 3 category 1 emissions were set at division level and approved by the EC. The full scope 3 division-level forecast for 2030 will be approved by the EC in 2025. We report annually on our greenhouse gas reduction performance against scopes 1, 2 and 3.

In line with our SBTi net-zero absolute reduction targets, we are committed to reaching net-zero greenhouse gas emissions across the value chain by 2050. As the SBTi net-zero standard only allows for Negative Emission Technologies (NETs) to be used for a maximum of 10 percent of residual emissions in 2050, rather than for the 2030 targets, we will analyze the respective investment options later.

To reduce ABB's operational emissions (scopes 1 and 2), we have defined and are implementing several decarbonization levers. When it comes to our value chain, our products and solutions help our customers reduce emissions. At the same time, our scope 3 category 11 emissions increase as long as the electricity in the grid is not decarbonized. To tackle value-chain emissions, where scope 3 category 1 and scope 3 category 11 represent 3.1 percent and 96.6 percent of emissions respectively, we have identified the following decarbonization levers:

Scope 3.1 (3.1 % of total scope 3)	<ol style="list-style-type: none">1. Collaborate with suppliers and customers on low-carbon material availability and use2. Increase availability of product carbon footprints (PCFs) from suppliers3. Engage suppliers on PCF reduction commitments and implement carbon pricing
Scope 3.11 (96.6% of total scope 3)	<p>Decarbonizing electricity grids is the single most critical element to reduce ABB's scope 3 category 11 emissions.</p> <ol style="list-style-type: none">1. Market ABB products and solutions that enable electricity grid decarbonization2. Innovate to increase the product portfolio that enables energy efficiency and decarbonization3. Collaborate with customers to implement the most efficient ABB technology solutions

In 2024, we completed a physical and transition risk assessment. We intend to integrate the results of this risk assessment into the climate transition plan.

We will be formalizing our scope 3 decarbonization measures and quantifying the financial effects excluding NET investments and seeking approval of our transition plan.

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Climate risk and opportunity assessment

ESRS-2 SBM-3: RESILIENCE IN CLIMATE MATTERS

The DMA performed in 2024 (see chapter “Sustainability at ABB”, sections “Material impacts, risks, and opportunities” and “Double Materiality Assessment”) identified 24 IROs relating to climate, three of which were classified as risks.

Two of the identified risks are categorized as physical risks. One of these focuses on direct effects of extreme weather events on our facilities, whereas the second of these takes into consideration the health and security of our employees. The third risk is classified as a policy and legal transition risk, which could require adjustments to a specific product category.

During 2024, we also performed a detailed climate risk assessment focusing on physical and transition risks based on defined climate scenarios. Of the identified physical climate risks, storms and floods were assessed as the most relevant acute hazards while heat and precipitation stress were assessed as the most relevant chronic hazards.

For transition risks, the qualitative assessment concluded that market, policy and legal, as well as, reputation are the categories which could potentially pose the highest risks for ABB.

For further information on our climate risk assessment, please also see the section on IRO-1 below.

Based on the insights gained from this assessment, mitigation and adaptation measures can be defined and assessed to address the identified vulnerabilities, enabling our business areas and divisions to either implement risk responses or accept the associated risks.

Our susceptibility to physical risks centers around the climate-related hazards of storms and floods, which was highlighted through the risk assessment based on a high emission scenario. We invest in adaptation measures to improve our resilience, including emergency response planning, as well as infrastructure and equipment enhancements. Further potential measures to improve our resilience were also identified on a hazard-specific basis as an outcome of the climate risk assessment. Measures being considered for potential implementation in the future include, for example, on-site water storages to address water stress at relevant sites.

Market transition risks are addressed through continuous investments in research and development for low-carbon technologies, which not only mitigates risks, but also enables us to benefit from the opportunities in market segments that are identified as growth drivers, especially in a scenario aligned with the Paris Agreement.

Policy and legal transition risks may have an influence on the pricing or availability of raw materials. In addition, regulatory changes may prohibit the production and sales of specific products, which may directly reduce our revenues. To mitigate such risks, we are evaluating alternative measures which are not exposed in the same magnitude to policy interventions, such as carbon pricing. In addition, we are closely monitoring the regulatory environment to adapt to new regulations with corresponding research and development efforts.

Reputational transition risks can result from our own ambition and targets that we have committed to. If, for example, we were not to meet our GHG scope 1, 2 or 3 emission reduction targets by 2030 or our SBTi commitment, this may reflect poorly on our reputation.

Material impacts, risks and opportunities resulting from climate change

IRO-1: PROCESSES TO IDENTIFY AND ASSESS MATERIAL IROs

ABB's climate-related IROs have been a decisive element in our 2024 DMA. A number of other processes, analyses and assessments contributed to our understanding of the prevalent risks. This includes our analyses of physical and transition risks resulting from climate change, as well as our analyses of company emissions data, publicly available climate change scenarios, and pathways and their application in the context of the ABB Group and their potential implications in the future. The DMA revealed 24 IROs for ABB regarding climate, of which ten were classified as impacts, three as risks and eleven as opportunities.

IMPACTS ON CLIMATE CHANGE

Of the ten impacts identified in our DMA, four were regarded as positive – one in our own operations and the others in the upstream or downstream value chain, and six as negative – three in our own operations and three in the value chain. The negative impacts in our own operations result from (a) the production process for the materials used and the assembly of the products, (b) the burning of fossil-based fuel sources and (c) the energy consumption from buildings. Negative impacts resulting from our value chain include processes such as raw material extraction, transportation, the smelting of components and manufacturing processes, where energy-intensive methods are used that cause high greenhouse gas emissions. These emissions intensify climate change.

Positive impacts include the fact that by developing energy-efficient processes, we can reduce our energy consumption and associated emissions. Implementing sustainable practices in the upstream value chain together with suppliers, such as using clean energy, energy-efficiency measures or recycled materials, can help to reduce the overall carbon footprint. Furthermore, ABB technologies used by our customers and end-users can potentially enhance energy efficiency and reduce resource consumption, which leads to a reduction of greenhouse gas emissions.

PHYSICAL RISKS ASSOCIATED WITH CLIMATE CHANGE

Physical climate risks are associated with the direct impact of climate change on our assets, operations and value chain. These risks can be chronic or acute. Chronic physical risks refer to long-term changes in climate patterns, such as rising temperatures, sea-level rise or changing precipitation patterns. These gradual changes can lead to increased operational costs, reduced productivity and damage to infrastructure. Acute physical risks, on the other hand, involve immediate, extreme weather events like hurricanes, floods, wildfires or heatwaves. Such events can cause sudden and severe asset damage and disruptions to operations, leading to losses in revenue and additional capital expenditures to rebuild assets, as well as safety concerns.

As part of our climate risk assessment, we have a comprehensive approach for identifying and assessing physical risks arising from climate change, which can be summarized in the following key steps:

- Relevant scenarios informed by the latest scientific research and relevant for the situation at ABB are identified, and an appropriate time horizon is chosen for the analysis. We use advanced natural hazards and climate modelling tools, along with scenarios from the Intergovernmental Panel on Climate Change (IPCC), including the high-emissions scenario of Representative Concentration Pathways (RCP8.5), to assess climate hazards and their risk impacts on operational sites.
- Each scenario is qualitatively assessed at two different time horizons: medium-term (one to five years) and long-term (30 years). Specifically for the physical risk assessment, short- and medium-term time horizons are considered simultaneously as the difference in these brief periods hardly result in relevant changes of the underlying scenario data. The selection of time horizons for physical risks focuses on the current reporting cycle (one year), strategic planning horizons and capital allocation plans (up to five years) as well as expected operational lifetimes of our assets, which are assumed to be operational either based on their remaining technical lifetime or continuous long-term operation at those sites. The long-term horizon also considers the expectation that adverse climate-related events could become more frequent and increase in severity.
- To conduct the assessment, data on our asset structure, geolocations and other factors are collected from internal systems. The sites in scope cover the largest sites across all business areas based on their energy consumption and headcount and are located in 59 countries, represented by manufacturing and non-manufacturing sites, distributed across the globe.
- Geospatial physical risk data is obtained from specialized tools complemented by an internal methodology and employed to perform a detailed risk assessment for the selected time horizons and scenarios.
- A combined risk and vulnerability assessment is completed, integrating data to assess potential climate-related hazards, which considers return periods, hazard severity, as well as risk scores.

We decided to focus the initial physical risk assessment on our own operations because direct effects are expected to have the highest significance. In addition, due to our global value chain structure, it is expected that many of the physical climate risks identified are generally applicable to the supply chain and to customers. Extending the assessment to the value chain is anticipated for future years.

TRANSITION RISKS AND OPPORTUNITIES ASSOCIATED WITH CLIMATE CHANGE

Climate transition risks and opportunities arise from the shift towards a low-carbon economy and the broader societal and regulatory response to climate change. The risks encompass a range of factors, including regulatory changes, market dynamics, technological advancements, shifts in consumer preferences, as well as litigation risks. For example, stricter environmental regulations, such as carbon pricing or emission reduction targets, can increase operational costs or necessitate substantial changes in business practices. Transition risks also include reputational risks, where failure to address climate change adequately could damage a company's reputation and stakeholder relationships. Similarly, market risks may emerge as demand shifts towards more sustainable products and services, potentially affecting our market share and profitability for certain products. At the same time, this can lead to opportunities, such as increased demand for other products and services, which support the transition to a low-carbon economy. Further potential opportunities relate to improving resource efficiency, transitioning to lower-emission energy sources, developing climate-friendly products and services, accessing new markets driven by climate-related solutions, and enhancing resilience through mitigation of climate risks and sustainable supply chains.

Our transition risk and opportunity assessment is based on a scenario to limit climate change to 1.5°C (RCP2.6) above pre-industrial levels. We assessed the risks and opportunities qualitatively. The approach involved representatives from all business areas and corporate functions. The assessment approach is structured along four steps that are described below.

First, the most relevant drivers of the scenario are identified. These include both macroeconomic forecasts, such as GDP and population development, as well as techno-economic parameters, such as carbon and fossil fuel prices by region, electrification rates across sectors or deployment rates of technologies.

Secondly, hypotheses on the impact pathways are formulated based on the information of the previous step as well as the specific value chain of the business areas. The identified impact pathways are structured into risks and opportunities.

Thirdly, the risks and opportunities are qualitatively scored by representatives of our business areas and corporate functions. Risks and opportunities can also be disregarded or added based on the implications of the scenario on each business area.

Finally, the risks and opportunities are aggregated based on our ERM risk aggregation methodology.

The transition risk assessment is based on three time horizons; short-term (up to one year), medium-term (two to five years; to align with both our financial planning and enterprise risk management timeframes) and long-term (more than five years).

In line with the categories of policy and legal, technology, market and reputation for risks and resource efficiency, energy source, products and services, markets and resilience for opportunities, the corresponding risk and opportunity impact drivers are derived from the underlying scenario narrative by connecting the scenario data with our business area activities.

We have assessed the extent to which the company's assets and business activities may be exposed and are sensitive to the identified transition risks and opportunities. This assessment is based on likelihood and potential financial impact of transition events. Both the magnitude and likelihood are rated on a qualitative scale based on our ERM methodology. The duration of the transition risks and opportunities are characterized by their occurrence in the scenario data, which is reflected by milestone years such as 2025 or 2030.

We chose the “Net Zero Emissions by 2050” scenario of the International Energy Agency (IEA) as the basis for the transition scenario analysis as it features net zero CO₂ energy sector and industrial process emissions in 2050, while achieving universal energy access in 2030.

The selection of scenarios chosen by ABB for the physical and transition risk analysis reflects a wide range of potential future outcomes. On the one hand, limiting global warming in line with the Paris Agreement is reflected by the RCP2.6 (1.5°C) scenario whereas a high temperature scenario represented by RCP8.5 (ranging from 3.2°C to 5.4°C) illustrates climate-related hazards if climate change cannot be mitigated globally.

Climate change-related policies

E1-2: POLICIES

ABB uses several policies and procedures to manage its impact on climate change. Some of them are overarching documents that apply to more than one topical chapter of this Sustainability Statement. These can be found at the end of the chapter “Sustainability at ABB” and include the ABB Way, the Sustainability Policy, the ABB Code of Conduct, the Supplier Code of Conduct and the HSES Policy. More specific policies are outlined below.

ENERGY MANAGEMENT REQUIREMENTS

This policy establishes the minimum requirements to be met for energy management at sites and in operations controlled by ABB. It demands from all ABB units to establish an energy baseline and to classify the significance of their energy footprint. Managers are asked to consider energy in long-term planning, including the identification and consideration of retrofit requirements. ABB units with significant energy footprints shall introduce a basic energy management system and an action plan. This policy is complemented by an Energy Management Approved Code of Practice (ACOP), which includes concrete examples. The Energy Management Requirements cover 12 of the 24 climate-related IROs, including all impacts in own operations and the downstream value chain, one of the three risks and three of the 11 opportunities (i.e., those relating to own operations).

This internal policy applies to all employees and covers all sites and operations controlled by ABB. The most senior level that is accountable for the implementation of the policy is the division presidents. There are no specific third-party standards or initiatives referenced in this policy. Relevant internal and external stakeholders are expected to benefit indirectly from the implementation of this policy. This is an internal document that is accessible via the internal network to all employees.

NET ZERO PROCEDURE

In 2023, ABB introduced an overarching target of reaching net zero emissions by 2050. To support the achievement of this target, ABB has made several commitments, which can be broken down by near-term (2030) and long-term (2050) horizons.

The Net Zero Procedure applies to all employees and units of ABB worldwide, joint ventures, consortia, working partnerships, and third-party service providers under ABB management control. The most senior level that is accountable for the implementation of the policy is the division presidents. There are no specific third-party standards or initiatives referenced in this policy. Relevant internal and external stakeholders are expected to benefit indirectly from the implementation of this policy. This is an internal document that is accessible via the internal network to all employees.

RENEWABLE ELECTRICITY PROCEDURE

Our Net Zero Procedure (above) specifies the commitments to reach our net zero target, including converting 100 percent of our electricity consumption to renewable sources by 2050. This will be achieved through purchase and self-generation of renewable electricity. All country-wide or site-level electricity contracts shall include 100 percent renewable electricity by 2030. The Renewable Electricity Procedure defines what type of contracts, sources and market boundaries are acceptable. It largely follows the guidance set by the RE100 initiative.

The Renewable Electricity Procedure applies to all employees and units of ABB worldwide, joint ventures and consortia under ABB management control. The most senior level that is accountable for the implementation of the policy is the division presidents. The Renewable Electricity Procedure is modelled on the requirements of the RE100 initiative. Relevant internal and external stakeholders are expected to benefit indirectly from the implementation of this policy. This is an internal document that is accessible via the internal network to all employees.

FLEET ELECTRIFICATION PROCEDURE

As part of our transition towards our net zero target, we have committed to electrify our fleet of vehicles in line with the requirements of the EV100 initiative of the Climate Group.

The Fleet Electrification Procedure applies to all employees and units of ABB worldwide. The most senior level that is accountable for the implementation of the policy is the division presidents. The Fleet Electrification Procedure is modelled on the requirements of the EV100 initiative. Relevant internal and external stakeholders are expected to benefit indirectly from the implementation of this policy. This is an internal document that is accessible via the internal network to all employees.

Adaptation Procedure in progress

Based on insights gained from the climate risk assessment, adaptation measures will be assessed and designed jointly with the local facility and site managers. Currently, ABB does not yet have a global adaptation procedure in place. Developing this procedure is a priority for the coming year.

Climate change-related targets

E1-4: TARGETS

To achieve net zero, ABB has set SBTi-aligned near-term and long-term greenhouse gas reduction targets. Both sets of targets employ the absolute contraction methodology as outlined by the SBTi and have been validated by the initiative.

Near-term targets (2030)

- Reduce absolute scope 1 & 2 GHG emissions by 80 percent from 2019 to 2030. Target validated by SBTi and is 1.5°C aligned.
- Reduce absolute scope 3 GHG emissions by 25 percent between 2022 and 2030. Target validated by SBTi and is “Well below 2°C aligned”.

Long-term targets (2050)

- Reduce absolute scope 1 & 2 GHG emissions by 100 percent from 2019 to 2050. Target validated by SBTi and is 1.5°C aligned.
- Reduce absolute scope 3 GHG emissions by 90 percent between 2022 and 2050. Target validated by SBTi and is 1.5°C aligned.

We have also committed to three initiatives of the Climate Group to help us to achieve our near-term scope 1 and 2 GHG emissions reduction target:

- Consume 100 percent of our electricity from renewable sources by 2030. Commitment made to RE100 initiative.
- Electrify our global vehicle fleet by 2030. Commitment made to EV100 initiative.
- Improve our energy productivity by 20 percent by 2030 relative to 2019 and implement an energy management system across global operations by 2030. Commitment made to EP100 initiative.

AVOIDED EMISSIONS AMBITION

In addition to our SBTi-aligned GHG emissions reduction targets, we have the ambition to avoid emissions in customer operations. Avoided emissions are the reduction in GHG emissions that occur because of the use of a product or solution. We use the category of avoided emissions to describe the volume of greenhouse gas emissions that our customers will avoid by using our products and solutions through their full service lives. The methodology for calculating avoided emissions is based on the 2023 guidance of the World Business Council for Sustainable Development (WBCSD).

- Ambition to avoid 600 mt CO₂e emissions throughout lifetime of products sold from 2022 to 2030.

GHG emissions reduction targets and avoided emissions ambition

GHG emission category	Description	Base year	Target years		Absolute value of emissions (kt CO ₂ e)		2024 reduction compared to baseline year	
			2030	2050	Baseline year	2024 status (assured)	Absolute value (kt CO ₂ e)	Percentage
Scope 1+2 GHG emissions	Reduce own scope 1+2 CO ₂ e by 80% by 2030 and 100% by 2050 compared to 2019	2019	80% reduction	100% reduction	631 ¹	138	(493)	-78%
Scope 3 GHG emissions	Reduce scope 3 CO ₂ e emissions by 25% by 2030 and by 90% by 2050 compared to 2022	2022	25% reduction	90% reduction	429,854 ²	394,952	(34,902)	-8%
Avoided emissions	Ambition to avoid 600 mt CO ₂ e emissions throughout lifetime of products sold from 2022 to 2030	2022	600 MT	—	—	204,390 ³	—	0%

1 Scope 1 + 2 GHG emissions baseline value has been adjusted for portfolio changes.

2 Scope 3 emissions baseline has been adjusted due to product portfolio and applied technical parameters refinement. In one business, the baseline was revisited as one business activity was deemed not representative for the year.

3 Avoided emissions 2024 status is cumulative for 2022-2024, where only the 2024 value of 65,611kt CO₂e has been **assured** for 2024.

Market- and location-based scope 1 + 2 GHG emissions reduction

GHG emission category (kt CO ₂ e)	Absolute value of emissions in baseline year (2019) ¹	2024 status (assured)	2024 reduction compared to baseline year	
			Absolute value	Percentage
Market-based	631	138	(493)	-78%
Location-based	645	405	(240)	-37%

1 Scope 1 + 2 GHG emissions baseline value has been adjusted for portfolio changes.

The consistency between our GHG emissions reduction targets and the GHG inventory boundaries is ensured through clearly defined and documented inventory boundaries that are reviewed annually. Material changes in our structure, acquisitions or divestments, are reflected accordingly. Within our alignment to SBTi, we have committed to incorporate all significant emission sources in our inventory and to annually report on all relevant scope 3 categories.

For scope 1 and 2, the baseline year remains 2019. Reorganizations, divestments and acquisitions have been reflected in restatements of the 2019 value in the years since 2020. For scope 3, the baseline year was set to 2022 as the target was introduced during 2023 and the previous year best represented the current business structure. The same applies to the baseline for the ambition to avoid emissions.

Management of climate change

E1-3: ACTIONS

Our efforts and achievements in addressing climate change are three-fold:

- We are committed to reducing emissions in our own operations
- We are committed to reducing emissions in our value chain by supporting our suppliers to reduce their emissions, and
- We are committed to helping our customers reduce and avoid emissions through our products, solutions and services.

To reduce scope 1 and 2 GHG emissions, several decarbonization levers have been defined and are being implemented. These levers can be disaggregated into fossil fuel reduction (through energy efficiency and decarbonization of fossil-fueled assets), a shift to renewable energy, fleet electrification and SF₆ management. The commitments to the RE100, EV100 and EP100 initiatives will support the reduction of scope 1 and 2 GHG emissions by 2030.

For scope 3, the levers to reduce the most material categories, specifically emissions from use of sold products and purchased goods and services, are disclosed in the transition plan section of this statement.

2024 status of scope 1 + 2 decarbonization levers

Scope 1 + 2 decarbonization levers	2024 status	2023
RE100 status: Percentage of renewable electricity consumption of total electricity consumption (%)	95%	94%
EV100 status: Percentage of electric vehicles of total fleet of vehicles (%)	38%	31%
EP100 status: Improvement of energy productivity since 2019 (%)	69%	66%
Reduction of SF ₆ since 2019 (%)	-92%	-91%

Facts & figures

Energy

E1-5: ENERGY CONSUMPTION AND MIX

ENERGY CONSUMPTION RELATED TO OWN OPERATIONS

Total energy consumption (in GWh)	2024	2023
Total energy consumption from fossil sources (assured)	418	467
fuel consumption from natural gas	319	332
fuel consumption from crude oil and petroleum products ¹	7	11
fuel consumption from coal and coal products	—	—
fuel consumption from other fossil sources	—	—
consumption of purchased or acquired electricity, heat, steam, and cooling from fossil sources	92	124
Total energy consumption from renewable sources (assured)	874	830
fuel consumption for renewable sources including biomass (also comprising industrial and municipal waste of biologic origin), biofuels, biogas, hydrogen from renewable sources, etc.; ²	11	3
consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources	828	802
consumption of self-generated non-fuel renewable energy	35	26
Total energy consumption (in GWh) (assured)	1,292	1,297

Due to rounding, numbers presented may not add to the totals provided.

1 Includes oil and diesel.

2 Use of renewable biogas to substitute natural gas in several sites.

Energy intensity (MWh/Million \$ of sales)	2024	2023
Total energy intensity (assured)	39.32	40.26

NON-RENEWABLE ENERGY PRODUCTION AND RENEWABLE ENERGY PRODUCTION

Our total non-renewable production includes on-site electricity generation from oil and diesel, as well as from combined heat and power. The total renewable production includes on-site solar generation.

Energy production (in GWh)	2024	2023
Total non-renewable energy production	13	16
Total renewable energy production	39	29
Total energy production	52	45

Greenhouse gas emissions

E1-6: SCOPE 1, 2, 3 EMISSIONS

In 2024, we achieved a reduction of 78 percent in our scope 1 and 2 emissions compared to 2019. This progress was driven primarily by the roll-out of renewable energy in our sites, a reduction in SF6 emissions and the transition towards electric vehicles in our fleet. As a result, we are on track to reach our near-term 2030 target of 80 percent emission reduction.

In 2024, scope 3 GHG emissions have decreased by 8 percent compared to the baseline year of 2022 with key drivers being the decline in scope 3 category 11 emissions due to a shift in the sales mix within our product portfolio, with a decrease in the share of more energy-intensive products compared to previous years. As our products are essential for the decarbonization of our value chain, the sale of our equipment supports the integration of renewables into the grid and will in turn lead to reductions of our own scope 3 emissions.

For the reporting of scope 3 emissions in category 11, we have previously published a “representative scenario” and a “strict scenario”, with the representative scenario quantifying the energy consumption of certain products based on measured energy loss and the strict scenario taking a more conservative approach based on the full energy input to certain products. Going forward, we will use the strict scenario as basis for our scope 3 reporting.

OVERVIEW OF SCOPE 1, 2 AND 3 GHG EMISSIONS

(kt CO ₂ e)	2024	2023
Gross scope 1 GHG emissions, of which		
Use of fuels	67	70
Coolants	4	4
SF ₆	8	9
Transport by own fleet	40	44
Emissions from biofuels	—	—
Total scope 1 emissions (assured)	119	128
Gross scope 2 GHG emissions, market-based		
District heat	8	10
Electricity	10	13
Gross scope 2 GHG emissions, location-based		
District heat	8	10
Electricity	278	285
Total scope 2 GHG emissions, market-based (assured)	19	23
Total scope 2 GHG emissions, location-based (assured)	286	295
Total scope 1+2 GHG emissions, market-based	138	151
Total scope 1+2 GHG emissions, location-based	405	423
Gross indirect (scope 3) GHG emissions		
1 Purchased goods and services ¹	12,172	12,566
2 Capital goods ¹	85	69
3 Fuel and energy-related Activities (not included in scope 1 or 2)	55	65
4 Upstream transportation and distribution	617	699
5 Waste generated in operations	12	15
6 Business traveling	169	154
7 Employee commuting	175	175
8 Upstream leased assets	—	—
9 Downstream transportation	43	62
10 Processing of sold products	—	—
11 Use of sold products ²	381,372	433,347
12 End-of-Life treatment of sold products ¹	230	261
13 Downstream leased assets	18	3
14 Franchises	—	—
15 Investments ¹	2	9
Total scope 3 GHG emissions (assured)	394,952	447,426
Total scope 1, 2 and 3 GHG emissions (market-based) (assured)	395,090	447,577
Total scope 1, 2 and 3 GHG emissions (location-based) (assured)	395,357	447,848

Due to rounding, numbers presented may not add to the totals provided.

- 1 Cat. 1, 2, 12 and 15 emissions were adjusted for prior years due to a refined calculation of inflation impact on spend-based emission factors.
- 2 Cat. 11 emissions were adjusted for prior years as refined technical parameters have been applied. In one business, the 2022 baseline was revisited as business activity was deemed not representative for the year.

For the calculation of the GHG emission intensity, the total ABB Group revenues are applied.

Scope 1, 2 and 3 GHG emission intensity (kt CO₂e/Million \$ of sales)	2024	2023
Market-based (assured)	12.03	13.88
Location-based (assured)	12.04	13.89

The scope of consolidation for GHG emissions reporting follows the Group standards outlined in the section “Approach to reporting” at the beginning of this Sustainability Statement. In 2024, mergers and acquisitions did not constitute significant changes to the GHG emissions reporting.

We calculate our scope 1 and 2 GHG emissions using detailed methodologies that incorporate assumptions and standardized emissions factors. For scope 1 emissions from our fleet vehicles, we collect vehicle-specific data, such as fuel type, distance traveled and emissions profiles for every vehicle in the fleet. If this is not available, estimations are applied. In particular, the distance travelled is estimated based on the leasing contract duration. Fleet emissions factors are based on WLTP/NEDC emission profiles per vehicle and provided in g CO₂/km. They are then adjusted to the lab-to-road factor based on the vehicle's location.

Emissions from the on-site use of fuel, coolants and SF₆ are calculated using data reported quarterly or annually, depending on the facility size, with site-specific emissions factors. For scope 2 emissions from purchased electricity and district heating, we collect and process energy consumption data from facilities worldwide, applying both location-based and market-based emissions factors. Location-based calculations use average grid emission factors in kg CO₂e/kWh specific to each geographic location, while market-based calculations consider specific contractual arrangements like renewable energy purchases or power purchase agreements, with emissions factors obtained from external industry sources. For a minority of locations, where environmental data is not readily available, we employ an estimation process. This includes, in particular, smaller sites with energy consumption lower than 100 MWh per year and fewer than 100 employees. For these sites, environmental data is extrapolated based on the employee headcount at these sites and average consumption per employee from sample reporting sites. For Q4, estimations were applied where year-end actuals have not been available at the time of reporting.

In scope 1, we only consider methane and N₂O emissions of biogenic emissions, following SBTi guidance, amounting to 2 t of CO₂e in 2024. Biogenic emissions of 2,370 t of CO₂e are not included in scope 1.

Our renewable electricity consumption comes from bundled and unbundled procurement of Energy Attribute Certificates (EACs) as well as onsite solar PV generation.

For scope 3 emissions, we account for all scope 3 categories that are relevant to ABB and that are not covered in scope 1 and 2 (refer to the list of included categories above). As the vast majority of our emissions stem from the use of sold products, this category represents the most significant contribution. Nevertheless, we diligently calculate all other scope 3 categories relevant to ABB to ensure comprehensive reporting. When assessing the materiality of the different scope 3 categories, we refer to the GHG Protocol Corporate Value Chain Accounting and Reporting Standard. The calculation of scope 3, category 11 emissions is based on a bottom-up model for the diverse offering across our divisions. The model considers both the technical specifications and the operating conditions associated with each product, including product energy consumption metrics and efficiency specifications. We use two primary methods to estimate energy consumption during the operational phase of sold products:

- Energy Input Method: Applied to products that require specific power inputs to perform their tasks, such as motors, automation systems and robotics.
- Energy Loss Method: Used for products where energy efficiency losses are critical, such as electrical drives and switchgear.

The total energy consumed is converted to GHG emissions using regional emission factors from the IEA in alignment with regional electricity grid compositions. These factors are updated annually to reflect changes in grid emission intensities.

Remaining scope 3 emissions (everything apart from category 11) encompass a broad range of indirect emissions. Data sources include, for example, spend figures for purchased products and services, transportation and distribution or business travel. Depending on the category, we use different methods to calculate these emissions:

- **Spend-Based Method:** Applied to categories such as purchased goods and services or capital goods, where we calculated emissions based on the financial expenditure. Emission factors are derived from economic input-output models that relate spending to GHG emissions (e.g., Exiobase).
- **Activity-Based Method:** For categories such as business travel, emissions are approximated using activity data such as travel miles, number of trips and transportation modes.

The total emissions are then converted to GHG emissions using regional emission factors (where applicable), ensuring alignment with the geographical areas where activities occur.

The scope 3 data collection is supported by an ABB-customized reporting tool in line with our internal and external assurance requirements.

For the calculation of avoided emissions, ABB has developed a methodology based on WBCSD guidance, tailored to its product portfolio. According to WBCSD's guidance, "avoided emissions" refers to the reduction in GHG emissions achieved by comparing our products or solutions to a reference scenario where the solution is not used. Both the product and reference scenario are assessed through their entire life cycles. Three scenarios are considered: replacement, retrofit and new installation. Data is collected covering the percentage of sales, or orders where deemed more relevant, and kWh/t CO₂e. The data is drawn from our sales teams and the products' technical specifications. Alongside the three scenarios, several factors provided by the WBCSD guidance for avoided emissions affect the eligibility of avoided emissions against our ambition:

- **Gate 1 (climate action credibility):** ABB transparently reports on 100 percent of its value chain emissions on an annual basis. This covers 13 of the 15 scope 3 GHG Protocol categories. Using this comprehensive GHG inventory, we have set SBTi targets. We will not be using avoided emissions to claim net-zero status.
- **Gate 2 (climate science alignment):** We do not consider avoided emissions from product lines or solutions sold to sectors and applications linked to exploration, extraction, mining, production, distribution or sale of fossil fuels.
- **Gate 3 (contribution legitimacy):** We only consider avoided emissions that arise from installations that drive change within their respective markets. For example, only high-efficiency motors in a higher energy-efficiency class than the installed base average and used in a retrofit application would be eligible for inclusion. As for general applications like drives, we consider the retrofit of existing direct-on-line motor-driven systems as their main contribution to avoided emissions. In new installations of motor-driven systems, we exclude applications where the customer has already decided to install a drive. We only include sales where the customer has been convinced to install a drive with the motor, thereby improving overall efficiency.

Avoided emissions are calculated based on the following formula:

Avoided lifetime emissions (kg CO₂e) = annual energy saved (MWh) × emission factor (kg CO₂e/MWh) × lifetime (years)

¹ Due to the lack of readily available precise external data or analysis, we utilize the best available assumptions. The avoided emission calculation is highly sensitive to these assumptions. A percentage change in either assumption will result in an equivalent percentage change in the calculated avoided lifetime emissions.

- **Annual energy saved:** Energy saved on a yearly basis when comparing the product or solution with the relevant reference scenario using the following four elements: a) power input of the product/solution assuming use of 100 percent of rated energy input value¹, b) operating hours per year, c) percentage of revenues from eligible avoided emissions scenarios (replacements, retrofits, new installations)¹, d) percentage of efficiency gains in each scenario.
- **Emission factor:** Weighted-average emission factor based on geography of where the respective product or solution is used, using the IEA and United Nations Economic Commission for Europe (UNECE) data, multiplied by regional revenue exposure.
- **Lifetime:** Average expected lifetime of the product or solution, using Product Category Rules data, when available and applicable, used also for the product's or solution's Life Cycle Assessment, or expert opinion if not available.

Reporting periods of value chain and ABB entities do not differ significantly, and limited effects on our GHG emission reporting are expected. Currently, we primarily use secondary data to calculate scope 3 emissions. Certain scope 3 GHG emission categories are not applicable to ABB such as category 8 (upstream leased assets) has been excluded as we already account for our leased assets within our scope 1 and scope 2 GHG emission footprint through the operational control consolidation approach. By including leased assets in scope 1 and 2, further inclusion in scope 3 would lead to double counting and is therefore not applicable. Category 14 (franchises) has been excluded because we do not operate any franchises.

The scope 3 categories included in our inventory are shown in the table "Overview of scope 1, 2 and 3 GHG emissions".

We report scope 3 GHG emissions following the boundaries and methodologies defined by the GHG Protocol Corporate Standard. The reporting scope covers both upstream and downstream activities, including categories as defined in ESRS E1-6, AR 46.i, ensuring comprehensive representation of our value chain. Emissions are attributed based on our operational and value chain control, excluding immaterial sources or categories not applicable to our business model, such as franchises.

Physical and transition climate risks and opportunities

E1-9: ANTICIPATED FINANCIAL EFFECTS

PHYSICAL RISKS

The qualitative physical risk assessment clustered approximately 340 sites in low- to high-risk categories. The findings of the assessment showed an increased risk of floods and storms across the short-, medium- and long-term time horizons under different scenarios. Our analysis indicates that the hazards identified are expected to have a medium impact under the moderate RCP4.5 scenario. However, the severity of these hazards and the impact on our business may increase under the more extreme RCP8.5 scenario, which confirms the understanding that higher rates of global warming increase the susceptibility to those climate-related risks.

A limited number of sites in the United States and China show high counts of identified climate-related physical risks applicable for both acute and chronic risk in the long-term within ABB's asset portfolio. The assets could be temporarily impacted through reduced production capacities as well as face higher insurance premiums in the future.

When examining hazards such as flooding under a strong global warming RCP8.5 scenario, we observe a progressive increase in the number of assets at higher risk levels between the medium- and long-term time horizon. Similarly, for storms under the RCP8.5 scenario, there is a rise in the number of assets at high risk, indicating a growing risk level over time.

TRANSITION RISKS

In the qualitative transition risk assessment using a 1.5°C scenario, policy and legal risks as well as market risks arising from GHG emission pricing schemes could have an impact on our revenue and margin. Specific identified risks relate to:

- **Commodity/raw material prices:** As carbon pricing regulations become stricter, the costs of carbon-intensive inputs rise, leading to increased expenses in sourcing and manufacturing, which could affect our profitability.
- **Carbon footprint of the product portfolio:** With a growing emphasis on carbon reduction, the demand for low-carbon products increases and we need to adapt our product offerings to align with this trend, ensuring a reduced carbon footprint for the product portfolio. Failure to do so could result in decreased customer demand and market share loss.

A further consideration includes reputational risk, which, for example, could arise from business activities with clients in industries that might be prone to stigmatization due to their contribution towards climate change and thereby reflecting poorly on ABB's stakeholder perception. Furthermore, failing to meet communicated GHG reduction targets could erode stakeholder trust and consequently impact long-term revenues.

CLIMATE-RELATED OPPORTUNITIES

The opportunities inherent in the transition to a low-carbon society can lead to significant market growth. ABB's eligible products under the EU Taxonomy (which also meet the substantial contribution criteria as a first prerequisite toward EU Taxonomy alignment, currently in process) are a proxy for the numerous product and service lines that cater to the needs of our customers. A major growth driver identified in the qualitative assessment is the global renewable energy market, which drives demand for our products.

Regarding cost-saving activities, we are investing in energy efficiency and emissions reductions throughout our operations. For example, we have committed to electrifying our fleet of more than 10,000 vehicles by 2030 and continuing to deploy energy management systems at our sites. These substantial annual investments in energy efficiency and emissions reduction projects frequently come with cost savings in the long-term. This includes, for example, investments in low-carbon energy sources, upgrading compressed air systems, as well as heating, ventilation and cooling systems.

COMMITTING TO CIRCULARITY

Strategic approach to circularity

Preserving resources is a key pillar of ABB's Sustainability Agenda and a core element of our value creation model. Our Circularity Approach is a company-wide effort to implement a resource-efficient business. Beginning with the design stage, we are committed to increasing the reusability and recyclability of our products and making them more durable by means of our lifetime extension and modernization services. We are working with customers, suppliers and partners to embed circularity throughout our entire value chain. The relevant functions assess the impact of our offerings through their complete life cycle. This process builds cooperation and partnerships with key stakeholders across industries and sectors – from recovering scrap from production to enabling take-back schemes in many markets. Within our own operations, we avoid waste by being more efficient and increasing the use of sustainable materials in our products and packaging, and by expanding recycling activities at our sites. Our Circularity Approach is managed by the ABB Circularity Working Group, which coordinates initiatives relating to circularity among our four business areas, clarifies and updates the ABB Circularity Framework, defines circularity KPIs and establishes the guidelines by which the KPIs are assessed.

IRO-1: PROCESSES TO IDENTIFY AND ASSESS MATERIAL IROs

During the 2024 update of the DMA, resource use was confirmed as one of our material topics. For more information on our process to identify material issues for our sustainability management, please see the chapter "Sustainability at ABB".

The 2024 DMA identified 21 IROs, of which 11 were classified as impacts, two as risks, and eight as opportunities.

Of the 11 impacts, six are in our own operations, three of these being potentially positive, explained as our contribution to a circular economy through renewable resources, resource efficiency, recycling and similar activities. Repairing, maintaining and refurbishing installations at customer sites will also have a positive impact on the transition to a circular economy. Three other impacts in this area were assessed as actually negative. These relate to the depletion of non-renewable resources through our use of them. Actual positive impacts can be observed in our upstream and downstream value chains. By adopting practices such as product repairability, durability and other circular economy principles, we can reduce our overall resource outflow. By developing more circular solutions there is a potential for positive impact on the transition to a circular economy. Furthermore, the application of circularity principles at the end-of-life of products enables us to reuse resources more efficiently and thus, reduce the impact on the environment.

Of the two identified risks, one concerns the whole business, including value chains. This is a combination of product obsolescence, slow time to market and the unavailability of essential resources. If these factors occur, they could lead to production delays and a reduced financial performance.

The eight opportunities in this field relate to our own operations and one or both parts (upstream, downstream) of the value chain. Among the topics are the opportunity to be seen as a thought leader in circularity development, capturing customers increasingly aware of circular economy aspects by useful innovations, the access to new revenue streams through circular business models, lower costs by reducing the need for new raw materials, reducing waste and associated disposal costs, helping manage component and material shortages, or other similar factors.

Policy commitments to circular resource management

E5-1: POLICIES

ABB uses several policies and procedures to manage its impact on resource use and the circular economy. Some of them are overarching documents that apply to more than one topical chapter of this Sustainability Statement. These can be found at the end of the chapter “Sustainability at ABB” and include the ABB Way, the Sustainability Policy, the Supplier Code of Conduct and the HSES Policy. More specific policies are outlined below.

Among other topics, the ABB Way outlines our Circularity Approach, our methodology to foster a circular economy. Beginning with the design stage, we are committed to increasing the resource efficiency and enhancing the reusability and recyclability of our products. We also aim to make them more durable through our lifetime extension and modernization services. Within our own operations, we avoid waste by making our processes more efficient, by increasing the use of sustainable materials in our products and packaging and by expanding recycling activities at our sites.

WASTE MANAGEMENT REQUIREMENTS

Our Waste Management Requirements establish the minimum health, safety and environment (HSE) requirements to be met for waste management at sites and in operations controlled by ABB. We strive to eliminate the disposal of materials into landfills. We actively seek synergies within our operations and value chain organizations to reduce waste generation, improve recycling rates and drive circularity principles like reusing as much as possible materials within our own operations and products. The Waste Management Requirements cover 14 of the 21 material IROs from our DMA, of which eight are impact- and six opportunity-related.

The Waste Management Requirements apply to all employees and units of ABB worldwide, joint ventures, consortia, working partnerships, real estate and third-party service providers under ABB management. The most senior level that is accountable for the implementation of the policy is the division presidents. The Waste Management Requirements are aligned with international standards UL 2799A and ECV 2799. Relevant internal and external stakeholders are expected to benefit indirectly from the implementation of this policy. The document is accessible to all our employees on the internal website.

ZERO WASTE TO LANDFILL PROCEDURE

The Zero Waste to Landfill Procedure supports our ambition to reduce the amount of manufacturing waste that is sent to landfill to zero, while we also strive to reduce our own waste generation by reusing and recycling more. Manufacturing waste includes all waste generated by our operations but excludes waste from construction and demolition. The Zero Waste to Landfill Procedure stipulates that all business areas, divisions and sites shall identify and implement objectives and targets that support reducing the amount of manufacturing waste that is sent to landfill to zero by 2030. Of the 21 IROs defined in our DMA as relevant to our circularity ambitions, nine are covered by this procedure, three of them impact- and six opportunity-related.

This document applies to all employees and units of ABB worldwide, joint ventures, consortia, working partnerships, real estate and third-party service providers under ABB management control. The most senior level that is accountable for the implementation of the policy is the division presidents. The reporting of waste-related information is made in line with the requirements of the mandated environment reporting system, Intellex/SPI. Relevant internal and external stakeholders are expected to benefit indirectly from the implementation of this policy. The Zero Waste to Landfill Procedure is an internal document that is accessible via the internal network to all employees.

Circularity-related targets

E5-3: TARGETS

ABB is assessing products against a set of eight KPIs in the ABB Circularity Framework, including circular design principles (in product design and serviceability), product efficiency and lifetime duration, including take-back and recycling services to increase the circularity of the materials used and reduce the use of (virgin) raw materials.

We have a quantitative target of sending zero waste to landfill while reducing waste generation by 2030. We apply this approach to recycling and limiting waste generation in our operations and production processes.

Targets	Baseline (baseline year) ¹	2023 status	2024 status
PRESERVING RESOURCES			
Cover at least 80% of ABB's portfolio of products and solutions with our Circularity Approach by 2030 ²	n.a.	The circularity score will be calculated once a representative share of the portfolio has been assessed. ³	
		ABB has assessed 31% of ABB's products and solutions portfolio	ABB has assessed 41% of ABB's products and solutions portfolio
Send zero waste to landfill while reducing waste generation by 2030 ⁴	16.8 kt (2019), equivalent to 8.8% of total waste (adjusted for portfolio changes)	10.1 kt, equivalent to 6.3% of total waste	9.3 kt, equivalent to 5.8% of total waste (assured)

¹ Where a baseline applies.

² Based on revenues from hardware-based products and solutions where granularity of financial systems allows. Service revenues are excluded.

³ Against the ABB Circularity Framework KPIs.

⁴ Waste from demolition and construction excluded from landfill; not including hazardous waste.

Facts & figures Waste management

E5-5: METRICS

Total amount of waste		
	2024	2023
Total amount of waste generated (in t)	177,465	166,926
SASB: Percentage of recycled hazardous waste generated	60% ¹	40%
	1 spill, 470 liters of oil, not recovered	1 spill, 350 liters of oil, not recovered
SASB: Number and aggregate quantity of reportable spills, quantity recovered		
Total amount of hazardous waste (in t)	6,201	5,321
Total amount of non-hazardous waste diverted from disposal (in t)	142,431	141,141
Recycling	142,431	141,141
Total amount of non-hazardous waste directed to disposal (in t)	28,834	20,465
Incineration	9,018	9,612
Landfill and other disposal operations ²	19,816	10,853
Total amount of non-recycled waste, hazardous and non-hazardous (in t)	31,326	23,656
Percentage of non-recycled waste	18%	14%

Due to rounding, numbers presented may not add to the totals provided.

¹ Increase due to warehouse clean-ups in several sites for electronics.

² Includes extraordinary effect from construction projects.

MATERIALS USED BY WEIGHT OR VOLUME (KT)

For this datapoint, we follow the GRI definition.

Disclosure	2024	2023
Metals (assured)	1,271	1,168
Copper	88	84
Aluminum	86	83
Steel (incl. Iron casting)	1,098	1,000
Plastics	158	136

Due to rounding, numbers presented may not add to the totals provided.

Disclosure according to GRI 301: Materials 2016; voluntarily reported.

WATER MANAGEMENT AT ABB

Water as a material topic at ABB

Water management at ABB is especially relevant in areas of increased water stress. We apply our environmental management system and specific water standards to manage the associated challenges.

IRO-1: PROCESSES TO IDENTIFY AND ASSESS MATERIAL IROs

In the DMA carried out at ABB in 2024, the materiality of water was identified as being driven by the impact of water stress in production sites in those locations where this is an issue. Hence, the focus of the analysis was on the real or potential impact that water consumption has in areas of water risk or high water stress. The aspect of marine resources does not apply to any of our locations or activities.

The DMA revealed two material actual negative impacts with regard to water, one in own operations and one in upstream value chain. One is that our production processes often require significant amounts of water, which can exacerbate water scarcity issues in regions where we operate. The other is that the extraction of metals from ores and other materials often requires substantial amounts of water to facilitate crushing, grinding and chemical processes. A lack of sufficient water treatment would have a negative impact on the environment.

Among the tools we use to monitor and manage water-related risk across our operations is the World Resources Institute's Aqueduct tool. Aqueduct lets us assess our facilities according to the level of baseline water stress of the local watershed. We use it to track levels of groundwater depletion, flood risk and seasonal variability of water availability at our sites.

Water-related policies

E3-1: POLICIES

ABB uses several policies and procedures to manage its impact on water. Some of them are overarching documents that apply to more than one topical chapter of this Sustainability Statement. These can be found at the end of the chapter "Sustainability at ABB" and include the ABB Way, the Sustainability Policy, Supplier Code of Conduct, and the HSES Policy. One additional specific policy is outlined below.

WATER MANAGEMENT & CONSERVATION REQUIREMENTS

This document establishes the minimum requirements for the management of water at ABB-controlled sites. Among other things, it stipulates that all aspects and impacts of water withdrawal and use, as well as the discharge of wastewater, shall be identified, assessed and documented in accordance with applicable regulations. It also requires that ABB units that are located in water stress areas and units with an annual water withdrawal of more than 10,000 cubic meters must have an adequate action plan for how to reduce withdrawals and water consumption has to be reduced in accordance with the action plan. These requirements are complemented by the Water Management & Conservation Approved Code of Practice (ACOP), which provides guidance and additional resources. The requirements address one of the two material impacts in relation to water. The other material impact is addressed through our Supplier Code of Conduct and through requirements related to our circularity initiatives.

The Water Management & Conservation Requirements apply to all ABB units in all ABB legal entities. The most senior level that is accountable for the implementation of the policy is the division presidents. There are no specific third-party standards or initiatives we commit to in respect to the implementation of this policy. Relevant internal and external stakeholders are expected to benefit indirectly from the implementation of this policy. The Water Management & Conservation Requirements are an internal document that is accessible via the internal network to all employees.

Facts & figures
Water

E3-4: WATER CONSUMPTION

Water consumption (in m ³)	2024	2023*
Total water consumption in areas at water risk, including areas of high water stress	283,123	

*Comparatives not shown unless already reported in the 2023 Sustainability report.

Total annual water consumption is calculated on Group level with information from the sites, namely withdrawal and discharge. While the data on water withdrawal typically comes from direct measurements, the water discharge data is often estimated because evidence, such as invoices, is only available for specific subsets of the data. These can include, for example, documentation for industrial wastewater treatment. Partially, discharge may also occur through evaporation in industrial processes, which is not directly measured.

In 2024, 100 percent of the amount of water withdrawn and 2 percent of the water discharged was based on direct measurement. For Q4 datapoints, estimates may be applied for water consumption when invoices are not available within reporting timelines.

KEEPING POLLUTION IN CHECK

Double Materiality Assessment for pollution

IRO-1: PROCESSES TO IDENTIFY AND ASSESS MATERIAL POLLUTION-RELATED IROs

The 2024 DMA identified five IROs in relation to environmental pollution. Four of them are actual negative impacts, of which three are located in our own operations and one in the downstream value chain.

The fifth IRO is a risk prevalent in both our own operations and in the upstream value chain. This is the potential per- and polyfluoroalkyl substances (PFAS) ban in Europe – this would create the need to source alternative materials to be used for ABB products.

The four negative impacts are that (a) products sold can contribute to air pollution when they are used by customers, (b) fossil fuel use in own operations can cause air pollution, (c) improperly disposed waste or leakages can pollute soil at production sites; and (d) waste from the zinc coating process can be harmful to the environment.

For the 2024 DMA process, please see chapter “Sustainability at ABB” at the beginning of this Sustainability Statement.

We will include disclosures of ESRS E2 in the Sustainability Statement 2025.

EU TAXONOMY: DISCLOSURES FOR FINANCIAL YEAR 2024 (assured)

EU Taxonomy: Background and objectives

¹ Climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystem.

At ABB, we are determined to shape our future in an environmentally sustainable way by developing and investing in sustainable business activities. The European Union (EU) has taken the lead in standardizing sustainability-related data and defining criteria for “environmentally sustainable” activities with the help of the EU Taxonomy Regulation, aiming to direct capital flows specifically into such activities.

The EU Taxonomy categorizes “environmentally sustainable” business activities into six pre-defined environmental objectives¹. It distinguishes between “Taxonomy-eligible” and “Taxonomy-aligned” economic activities. An economic activity is considered “eligible” if it is described in the adopted EU Taxonomy Delegated Acts. An eligible activity is only considered environmentally sustainable, and thus “aligned”, if it meets the specified technical screening criteria:

- Substantial contribution to one of the six environmental objectives
- “Do no significant harm” (DNSH) to other five environmental objectives
- Minimum safeguards, primarily related to human rights and social and labor standards

Consequently, companies are required to publish the following KPIs: turnover, capital expenditure (CapEx) and operating expenditure (OpEx), associated with both Taxonomy-eligible and -aligned activities.

EU Taxonomy is a required reporting framework for companies in its scope and the range of disclosures has been expanding annually. For the fourth year of reporting, now on the financial year 2024, the disclosure requirements have been further expanded. For the first time, EU Taxonomy eligibility and alignment must be disclosed for all economic activities under all six environmental objectives.

The EU Taxonomy-related disclosures are prepared in line with Article 8 of the EU Taxonomy Regulation and the related delegated acts. The legal framework for EU Taxonomy reporting currently consists of the following elements: the EU Taxonomy Regulation, the amended Climate Delegated Act, the amended Disclosures Delegated Act, the Complementary Climate Delegated Act, and the Environmental Delegated Act, including their various annexes. In addition, the Taxonomy FAQs and Notices published by the European Commission have been taken into consideration in our disclosures, where relevant.

The EU Taxonomy Regulation is a dynamic, evolving legislation. Its formulations and terms are sometimes subject to uncertainty in interpretation and require further clarification. Therefore, the following disclosures rely on our current understanding and interpretation of the Regulation; the approach applied for this year’s reporting is updated in comparison to last year and may not apply in the same way in the future.

ABB has been preparing its EU Taxonomy disclosures since the financial year 2021. In 2024, we conducted a comprehensive review of our eligibility mapping to ensure accuracy, consistency and focus on performing alignment assessments for activities introduced in 2023, which are directly pertinent to our business portfolio. Additionally, it was essential to duly consider the impact of changes to pollution-related DNSH criteria, applicable for financial year 2024. These pollution-related DNSH criteria had the most significant influence on the decline in our alignment figures in 2024.

ABB's implementation of the EU Taxonomy

¹ The terms turnover and revenue are used interchangeably throughout the EU Taxonomy disclosures.

² According to Article 16 of Regulation (EU) 2020/852, an economic activity shall qualify as contributing substantially to one or more of the environmental objectives "by directly enabling other activities to make a substantial contribution to one or more of those objectives, provided that such economic activity: (a) does not lead to a lock-in of assets that undermine long-term environmental goals, considering the economic lifetime of those assets; and (b) has a substantial positive environmental impact, on the basis of life-cycle considerations."

Following the ABB Way and our decentralized operating model, we adopted a decentralized approach, involving the expertise of our product managers, real estate managers, sustainability managers, financial controllers, R&D controllers and environmental managers across all levels of our organization. Our Sustainability Council and the Finance, Audit and Compliance Committee of the Board of Directors oversee our compliance with EU Taxonomy reporting obligations and are informed of progress, potential risks and obstacles.

ELIGIBILITY ASSESSMENT

To determine the eligibility of our revenues,¹ we examined our global product offering in relation to the economic activities outlined by the EU Taxonomy Delegated Acts. Our revenues were mapped following the ABB product tree by business area, division, product group, product line and industry usage. Most of our eligible products and services fall under the category of "enabling activities", which refers to economic activities that "directly enable other activities to make a substantial contribution" to one of the environmental objectives². Business activities, products and solutions that do not fit into the descriptions of the EU Taxonomy Delegated Acts are classified as "non-eligible" and are therefore not included in the scope of the EU Taxonomy reporting. We guided our analysis by the descriptions of the activities, the relevant Nomenclature of Economic Activities (NACE) codes and, if necessary, the substantial contribution criteria. All ABB divisions assessed their offerings at the appropriate level of granularity to be able to determine eligibility.

Our eligible CapEx was identified centrally, at the division level or at the country level. For OpEx, special attention was given to R&D expenses, which were analyzed at the division or project level.

In 2024, we once again reviewed, and partially reassessed, our eligibility mapping to ensure that all changes in our portfolio are reflected. Overall, most of our activities in Electrification, Motion, Process Automation and Robotics & Discrete Automation business areas, together with our Real Estate activities, are eligible under the EU Taxonomy of "Climate Change Mitigation" (CCM). In addition, some of our activities are eligible under the objective of "Transition to a Circular Economy" (CE). The CCM Activity 3.20 "Manufacture, installation, and servicing of high, medium and low voltage electrical equipment for electrical transmission and distribution" and the CE Activity 1.2 "Manufacture of electrical and electronic equipment" are the most relevant for ABB.

The table below presents the allocation of our activities to the most relevant economic activities listed in the EU Taxonomy. Changes may be made to this list in the future as additional activities relevant for ABB could be further released by the European Commission.

ABB GROUP MOST RELEVANT ELIGIBLE ACTIVITIES IN ACCORDANCE WITH THE EU TAXONOMY

Name of economic activity	Description of economic activity	ABB Group business areas and functions
Environmental objective: Climate change mitigation		
3. Manufacturing		
3.1 Manufacture of renewable energy technologies	Manufacture of renewable energy technologies	Electrification Motion
3.6 Manufacture of other low-carbon technologies	Manufacture of technologies aimed at substantial GHG emissions reductions in other sectors of the economy	Motion Process Automation

Name of economic activity	Description of economic activity	ABB Group business areas and functions
3.19 Manufacture of rail rolling stock constituents	Manufacture, installation, technical consulting, retrofitting, upgrade, repair, maintenance, and repurposing of products, equipment, systems, and software related to the rail constituents	Electrification Motion
3.20 Manufacture, installation, and servicing of high, medium and low voltage electrical equipment for electrical transmission and distribution that result in or enable a substantial contribution to climate change mitigation	The economic activity develops, manufactures, installs, maintains or services electrical products, equipment or systems, or software aimed at substantial GHG emission reductions in high, medium and low voltage electrical transmission and distribution systems through electrification, energy efficiency, integration of renewable energy or efficient power conversion	Electrification Motion Process Automation E-Mobility
6. Transport		
6.16 Infrastructure enabling low-carbon water transport	Construction, modernization, operation and maintenance of infrastructure that is required for zero tailpipe CO ₂ e operation of vessels or the port's own operations, as well as infrastructure dedicated to transshipment	Electrification Process Automation
7. Construction and real estate		
7.6 Installation, maintenance, and repair of renewable energy technologies	Installation, maintenance and repair of renewable energy technologies, on-site	Electrification Real Estate
7.7 Acquisition and ownership of buildings	Buying real estate and exercising ownership of that real estate	Real Estate
Environmental objective: Transition to a circular economy		
1. Manufacturing		
1.2 Manufacture of electrical and electronic equipment	Manufacturing of electrical and electronic equipment for industrial, professional and consumer use	Motion Process Automation
5. Services		
5.1 Repair, refurbishment and remanufacturing	Repair, refurbishment and remanufacturing of goods that have been used for their intended purpose before by a customer (physical person or legal person)	Electrification Motion Process Automation Robotics & Discrete Automation
5.2 Sale of spare parts	Sale of spare parts	Electrification Motion Robotics & Discrete Automation

SUBSTANTIAL CONTRIBUTION ASSESSMENT

Following the eligibility assessment, a thorough alignment assessment of each identified eligible activity was conducted to determine fulfillment of the technical screening criteria. In 2024, the eligible activities that were added in 2023 were for the first time assessed for alignment, as dictated by the EU Taxonomy Regulation.

In the first step of the alignment assessment, it was analyzed whether the identified activities fulfill the substantial contribution criteria spelled out in the respective Delegated Acts. This assessment was completed for our products and solutions, our real estate, our fleet and R&D activities at the Group, business area, division and site levels, as appropriate.

The criteria for substantial contribution vary significantly across different activities. We used several different assessment methods and scopes to determine whether these criteria were met. For the activities most relevant to ABB:

- **CCM Activity 3.20:** The substantial contribution requirements related to the inclusion of specific types of equipment were considered to some extent already during our eligibility screening; we assessed applicable energy efficiency classes, and we excluded revenues from products used in fossil fuel industries, as well as switchgear containing SF₆
- **CE Activity 1.2:** It was currently not possible to demonstrate full compliance with the comprehensive substantial contribution criteria, resulting in no aligned products under this activity

Based on our substantial contribution assessment and before considering the DNSH criteria, the main activities where ABB made a substantial contribution in 2024 are the following:

- **CCM 3.1** Manufacture of renewable energy technologies
- **CCM 3.19** Manufacture of rail rolling stock constituents
- **CCM 3.20** Manufacture, installation, and servicing of high, medium and low voltage electrical equipment for electrical transmission and distribution that result in or enable a substantial contribution to climate change mitigation
- **CCM 6.16** Infrastructure enabling low carbon water transport
- **CCM 7.7** Acquisition and ownership of buildings

DO NO SIGNIFICANT HARM (DNSH) ASSESSMENT

Activities identified as significantly contributing to an environmental objective were subsequently evaluated for compliance with the DNSH criteria. This assessment was conducted at the product, site and company levels, depending on the criteria. As previously noted, with the expansion of the EU Taxonomy's scope of activities, the coverage of the DNSH assessment has correspondingly broadened in 2024. Additionally, some of the assessment methodologies and interpretations have been revised this year to reflect our evolving understanding of the requirements.

Due to the distinct nature of various DNSH criteria, the alignment assessment concerning pollution (Appendix C) was performed within a dedicated workstream focused on the product level, independent of the evaluation of other DNSH requirements. The introduction of new criteria related to "other substances" was the primary factor behind the decline in our alignment results.

Below, we set out our current interpretation and describe the main analyses conducted.

1. CLIMATE CHANGE ADAPTATION

We conducted an evaluation of the pertinent physical climate risks and carried out an initial climate risk and vulnerability assessment to determine which manufacturing sites may be impacted by these risks over their expected lifetimes. As required by the EU Taxonomy (Appendix A), the analyses of climate risk and vulnerability were based on Representative Concentration Pathway (RCP) scenarios 4.5 and 8.5 extending up to the year 2052. We assessed the impact of the identified climate risks on economic activities and explored potential adaptation solutions to mitigate these risks.

2. SUSTAINABLE USE AND PROTECTION OF WATER AND MARINE RESOURCES

As required by the EU Taxonomy, generic DNSH criteria on water (Appendix B), we assessed our water impact from the perspective of water quality preservation and water stress avoidance, by translating these generic criteria into more concrete, measurable data requirements. On top of this, many of our sites within this scope are certified according to ISO 14001 environmental management systems and ISO 9001 quality management systems.

Activity-specific DNSH criteria are evaluated at the activity level. The relevance of the criteria is determined by the nature of our activities and products, along with their associated impacts.

3. TRANSITION TO A CIRCULAR ECONOMY

ABB takes a company-wide approach to circularity. Therefore, for DNSH related to circular economy we leverage from the ABB Circularity Approach and our company-wide policies related to sustainable material content in sourcing, circular design principles and our “zero waste to landfill” targets.

Certain requirements related to construction and demolition waste are considered not applicable to ABB, as such activities typically do not fall within the scope of our operations.

4. POLLUTION PREVENTION AND CONTROL

The generic DNSH criteria related to pollution prevention (Appendix C) require that the economic activity does not lead to the production, placing on the market or use of chemical substances listed in a variety of EU chemical regulations and directives, including the EU Directive 2011/65 on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) and the EU Regulation 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Generally, this analysis would need to be conducted at product level.

ABB has robust company-wide processes and material compliance systems in place to ensure compliance with all applicable regulatory requirements, especially RoHS and REACH. However, the Appendix C requirements pose several challenges, particularly due to differences with applicable sectoral legislation. Furthermore, an additional requirement has been introduced to Appendix C – applicable for financial year 2024 – to address “other substances”, which is subject to interpretation. Given our vast product portfolio, it is challenging to assess all potentially relevant substances for “suitable alternatives” within the given short timeframe. We have initiated an evaluation of our products against the Appendix C requirements; however, we are presently unable to reliably assert fulfillment of these requirements for the relevant products. Due to our business profile, most of our eligible activities necessitate adherence to Appendix C. This effectively precludes most of our revenue from alignment in 2024.

5. PROTECTION AND RESTORATION OF BIODIVERSITY AND ECOSYSTEMS

We performed dedicated biodiversity assessments for all our EU and non-EU sites in scope of the generic DNSH requirements on biodiversity (Appendix D). Relevant sites in or near biodiversity-sensitive areas were identified and analyzed.

In general, sites already in operation at EU locations have already received necessary permits from the respective national authorities, which are in charge of enforcing all relevant applicable laws. For non-EU sites, an analysis was performed to map EU directives to the corresponding relevant national equivalent, as required by Appendix D. Non-EU sites in countries with equivalent national laws have also received necessary permits from the respective authorities which oversee the enforcement of those laws, where applicable to our activities.

6. CLIMATE CHANGE MITIGATION

In 2024, we were required for the first time to assess the DNSH criteria for climate change mitigation for activities under the objective of Circular Economy. The primary requirement stipulates that in cases of on-site generation of heat/cool or co-generation including power, the direct GHG emissions must be lower than 270 gCO₂e/kWh. These criteria were evaluated at the site level, utilizing ABB's scope 1 reporting.

MINIMUM SAFEGUARDS

The Minimum Safeguards are based on Article 18 of the EU Taxonomy Regulation and require compliance with principles laid down by the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises (OECD Guidelines), the UN Guiding Principles on Business and Human Rights (UNGPs), the eight fundamental conventions of the International Labour Organization (ILO) on Fundamental Principles and Rights at Work, and the International Bill of Human Rights.

In 2024, we have refreshed our assessment to demonstrate compliance with the Minimum Safeguards. Our assessment covers nine areas: 1) human rights policies, 2) human rights due diligence & risk assessment, 3) addressing human rights impacts, 4) human rights communication, 5) grievance mechanisms, 6) consumer interests, 7) anti-corruption, 8) competition and 9) taxation.

For further information, please refer to the relevant chapters on "Sustainability at ABB" and "Social information" of this Statement.

— EU Taxonomy KPI calculation

ABB FINANCIAL AND NON-FINANCIAL REPORTING

ABB prepares its consolidated financial statements under U.S. GAAP, while the EU Taxonomy Regulation references KPI disclosures in accordance with IFRS. The two standards are largely converged, with the following key difference:

- Non-order related R&D is expensed as incurred under U.S. GAAP and reported as part of the OpEx KPI.

Most other differences in revenue recognition, tangible and intangible assets, and leases are minor, with no significant impact on data comparability.

Below is a summary of our EU Taxonomy eligibility and alignment KPI calculations, including figures and comparable information from 2023. The KPIs for year-end 2024 were calculated using financial data available on December 31, 2024.

TURNOVER KPI

The proportion of Taxonomy-eligible and/or -aligned turnover has been calculated as the part of net turnover derived from products and services associated with Taxonomy-eligible and/or -aligned economic activities (numerator) divided by net turnover (denominator) for the financial year ended December 31, 2024.

The denominator is the Group's net turnover as presented in the Consolidated Income Statements under the line item "Total revenues," in accordance with U.S. GAAP. To calculate the numerator, we used the activity mapping described above and identified all third-party revenues associated with the Taxonomy-eligible and/or -aligned activities.

For the year ended December 31, 2024, 44 percent of our revenues are eligible under the objective of Climate Change Mitigation (CCM). Additionally, 10 percent of our revenues are eligible under the objective of Transition to Circular Economy (CE). The aligned revenue reported under both CCM and CE activities is negligible, resulting in the alignment figure being rounded to 0 percent. The contribution of our business activities was calculated and reported under one economic activity, without double counting.

In comparison, in 2023, 46 percent of our revenues were Taxonomy-eligible, and 6 percent of our revenues were Taxonomy-aligned.

Against this background, most of our Taxonomy-eligible turnover is reported under:

- **CCM 3.20** Manufacture, installation, and servicing of high, medium, and low voltage electrical equipment for electrical transmission and distribution,
- **CE 1.2** Manufacture of electrical and electronic equipment, and
- **CCM 3.6** Manufacture of other low-carbon technologies.

The expansion of the EU Taxonomy scope had already been reflected in last year's eligibility results. Consequently, the slight year-on-year variations in eligibility are attributed to further refinements in our eligibility mapping process. While the EU Taxonomy now has more activities relevant to our business model compared to prior years, a significant portion of our business activities continues to fall outside the scope of the EU Taxonomy. The notable decrease in EU Taxonomy-aligned turnover from 2023 to 2024 is attributed to the currently unmet pollution-related criteria (Appendix C).

The details of the turnover KPI and breakdowns are provided on page 91 of the Sustainability Statement.

CAPEX KPI

The CapEx KPI is defined as Taxonomy-eligible and/or -aligned CapEx (numerator) divided by total CapEx (denominator) for the financial year ended December 31, 2024. According to the EU Taxonomy definition, ABB's total CapEx includes:

- Total additions to tangible and intangible assets before depreciation, amortization, revaluations and impairments, which are included in the Capital expenditures as presented in Note 24 "Operating segment and geographic data" of the Financial Report 2024.
- Leases (finance and operating), where corresponding values are derived from our internal reporting systems but are not directly reconcilable with the figures presented in Note 16 "Leases" that only discloses the additional operating lease for the reporting period and does not include finance lease.
- Assets acquired as part of business combinations, where corresponding values are derived from our internal reporting systems but are not directly reconcilable with the figures presented in the consolidated Financial Report 2024.

In the numerator, Taxonomy-eligible or -aligned CapEx includes CapEx related to assets or processes associated with eligible or aligned EU Taxonomy activities, and CapEx related to the purchase of output for eligible or aligned activities and individual measures. ABB did not consider "CapEx plans" in 2024.

The numerator calculation was performed in two steps:

1. Relevant real estate initiatives and large investments were analyzed on a case-by-case basis and are directly mapped to the relevant EU Taxonomy activities by our business areas and divisions. Investments are reported under the EU Taxonomy activity with which this specific CapEx is associated. Aligned CapEx is calculated based on a dedicated alignment assessment for those investments, conducted by ABB's global real estate function.
2. All remaining CapEx additions are allocated per division based on the percentage of eligible and aligned revenue-generating EU Taxonomy activities.

For the year ended December 31, 2024, 38 percent of our CapEx are eligible, and 1 percent of our CapEx are aligned under the objective of Climate Change Mitigation (CCM). Additionally, 5 percent are eligible and 0 percent aligned under the objective of Circular Economy (CE).

In comparison, in 2023, 64 percent of our CapEx were eligible, and 8 percent of our CapEx were aligned.

Against this background, most of our Taxonomy-eligible CapEx is reported under:

- **CCM 3.20** Manufacture, installation and servicing of high, medium and low voltage electrical equipment for electrical transmission and distribution,
- **CCM 7.7** Acquisition and ownership of buildings, and
- **CE 1.2** Manufacture of electrical and electronic equipment.

Aligned CapEx is primarily related to individual measures and purchase of output from EU Taxonomy activities, with most of our aligned CapEx being reported under:

- **CCM 7.7** Acquisition and ownership of buildings, and
- **CCM 7.6** Installation, maintenance and repair of renewable energy technologies.

As in the previous year, CCM 7.7 “Acquisition and ownership of buildings” accounts for the biggest portion of CapEx eligibility in ABB’s real estate portfolio. The difference between Taxonomy-eligible and -aligned CapEx is primarily due to challenges in applying EU Energy Performance of Buildings Directive to our global real estate portfolio outside of the EU and energy certificates not meeting the Substantial Contribution criteria for energy efficiency of buildings.

The difference between Taxonomy-aligned CapEx 2024 and Taxonomy-aligned CapEx 2023 is mainly driven by the lack of aligned revenue which negatively affects the aligned CapEx share determined by the revenue allocation key.

The details of the CapEx KPI and breakdowns are provided on page 94 of the Sustainability Statement.

OPEX KPI

The OpEx KPI is defined as Taxonomy-eligible and/or -aligned OpEx (numerator) divided by total OpEx (denominator) for the financial year ended December 31, 2024. According to the EU Taxonomy definition, the total OpEx used for the denominator consists of direct non-capitalized costs related to R&D, short-term leases (less than one year), repairs and maintenance, building renovation measures, and any other direct expenditures associated with the day-to-day servicing of assets including property, plant and equipment.

Following this definition and our accounting policy, our total OpEx includes:

- R&D costs, derived from the line item “Non-Order related research and development expenses” in the Consolidated Income Statements of the [Financial Report 2024](#),
- “Other OpEx”, where corresponding values are derived from our internal reporting systems but are not directly reconcilable with the figures presented in the Consolidated Income Statements. Expenses related to building renovation projects would be capitalized under U.S. GAAP and, therefore, are out of scope of the OpEx KPI.

Following the revenue allocation key approach, for the year ended December 31, 2024, 42 percent of OpEx are eligible under the objective of Climate Change Mitigation (CCM) and 9 percent under the objective of Circular Economy (CE). Under both objectives, 0 percent of OpEx are aligned.

In comparison, in 2023, 45 percent of our OpEx were Taxonomy-eligible and 6 percent were Taxonomy-aligned.

The process of collecting data for eligible and aligned OpEx varies between R&D expenses and other relevant expenses (i.e., “other OpEx”). For R&D, the process is as follows:

- ABB invests substantial efforts in developing SF₆-free alternatives, which are particularly relevant for achieving alignment for the activity CCM 3.20. Therefore, where specifically attributable to such projects, R&D expenses were allocated to the activity CCM 3.20.
- The rest of the R&D expenses are allocated to Taxonomy-eligible activities identified based on the activity eligibility mapping described above.

For other OpEx, the revenue allocation key was used. These expenses were considered for each division and multiplied by the percentage of eligible and aligned revenue in that division. This approach was necessary due to a lack of more granular data on the same basis as described above for the CapEx KPI. With this process, we ensured there was no double counting for the OpEx KPI.

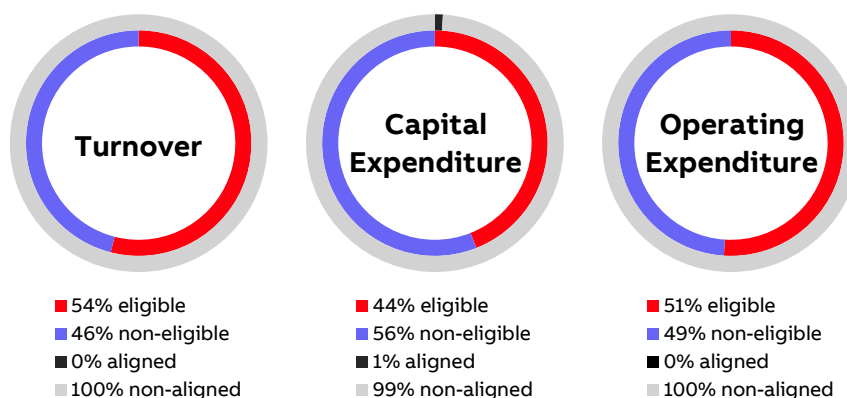
Most of our Taxonomy-eligible OpEx is reported under:

- **CCM 3.20** Manufacture, installation and servicing of high, medium and low voltage electrical equipment for electrical transmission and distribution,
- **CE 1.2** Manufacture of electrical and electronic equipment, and
- **CCM 3.6** Manufacture of other low-carbon technologies.

The variation and difference of Taxonomy-eligible and -aligned OpEx between 2024 and 2023 are correlated with the Taxonomy-eligible and -aligned turnover as OpEx values are mainly driven by the applied product group revenue allocation key.

The details of the OpEx KPI and breakdowns are provided on page 98 of the Sustainability Statement.

2024 ABB ASSESSMENT RESULTS UNDER THE EU TAXONOMY: TURNOVER, CAPEX, OPEX KPIS



Outlook

ABB welcomes the significant progress made over the past years in expanding the EU Taxonomy to include many critical activities, such as manufacturing of electrical equipment, which are essential for advancing a resilient, electrified and decarbonized energy system. This expansion is an important step toward aligning sustainable activities with the needs of the energy transition.

Nonetheless, the usability and practicability of the EU Taxonomy requirements could be further improved. Differences in criteria between the EU Taxonomy and existing applicable sectoral legislation currently creates technical difficulties in achieving EU Taxonomy alignment.



02

SOCIAL INFORMATION

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RESPONSIBILITY FOR OUR EMPLOYEES

Employees contribution to Sustainability Agenda

As an employer, ABB respects and promotes human rights and dignity, striving to create safe, fair and inclusive working environments where our people can thrive. It is our aim that our success translates into success for all our stakeholders and has a positive impact on society and the environment.

The employee-related topics that we regard as material to our business and how it impacts the outside world comprise health and safety, human rights and labor standards, employee development, and wellbeing. As part of our Sustainability Agenda, we also focus on diversity, equity and inclusion as well as partnerships and collaboration.

SBM-2: CONSULTATION OF EMPLOYEES

At ABB, we engage with our employees as one of our pivotal stakeholder groups. In an ongoing dialogue and in close cooperation, we aim to ensure that our policies and positions reflect their perspectives. This communication informs which topics are material for both ABB and our stakeholders.

We maintain an open dialogue with current, former and future employees. These include formalized and/or elected bodies of employee representatives. Our forms of engagement include the following:

- Annual Employee Engagement Survey
- Annual performance review
- Collective bargaining associations
- Dialogue with the ABB Employees Council Europe, the representative body of all ABB employees in Europe
- Global network of employee resource groups promoting diversity, equity and inclusion in the workplace
- Learning and development opportunities

Identification of material IROs

SBM-3: MATERIAL IMPACTS, RISKS AND OPPORTUNITIES

In 2024, we performed a DMA to identify material IROs for our own workforce that may result from working at ABB. The analysis revealed 21 IROs. Given the topic of 'own workforce', these were all located in our own operations, not in our value chain. Twelve of them were categorized as impacts, two as risks and seven as opportunities. All impacts, positive or negative, were in the fields of either equal opportunities or working conditions.

(Potentially) Positive impacts: Seven of the twelve impacts were identified as positive or potentially positive, four related to equal opportunities and three to working conditions. They can be summarized as impacting our workforce by a strong diversity program, learning and development opportunities, and rigorous safety trainings. Our diversity initiatives ensure equal opportunities. We prioritize robust health and safety measures to minimize risks. We also offer employment opportunities for individuals in the local community, contributing to economic development. By implementing policies promoting gender diversity, equity and inclusion within the workforce, we aim to ensure equal opportunities for women. Furthermore, by providing secure employment, decent working times, adequate wages, social dialogue including works councils, collective bargaining, and participation rights, we have a positive impact on the wellbeing of our employees.

(Potentially) Negative impacts: Three impacts were considered negative and two potentially negative. These potential impacts are related to individual incidents. In certain operations, female employees are less likely to achieve promotion, which could result in gender inequality in senior management and at operational levels. Challenges like workload during peak working periods affect work-life balance. Potentially, safety incidents, violation of labor rights or unethical treatment of staff may have a negative impact on employees.

Risks and Opportunities: The two identified risks are in the compliance area relating to equal opportunities and cybersecurity. Of the seven opportunities, five are connected to equal opportunities and two to working conditions. Not acting on these topics would lead to risks through loss of talent, reputational damage or even sanctions and fines.

Own workforce-related targets

S1-5: TARGETS

Targets	Baseline (baseline year)	2023 status	2024 status (assured)
SOCIAL PROGRESS			
Zero harm to our people and contractors – we aim for a gradual reduction in lost time from incidents	0.24 (2019) ¹	0.13	0.15
Increase proportion of women in senior management roles to 25% by 2030	11.7% (2019)	21.00%	21.30%
Achieve a top-tier employee engagement score	71/100 (2019)	77/100	78/100

1 2019 baseline excludes the Power Grids business and the Turbocharging division.

Employee-related policies

S1-1: POLICIES

ABB uses several policies and procedures to manage its impact on own employees. Some of them are overarching documents that apply to more than one topical chapter of this Sustainability Statement. These can be found at the end of the chapter “Sustainability at ABB” and include the ABB Way, the ABB Code of Conduct, the Human Rights Policy & Human Rights Due Diligence Framework and the HSES Policy. More specific policies are outlined below.

WELLBEING AND RESILIENCE REQUIREMENTS

ABB’s Wellbeing and Resilience Requirements provide for the health, safety and wellbeing of employees and the prevention of work-related ill health. Of our 21 material IROs in this field, this policy addresses four with connection to health and wellbeing.

This policy applies worldwide to all ABB controlled sites. The most senior level that is accountable for the implementation of the policy is the division presidents. There are no specific third-party standards or initiatives referenced in this document. Our employees are expected to benefit from the implementation of this policy. This is an internal document that is accessible via the internal network to all employees.

DIVERSITY, EQUITY AND INCLUSION POLICY

ABB's Diversity, Equity and Inclusion (DEI) Policy sets out the core elements of DEI practices within the ABB Group. It outlines the mandatory minimum standard by defining what is core within the area of DEI. To secure a sustainable, diverse workforce, all business areas, divisions and functions are required to adhere to our DEI strategy and its related targets and activities. These are intended to guide our decisions, increase awareness and ensure focus. The policy covers all 11 of our equal opportunity-related IROs.

This policy applies to employees in all businesses, divisions, and functions within the ABB Group. The most senior level that is accountable for the implementation of the policy is the division presidents. There are no specific third-party standards or initiatives referenced in this document. Our employees are expected to benefit from the implementation of this policy. This is an internal document that is accessible via the internal network to all employees.

CORPORATE PEOPLE DEVELOPMENT POLICY

Our approach to people development is a key part of our People 2025 strategy and is underpinned by this Corporate People Development Policy. It sets forth the central features of the people development practices that apply to all employees in our business areas and functions. It outlines mandatory minimum standards for each of our human resources focus areas: Employee Engagement, the Open Job Market, and our Learn, Connect, Grow approach:

- The **Employee Engagement** survey is an annual tool for employee feedback. We also conduct targeted pulse surveys on specific topics.
- The **Open Job Market framework** applies to every business area and function. It mandates that all non-production positions be posted in English on our internal career portal and establishes that any employee can apply for any posted job.
- Our **Learn, Connect, Grow** approach seeks to create an environment that fosters the development of all our employees. As part of this approach, we provide online and offline trainings on interpersonal and leadership skills, career development resources and opportunities for our people to connect and learn from each other, including a feedback framework.

Of the 21 IROs identified for the area of own employees, this policy covers three (two impacts, one opportunity).

This policy applies to all employees in ABB business areas and functions worldwide. Accountability for implementing the policy lies with the division presidents. There are no specific third-party standards or initiatives referenced in this policy. Our employees are expected to benefit from the implementation of this policy. The policy is an internal document that is accessible via the internal network to all employees.

OTHER HUMAN RIGHTS RELATED POLICIES

For human rights policy commitments including labor rights of value chain workers, engaging with own workforce, and the provision of remedy for human rights impacts, see the policy descriptions above and in the Sustainability at ABB chapter, in particular, for the Code of Conduct and the Human Rights Policy with Human Rights Due Diligence Framework.

The policies with regard to our own workforce are aligned with relevant internationally recognized instruments, including the UN Guiding Principles on Business and Human Rights.

For the workplace accident prevention policy and management system in place, see HSES Policy and HSES management system descriptions above.

ABB's Code of Conduct and the Human Rights Policy are policies that collectively frame ABB's approach on (a) discrimination, including harassment, promoting equal opportunities, and other ways to advance diversity, equity and inclusion, (b) grounds for discrimination such as racial and ethnic origin, color, sex, sexual orientation, gender identity, disability, age, religion, political opinion, national extraction or social origin, or other forms of discrimination, (c) commitments related to inclusion or positive action for people from groups at particular risk of vulnerability in its own workforce; and (d) the prevention and mitigation of discrimination once detected, as well as to advance diversity, equity and inclusion in general.

— Employee involvement in decision-making processes

S1-2: PROCESSES FOR ENGAGING ABOUT IMPACTS

ABB EMPLOYEE ENGAGEMENT SURVEY

The ABB Employee Engagement Survey is conducted Group-wide on an annual basis and all employees are invited to participate. We cooperate with local works councils and union representatives to ensure that the survey meets local consultation requirements. It is available in approximately 40 languages and participation is entirely voluntary and confidential. We also carry out business- or topic-specific pulse surveys. These surveys provide employees with an opportunity to express their views about ABB as a workplace.

The survey invites active employees, excluding short-term roles (e.g., externals, students, interns, casuals) and those on garden leave without email access. Exceptions align with local labor laws or HR leadership approvals. E-mobility employees are excluded due to separate governance and a tailored listening strategy under development.

Listening to feedback from our employees mitigates the risk of failing to address critical topics at the team and business levels. We share the global survey results with employees, summarizing our overall engagement score and the most notable strengths and areas for improvement. Our business areas, divisions, country organizations and relevant teams discuss the feedback.

By listening regularly to feedback from our employees, we mitigate the risk of failing to address critical topics at the team and business levels. Failure to deal with such issues could lead to less motivated employees and to avoidable attrition. Over the past six years, the participation rate for the survey has continuously improved, from a response rate of 65 percent in 2019 to 85 percent in 2024.

To evaluate our overall progress, we track on our Sustainability Agenda target "Achieve a top-tier employee engagement score." This engagement score has improved from 71 in 2019 to 78 in 2024. The score is the key survey metric that we track from year to year. In essence, it reflects the answers given by our employees to two core questions: "How happy are you working at ABB?" and "Would you recommend ABB as a great place to work?"

In 2024, all but six topics improved compared to the previous year, with no declines. "Safety," "integrity" and "role clarity" remained the top-rated areas, while "development" showed the most progress. Despite improvements since 2019 in removing barriers to execution, opportunities for further enhancement remain. In 2024, a decision was made to benchmark against the top 25 percent of global organizations using the same engagement platform.

SAFEGUARDING HUMAN RIGHTS

ABB supports and respects the international frameworks on human rights, as set out in our Human Rights Policy. With respect to labor, these frameworks and standards also include those which the Swiss Ordinance on Due Diligence and Transparency in relation to Minerals and Metals from Conflict-Affected Areas and Child Labor (DDTrO) specifies as internationally recognized equivalent regulations. As a result of our adherence with these frameworks and standards, we are exempted from specific due diligence and reporting obligations under the provisions of the amended Swiss Code of Obligations (Art. 964j–l CO) and the DDTrO respectively with regard to child labor.

With respect to labor standards, ABB honors their requirements, whether determined by law or by collective bargaining agreements. This includes the EU directive on minimum notice periods regarding operational changes. We have a voluntary agreement with the European Works Council (EWC) to consult on any planned transnational changes in Europe that affect a large number of employees before beginning labor relations processes within affected countries. Whenever possible, we await the EWC statement before concluding any local labor relations process. In this confidential exchange with the EWC about planned future changes and our business outlook, we also review the effectiveness and efficiency of our consultation processes and adjust our practices when needed. Via our Global Labor Relations database, we ensure that we comply with local requirements and manage engagement processes for more complex projects.

POSITIVE IMPACT THROUGH EMPLOYEE WELLBEING AND BENEFITS

In providing employee benefits, including wellbeing benefits, our general policy is to align with local market practices on a country-by-country basis. There is a risk that local market practices may not support our Sustainability Agenda or our goal to drive social progress. Thus, in two wellbeing-related areas we take a global rather than local approach to benefits: the global paid parental leave policy and the global Employee Assistance Program (EAP).

Under the EAP, our global provider offers the same level of wellbeing support to all our employees. All employees can access the EAP through our Inside+ intranet site or through an external website, as not all eligible participants have access to Inside+. This is primarily the case for our production workers and the dependents of our employees. We also comply with local legislation.

Our EAP provides a Rapid Response Critical Incident service that addresses urgent negative impacts and risks related to employee wellbeing. The service supports employees affected by incidents such as natural disasters, accidents at work or the death of a colleague.

DIVERSITY, EQUITY & INCLUSION: INVOLVING VULNERABLE GROUPS

DEI at ABB involves developing and supporting workforce diversity across all dimensions (e.g., gender, generations, ethnicity, abilities, sexual orientation) and providing all with equal opportunities and equal treatment. We seek to cultivate an inclusive environment that welcomes and respects every individual.

We have guidelines to promote DEI across ABB, such as the DEI Policy. Our Code of Conduct (CoC) additionally sets forth how we expect employees to act in matters of inclusion, respect and fairness. Under the CoC, employees are expected to help keep our workplace free of harassment and discrimination. Among our commitments to DEI, we have:

- re-signed the CEO statement of support for the UN Women's Empowerment Principles (WEPs);
- launched a DEI Policy that reinforces our global accountability and commitment on inclusion; and
- expanded the scope of EC sponsorship to involve all EC members. We also support the Standards of Conduct for Business as set forth by the United Nations (UN).

Our four business areas and their divisions are accountable for translating our global DEI strategy into action in all our markets.

Channels available to raise concerns

S1-3: PROCESSES AND CHANNELS TO RAISE CONCERNS

Our reporting and allegation management processes are available to internal and external stakeholders to address any potential violations of our Code of Conduct or other policies as well as applicable laws, including matters relating to human rights. In case of any violation of human rights or our CoC, we take steps to ensure adequate remediation and consequences in line with applicable contracts and laws.

Reports can be made by internal stakeholders either directly to ABB managers or members of the legal team or via our Business Ethics Helpline. The reporting channels allow reports to be made anonymously, and the availability of such channels as well as details on how to access them are regularly highlighted in training sessions, as is the ability for users to remain anonymous when making such reports. For more information see the whistleblowing section in the chapter “Good business conduct” (G1-2: Policies).

In 2024, we did not receive any reports of child labor with respect to our employees. Also, we did not receive any reported incidents regarding indigenous peoples’ rights or of negative impacts caused by security staff or third-party security providers.

Our reporting and allegation management includes data on reported incidents of misbehavior including categories such as HSE and security, human resources and other integrity issues (as well as more detailed subcategories within these) to ensure appropriate attention, resourcing and internal escalation. For more details, see section “Anti-corruption and anti-bribery” in the chapter “Good business conduct”.

Employee-related action

S1-4: ACTION RELATED TO EMPLOYEE WELLBEING

Programs and initiatives at both the Group and local levels deliver a range of programs designed to create a positive impact on employee wellbeing.

Our well-established global Employee Assistance Program (EAP) offers a wide range of programs for employees, including a Rapid Response Critical Incident service that addresses urgent negative impacts and risks related to employee wellbeing. The service supports our employees affected by incidents such as natural disasters, accidents at work or the death of a colleague. It helps us to track utilization rates to rapidly identify areas where early intervention measures would help.

In addition, in 2024, we launched a global wellbeing application for line managers to support building individual resilience and to encourage the creation of an inclusive work environment from a mental health perspective.

We also run global wellbeing campaigns like the World Mental Health Day. These global programs are complemented by other actions conducted on a local basis. For example, in the US, we provide Health Advocacy and Family Building support, including mental health resources. In Italy, “ABB walking groups” promote regular guided walks, while in China, employees benefit from health check-ups and doctor consultations.

HEALTH AND SAFETY-RELATED ACTION

The divisions of our four business areas undergo one-, three- or five-year self-assessment cycles under the HSES management system and submit to HSE audit. Independent HSE auditors are responsible for identifying areas for improvement. We also track the effectiveness of our health- and safety-related actions. Our management information system allows us to gather data on hazards and incidents and assign actions to managers.

Each division is encouraged to develop safety programs that are appropriate for their operations. We coordinate preparations and responses to emergency situations, conduct internal safety inspections and obtain third-party verifications for our health, safety and wellbeing reporting. We have well-defined procedures to investigate work-related injuries and incidents and act promptly to mitigate negative impacts. We continuously strive to further reduce health and safety hazards.

HUMAN RIGHTS-RELATED ACTION

Our goal is for human rights to be well understood and managed in all our operations. In 2024, we continued our work to strengthen our human rights due diligence across ABB's entire value chain, as well as implementing the roadmap that was updated in 2023, following up on business areas risks analysis and identified salient issues.

We revised our human rights training offer, developing new virtual training modules targeting sales, operations and procurement functions, as well as new deep dive modules aligned with the salient issues.

We have published the new Human Rights Requirements and ACOP to enhance human rights due diligence in ABB operations. This initiative will be followed up by a new wave of site assessments to ensure execution of defined requirements.

PEOPLE DEVELOPMENT ACTION

We believe that a culture that consistently allows employees to reflect on their growth objectives and provides them with the support they need to achieve them, through an open job market, learning opportunities and human connections, both prepares our workforce for challenges and safeguards their employability.

We have created leadership courses that address specific challenges in our organization. Additional leadership learning resources are available to our employees through the Harvard Manage Mentor and Harvard Manage Mentor Spark platforms. Training opportunities are also provided by our businesses to their respective employee populations. In 2024, a series of manager webinars and dedicated webinars tailored to employees' specific personas were introduced. We refine our learning offerings to keep them up to date, working with our internal stakeholders.

In 2024, our Learn Connect and Grow Day engaged over 30,000 participants across more than 40 countries.

DIVERSITY, EQUITY & INCLUSION-RELATED ACTION

Among the DEI-related activities in 2024, we celebrated Women's History Month with the global theme #InspireInclusion. We hosted global virtual events featuring our leadership team, who shared their insights and commitment to fostering inclusion both at work and in the broader community. Our Employee Resource Group (ERG) Encompass Women also offered a range of activities, including panel discussions and the organization of an event on returning to work after giving birth.

The World Day of Cultural Diversity was celebrated, and we launched Pride Month in a campaign that sparked Group-wide engagement on LGBTQ+ topics. Highlights featured an “Ally of the Year” award and learning-oriented contests. Over 6,800 participants joined the global and local events, including production sites. In 2024, we focused on solidifying the systemic changes made in policies and employee benefits to ensure a fair and inclusive workplace for all and established a new ERG in India. External assessments on LGBTQ+ inclusion were used to track progress and identify areas for improvement. Advocacy events were hosted in Poland and Switzerland. Furthermore, we marked International Women in Engineering Day by highlighting stories of women engineers and their contributions.

We marked World Youth Skills Day at ABB by showcasing inspiring stories and programs. International Youth Day was marked alongside Jürgen Dormann Foundation Day by welcoming a cohort of young professionals to Zurich to meet leaders.

“MeQ,” a dedicated application for line managers, was rolled out as a tool for psychological safety and accommodation to all employees. Working groups were formed to understand the needs of accommodation, accessibility and diverse talent acquisition. In November, our new DEI Policy went live.

Our partnerships on DEI include Catalyst, WeQual, the Society of Women Engineers, WorkplacePride Open for Business and the Global Summit of Women.

INTEGRITY-RELATED ACTION TO PROTECT EMPLOYEES

With regard to integrity, we have updated our country policies for anti-bullying, anti-discrimination and grievances in all our key jurisdictions to reflect current legal standards and our commitment to a workplace that encourages a “speak-up” culture. We have also introduced new guidance for social events.

We have strengthened our investigation and remediation processes to ensure consistent and effective case and consequence management. These processes provide for a zero-tolerance approach to discrimination and harassment. Additional resources have been provided for investigating and responding to complaints about poor workplace behaviors, including frameworks and procedures governing our workplace behavior investigative and disciplinary decision-making processes.

TRACKING THE EFFECTIVENESS OF OUR APPROACH

To track the effectiveness of our actions in support of DEI, we track metrics including the inclusion score in the annual employee Engagement Survey, data on the growth of ABB-affiliated ERGs, the proportion of employees receiving DEI training and our early talent and leadership statistics. We have set four DEI targets to achieve by 2030. One is to increase the proportion of women in senior management roles to 25 percent. In 2024, the proportion of female senior managers increased to 21.3 percent, up from 21.0 percent in 2023.

Further details on processes for engaging with our own workforce can be found in the section on stakeholder dialogue in the chapter “Sustainability at ABB” at the beginning of this Sustainability Statement.

Facts & figures

Own employees

S1-6: EMPLOYEE STATISTICS

ABB reports employees by headcount, counting each individual with an employment contract and being on the payroll of an ABB company, regardless of work percentage (e.g., 0.5 FTE counts as one). This approach highlights the human impact in sustainability KPIs but differs from financial reporting, which uses FTE calculations to align with efficiency metrics. As a result, employee numbers may vary between the Sustainability Statement and the Financial Report.

Headcount by region

Region	2024	2023*
Europe	53,597	52,723
The Americas	27,210	26,437
Asia, Middle East and Africa	31,962	31,282
Total	112,769	110,442
Average	112,280	

*Comparatives not shown unless already reported in the 2023 Sustainability report.

Headcount by gender

Gender	Number of employees (headcount)	
	2024	2023*
Male	81,407	79,798
Female	31,361	30,644
Other	—	
Not reported	1	
Total Employees	112,769	110,442

*Comparatives not shown unless already reported in the 2023 Sustainability report.

Countries where ABB has at least 50 employees representing at least 10 percent of the total number of employees

Country	Number of employees (headcount)	Average number of employees
USA	14,127	13,837
China	12,523	12,549

Turnover rate	2024	2023*
Total number of employees who left during the reporting period	15,538	
Rate of employee turnover during the reporting period	14%	15%

*Comparatives not shown unless already reported in the 2023 Sustainability report.

S1-9: DIVERSITY METRICS

Gender (top management)	Number		Percentage	
	2024	2023*	2024	2023*
Male	410		78.7%	79.0%
Female	111		21.3%	21.0%

*Comparatives not shown unless already reported in the 2023 Sustainability report.

The gender distribution in percentage of employees at top management level is calculated by dividing the number of female active employees at top management level based on dominant position and headcount, excluding externals, by the number of active employees (headcount, male and female) at top management level. For this calculation, the dominant position is defined as the role where an employee spends the highest percentage of their time, as recorded in the HR Group Tool, in cases where an individual holds multiple roles.

At ABB, top management level is considering Hays grades 1–7, including division presidents. Division presidents have grades A, B, C and have previously been included in grades 3-6. Gender is considered as a person's legal sex rather than gender identity, due to HR system constraints.

Age (all employees)	Percentage	
	2024	2023*
Under 30	20%	
30-50	55%	
> 50	25%	

*Comparatives not shown unless already reported in the 2023 Sustainability report.

S1-14: HEALTH AND SAFETY METRICS

	Employees		Non-Employees		Other workers	
	2024	2023*	2024	2023*	2024	2023*
The percentage of people covered by ABB's health and safety	100%		100%			
Number of fatalities as a result of work-related injuries	2	—	—	—	—	1
Number of work-related accidents	320		18			
Rate of work-related accidents	1.46		1.46			
Number of cases of recordable work-related ill health	8		—			
Number of days lost to work-related injuries, accidents, ill	3,824		196			

*Comparatives not shown unless already reported in the 2023 Sustainability report.

Lost-time injury frequency rate (LTIFR)

	2024 (assured)	2023
Lost-time injury frequency rate (LTIFR)	0.15	0.13

For the calculation of the LTIFR, we used the following formula (for 200,000 hours): (number of lost time workplace-related incidents , total employees and contractors,*200,000)/employee and contractor total hours worked.

S1-17: DISCRIMINATION AND HARASSMENT INCIDENTS

Number of reported incidents of discrimination and harassment in 2024

	All reported incidents
Discrimination and harassment incidents reported	515

To identify discrimination and harassment incidents, ABB relied on its current reported incident categorizations, which were designed to capture the broad range of incidents that personnel may raise related to discrimination, harassment, and bullying, and as such they may capture a broader range of incidents than discrimination and harassment based on protected characteristics set out in our Code of Conduct. ABB is considering potential refinements to its reported incident categorizations to facilitate more precise reporting of ABB's incidents in future reporting periods. In 2024, we report the number of harassment and discrimination incidents received during 2024 without regards to levels of substantiation. The 2023 calculation reflected discrimination and harassment incidents that were logged as meeting substantiation thresholds in place in 2023.

In 2024, no severe human rights incidents connected to our workforce have occurred.

SOCIAL PROTECTION IN THE VALUE CHAIN

Involvement of value chain workers

The employees of our suppliers and service providers contribute their share to ABB's sustainability value proposition and benefit from protection against risks associated with their work for us.

The ESRS wording "Workers in the value chain" as an element of sustainability reporting refers to the employees of our value chain partners and how we involve them in our sustainability management. The objective is to ensure that they contribute to ABB's sustainability targets and to protect them from any potentially negative impacts of the work they do as part of the ABB value chain.

SBM-3: MATERIAL IROs AND THEIR INTERACTION WITH STRATEGY AND BUSINESS MODEL

The type of workers in our entire upstream and downstream value chain is diverse. It can include workers in raw materials and minerals extraction and processing, employees in factories, contractors at sites and workers in logistics and distribution. These different groups of workers might also include workers from vulnerable groups, such as migrant workers, young people or women.

ABB is committed to support and respect human rights and labor standards, and to comply with internationally recognized standards, laws and regulations, including the elimination of modern slavery and child labor, as well as the right to work under fair and safe conditions. It encompasses access to fair wages, the right to freedom of association and collective bargaining, and respecting the rights of communities and individuals when providing security for people and assets. We also recognize our responsibility to promote an organizational culture that supports human rights and to respect and promote human and labor rights along our value chain. This includes assessing and monitoring any human rights risks that customers, suppliers, business partners and other parties directly linked to ABB operations, products and services might present.

In our value chain, there is a potential risk of negative impacts on individuals, including the risk of modern slavery and child labor. In addition, health and safety risks can occur in mining, when workers face unsafe conditions. Chemicals and heavy machinery usage in upstream processes can also pose health risks to workers.

To make ABB's IROs better understood, we performed a DMA in 2024. The DMA identified 16 IROs, of which 15 were impacts and one an opportunity. No material risk was identified. Eight IROs were identified in the upstream value chain, three in the downstream, and five in both. The opportunity is also in the upstream value chain and refers to the improvement of human rights due diligence through the use of software tools that help to improve compliance by verifying a company's performance in this area before becoming an ABB supplier.

Of the 15 impacts, 10 were regarded as actually positive, two as actually negative, and three as potentially negative. The actually positive impacts include programs to counteract workers losing jobs due to automation, ABB's position against violence and harassment across the value chain, fostering a physically and mentally safe environment with positive working conditions. Our Sustainable Supply Base Management (SSBM) Program, audits and assessments, our active membership of the Responsible Minerals Initiative, alongside our complaint system for value chain workers and associated policies and trainings, demonstrate our commitment to the safety and wellbeing of all individuals in our value chain and foster the positive impact on value chain workers.

Negative impacts identified include the fact that physical work in raw material extraction (such as mining) can expose workers to unhealthy and dangerous working conditions. The same upstream processes can expose workers to instances of modern slavery, human trafficking or child labor.

— Supplier-related policies

S2-1: POLICIES

ABB uses several policies and procedures to manage its impact on workers in the value chain. Some of them are overarching documents that apply to more than one topical chapter of this Sustainability Statement. These can be found at the end of the chapter "Sustainability at ABB" and include the ABB Way, the ABB Supplier Code of Conduct, and the Human Rights Policy & Human Rights Due Diligence Framework. More specific policies are outlined below.

SUSTAINABLE SUPPLY BASE MANAGEMENT REQUIREMENT

The SSBM program is our way to verify compliance with the Supplier Code of Conduct and to fulfill the company's legal due diligence obligations. This document establishes our minimum requirements to be met for the SSBM program, unless legislation and/or local regulations impose a higher standard, in which case that higher standard shall be followed. The SSBM program requires our divisions to verify the sustainability compliance of new suppliers. Besides, they shall perform supplier assessments following a five-year cycle to ensure compliance with the requirements. Divisions are required to ensure the implementation of the SSBM within their organization and to allocate sufficient budget to it, including training for suppliers. This document is complemented by the Sustainable Supply Base Management ACOP (see below). Of the 16 IROs defined in this field, 12 from across all defined areas are covered by this policy.

The SSBM Requirement applies to all external suppliers. The most senior level that is accountable for the implementation of the policy is the division presidents. There are no specific third-party standards or initiatives referenced in this policy. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. This is an internal document that is accessible via the internal network to all employees.

SUSTAINABLE SUPPLY BASE MANAGEMENT ACOP

Our Sustainable Supply Base Management Approved Code of Practice (ACOP) provides practical advice and guidance on the approved and recommended methods to ensure that our operations comply with the ABB Way. The ACOP addresses 12 of the 16 IROs identified in this field across all areas. This policy determines the coverage of the SSBM program and its targets, KPIs and the external reporting requirements. Furthermore, it lays out the detailed program approach. There is a description of the audit process, and the country-specific assessment is explained in detail.

This ACOP is applicable to all suppliers, including direct and raw material suppliers, indirect materials and services suppliers, as well as transport, trade and logistics suppliers. The most senior level that is accountable for the implementation of the policy is the division presidents. There are no specific third-party standards or initiatives referenced in this policy. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. This ACOP is an internal document that is accessible via the internal network for all employees.

ABB POLICY ON CONFLICT MINERALS

Responsibly sourcing conflict minerals and other minerals of concern is part of our responsible sourcing commitment. This is also reflected in the ABB Policy on Conflict Minerals. We have established a Conflict Minerals Program based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High-Risk Areas, and other international standards. Within this program, we continue our work to understand and limit our exposure to conflict minerals (tantalum, tin, tungsten, and gold, or “3TG”), as defined by Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act and EU Directive 2017/821. We request information from our suppliers on the source of these minerals and other minerals of concern, such as cobalt, and work with them to avoid sourcing from smelters or refiners (SORs) in the covered countries (the Democratic Republic of the Congo and neighboring countries) and conflict-affected and high-risk areas (CAHRAs), other than those that have implemented OECD-aligned programs. We actively work with our suppliers to ensure that any minerals contained in the products and materials supplied to ABB originate from conflict-free sources and to transition away from smelters and refiners that have been defined as high-risk.

This is a globally applicable policy that addresses both internal (purchasing departments) and external stakeholders (suppliers). The most senior level that is accountable for the implementation of the policy is the division presidents. The policy is based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. This policy is publicly available on ABB’s corporate website for our internal and external stakeholders including suppliers and business partners. It is also available on our internal communications channels.

FURTHER HUMAN RIGHTS COMMITMENTS

For human rights policy commitments including labor rights of value chain workers and the provision of remedy for human rights impacts, see policy descriptions above and at the end of the chapter “Sustainability at ABB”, in particular for the Human Rights Policy & Human Rights Due Diligence Framework.

The themes of trafficking in human beings, forced labor, compulsory labor and child labor are all addressed in the ABB Supplier Code of Conduct. In 2024, four concerns of this nature relating to supply chain providers were identified. Two remain under review, and two concerns were not substantiated.

We support and respect the principles contained within the UN Guiding Principles on Business and Human Rights (UNGPs), the OECD Guidelines for Multinational Enterprises and the 10 principles of the United Nations Global Compact (UNGC) on Human Rights, Labor, Environment and Anti-Corruption, as well as applicable laws and principles in the areas of human rights and decent work. Our Supplier Code of Conduct is based on, among other international standards, the International Bill of Human Rights, the UNGPs, the International Labour Organization’s (ILO) Declaration on Fundamental Principles and Rights at Work, the United Nations Global Compact (UNGC), the Rio Declaration on Environment and Development, the UN Convention Against Corruption, the Convention on Biological Diversity, the UN Framework Convention on Climate Change (UNFCCC), the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Stockholm Convention on Persistent Organic Pollutants (POPs) and the Minamata Convention on Mercury.

With respect to child labor, these frameworks and standards include those which the Swiss Ordinance on Due Diligence and Transparency in relation to Minerals and Metals from Conflict-Affected Areas and Child Labor (DDTrO) specifies as internationally recognized equivalent regulations. As a result of our adherence with these frameworks and standards, we are exempted from specific due diligence and reporting obligations under the provisions of the Swiss Code of Obligations (Art. 964j–l CO) and the DDTrO respectively with regard to child labor.

— Engaging with value chain workers

S2-2: ENGAGING ABOUT IMPACTS

To address human rights risks related to our suppliers, we rely on our SSBM program and our responsible minerals management program (see chapter “Good business conduct”).

We aim for trusting and stable relationships with the entities that provide products and services to ABB, including equipment and human resources.

Depending on the concrete subject and initiative, we engage directly with workers in the value chain or with legitimate representatives or through their employers by:

- monitoring through our SSBM program,
- on-site evaluations and audits,
- procurement management,
- providing training and engaging in special projects on sustainability performance,
- town hall and supplier day events.

The perspective of value chain workers, gathered through the various engagement mechanisms are systematically integrated into the development of action plans and the management of identified actual and potential impacts.

A specific example are the worker interviews, conducted as part of the SSBM program. If any discrepancies are identified with the requirements of our Supplier Code of Conduct or with local legislation, such as excessive work in overtime, not providing the right personal protective equipment for personnel or other labor rights violations, the supplier is required to create a Corrective and Preventive Action Plan to solve the non-compliance within agreed timelines.

We work directly with Tier 1 and some Tier 2 suppliers. Via the Responsible Minerals Initiative, of which we are an active member, we reach suppliers in the upper part of our supply chain, typically Tier 4-6 suppliers. Interactions happen with different frequencies, depending on the topic, the type of supplier and tier in the supply chain. We will explore options to further increase visibility beyond Tier 1.

Our engagement with value chain workers is governed by our Human Rights Policy and Due Diligence Framework. The SSBM program is how we conduct this due diligence in our supply chain. Division presidents are accountable for executing this program.

Channels to raise concerns

S2-3: REPORTING COMPLAINTS

Our reporting and allegation management processes are available to internal and external stakeholders to address violations of our Code of Conduct, the Supplier Code of Conduct or other ABB policies, as well as applicable laws, including matters relating to human rights. In case of violation of human rights or our (Supplier) Code of Conduct, we take steps to apply remediation and consequences in line with applicable contracts and laws. The Supplier Code of Conduct explains the procedure and links to the integrity portal on our website, which includes various reporting channels.

Reports are received and processed by an independent service provider, who forwards the report to a dedicated investigations team within the Legal & Integrity function at ABB headquarters or, in EU countries where required by law, to a local representative of the chosen ABB partner company. All reports are subject to appropriate review and are brought to closure using systematic processes and tracking.



PROTECTING VULNERABLE COMMUNITIES



Impacts and opportunities

SBM-3: MATERIAL IROS AND INTERACTION WITH STRATEGY AND BUSINESS MODEL

ABB's activities impact communities along its value chain. These communities consist of people living or working in the vicinity directly impacted by our operations as well as those affected indirectly through our value chain, irrespective of the distance between these communities and our operations.

ABB's DMA revealed eight IROs in the communities field, of which one was an opportunity, four were potentially negative impacts and three were actual positive impacts. There were no material risks identified.

Potentially negative impacts can arise through environmental pollution and operation or transportation nuisances. Some minerals in our products, such as cobalt, gold, tin, tantalum and tungsten have a high likelihood of being sourced from conflict-affected and high-risk areas. These activities are mainly related to our upstream value chain.

We also contribute to positive impacts on communities, by creating local economic value. Forming partnerships with aligned companies and stakeholders enables us to grow as a company, which also benefits our upstream and downstream value chains.



Community-related targets

S3-5: TARGETS

Targets	Baseline	2023 status	2024 status (assured)
SOCIAL PROGRESS			
Expand programs for community engagement	n.a.	As part of the improvement process started in 2022, in 2023 we assessed our community engagement positioning and revised and expanded the scope of action, now focused on education, emergency and disaster relief, community empowerment, and environment and conservation.	In 2024, we released internal guidelines to formalize the company's community engagement strategy and provide direction on developing projects aligned with our Sustainability Agenda and our Four Focus Areas (4Es) of intervention.

Community-related policies

S3-1: POLICIES

ABB uses several policies and procedures to manage its impact on affected communities. Some of them are overarching documents that apply to more than one topical chapter of this Sustainability Statement. These can be found at the end of the chapter "Sustainability at ABB" and include the ABB Way, the Sustainability Policy, the ABB Code of Conduct and Supplier Code of Conduct, and the Human Rights Policy & Human Rights Due Diligence Framework. One more specific policy is outlined below.

ABB POLICY ON CONFLICT MINERALS

Responsibly sourcing so-called conflict minerals and other minerals of concern is part of our responsible sourcing commitment. This is also reflected in the ABB Policy on Conflict Minerals. We have established a Conflict Minerals Program based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High-Risk Areas and other international standards. Within this program, we try to understand and limit our exposure to conflict minerals (tantalum, tin, tungsten and gold), as defined by Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act and EU Directive 2017/821. We request information from our suppliers on the source of these minerals and work with them to avoid sourcing from smelters or refiners (SORs) in the covered countries and conflict-affected and high-risk areas, other than those that have implemented OECD-aligned programs.

This is a globally applicable policy that addresses both internal (purchasing departments) and external stakeholders (suppliers). The most senior level that is accountable for the implementation of the policy is the division presidents. The policy is based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. This policy is publicly available on ABB's corporate website for our internal and external stakeholders including suppliers and business partners. It is also available on our internal communications channels.

FURTHER HUMAN RIGHTS COMMITMENTS

Both the ABB Human Rights Policy & Human Rights Due Diligence Framework and the ABB Policy on Conflict Minerals focus specifically on human rights aspects and have been developed on the basis of internationally acknowledged frameworks such as the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and the UN Guiding Principles on Business and Human Rights. These policies are designed to protect communities broadly, with indigenous peoples recognized as an essential part of those they aim to support, even if not explicitly mentioned.

With respect to child labor, the international frameworks and standards referenced in the aforementioned ABB policies include those which the Swiss Ordinance on Due Diligence and Transparency in relation to Minerals and Metals from Conflict-Affected Areas and Child Labor (DDTrO) specifies as internationally recognized equivalent regulations. As a result of our adherence with these frameworks and standards, we are exempted from specific due diligence and reporting obligations under the provisions of the Swiss Code of Obligations (Art. 964j-I CO) and the DDTrO respectively with regard to child labor.

Addressing potential violations

S3-3: CHANNELS AVAILABLE TO RAISE CONCERNS

Our reporting and allegation management processes are available to internal and external stakeholders to address any potential violations of our Code of Conduct, the Supplier Code of Conduct or other ABB policies, as well as applicable laws, including matters relating to human rights. In case of any violation of human rights or our (Supplier) Code of Conduct, we take steps to ensure adequate remediation and consequences in line with applicable contracts and laws. The Supplier Code of Conduct explains the procedure and links to the integrity portal on our website, which includes various reporting channels.

Reports are received and processed by an independent service provider who forwards the report to a dedicated investigations team within the Legal & Integrity function at ABB headquarters or, in EU countries where required by law, to a local representative of the chosen ABB partner company. All reports are subject to appropriate review and are brought to full closure using systematic processes and tracking systems.

PROTECTING CONSUMERS

Management of consumer-related risks

SBM-3: MATERIAL IROs AND THEIR INTERACTION WITH STRATEGY AND BUSINESS

Working primarily with industrial customers, ABB has only limited direct or indirect touchpoints with consumers.

When analyzing our material IROs in the course of the 2024 DMA, we identified eight IROs in the consumer and end-user field. Of these, four were impacts and four risks. All four impacts were located in the downstream value chain. Two of them were identified as actually positive. Consumers and end-users benefit from our focus on privacy and our aim to provide a transparent and ethical approach to data handling. This commitment enhances customer satisfaction, loyalty and brand perception.

Also, providing access to quality information empowers consumers and end-users to make informed decisions, leading to better choices and confidence in the product and value chain involved. The other two impacts were assessed as possibly negative. Both are safety related, when safety incidents with our products lead to health accidents or when product misuse impacts “vulnerable” users. Strong safety measures for the use-phase of our products and clear instructions can mitigate the risk of safety incidents for customers.

The four risks primarily arise within the upstream and downstream value chains, with one also directly impacting our own operations. For instance, in the e-mobility sector, when ABB products are connected to low-quality, non-ABB chargers, it poses challenges to our reputation and reliability, highlighting the importance of maintaining high standards across all touchpoints. Risks related to information security in the value chain include potential external attacks with ransomware when an incident is not discovered or remediated in a timely manner or if cyber-attacks result in significant loss claims by customers.

Consumer-related policies

S4-1: HUMAN RIGHTS POLICY AND DUE DILIGENCE FRAMEWORK

The ABB Human Rights Policy endeavors to ensure that all of our stakeholders including consumers and end-users are treated with respect and fairness at all times. With regard to consumers and end-users affected, the human rights issues that are covered by this policy include:

- Environmental issues impacting human rights
- Health and safety
- Information security and data privacy

The policy and the associated Human Rights Due Diligence Framework are described at the end of the chapter “Sustainability at ABB”.

POLICY IN DEVELOPMENT

ABB is in the process of developing a specific consumer-related procedure, which will address the material IROs outlined above. It was not yet completed by the end of the reporting year.

Processes and channels for raising concerns

S4-3: PROCESSES CHANNELS TO RAISE CONCERNS

ABB's reporting and allegation management processes are available to internal and external stakeholders to address any potential violations of ABB's Code of Conduct or other policies, as well as applicable laws, including matters relating to human rights. In case of any violation of human rights or our Code of Conduct, we take steps to ensure adequate remediation and consequences in line with applicable contracts and laws.

Reports are received and processed by an independent service provider who forwards the report to a dedicated investigations team within the Legal & Integrity function at ABB headquarters or, in EU countries where required by law, to a local representative of the chosen ABB partner company. All reports are subject to appropriate review and are brought to full closure using systematic processes and tracking systems.

A low-angle, upward-looking photograph of several modern skyscrapers with glass facades. The buildings are reflected in each other, creating a complex pattern of blue and white. The sky is a pale, clear blue. The perspective makes the buildings appear to converge towards the top of the frame.

03

GOVERNANCE INFORMATION

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Good business conduct

GOOD BUSINESS CONDUCT

Ethical business practices

ABB's Sustainability Agenda is underpinned by a culture of integrity and transparency that we aim to embed across the value chain. We see integrity as part of our license to operate and we are committed to the highest standards of ethical business conduct and professional behavior.

GOV-1: ROLE OF THE ADMINISTRATIVE, SUPERVISORY AND MANAGEMENT BODIES

At ABB, we are working to maintain ethical business practices and systematic risk management that addresses environmental, social and legal risks. For us, ethical business behavior and good governance as well as transparency and integrity, are critical in our commitment to anti-corruption, fair competition and compliance with legal obligations within ABB and towards stakeholders.

Another vital component of our approach to corporate and sustainability governance is our regular review of the relevant processes as well as thorough due diligence. We take care to disclose our tax practices and corresponding payments and to design responsible and fair remuneration practices.

We are always seeking new ways to enhance our sustainability governance structure so that sustainability is given appropriate consideration at all levels, from the Board of Directors to the operating departments.

MANAGEMENT ROLES IN MATTERS OF BUSINESS CONDUCT

Our management and corporate governance structure play a pivotal role in ensuring ethical behavior, integrity and compliance with laws and regulations across all business interactions and operations. The Board of Directors holds ultimate accountability for compliance and integrity matters in accordance with Swiss law and other relevant laws and regulations.

The Finance, Audit and Compliance Committee of the Board of Directors supports the Board by overseeing the Group's adherence to legal and regulatory requirements, providing oversight of the integrity program and reviewing material changes to policies related to integrity.

The Chief Integrity Officer, reporting directly to the Group General Counsel, is responsible for implementing, managing and continuously enhancing our integrity program. This includes overseeing the evaluation and design of policies and procedures, resources, learning and communications, and related controls.

Other integrity and business conduct-related enterprise level controls are managed in collaboration with the Group General Counsel and management, including a focus on the top-down commitment of senior and middle managers to the integrity program and Code of Conduct. This comprehensive governance framework allows us to align with best practices in ethical business conduct and professional behavior.

Our administrative, management and supervisory bodies possess extensive expertise in business conduct matters, ensuring robust governance and compliance across the organization. The Board of Directors includes members with diverse backgrounds in business management and cultural experience, enabling them to apply informed judgment on ethical behavior, integrity and anti-corruption governance.

The FACC is composed of individuals with high-level expertise in overseeing compliance with legal and regulatory requirements. The Group General Counsel, who has accountability for ABB's legal function, works closely with the Chief Integrity Officer to support our integrity and regulatory affairs compliance efforts.

The Chief Integrity Officer, appointed in consultation with the Group Executive Committee and the FACC, leads the day-to-day oversight of compliance with applicable laws and our integrity program.

Additionally, the Heads of Integrity in respect of each business area provide strategic leadership on legal and integrity matters to the businesses, ensuring that our integrity and compliance risks are effectively managed from Group level down into each business area. Each of the Heads of Integrity are familiar with the different activities and functions of their own business area, together with their business colleagues, and therefore possess the requisite knowledge of their own products and customers to effectively manage and address business conduct risk.

This collective expertise ensures that our administrative, management and supervisory bodies are well-equipped to adhere to best practice in ethical business conduct.

— Materiality

IRO-1: DETERMINATION OF MATERIAL TOPICS

We manage and report on sustainability for many years and have a solid approach to governing the topic. To ensure alignment with the CSRD and ESRS, we performed a DMA in 2024. For more information on the process, see the chapter "Sustainability at ABB".

Our 2024 DMA revealed 15 material IROs in the business conduct field. Of these, 11 have been categorized as impacts, one as a risk and three as opportunities.

Our business conduct impacts, rooted in corporate governance and ethical practices, are vital for our social license to operate and sustainable growth. Ethical business conduct, transparency, prevention of corruption and bribery, a strong whistleblower system and regulatory compliance are key. Because these fall mainly in our own management responsibility, seven of our 11 identified impacts are located in our own operations, the other four in the upstream or downstream value chains. As we have a robust system of ethical standards, policies and management systems, our DMA has identified these impacts mainly as actually positive (five) or potentially positive (one) and only one as an actually negative impact. This latter IRO is our management of supplier relationships: there would be a negative impact on the environment if we had no consideration of environmental criteria in our material sourcing. A lapse such as this could lead to legal risks, financial penalties and brand damage. The potentially positive impacts relate to, for example, the benefit for our stakeholders of behaviors at ABB that support transparent and sustainable business practices, or mandatory compliance trainings aimed at preventing corruption and bribery, or tax payments used by governments to fund public infrastructure and public services. A positive impact on our value chain is, for example, that our due diligence and risk management framework reduces the risk of misconduct.

The one risk identified in the 2024 DMA concerns our own operations. It relates to employees not following the ethical guidelines of our ABB Way, which may lead to new integrity cases and potentially serious financial and reputational exposure, blacklisting or loss of business opportunities. Our integrity culture needs to be promoted especially among managers and gatekeeper roles (finance, supply chain management) and in some geographic areas.

Business conduct-related policies

Our opportunities build on transparency and ethics that can build trust, combat corruption and limit financial risks, contributing to a better world. Internally, our competitive salary structure serves the better availability of talented employees, so that work is done well and on time. Thus, we can hope for lower costs for recruiting new employees, deploying temporary staff and absenteeism.

G1-1: CORPORATE CULTURE AND BUSINESS CONDUCT POLICIES

ABB uses several policies and procedures to manage its business conduct. Some of them are overarching documents that apply to more than one topical chapter of this Sustainability Statement. These can be found at the end of the chapter “Sustainability at ABB” and include the ABB Way, the Sustainability Policy, the Code of Conduct, the Supplier Code of Conduct and the ABB Human Rights Policy & Human Rights Due Diligence Framework. More specific policies are outlined below.

SUSTAINABILITY RISK MANAGEMENT POLICY

The Sustainability Risk Management Policy outlines the key principles we apply to manage sustainability risks. Among other things, it aims to:

- support the delivery of our Sustainability Agenda through proactive risk management of sustainability risks across the value chain and build organizational resilience to withstand and adapt to sustainability-related disruptions and challenges;
- provide an overview over how sustainability risks are managed across the Group to support the achievement of strategic and business objectives;
- offer consistent terminology within the scope of sustainability risk management based on environmental, social and governance risk definitions;
- support compliance with various sustainability risk management regulatory requirements such as the ESRS; and
- outline key governance as well as roles and responsibilities over the management of sustainability risks.

This policy addresses four of the 15 IROs relevant to business conduct, in particular those that refer to environmental risks including the value chain.

The policy is mandatory for the entire ABB Group and therefore applies to all legal entities, sites and businesses, including joint ventures, consortia, working partnerships and third-party service providers under our management control. It applies across all business areas, divisions and corporate functions. The most senior level that is accountable for the implementation of the policy is the division presidents. There are no third-party standards referred to in this policy. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. It is an internal policy that is accessible to all employees via the internal network.

SUSTAINABILITY REPORTING POLICY

The objective of the Sustainability Reporting Policy is to establish the rules, requirements, roles and responsibilities related to sustainability reporting to enhance the transparency and credibility of our sustainability performance. It also describes the implementation approach to ensure we can provide accurate and consistent sustainability information to our stakeholders. The policy stipulates that all sustainability data published in ABB’s Sustainability Statement adhere to the minimum reporting principles in alignment with ESRS, namely relevance, faithful representation, comparability and consistency, verifiability, and understandability. It explains the sustainability reporting governance at ABB and gives details about the roles and responsibilities involved in the reporting process. This policy does not address any IROs in the business conduct field.

This policy is mandatory for the entire ABB Group, therefore applies to all employees and all legal entities of the Group, joint ventures, consortia, working partnerships, leased assets, entities under operational control and third-party service providers under our management control. The scope of this policy covers the disclosures required by regulatory requirements as well as those related to the Sustainability Agenda and voluntary standards to which we have committed. The most senior level that is accountable for the implementation of the policy is the division presidents. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. It is an internal policy that is accessible to all employees via the internal network.

ABB POLICY ON CONFLICT MINERALS

To ensure that our products do not contain so-called conflict minerals which have been sourced from mines that support or fund conflict within the Democratic Republic of Congo or adjoining countries, we have implemented a Policy on Conflict Minerals. In partnership with our suppliers, we are committed to using in our products only tin, tungsten, tantalum or gold that have been legally and ethically sourced. The policy addresses mainly the impact-related IROs among the 15 material IROs in this field and those relating to the upstream value chain.

The policy applies to all ABB employees and suppliers. The most senior level that is accountable for the implementation of the policy is the division presidents. With this policy, ABB complies with section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. It is also based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High-Risk Areas and other appropriate international standards. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. This policy is a public document and therefore accessible to all internal and external stakeholders via the internet.

TAX POLICY

As part of our commitment to the highest standards of corporate governance and responsibility, we apply great care to the management of tax affairs, which is outlined in our Tax Policy. Our approach is to comply with the letter and the spirit of applicable tax laws and regulations in the countries where we operate. The Tax Policy outlines the role of the tax function at ABB and explains our Tax Control Framework. It covers one of the 15 IROs in the business conduct field (contributing with a positive impact to local economy). The related ABB Tax Control Framework follows a yearly structured approach with respect to how tax risks are identified, managed and monitored.

The policy applies to all ABB companies and employees dealing with tax matters. The most senior level that is accountable for the implementation of the policy is the Chief Financial Officer. Relevant internal and external stakeholders are expected to benefit from the implementation of this policy. This policy is a public document and is therefore accessible to all internal and external stakeholders via the internet.

WHISTLEBLOWING AND REPORTING CHANNELS

All ABB employees, contractors, suppliers, customers and other stakeholders are strongly encouraged to promptly and in good faith report any concerns of possible improper conduct, breaches of the law, and/or the Code of Conduct or other ABB policies. There are a number of channels that allow stakeholders to report integrity concerns or other behavior that may be in contradiction of our Code of Conduct. Such channels allow reports to be made anonymously or otherwise, without fear of retaliation. The process is designed to protect the confidentiality of reporters and the reporting and resolution process. Reports can be made by internal stakeholders either directly to ABB managers or members of the Legal & Integrity team or via the ABB Business Ethics Helpline. The Helpline is also accessible to external stakeholders. We have robust reporting and allegation management processes in place to investigate incidents reported into our Business Ethics Helpline, including those related to corruption and bribery, promptly, independently and objectively. These procedures are in accordance with EU Directive 2019/1937. We established a dedicated specialist investigations team known as the Integrity Investigations and Monitoring (IIM) team. This team is responsible for carrying out thorough investigations into the highest-risk business conduct reported incidents, ensuring that all reports are handled with appropriate confidentiality and protections, as well as overall administration of the company Business Ethics Helpline. We have additional dedicated investigations teams in each business area responsible for other workplace and business conduct reported incidents. We have a commitment to non-retaliation in relation to whistleblowing and employ a real-time case dashboard to ensure continuous monitoring of Business Ethics Helpline reported incidents.

BUSINESS CONDUCT TRAINING

Our integrity training program is designed to ensure that all employees are familiar with and capable of conforming to our Code of Conduct and ethical standards. During onboarding, all employees are given access to these trainings and are required to complete a core set of business conduct-related trainings focussed on the Code of Conduct as well as disclose any potential conflicts of interest.

All employees have access to the training program, and there is a specific focus on those in customer-facing roles such as Sales and Procurement, as well as gatekeeper functions like Legal and Finance. The training is comprehensive and continuously updated, offering over 130 micro-learnings, bespoke content and short videos some of which are available in multiple languages. We employ a hybrid learning approach that includes both self-driven and mandatory learnings, supplemented by face-to-face sessions for targeted audiences.

Employees are encouraged to engage in continuous self-learning, with the training content tailored to the specific risks relevant to their roles. This approach ensures that employees are not only completing the training but are also applying the knowledge in their daily tasks. Additionally, we conduct regular global communications and micro-learnings about culture, behavior expectations and resources, including monthly sharing of internal integrity successes and failures. This continuous learning strategy is underpinned by employee accountability and fraud prevention awareness, fostering a culture of integrity and ethical conduct within the organization.

Management of supplier relationships

G1-2: MANAGEMENT OF RELATIONSHIPS WITH SUPPLIERS

ABB's Supplier Code of Conduct (SCoC) complements the ABB Code of Conduct. It sets forth our requirements for suppliers. The SCoC is in line with relevant international frameworks, standards and legislation governing ethical and sustainable business practices.

The SCoC's section on "Human rights and decent work" includes specific requirements regarding child labor, modern slavery, harassment, discrimination and diversity, as well as the rights of local communities and vulnerable groups. There is also a separate section entitled "Climate and environment" and a list of potential environmental impacts on the part of suppliers. The SCoC requires suppliers to disseminate and enforce similar requirements across their own supply chains and to report any suspected violations. In 2024, we provided high-level awareness training on the updated SCoC to selected suppliers, followed by deep dive training for employees covering different SCoC topics. In 2025, we will provide deep dive training to our suppliers.

To further mitigate risks, our category management strategies include generic category risk controls, additional risk controls for geopolitical issues, material compliance changes, critical parts and material shortages. We have also implemented single-source risk management strategies. Suppliers in scope of risk management will be uploaded in our risk management tool and closely monitored.

As part of our supply chain GHG emissions reduction program, we have requested our most impactful suppliers to register in EcoVadis and get a validated scorecard. This will not only provide information on their approach and maturity related to carbon management, but also covers their performance in environment, labor and human rights, ethics and sustainable procurement.

BEYOND AUDITS

Our Sustainable Supply Base Management (SSBM) program, which addresses sustainability topics and performance at each stage of the supplier life cycle, forms part of our "Beyond Audit" approach. With the SSBM program we integrate sustainability principles into our supplier selection and qualification processes and continuously monitor suppliers during their life cycle with us. Through the program, we address topics including: human rights and decent work, health and safety, climate and environment, business ethics, business and information security, procurement, as well as report any concerns in these areas and provide access to remediation approaches. Employee interviews are an integral element of our on-site audits and assessments.

The approach is further backed by risk-based monitoring that covers a broad range of suppliers and incorporates Group-wide standards and targets. The management and implementation of the SSBM program is handled by ABB's business areas. The program is governed by a steering committee comprised of representatives from business areas and the corporate sustainability team and a working group comprised of representatives from all our divisions.

Under the SSBM program, new suppliers must complete a self-assessment. Depending on the results, further due diligence is carried out.

In 2024, we have updated the Country Specific Protocol, used for extensive assessment of existing suppliers in focus countries, to be aligned with the updated SCoC. New criteria include assessment of supplier performance in avoiding harassment, protecting local communities, executing human rights and labor rights risk assessments, performing GHG emissions and energy management, water management, and other resource management and reporting on concerns.

As part of our yearly risk review process, we have updated the list of focus countries to reflect both the changed composition of the ABB supplier base and changes in country risk levels. We also reviewed our portfolio of sourced materials and parts and have updated our commodity risk matrix.

After adjusting the SSBM Country Specific Protocol in 2023 to permit assessments of temporary labor suppliers, we continued with pilots in multiple countries. Upon carrying out audits in one pilot country in 2023, we found evidence that local labor laws were not being observed. In alignment with the ABB Human Rights Due Diligence Framework and the ABB Supplier Code of Conduct, we worked with the supplier to ensure understanding of ABB requirements, and to define and implement corrective actions. In 2024, the case was internally escalated, and a decision was taken to compensate all supplier's impacted employees linked to ABB operations and to terminate the relationship with the supplier.

To prevent or further mitigate potential negative impacts and risks related to our supply chain, we conducted a few pilot assessments at Tier 2 suppliers. We will continue with this pilot in 2025.

As reported in 2023, engagement with stakeholders at internal awareness training sessions on human rights and labor rights brought to light additional concerns related to temporary laborers at certain ABB sites. One of the cases was not substantiated. Another case resulted in supplier termination after internal escalation.

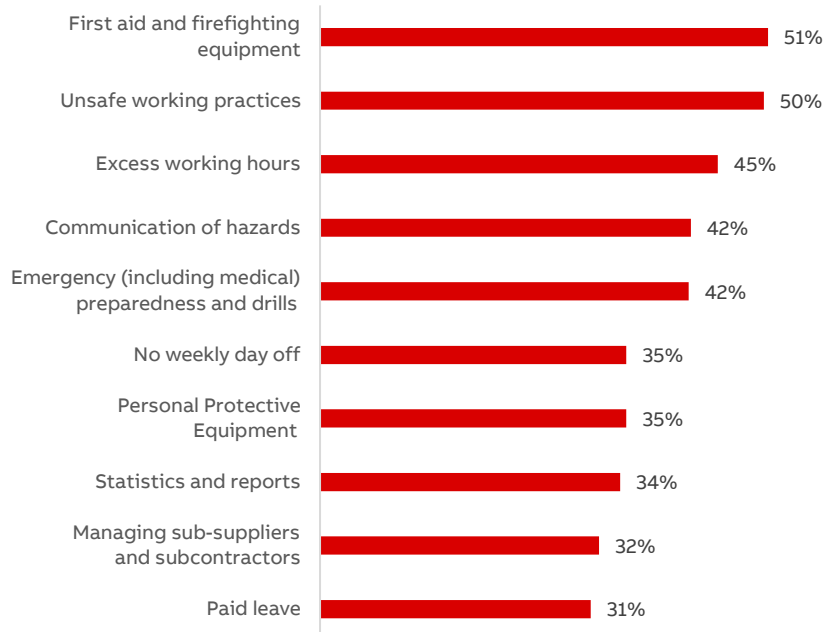
KPIs USED TO MEASURE PERFORMANCE

Targets	Baseline	2023 status	2024 status
INTEGRITY AND TRANSPARENCY			
At least 80% of supply spending in focus countries ¹ covered by Sustainable Supply Base Management (SSBM) by 2030	n.a.	Using a risk-based approach, a mid-term 2025 target has been set, focusing on high-risk suppliers in focus countries.	
At least 80% of spending on high-risk suppliers in focus countries ¹ covered by SSBM by 2025	n.a.	In 2023, we reached 42% of spending on high-risk suppliers in focus countries covered by SSBM.	At the end of 2024, 68% of high-risk supply spending in focus countries was covered by the SSBM program. (assured)

¹ Current focus countries are Brazil, Bulgaria, China, Egypt, India, Malaysia, Mexico, Saudi Arabia, South Africa, Thailand, Tunisia and Türkiye.

At the end of 2024, we reviewed the top-ten non-conformities identified during on-site assessments in the years 2021 through 2024. They are listed in the graph below. This list will inform our interventions with suppliers in 2025.

2021 - 2024 top 10 non-compliances SSBM supplier assessments



THIRD-PARTY MANAGEMENT

The SSBM program is linked to our wider Third-Party Management (TPM) program. The TPM program sets core minimum integrity requirements for the selection, onboarding, engaging, monitoring, managing and termination of relationships between ABB and third parties. It is implemented to identify, assess, monitor and manage integrity risks to which we are exposed via third-party relationships. The TPM program enables identification of risks that may have an impact on sustainability matters (e.g., anti-bribery and corruption and human rights) and could lead to regulatory, legal, financial or reputational damage. Depending on the identified risks, further due diligence is required and mitigation actions are implemented.

CONFLICT MINERALS AND OTHER MINERALS OF CONCERN

Responsibly sourcing conflict minerals and other minerals of concern is part of our responsible sourcing commitment. This is also reflected in our Policy on Conflict Minerals. We have established a Conflict Minerals Program based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High-Risk Areas, and other international standards. Within this program, we continue our work to understand and limit our exposure to conflict minerals (tantalum, tin, tungsten and gold, or “3TG”), as defined by Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act and EU Directive 2017/821. We request information from our suppliers on the source of these minerals and other minerals of concern, such as cobalt, and work with them to avoid sourcing from smelters or refiners (SORs) in the covered countries (the Democratic Republic of the Congo and neighboring countries) and conflict-affected and high-risk areas (CAHRAs), other than those that have implemented OECD-aligned programs. We actively work with our suppliers to ensure that any minerals contained in the products and materials supplied to ABB originate from conflict-free sources. We also aim to transition away from smelters and refiners that have been reported publicly for money laundering or human rights violations, with geopolitical and sourcing risks or are based in countries with country sanctions.

We continue to participate in outreach efforts to smelters and refineries through the Responsible Minerals Initiative (RMI) and its member companies. The RMI, of which ABB is an active member, is an organization working to address responsible mineral sourcing in the supply chain. In 2024, we led the RMI outreach to tin smelters in Indonesia to have them undergo the RMI’s Responsible Minerals Assurance Process (RMAP) and work on corrective action plans after completing a RMAP audit. This was followed by smelter visits in Vietnam with RMI. ABB is the single point of contact for various smelters and refiners in Asia.

In addition to carefully tracking our sources for tantalum, tin, tungsten and gold, we have expanded our survey to cover the use of other minerals in our products. Using the Extended Minerals Reporting Template developed by the RMI, we identified pinch points and conducted due diligence on our cobalt supply chains. We continue to expand our due diligence on other minerals and will start to survey our suppliers’ use of mica in 2025.

In response to the requirements established by the provisions of the Swiss Code of Obligations (Art. 964j–l CO) and the Swiss Ordinance on Due Diligence and Transparency in relation to Minerals and Metals from Conflict-Affected Areas and Child Labour (DDTrO), we have assessed our respective risk exposure and reached the following conclusions: The quantities of minerals and metals in scope of the aforementioned regulations which ABB imported into or processed in Switzerland in 2024 are substantially below applicable thresholds. Hence, ABB is exempted from specific due diligence and reporting obligations with regard to conflict minerals under the provisions of the Swiss Code of Obligations and the DDTrO, respectively.

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Anti-corruption and anti-bribery

G1-3: PREVENTION AND DETECTION OF CORRUPTION AND BRIBERY

Integrity and transparency are core to our operating model. We aim to embed integrity and transparency in everything we do.

Targets	Baseline (baseline)	2023 status	2024 status (assured)
INTEGRITY AND TRANSPARENCY			
Global framework for assessing and mitigating third-party integrity risks through risk-based due diligence and life cycle monitoring	n.a.	This target measures the implementation of a global framework for assessing third-party integrity risks. It is an ongoing and critical organization-wide, integrity-based enhancement, which strengthens how we onboard and manage the life cycle of our relationships with suppliers, sales channels and customers. Framework established and operational. Integrity due diligence and risk management enhancements for suppliers (buy-side) and sales channels (sell-side) launched globally.	Framework enhanced and implementation tested. Comprehensive monitoring and risk mitigation guidance developed. Focused on the governance of this framework to sustain its operation and risk management of legacy third party relationships, both in terms of suppliers and sales channels. Development of business specific plans to monitor and mitigate third party risks, with focus on resourcing for sustaining operation.

Global Integrity Program n.a. underpinned by accountability for integrity and an adaptive risk management strategy gained from insights through targeted learnings, transparent reporting and monitoring	This target measures the implementation and effectiveness of our Global Integrity Program through how we drive individual accountability for integrity and adapt our risk management strategy to real-time data insights gained from integrity-based learnings, reporting and monitoring.	Developed new antitrust foundation training and added new integrity training content to the integrity awareness portal. The Business Ethics Helpline and reporting capabilities have been enhanced with new case management software. Enhancements have also included the creation of a Risk Monitoring Dashboard to identify potential areas of heightened risk.
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Our culture of integrity and transparency is anchored in the ABB Code of Conduct and is strengthened by a range of other ABB policies and procedures.

The Integrity & Regulatory Affairs (I&RA) team, which is part of the Legal & Integrity function, is responsible for driving integrity enhancements that apply to all ABB functions and business areas. The team oversees a comprehensive integrity program that can adapt to risk in real time and is fit-for-purpose. The result of more than 20 years of development, the program has in recent years been significantly transformed. The integrity program is underpinned by accountability for integrity and adaptive risk management strategy from insights through targeted learnings, transparent reporting and monitoring.

Since 2023, reported incidents have been structured into the following categories (as well as more detailed subcategories within each of these) to ensure appropriate attention, resourcing, and internal escalation:

- Antitrust & fair competition
- Bribery benefiting ABB
- Commercial integrity & regulatory
- Fraud: non-self-dealing
- Fraud: self-dealing
- HSE & security
- Human resources
- Non-integrity issue
- Other integrity issue

We have seen an increase in total incidents reported to our Business Ethics Helpline since 2022. We attribute this to an increased confidence in our strengthened reporting and allegation management processes.

We have taken steps in 2024 to continue to develop our risk management systems and controls and to strengthen our integrity culture. This included enhancing our third-party management framework through comprehensive monitoring and risk mitigation guidance, as well as commencing a large-scale risk management project in relation to our legacy supplier and sales channel population. We also created new antitrust foundation training and added new integrity training content to the integrity awareness portal. Our business areas implemented tailored integrity learning programs for their staff, based on their bespoke risk management plans.

We have also improved our Business Ethics Helpline and reporting capabilities through the introduction of new case management software with increased functionality and data analytics. In 2024, we continued to strengthen our human resources teams to enforce a zero-tolerance policy towards discrimination and harassment. We empowered business area human resources teams to directly conduct investigations to increase accountability for workplace behavior within those business areas.

Risk surveillance abilities were further enhanced in 2024 with the creation of the Risk Monitoring Dashboard. This dashboard supplements the existing integrity and investigations metrics reflected in the dashboards mentioned above with additional metrics and risk scoring capabilities, to identify potential areas of heightened risk for business focus.

ANTI-BRIBERY AND ANTI-CORRUPTION PROGRAM

At ABB, we have zero tolerance for unethical business practices. Any abuse of power or trust for private gain is a breach of our ethical standards and Code of Conduct and has no place at ABB. We know that having an adaptive anti-bribery and corruption (ABAC) program, which allows us to anticipate and meet risks head-on, is critical for our organizational success. During 2024, we continued to enhance our ABAC program and to drive the ABAC framework implementation to all business areas. The ABAC framework is a conceptual overview of existing key ABAC policies, procedures and controls that have been designed and implemented across our operations to prevent, detect and respond to key ABAC risks that we face as a global organization.

To inform how we continuously develop our ABAC program, we continued to perform targeted monitoring and testing activities throughout the year. In 2024, this included the connection of new data sources to our continuous monitoring platform and the analysis of new business area, division and market-level insights. We also carried out a division-level ABAC risk assessment regarding the extent of implementation of enhanced policies, procedures and controls, and developing and monitoring data-driven dashboards fed by primary enterprise tools used for day-to-day business. Through this, we continue to identify key ABAC risks in our operations, which we are addressing through various initiatives, including targeted face-to-face and online training of our most at-risk employees.

Our global framework for managing third-party integrity risk, which was launched in 2022, is a key pillar of our ABAC program. In 2024, the framework was extended to incorporate the identification and enhanced management and mitigation of third-party integrity risks within our legacy third-party relationships for both our suppliers and sales channels. In 2025, the focus will be on extending this global framework to our new third-party population.

Building on the extensive enhancement of our third-party management program in the previous year (2023), we further reinforced our management of third-party risks through the expansion of the program to focus on our legacy third-party relationships on both the supplier and sales channel side. On the supplier side, our updated Supplier Code of Conduct (SCoC) and the SCoC Implementation Guide provide for an increased focus on business conduct on the part of all our suppliers. The program has strengthened our risk-based approach to selecting third parties and enabled more effective oversight and monitoring of their activities and overall performance across our total population of third parties.

Among the actions we took in 2024 to mitigate specific negative impacts involving our ABAC risks, we activated and worked under our first follow-up work plan for year two of the three-year Deferred Prosecution Agreement (DPA). The workplan was developed to meet the requirements of a DPA that ABB entered into as part of a settlement with the United States Department of Justice and the Securities and Exchange Commission, announced on December 2, 2022. In 2025, we will be activating and working under our workplan for the final year of the three-year DPA. The workplan is characterized by appropriate governance, a clear project management structure, change management tools, as well as resourcing. It places ownership and accountability for its activities with our business areas and divisions in keeping with the ABB Way operating model.

INTEGRITY LEARNING 2024

Overall, our integrity training program takes a hybrid approach to instruction, combining self-guided learning with bespoke, role-specific mandatory training, thereby encouraging individual ownership and accountability. It centers on the upskilling of employees in gatekeeper functions and customer-facing roles. The ABAC training program aims to enhance core ABAC competencies while highlighting the critical role these individuals play in upholding our integrity culture and compliance obligations.

In 2023, we had revisited and relaunched our Code of Conduct, promoting it through a global communications campaign led by our Executive Committee and supported by manager-led discussions, with the aim of driving a better understanding of our global policies on anti-bribery and corruption and respect in the workplace. As part of the Code of Conduct relaunch, we created a series of mandatory training modules that brought to life our expectations and covered, in particular, the workplace behavior topics such as bullying and harassment, equality and discrimination and speaking up. Our Code of Conduct has been translated into 17 languages and provided in different formats to make it accessible to office and production staff alike.

In 2024, our business areas built on the success of these training modules to develop their own tailored learnings, adapted for and specific to roles and certain at-risk areas within each business. The divisions also carried out ABAC risk assessments and used the data derived from this exercise to inform the learning strategy.

Straight Talk, an internal platform for sharing real-life integrity successes and failures at ABB, serves as a strong complement to our training program and has continued to be well received throughout the Group. We revamped the Straight Talk platform in 2024 with the addition of new content and functionality. This transparent communications tool consolidates lessons learned and supports our speak-up culture with regular messaging about our reporting channels. It also provides key leaders with comprehensive data on our investigation portfolio, helping them set the tone from the top in their team meetings.

INTEGRITY ANALYTICS

To track the effectiveness of our integrity-related initiatives, we utilize data analytics and conduct transaction monitoring. Our continuous monitoring platform is designed to detect ABAC and fraud risks by applying risk algorithms to data drawn from multiple company systems.

Our Integrity Analytics Report, a live dashboard available via our integrity web portal, provides insights into three key metrics: trust, engagement and transparency. To offer insight into ongoing and closed cases, a number of real-time and quarterly investigation dashboards are made available to the appropriate stakeholders.

In 2024, we have further enhanced our data analytics and transaction monitoring capabilities through the introduction of new data sources and the expansion of the Integrity Analytics Report to cover additional integrity-related areas such as TPM, gifts, travel and hospitality.

EU TAXONOMY: 2024 TABLES (assured)

ABB GROUP ECONOMIC ACTIVITIES 2024 IN ACCORDANCE WITH THE EU TAXONOMY

EU TAXONOMY - TURNOVER

Financial year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code ⁽²⁾	Turnover ⁽³⁾	Proportion of turnover, 2024 ⁽⁴⁾	Climate Change Mitigation ⁽⁵⁾	Climate Change Adaptation ⁽⁶⁾	Water ⁽⁷⁾	Pollution ⁽⁸⁾	Circular Economy ⁽⁹⁾	Biodiversity ⁽¹⁰⁾	Climate Change Mitigation ⁽¹¹⁾	Climate Change Adaptation ⁽¹²⁾	Water ⁽¹³⁾	Pollution ⁽¹⁴⁾	Circular Economy ⁽¹⁵⁾	Biodiversity ⁽¹⁶⁾	Minimum Safeguards ⁽¹⁷⁾	Proportion of Taxonomy aligned (A.1) or eligible (A.2) turnover, 2023 ⁽¹⁸⁾	Category enabling activity ⁽¹⁹⁾	Category transitional activity ⁽²⁰⁾
Economic activities ⁽¹⁾		\$million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. ENVIRONMENTALLY SUSTAINABLE ACTIVITIES (TAXONOMY-ALIGNED)																			
7.6 Installation, maintenance and repair of renewable energy technologies	CCM 7.6	<0.5	<0.5%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	<0.5%	E	
Turnover of environmental sustainable activities (Taxonomy-aligned activities) (A.1)		<0.5	<0.5%	0%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	6%		
Of which Enabling		—	0%	0%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	6%	E	
Of which Transitional		—	0%	0%													0%		T
A.2. TAXONOMY-ELIGIBLE BUT NOT ENVIRONMENTALLY SUSTAINABLE ACTIVITIES (NOT TAXONOMY-ALIGNED ACTIVITIES)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
3.1 Manufacture of renewable energy technologies	CCM 3.1	287	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
3.2 Equipment for the production and use of hydrogen	CCM 3.2	4	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		

Financial year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code ⁽²⁾	Turnover ⁽³⁾	Proportion of turnover, 2024 ⁽⁴⁾	Climate Change Mitigation ⁽⁵⁾	Climate Change Adaptation ⁽⁶⁾	Water ⁽⁷⁾	Pollution ⁽⁸⁾	Circular Economy ⁽⁹⁾	Biodiversity ⁽¹⁰⁾	Climate Change Mitigation ⁽¹¹⁾	Climate Change Adaptation ⁽¹²⁾	Water ⁽¹³⁾	Pollution ⁽¹⁴⁾	Circular Economy ⁽¹⁵⁾	Biodiversity ⁽¹⁶⁾	Minimum Safeguards ⁽¹⁷⁾	Proportion of Taxonomy aligned (A.1) or eligible (A.2) turnover, 2023 ⁽¹⁸⁾	Category enabling activity ⁽¹⁹⁾	Category transitional activity ⁽²⁰⁾
		\$million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
Economic activities⁽¹⁾																			
3.3 Manufacture of low carbon technologies for transport	CCM 3.3	7	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
3.4 Manufacture of batteries	CCM 3.4	44	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
3.5 Manufacture of energy efficiency equipment for buildings	CCM 3.5	212	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
3.6 Manufacture of other low-carbon technologies	CCM 3.6	1,261	4%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								3%		
3.18 Manufacture of automotive mobility components	CCM 3.18	7	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
3.19 Manufacture of rail constituents	CCM 3.19	587	2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
3.20 Manufacture, installation, and servicing of high, medium and low voltage electrical equipment for electrical transmission and distribution	CCM 3.20	11,492	35%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								27%		
4.9 Transmission and distribution of electricity	CCM 4.9	16	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
6.14 Infrastructure for rail transport	CCM 6.14	91	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
6.15 Infrastructure enabling low-carbon road transport and public transport	CCM 6.15	46	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
6.16 Infrastructure enabling low carbon water transport	CCM 6.16	316	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
8.2 Data-driven solutions for GHG emissions reductions	CCM 8.2	34	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
1.2 Manufacture of electrical and electronic equipment	CE 1.2	1,942	6%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								5%		
4.1 Provision of IT/OT data-driven solutions and software	CE 4.1	37	<0.5%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								<0.5%		
5.1 Repair, refurbishment and remanufacturing	CE 5.1	514	2%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								1%		
5.2 Sale of spare-parts	CE 5.2	771	2%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								2%		
5.3 Preparation of re-use of end-of-life products and product components	CE 5.3	—	0%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								<0.5%		

Financial year 2024	2024		Substantial contribution criteria							DNSH criteria									
	Code ⁽²⁾	Turnover ⁽³⁾	Proportion of turnover, 2024 ⁽⁴⁾	Climate Change Mitigation ⁽⁵⁾	Climate Change Adaptation ⁽⁶⁾	Water ⁽⁷⁾	Pollution ⁽⁸⁾	Circular Economy ⁽⁹⁾	Biodiversity ⁽¹⁰⁾	Climate Change Mitigation ⁽¹¹⁾	Climate Change Adaptation ⁽¹²⁾	Water ⁽¹³⁾	Pollution ⁽¹⁴⁾	Circular Economy ⁽¹⁵⁾	Biodiversity ⁽¹⁶⁾	Minimum Safeguards ⁽¹⁷⁾	Proportion of Taxonomy aligned (A.1) or eligible (A.2) turnover, 2023 ⁽¹⁸⁾	Category enabling activity ⁽¹⁹⁾	Category transitional activity ⁽²⁰⁾
Economic activities ⁽¹⁾		\$million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
5.4 Sale of second-hand goods	CE 5.4	<0.5	<0.5%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								<0.5%		
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		17,667	54%	44%	0%	0%	0%	10%	0%								40%		
A. Turnover of Taxonomy eligible activities (A.1+A.2)		17,667	54%	44%	0%	0%	0%	10%	0%								46%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy-non-eligible activities		15,183	46%																
Total (A+B)		32,850	100%																

Due to rounding, numbers presented may not add to the totals provided.

Due to disclosure format, prior year alignment figures do not add to the totals. The detailed 2023 aligned numbers are available in [2023 Sustainability Report](#).

Total ABB Group %		
Proportion of turnover/Total turnover		
	Taxonomy-aligned per objective	Taxonomy-eligible per objective
CCM	0%	44%
CCA	%	%
WTR	%	%
CE	0%	10%
PPC	%	%
BIO	%	%

ABB GROUP ECONOMIC ACTIVITIES 2024 IN ACCORDANCE WITH THE EU TAXONOMY

EU TAXONOMY - CAPEX

Financial Year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code ⁽²⁾	CapEx ⁽³⁾	Proportion of CapEx, 2024 ⁽⁴⁾	Climate Change Mitigation ⁽⁵⁾	Climate Change Adaptation ⁽⁶⁾	Water ⁽⁷⁾	Pollution ⁽⁸⁾	Circular Economy ⁽⁹⁾	Biodiversity ⁽¹⁰⁾	Climate Change Mitigation ⁽¹¹⁾	Climate Change Adaptation ⁽¹²⁾	Water ⁽¹³⁾	Pollution ⁽¹⁴⁾	Circular Economy ⁽¹⁵⁾	Biodiversity ⁽¹⁶⁾	Minimum Safeguards ⁽¹⁷⁾	Proportion of Taxonomy-aligned (A.1) or eligible (A.2) CapEx, 2023 ⁽¹⁸⁾	Category enabling activity ⁽¹⁹⁾	Category transitional activity ⁽²⁰⁾
Economic activities ⁽¹⁾		\$million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. ENVIRONMENTALLY SUSTAINABLE ACTIVITIES (TAXONOMY-ALIGNED)																			
7.4 Installation, maintenance and repair of charging stations for electric vehicles in buildings	CCM 7.4	<0.5	<0.5%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	<0.5%	E	
7.5 Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of	CCM 7.5	1	<0.5%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	<0.5%	E	
7.6 Installation, maintenance and repair of renewable energy technologies	CCM 7.6	4	<0.5%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	1%	E	
7.7 Acquisition and ownership of buildings	CCM 7.7	11	1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	2%		
CapEx of environmental sustainable activities (Taxonomy-aligned activities) (A.1)		16	1%	1%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	8%		
Of which Enabling		5	1%	1%	0%	0%	0%	0%	1%	Y	Y	Y	Y	Y	Y	Y	3%	E	
Of which Transitional		—	0%	0%													3%		T
A.2. TAXONOMY-ELIGIBLE BUT NOT ENVIRONMENTALLY SUSTAINABLE ACTIVITIES (NOT TAXONOMY-ALIGNED ACTIVITIES)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
3.1 Manufacture of renewable energy technologies	CCM 3.1	7	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1%		
3.2 Equipment for the production and use of hydrogen	CCM 3.2	<0.5	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
3.3 Manufacture of low carbon technologies for transport	CCM 3.3	<0.5	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
3.4 Manufacture of batteries	CCM 3.4	1	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		

[illegible]

Financial Year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code ⁽²⁾	CapEx ⁽³⁾	Proportion of CapEx, 2024 ⁽⁴⁾	Climate Change Mitigation ⁽⁵⁾	Climate Change Adaptation ⁽⁶⁾	Water ⁽⁷⁾	Pollution ⁽⁸⁾	Circular Economy ⁽⁹⁾	Biodiversity ⁽¹⁰⁾	Climate Change Mitigation ⁽¹¹⁾	Climate Change Adaptation ⁽¹²⁾	Water ⁽¹³⁾	Pollution ⁽¹⁴⁾	Circular Economy ⁽¹⁵⁾	Biodiversity ⁽¹⁶⁾	Minimum Safeguards ⁽¹⁷⁾	Proportion of Taxonomy-aligned (A.1) or eligible (A.2) CapEx, 2023 ⁽¹⁸⁾	Category enabling activity ⁽¹⁹⁾	Category transitional activity ⁽²⁰⁾
Economic activities ⁽¹⁾		\$million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
8.2 Data-driven solutions for GHG emissions reductions	CCM 8.2	<0.5	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
1.2 Manufacture of electrical and electronic equipment	CE 1.2	50	4%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								2%		
4.1 Provision of IT/OT data-driven solutions and software	CE 4.1	1	<0.5%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								<0.5%		
5.1 Repair, refurbishment and remanufacturing	CE 5.1	9	1%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								<0.5%		
5.2 Sale of spare-parts	CE 5.2	15	1%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								1%		
5.3 Preparation of re-use of end-of-life products and product components	CE 5.3	—	0%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								<0.5%		
5.4 Sale of second-hand goods	CE 5.4	<0.5	<0.5%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								<0.5%		
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		596	43%	37%	0%	0%	0%	5%	0%								56%		
CapEx of Taxonomy eligible activities (A.1+A.2)		612	44%	38%	0%	0%	0%	5%	0%								64%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy-non-eligible activities		787	56%																
TOTAL		1,398	100%																

Due to rounding, numbers presented may not add to the totals provided.

Due to disclosure format, prior year alignment figures do not add to the totals. The detailed 2023 aligned numbers are available in [2023 Sustainability Report](#).

Total ABB Group %		
Proportion of CapEx/Total CapEx		
	Taxonomy-aligned per objective	Taxonomy-eligible per objective
CCM	1%	38%
CCA	%	%
WTR	%	%
CE	0%	5%
PPC	%	%
BIO	%	%

ABB GROUP ECONOMIC ACTIVITIES 2024 IN ACCORDANCE WITH THE EU TAXONOMY

EU TAXONOMY - OPEX

Financial Year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code ⁽²⁾	OpEx ⁽³⁾	Proportion of OpEx, 2024 ⁽⁴⁾	Climate Change Mitigation ⁽⁵⁾	Climate Change Adaptation ⁽⁶⁾	Water ⁽⁷⁾	Pollution ⁽⁸⁾	Circular Economy ⁽⁹⁾	Biodiversity ⁽¹⁰⁾	Climate Change Mitigation ⁽¹¹⁾	Climate Change Adaptation ⁽¹²⁾	Water ⁽¹³⁾	Pollution ⁽¹⁴⁾	Circular Economy ⁽¹⁵⁾	Biodiversity ⁽¹⁶⁾	Minimum safeguards ⁽¹⁷⁾	Proportion of Taxonomy-aligned (A.1.) or eligible (A.2.) OpEx, 2023 ⁽¹⁸⁾	Category enabling activity ⁽¹⁹⁾	Category transitional activity ⁽²⁰⁾
Economic activities ⁽¹⁾		\$million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. ENVIRONMENTALLY SUSTAINABLE ACTIVITIES (TAXONOMY-ALIGNED)																			
OpEx of environmental sustainable activities (Taxonomy-aligned) (A.1)		—	0%	0%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	6%		
Of which Enabling		—	0%	0%	0%	0%	0%	0%	0%	Y	Y	Y	Y	Y	Y	Y	5%	E	
Of which Transitional		—	0%	0%													—		T
A.2. TAXONOMY-ELIGIBLE BUT NOT ENVIRONMENTALLY SUSTAINABLE ACTIVITIES (NOT TAXONOMY-ALIGNED ACTIVITIES)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
3.1 Manufacture of renewable energy technologies	CCM 3.1	17	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1%		
3.2 Equipment for the production and use of hydrogen	CCM 3.2	<0.5	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
3.3 Manufacture of low carbon technologies for transport	CCM 3.3	<0.5	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1%		
3.4 Manufacture of batteries	CCM 3.4	3	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
3.5 Manufacture of energy efficiency equipment for buildings	CCM 3.5	12	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								2%		
3.6 Manufacture of other low-carbon technologies	CCM 3.6	50	3%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1%		
3.18 Manufacture of automotive and mobility components	CCM 3.18	1	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
3.19 Manufacture of rail constituents	CCM 3.19	42	2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		

Financial Year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code ⁽²⁾	OpEx ⁽³⁾	Proportion of OpEx, 2024 ⁽⁴⁾	Climate Change Mitigation ⁽⁵⁾	Climate Change Adaptation ⁽⁶⁾	Water ⁽⁷⁾	Pollution ⁽⁸⁾	Circular Economy ⁽⁹⁾	Biodiversity ⁽¹⁰⁾	Climate Change Mitigation ⁽¹¹⁾	Climate Change Adaptation ⁽¹²⁾	Water ⁽¹³⁾	Pollution ⁽¹⁴⁾	Circular Economy ⁽¹⁵⁾	Biodiversity ⁽¹⁶⁾	Minimum safeguards ⁽¹⁷⁾	Proportion of Taxonomy-aligned (A.1.) or eligible (A.2.) OpEx, 2023 ⁽¹⁸⁾	Category enabling activity ⁽¹⁹⁾	Category transitional activity ⁽²⁰⁾
		\$million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
Economic activities⁽¹⁾																			
3.20 Manufacture, installation, and servicing of high, medium and low voltage electrical equipment for electrical transmission and	CCM 3.20	655	34%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								26%		
4.9 Transmission and distribution of electricity	CCM 4.9	1	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
6.14 Infrastructure for rail transport	CCM 6.14	3	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
6.15 Infrastructure enabling low-carbon road transport and public transport	CCM 6.15	2	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
6.16 Infrastructure enabling low carbon water transport	CCM 6.16	11	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
7.7 Acquisition and ownership of buildings	CCM 7.7	—	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
8.2 Data-driven solutions for GHG emissions reductions	CCM 8.2	1	<0.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1%		
9.1 Close to market research, development and innovation	CCM 9.1	20	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								<0.5%		
1.2 Manufacture of electrical and electronic equipment	CE 1.2	100	5%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								5%		
4.1 Provision of IT/OT data-driven solutions and software	CE 4.1	2	<0.5%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								2%		
5.1 Repair, refurbishment and remanufacturing	CE 5.1	28	1%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								1%		
5.2 Sale of spare-parts	CE 5.2	39	2%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								0%		
5.3 Preparation of re-use of end-of-life products and product components	CE 5.3	—	0%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								<0.5%		
5.4 Sale of second-hand goods	CE 5.4	<0.5	<0.5%	N/EL	N/EL	N/EL	N/EL	EL	N/EL								<0.5%		
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		989	51%	42%	0%	0%	0%	9%	0%								39%		
A. OpEx of Taxonomy eligible activities (A.1+A.2)		989	51%	42%	0%	0%	0%	9%	0%								45%		

Financial Year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code ⁽²⁾	OpEx ⁽³⁾	Proportion of OpEx, 2024 ⁽⁴⁾	Climate Change Mitigation ⁽⁵⁾	Climate Change Adaptation ⁽⁶⁾	Water ⁽⁷⁾	Pollution ⁽⁸⁾	Circular Economy ⁽⁹⁾	Biodiversity ⁽¹⁰⁾	Climate Change Mitigation ⁽¹¹⁾	Climate Change Adaptation ⁽¹²⁾	Water ⁽¹³⁾	Pollution ⁽¹⁴⁾	Circular Economy ⁽¹⁵⁾	Biodiversity ⁽¹⁶⁾	Minimum safeguards ⁽¹⁷⁾	Proportion of Taxonomy-aligned (A.1.) or eligible (A.2.) OpEx, 2023 ⁽¹⁸⁾	Category enabling activity ⁽¹⁹⁾	Category transitional activity ⁽²⁰⁾
Economic activities ⁽¹⁾		\$million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy-non-eligible activities		946	49%																
TOTAL		1,935	100%																

Due to rounding, numbers presented may not add to the totals provided.

Due to disclosure format, prior year alignment figures do not add to the totals. The detailed 2023 aligned numbers are available in [2023 Sustainability Report](#).

Total ABB Group %		
Proportion of OpEx/Total OpEx		
	Taxonomy-aligned per objective	Taxonomy-eligible per objective
CCM	0%	42%
CCA	%	%
WTR	%	%
CE	0%	9%
PPC	%	%
BIO	%	%

Key:

Substantial Contribution Criteria		Minimum Safeguards		DNSH Criteria	
Y – Yes	Taxonomy eligible and Taxonomy-aligned activity with the relevant environmental objective	Y	Minimum safeguards are met	Y	DNSH criteria are met
N – No	Taxonomy eligible but not Taxonomy-aligned activity with the relevant environmental objective	N	Minimum safeguards are not met	N	DNSH criteria are not met
N/EL – not eligible	Taxonomy non-eligible activity for the relevant environmental objective				
EL – eligible	Taxonomy eligible activity for the relevant objective				
				CCM	Climate Change Mitigation
				CCA	Climate Change Adaptation
				WTR	Water and Marine Resource
				CE	Circular Economy
				PPC	Pollution Prevention and Control

NUCLEAR AND FOSSIL GAS RELATED ACTIVITIES

Row	Nuclear energy related activities	
1	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	NO
2	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	NO
3	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	NO
Fossil gas related activities		
4	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	NO
5	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	NO
6	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	NO

SWISS CODE OF OBLIGATIONS

CONTENT INDEX

This Sustainability Report also covers the reporting requirements as defined under Art. 964a ss. of the Swiss Code of Obligations (CO). For easy reference, please find below a table with links to the relevant sections:

		Page Reference
Swiss CO - Art. 964b paragraph 2 (assured)		
1	Description of the business model	ABB is a technology leader in electrification and automation, enabling a more sustainable and resource-efficient future. We operate in approximately 100 countries across three regions: Europe, the Americas, and Asia, Middle East and Africa, and generate revenues in numerous currencies. We govern our company through our four Business areas: Electrification, Motion, Process Automation, and Robotics & Discrete Automation and 19 divisions. While the ABB Way provides standardized policies, processes and systems, it also empowers our divisions to take full ownership of and accountability for their respective strategies, performance and resources. More about the ABB's business model is available in the Financial Report 2024 -> Financial review of ABB Group -> About ABB, Organizational structure, History of the ABB Group, ABB Today, and Businesses.
2	Materiality assessment	Double Materiality Assessment (p.16)
3	Description of policies adopted in relation to:	
	• Environmental issues, including CO ₂ goals	Sustainability at ABB -> Sustainability-related policies (p. 19) Protecting the climate -> Climate change-related policies (p. 29) Committing to Circularity -> Policy commitments to circular resource management (p. 40) Water management at ABB -> Water-related policies (p. 43) Keeping pollution in check (p. 45)
	• Social issues	Sustainability at ABB -> Sustainability-related policies (p. 19) Responsibility for our employees -> Employee-related policies (p. 58) Social protection in the value chain -> Supplier-related policies (p. 68) Protecting vulnerable communities -> Community-related policies (p. 74) Protecting consumers -> Consumer-related policies (p. 76) Good business conduct -> Business conduct-related policies (p. 81)
	• Employee-related issues	Sustainability at ABB -> Sustainability-related policies (p. 19) Responsibility for our employees -> Employee-related policies (p. 58)
	• Respect for human rights	Sustainability at ABB -> Sustainability-related policies (p. 19) Responsibility for our employees -> Employee-related policies (p. 58) Social protection in the value chain -> Supplier-related policies (p. 69) Protecting vulnerable communities -> Community-related policies (p. 74) Good business conduct -> Business conduct-related policies (p. 81)
	• Combatting corruption	Sustainability at ABB -> Sustainability-related policies (p. 19) Good business conduct -> Business conduct-related policies (p. 81)

		Page Reference
4	Presentation of the measures taken to implement these policies and an assessment of the effectiveness of these measures	See above sections.
5	Description of the main risks related to the matters referred above and how ABB is dealing with these risks, in particular:	
	a. Risks that arise from ABB's own business operations, and	Sustainability at ABB -> Material impacts, risks, and opportunities (p. 14) IRO descriptions in topical chapters -> pp.25, 39, 43, 45, 57, 68, 73, 76, 80 Specific climate risks -> pp. 25, 26, 37
	b. Risks that arise from ABB's business relationships, products or services (to the extent relevant and proportionate)	Sustainability at ABB -> Material impacts, risks, and opportunities (p. 14) IRO descriptions in topical chapters -> pp.25, 39, 43, 45, 57, 68, 73, 76, 80
6	The main performance indicators for ABB's activities in relation to the matters referred to above	Protecting the climate (p. 24) Committing to Circularity (p. 39) Water management at ABB (p. 43) Responsibility for our employees (p. 57) Social protection in the value chain (p. 68) Protecting vulnerable communities (p. 73) Good business conduct (p. 79)
Swiss CO - Art. 964j and the Ordinance on Due Diligence and Transparency in Relation to Minerals and Metals from Conflict-Affected Areas and Child Labor		
	Conflict minerals	Good business conduct -> Engaging suppliers -> Dealing with conflict minerals and other minerals of concern (p. 86)
	Child labor	Protecting vulnerable communities -> Community-related policies -> Further human rights commitments (p. 74)
Swiss CO – Ordinance on Climate Disclosures (assured)		
We fulfill the Swiss Ordinance on Climate Disclosures via relevant ESRS sections; please refer to the ESRS Index table for disclosures under ESRS E-1. Certain disclosures, primarily the risk quantification, are not yet reported.		

ESRS CONTENT INDEX, INCLUDING GRI AND ISSB INTEROPERABILITY

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
ESRS 2 BP-1 5 a		Basis for preparation of sustainability statement	2	GRI 2: General Disclosures 2021: 2-2: Entities included in the organization's sustainability reporting	
ESRS 2 BP-1 5 b i		Scope of consolidation of consolidated sustainability statement is same as for financial statements	2	GRI 2: General Disclosures 2021: 2-2: Entities included in the organization's sustainability reporting	
ESRS 2 BP-1 5 b ii		Indication of subsidiary undertakings included in consolidation that are exempted from individual or consolidated sustainability reporting	2		
ESRS 2 BP-1 5 c	AR 1	Disclosure of extent to which sustainability statement covers upstream and downstream value chain	2		
ESRS 2 BP-1 5 d		Option to omit specific piece of information corresponding to intellectual property, know-how or results of innovation has been used	2		
ESRS 2 BP-1 5 e		Option allowed by Member State to omit disclosure of impending developments or matters in course of negotiation has been used	2		
ESRS 2 BP-2 9 a		Disclosure of definitions of medium- or long-term time horizons	3		IFRS S2.10(d)4
ESRS 2 BP-2 9 b		Disclosure of reasons for applying different definitions of time horizons	3		IFRS S2.10(d)4
ESRS 2 BP-2 10 a		Disclosure of metrics that include value chain data estimated using indirect sources	3		
ESRS 2 BP-2 10 b		Description of basis for preparation of metrics that include value chain data estimated using indirect sources	3		
ESRS 2 BP-2 10 c		Description of resulting level of accuracy of metrics that include value chain data estimated using indirect sources	3		
ESRS 2 BP-2 10 d		Description of planned actions to improve accuracy in future of metrics that include value chain data estimated using indirect sources	3		
ESRS 2 BP-2 11 a		Disclosure of quantitative metrics and monetary amounts disclosed that are subject to high level of measurement uncertainty	3		
ESRS 2 BP-2 11 b i		Disclosure of sources of measurement uncertainty	3		
ESRS 2 BP-2 11 b ii		Disclosure of assumptions, approximations and judgements made in measurement	3		
ESRS 2 BP-2 13 a		Explanation of changes in preparation and presentation of sustainability information and reasons for them	3	GRI 2: General Disclosures 2021: 2-4 Restatements of information	
ESRS 2 BP-2 13 b		Adjustment of comparative information for one or more prior periods is impracticable	3	GRI 2: General Disclosures 2021: 2-4 Restatements of information	
ESRS 2 BP-2 13 b, 13 c		Disclosure of difference between figures disclosed in preceding period and revised comparative figures	3	GRI 2: General Disclosures 2021: 2-4 Restatements of information	

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
ESRS 2 BP-2 14 a		Disclosure of nature of prior period material errors	3	GRI 2: General Disclosures 2021: 2-4 Restatements of information	
ESRS 2 BP-2 14 b		Disclosure of corrections for prior periods included in sustainability statement	3	GRI 2: General Disclosures 2021: 2-4 Restatements of information	
ESRS 2 BP-2 14 c		Disclosure of why correction of prior period errors is not practicable	3	GRI 2: General Disclosures 2021: 2-4 Restatements of information	
ESRS 2 BP-2 15		Disclosure of other legislation or generally accepted sustainability reporting standards and frameworks based on which information has been included in sustainability	4		
ESRS 2 BP-2 15		Disclosure of reference to paragraphs of standard or framework applied	4		
ESRS 2 BP-2 16		List of DRs or DPs incorporated by reference	4		
ESRS 2 GOV-1 21 a		Number of executive members	6		
ESRS 2 GOV-1 21 a		Number of non-executive members	6	GRI 2: General Disclosures 2021: 2-9 Governance structure and composition	
ESRS 2 GOV-1 21 b		Information about representation of employees and other workers	6	GRI 2: General Disclosures 2021: 2-9 Governance structure and composition	
ESRS 2 GOV-1 21 c	AR 5	Information about member's experience relevant to sectors, products and geographic locations of undertaking	6–7	GRI 2: General Disclosures 2021: 2-9 Governance structure and composition	
ESRS 2 GOV-1 21 d		Percentage of members of administrative, management and supervisory bodies by gender and other aspects of	6	GRI 405: Diversity and equal opportunity 2016: 405-1 Diversity of governance bodies and employees	
ESRS 2 GOV-1 21 d		Board's gender diversity ratio	6	GRI 405: Diversity and equal opportunity 2016: 405-1 Diversity of governance bodies and employees	
ESRS 2 GOV-1 21 e		Percentage of independent board members	6	GRI 2: General Disclosures 2021: 2-9 Governance structure and composition	
ESRS 2 GOV-1 22 a		Information about identity of administrative, management and supervisory bodies or individual(s) within body responsible for oversight of impacts, risks and	5	GRI 2: General Disclosures 2021: 2-9 Governance structure and composition	IFRS S2.6(a)
ESRS 2 GOV-1 22 b	AR 3	Disclosure of how body's or individuals within body responsibilities for impacts, risks and opportunities are reflected in undertaking's terms of reference, board mandates and other related policies	5	GRI 2: General Disclosures 2021: 2-14 Role of the highest governance body in sustainability reporting	IFRS S2.6(a)(i)
ESRS 2 GOV-1 22 c	AR 4	Description of management's role in governance processes, controls and procedures used to monitor, manage and oversee impacts, risks and opportunities	5	GRI 2: General Disclosures 2021: 2-12 Role of the highest governance body in overseeing the management of impacts	IFRS S2.6(b)
ESRS 2 GOV-1 22 c i		Description of how oversight is exercised over management-level position or committee to which management's role is delegated to	5	GRI 2: General Disclosures 2021: 2-12 Role of the highest governance body in overseeing the management of impacts GRI 2: General Disclosures 2021: 2-13 Delegation of responsibility for managing impacts	IFRS S2.6(b)(i)
ESRS 2 GOV-1 22 c ii		Information about reporting lines to administrative, management and supervisory bodies	5	GRI 2: General Disclosures 2021: 2-12 Role of the highest governance body in overseeing the management of impacts GRI 2: General Disclosures 2021: 2-13 Delegation of responsibility for managing impacts	
ESRS 2 GOV-1 22 c iii		Disclosure of how dedicated controls and procedures are integrated with other internal functions	5	GRI 2: General Disclosures 2021: 2-12 Role of the highest governance body in overseeing the management of impacts	IFRS S2.6(b)(ii)
ESRS 2 GOV-1 22 d		Disclosure of how administrative, management and supervisory bodies and senior executive management oversee setting of targets related to material impacts, risks and opportunities and how progress towards them is	5		IFRS S2.6(a)(v)

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
ESRS 2 GOV-1 23	AR 5	Disclosure of how administrative, management and supervisory bodies determine whether appropriate skills and expertise are available or will be developed to oversee sustainability matters	7	GRI 2: General Disclosures 2021: 2-9 Governance structure and composition GRI 2: General Disclosures 2021: 2-17 Collective knowledge of the highest governance body	IFRS S2.6(a)(ii)
ESRS 2 GOV-1 23 a		Information about sustainability-related expertise that bodies either directly possess or can leverage	7	GRI 2: General Disclosures 2021: 2-17 Collective knowledge of the highest governance body	IFRS S2.6(a)(ii)
ESRS 2 GOV-1 23 b		Disclosure of how sustainability-related skills and expertise relate to material impacts, risks and opportunities	7	GRI 2: General Disclosures 2021: 2-17 Collective knowledge of the highest governance body	IFRS S2.6(a)(ii)
ESRS 2 GOV-2 26 a		Disclosure of whether, by whom and how frequently administrative, management and supervisory bodies are informed about material impacts, risks and opportunities, implementation of due diligence, and results and effectiveness of policies, actions, metrics and targets adopted to address them	8	GRI 2: General Disclosures 2021: 2-12 Role of the highest governance body in overseeing the management of impacts GRI 2: General Disclosures 2021: 2-13 Delegation of responsibility for managing impacts GRI 2: General Disclosures 2021: 2-16 Communication of impacts	IFRS S2.6(a)(iii)
ESRS 2 GOV-2 26 b		Disclosure of how administrative, management and supervisory bodies consider impacts, risks and opportunities when overseeing strategy, decisions on major transactions and risk management process	8	GRI 2: General Disclosures 2021: 2-12 Role of the highest governance body in overseeing the management of impacts GRI 2: General Disclosures 2021: 2-24 Embedding policy	IFRS S2.6(a)(iv)
ESRS 2 GOV-2 26 c		Disclosure of list of material impacts, risks and opportunities addressed by administrative, management and supervisory bodies or their relevant committees	8		
ESRS 2 GOV-3 29	AR 7	Incentive schemes and remuneration policies linked to sustainability matters for members of administrative, management and supervisory bodies exist	8–9		
ESRS 2 GOV-3 29 a		Description of key characteristics of incentive schemes	8–9	GRI 2: General Disclosures 2021: 2-19 Remuneration policies	
ESRS 2 GOV-3 29 b		Description of specific sustainability-related targets and (or) impacts used to assess performance of members of administrative, management and supervisory bodies	8–9	GRI 2: General Disclosures 2021: 2-19 Remuneration policies	IFRS S1.21(b) IFRS S2.29(g)(i)
ESRS 2 GOV-3 29 c		Disclosure of how sustainability-related performance metrics are considered as performance benchmarks or included in remuneration policies	8–9	GRI 2: General Disclosures 2021: 2-19 Remuneration policies	IFRS S1.21(b)
ESRS 2 GOV-3 29 d		Percentage of variable remuneration dependent on sustainability-related targets and (or) impacts	9		
ESRS 2 GOV-3 29 e		Description of level in undertaking at which terms of incentive schemes are approved and updated	9	GRI 2: General Disclosures 2021: 2-20 Process to determine remuneration	
ESRS 2 GOV-4 30; 32	AR 8 - AR 10	Disclosure of mapping of information provided in sustainability statement about due diligence process	10–11		
ESRS 2 GOV-5 36 a	AR 11	Description of scope, main features and components of risk management and internal control processes and systems in relation to sustainability reporting	11		
ESRS 2 GOV-5 36 b	AR 11	Description of risk assessment approach followed	11		
ESRS 2 GOV-5 36 c	AR 11	Description of main risks identified and their mitigation strategies	11		
ESRS 2 GOV-5 36 d	AR 11	Description of how findings of risk assessment and internal controls as regards sustainability reporting process have been integrated into relevant internal	11		
ESRS 2 GOV-5 36 e	AR 11	Description of periodic reporting of findings of risk assessment and internal controls to administrative, management and supervisory bodies	11		
ESRS 2 SBM-1 40 a iii	AR 12-13	Total number of employees (head count)	65	GRI 2: General Disclosures 2021: 2-7 Employees	

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
ESRS 2 SBM-1 40 a iii	AR 12-13	Number of employees (head count)	65	GRI 2: General Disclosures 2021: 2-7 Employees	
ESRS 2 SBM-2 45 a	AR 16	Description of stakeholder engagement	12–14		
ESRS 2 SBM-2 45 a i	AR 16	Description of key stakeholders	12–14	GRI 2: General Disclosures 2021: 2-29 Approach to stakeholder engagement	
ESRS 2 SBM-2 45 a ii	AR 16	Description of categories of stakeholders for which engagement occurs	12–14	GRI 2: General Disclosures 2021: 2-29 Approach to stakeholder engagement	
ESRS 2 SBM-2 45 a iii	AR 16	Description of how stakeholder engagement is organized	12–14	GRI 2: General Disclosures 2021: 2-29 Approach to stakeholder engagement	
ESRS 2 SBM-2 45 a iv	AR 16	Description of purpose of stakeholder engagement	12–14	GRI 2: General Disclosures 2021: 2-29 Approach to stakeholder engagement	
ESRS 2 SBM-2 45 a v	AR 16	Description of how outcome of stakeholder engagement is taken into account	14		
ESRS 2 SBM-2 45 b	AR 16	Description of understanding of interests and views of key stakeholders as they relate to undertaking's strategy and business model	12–14		
ESRS 2 SBM-2 45 d		Description of how administrative, management and supervisory bodies are informed about views and interests of affected stakeholders with regard to sustainability-related impacts	14	GRI 2: General Disclosures 2021: 2-12 Role of the highest governance body in overseeing the management of impacts	
ESRS 2 SBM-3 48 a	AR 17-18	Description of material impacts resulting from materiality assessment	14–16	GRI 3: Material Topics 2021: 3-2 List of material topics	
ESRS 2 SBM-3 48 a	AR 17-18	Description of material risks and opportunities resulting from materiality assessment	14–16	GRI 3: Material Topics 2021: 3-2 List of material topics	IFRS S2.10(a) IFRS S2.13(b)
ESRS 2 SBM-3 48 b	AR 18	Disclosure of current and anticipated effects of material impacts, risks and opportunities on business model, value chain, strategy and decision-making, and how undertaking has responded or plans to respond to these effects	16		IFRS S2.13(a) IFRS S2.14(a)
ESRS 2 SBM-3 48 c iv	AR 18	Description of nature of activities or business relationships through which undertaking is involved with material	16	GRI 3: Material Topics 2021: Management of material topics	
ESRS 2 IRO-1 53 a		Description of methodologies and assumptions applied in process to identify impacts, risks and opportunities	16–18		
ESRS 2 IRO-1 53 b		Description of process to identify, assess, prioritize and monitor potential and actual impacts on people and environment, informed by due diligence process	16		
ESRS 2 IRO-1 53 b i		Description of how process focuses on specific activities, business relationships, geographies or other factors that give rise to heightened risk of adverse impacts	16		
ESRS 2 IRO-1 53 b ii		Description of how process considers impacts with which undertaking is involved through own operations or as result of business relationships	16	GRI 3: Material Topics 2021: 3-1 Process to determine material topics	
ESRS 2 IRO-1 53 b iii		Description of how process includes consultation with affected stakeholders to understand how they may be impacted and with external experts	16	GRI 3: Material Topics 2021: 3-1 Process to determine material topics	
ESRS 2 IRO-1 53 b iv		Description of how process prioritizes negative impacts based on their relative severity and likelihood and positive impacts based on their relative scale, scope and likelihood and determines which sustainability matters are material for reporting purposes	17	GRI 3: Material Topics 2021: 3-1 Process to determine material topics	
ESRS 2 IRO-1 53 c		Description of process used to identify, assess, prioritize and monitor risks and opportunities that have or may have financial effects	17		IFRS S2.25(a)(v) IFRS S2.25(b)

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
ESRS 2 IRO-1 53 c i		Description of how connections of impacts and dependencies with risks and opportunities that may arise from those impacts and dependencies have been	17		
ESRS 2 IRO-1 53 c ii		Description of how likelihood, magnitude, and nature of effects of identified risks and opportunities have been assessed	17		IFRS S2.25(a)(iii)
ESRS 2 IRO-1 53 c iii		Description of how sustainability-related risks relative to other types of risks have been prioritized	17		IFRS S2.25(a)(iv)
ESRS 2 IRO-1 53 d		Description of decision-making process and related internal control procedures	17	GRI 2: General Disclosures 2021: 2-14 Role of the highest governance body in sustainability reporting	
ESRS 2 IRO-1 53 e		Description of extent to which and how process to identify, assess and manage impacts and risks is integrated into overall risk management process and used to evaluate overall risk profile and risk management processes	17		IFRS S2.25(a)(v) IFRS S2.25(c)
ESRS 2 IRO-1 53 f		Description of extent to which and how process to identify, assess and manage opportunities is integrated into overall management process	17		IFRS S2.25(c)
ESRS 2 IRO-1 53 g		Description of input parameters used in process to identify, assess and manage material impacts, risks and	16		IFRS S2.25(a)(i)
ESRS 2 IRO-1 53 h		Description of how process to identify, assess and manage impacts, risks and opportunities has changed compared to prior reporting period	17		IFRS S2.25(a)(vi)
ESRS 2 IRO-2 56		Disclosure of list of data points that derive from other EU legislation and information on their location in sustainability statement	19		
ESRS 2 IRO-2 56	AR 19	Disclosure of list of ESRS Disclosure Requirements complied with in preparing sustainability statement following outcome of materiality assessment	19		
ESRS 2 IRO-2 59		Explanation of how material information to be disclosed in relation to material impacts, risks and opportunities has been determined	19		
E1 E1-1 17		Date of adoption of transition plan for undertakings not having adopted transition plan yet	24–25		
E1 E1.SBM-3 18		Type of climate-related risk	25–26	GRI 201: Economic Performance 2016: 201-2 Financial implications and other risks and opportunities due to climate change	IFRS S2.10(b)
E1 E1.IRO-1 20 a, AR 9	AR 10	Description of process in relation to impacts on climate change	26		IFRS S2.25(a)
E1 E1.IRO-1 20 b	AR 13-AR 14	Description of process in relation to climate-related physical risks in own operations and along value chain	27		IFRS S2.25(a)
E1 E1.IRO-1 AR 11 a	AR 13-AR 14	Climate-related hazards have been identified over short-, medium- and long-term time horizons	27		
E1 E1.IRO-1 AR 11 a	AR 13-AR 14	Undertaking has screened whether assets and business activities may be exposed to climate-related hazards	27		
E1 E1.IRO-1 AR 11 b	AR 13-AR 14	Short-, medium- and long-term time horizons have been defined	27		IFRS S2.10(d)4
E1 E1.IRO-1 AR 11 c	AR 13-AR 14	Extent to which assets and business activities may be exposed and are sensitive to identified climate-related hazards has been assessed	27		
E1 E1.IRO-1 AR 11 d	AR 13-AR 14	Identification of climate-related hazards and assessment of exposure and sensitivity are informed by high emissions climate scenarios	27		IFRS S2.22(b)(i)

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
E1 E1.IRO-1 21	AR 13-AR 14	Explanation of how climate-related scenario analysis has been used to inform identification and assessment of physical risks over short, medium and long-term	27		IFRS S2.22(b)(i) IFRS S2.25(a)(ii)
E1 E1.IRO-1 20 c	AR 13-AR 14	Description of process in relation to climate-related transition risks and opportunities in own operations and along value chain	28		IFRS S2.25(b)
E1 E1.IRO-1 AR 12 a	AR 13-AR 14	Transition events have been identified over short-, medium- and long-term time horizons	28		
E1 E1.IRO-1 AR 12 a	AR 13-AR 14	Undertaking has screened whether assets and business activities may be exposed to transition events	28		
E1 E1.IRO-1 AR 12 b	AR 13-AR 14	Extent to which assets and business activities may be exposed and are sensitive to identified transition events has been assessed	28		
E1 E1.IRO-1 AR 12 c	AR 13-AR 14	Identification of transition events and assessment of exposure has been informed by climate-related scenario	29		IFRS S2.22(b)(i)
E1 E1.IRO-1 21	AR 13-AR 14	Explanation of how climate-related scenario analysis has been used to inform identification and assessment of transition risks and opportunities over short, medium and	29		IFRS S2.22(b)(i) IFRS S2.25(a)(ii)
E1 E1-2 25	AR 16-AR18	Sustainability matters addressed by policy for climate change	29–30	GRI 3: Material Topics 2021: GRI 3-3: Management of material topics	
E1 E1-3 29 a		Decarbonization lever type	32		
E1 E1-3 29 b		Achieved GHG emission reductions	32	GRI 305: Emissions 2016: 305-5: Reduction of emissions	
E1 E1-3 29 b		Expected GHG emission reductions	32		
E1 E1-4 33	AR 27-AR 29	Disclosure of whether and how GHG emissions reduction targets and (or) any other targets have been set to manage material climate-related impacts, risks and opportunities	30	GRI 3: Material Topics 2021: GRI 3-3: Management of material topics	
E1 E1-4 34 a + 34 b		Absolute value of total Greenhouse gas emissions	30–31	GRI 305: Emissions 2016: 305-5: Reduction of emissions	
E1 E1-4 34 a + 34 b		Percentage of total Greenhouse gas emissions reduction (as of emissions of base year)	30–31		
E1 E1-4 34 a + 34 b		Absolute value of Scope 1 Greenhouse gas emissions reduction	30–31	GRI 305: Emissions 2016: 305-5: Reduction of emissions	
E1 E1-4 34 a + 34 b		Percentage of Scope 1 Greenhouse gas emissions reduction (as of emissions of base year)	30–31		
E1 E1-4 34 a + 34 b		Absolute value of location-based Scope 2 Greenhouse gas emissions reduction	30–31	GRI 305: Emissions 2016: 305-5: Reduction of emissions	
E1 E1-4 34 a + 34 b		Percentage of location-based Scope 2 Greenhouse gas emissions reduction (as of emissions of base year)	30–31		
E1 E1-4 34 a + 34 b		Absolute value of market-based Scope 2 Greenhouse gas emissions reduction	30–31	GRI 305: Emissions 2016: 305-5: Reduction of emissions	
E1 E1-4 34 a + 34 b		Percentage of market-based Scope 2 Greenhouse gas emissions reduction (as of emissions of base year)	30–31		
E1 E1-4 34 a + 34 b		Absolute value of Scope 3 Greenhouse gas emissions reduction	30–31	GRI 305: Emissions 2016: 305-5: Reduction of emissions	
E1 E1-4 34 a + 34 b		Percentage of Scope 3 Greenhouse gas emissions reduction (as of emissions of base year)	30–31		
E1 E1-4 34 b		Explanation of how consistency of GHG emission reduction targets with GHG inventory boundaries has been ensured	31	GRI 3: Material Topics 2021: 3-3 Management of material topics GRI 305: Emissions 2016: 305-1 Direct (Scope 1) GHG emissions	IFRS S2.36(a) IFRS S2.36(b)
E1 E1-4 AR 25 a		Description of how it has been ensured that baseline value is representative in terms of activities covered and influences from external factors	32		

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
E1 E1-4 AR 25 b		Description of how new baseline value affects new target, its achievement and presentation of progress over time	32	GRI 305: Emissions 2016: 305-1 Direct (Scope 1) GHG emissions GRI 305: Emissions 2016: 305-2 Energy indirect (Scope 2) GHG emissions GRI 305: Emissions 2016: 305-3 Other indirect (Scope 3) GHG emissions GRI 305: Emissions 2016: 305-5 Reduction of GHG emissions	
E1 E1-4 34 e, 16 a	AR 26	GHG emission reduction target is science based and compatible with limiting global warming to one and half degrees Celsius	30	GRI 3: Material Topics 2021: GRI 3-3 Management of material topics	IFRS S2.34(a) IFRS S2.36(d)
E1 E1-4 34 f, 16 b	AR 30	Description of expected decarbonization levers and their overall quantitative contributions to achieve GHG emission reduction target	32		
E1 E1-5 37 a	AR 33, AR 32	Total energy consumption from fossil sources	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 37 c		Total energy consumption from renewable sources	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 37 c i		Fuel consumption from renewable sources	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 37 c ii		Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 37 c iii		Consumption of self-generated non-fuel renewable energy	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 38 a	AR 33	Fuel consumption from coal and coal products	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 38 b	AR 33	Fuel consumption from crude oil and petroleum products	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 38 c	AR 33	Fuel consumption from natural gas	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 38 d	AR 33	Fuel consumption from other fossil sources	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 38 e	AR 33	Consumption of purchased or acquired electricity, heat, steam, or cooling from fossil sources	33	GRI 302: Energy 2016: 302-1: Energy consumption within the organisation	
E1 E1-5 39		Non-renewable energy production	33		
E1 E1-5 39		Renewable energy production	33		
E1 E1-6 44	AR 39	Gross scopes 1, 2, 3 and total GHG emissions - GHG emissions per scope [table]	33–34	GRI 305: Emissions 2016: 305-1 Direct (Scope 1) GHG emissions GRI 305: Emissions 2016: 305-2 Energy indirect (Scope 2) GHG emissions GRI 305: Emissions 2016: 305-3 Other indirect (Scope 3) GHG emissions	IFRS S2.29(a)(i)
E1 E1-6 AR 46 d		Gross scopes 1, 2, 3 and total GHG emissions - Scope 3 GHG emissions (GHG Protocol) [table]	35–37		
E1 E1-6 47		Disclosure of significant changes in definition of what constitutes reporting undertaking and its value chain and explanation of their effect on year-to-year comparability of reported GHG emissions	34		IFRS S2.29(a)(iii)\$

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
E1 E1-6 AR 39 b		Disclosure of methodologies, significant assumptions and emissions factors used to calculate or measure GHG emissions	35–37	GRI 305: Emissions 2016: 305-1 Direct (Scope 1) GHG emissions GRI 305: Emissions 2016: 305-2 Energy indirect (Scope 2) GHG emissions GRI 305: Emissions 2016: 305-3 Other indirect (Scope 3) GHG emissions	IFRS S2.B38-B57 IFRS S2.29(a)(iii)
E1 E1-6 AR 42 c		Disclosure of the effects of significant events and changes in circumstances (relevant to its GHG emissions) that occur between the reporting dates of the entities in its value chain and the date of the undertaking's general purpose financial statements	37		IFRS S2.B19
E1 E1-6 AR 43 c		biogenic emissions of CO2 from the combustion or bio-degradation of biomass not included in scope 1 GHG emissions	35	GRI 305: Emissions 2016: 305-1 Direct (Scope 1) GHG emissions	
E1 E1-6 AR 45 d		Disclosure of types of contractual instruments used for sale and purchase of energy bundled with attributes about energy generation or for unbundled energy attribute claims	35	GRI 305: Emissions 2016: 305-1 Direct (Scope 1) GHG emissions GRI 305: Emissions 2016: 305-2 Energy indirect (Scope 2) GHG emissions	IFRS S2.B31
E1 E1-6 AR 46 g		Percentage of GHG scope 3 calculated using primary data	37		
E1 E1-6 AR 46 i		Disclosure of why scope 3 GHG emissions category has been excluded	37	GRI 305: Emissions 2016: 305-3 Other indirect (Scope 3) GHG emissions	
E1 E1-6 AR 46 i		List of scope 3 GHG emissions categories included in inventory	37	GRI 305: Emissions 2016: 305-3 Other indirect (Scope 3) GHG emissions	IFRS S2.B32
E1 E1-6 AR 46 h		Disclosure of reporting boundaries considered and calculation methods for estimating scope 3 GHG emissions	37		
E1 E1-6 53	AR 53	GHG emissions intensity, location-based (total GHG emissions per net revenue)	34	GRI 305: Emissions 2016: 305-4 GHG emissions intensity	
E1 E1-9 AR 69 b		Disclosure of whether and how assessment of assets and business activities considered to be at material physical risk relies on or is part of process to determine material physical risk and to determine climate scenarios	37–38		
E3 E3.IRO-1 8 a	AR 1- AR 15	Disclosure of whether and how assets and activities have been screened in order to identify actual and potential water and marine resources-related impacts, risks and opportunities in own operations and upstream and downstream value chain and methodologies, assumptions and tools used in screening [text block]	43	GRI 303: Water and Effluents 2018: 303-1 Interactions with water as a shared resource	
E3 E3-1 12a	AR 16 - AR 18	Disclosure of whether and how policy addresses water management	43–44		
E3 E3-1 12a i	AR 16 - AR 18	Disclosure of whether and how policy addresses the use and sourcing of water and marine resources in own	43–44		
E3 E3-1 12 c	AR 16 - AR 18	Disclosure of whether and how policy addresses commitment to reduce material water consumption in	43–44		
E3 E3-4 28 b	AR 28	Total water consumption in areas at water risk, including areas of high-water stress	44	GRI 303: Water and Effluents 2018: 303-5 Water consumption	
E3 E3-4 28 e	AR 29	Disclosure of contextual information regarding water consumption	44	GRI 303: Water and Effluents 2018: 303-5 Water consumption	
E3 E3-4 28 e	AR 29	Share of the measure obtained from direct measurement, from sampling and extrapolation, or from best estimates	44	GRI 303: Water and Effluents 2018: 303-5 Water consumption	

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
E5 E5-1 15a		Disclosure of whether and how policy addresses transitioning away from use of virgin resources, including relative increases in use of secondary (recycled) resources	40		
E5 E5-1 15b		Disclosure of whether and how policy addresses sustainable sourcing and use of renewable resources	40		
E5 E5-3 24	AR 16	Disclosure of how target relates to resources (resource use and circular economy)	41		
E5 E5-3 24 b		Disclosure of how target relates to increase of circular material use rate	41		
E5 E5-3 24 c	AR 17	Disclosure of how target relates to minimization of primary raw material	41		
E5 E5-3 24 e		Target relates to waste management	41		
E5 E5-3 24 e		Disclosure of how target relates to waste management	41		
E5 E5-5 37 a		Total waste generated	41	GRI 306: Waste 2020: 306-3 Waste generated	
E5 E5-5 37 b	AR 31	Waste diverted from disposal, breakdown by hazardous and non-hazardous waste and treatment type	41	GRI 306: Waste 2020: 306-4 Waste diverted from disposal	
E5 E5-5 37 c	AR 32	Waste directed to disposal, breakdown by hazardous and non-hazardous waste and treatment type	41	GRI 306: Waste 2020: 306-5 Waste directed to disposal	
E5 E5-5 37 d		Non-recycled waste	41		
E5 E5-5 37 d		Percentage of non-recycled waste	41		
E5 E5-5 39		Total amount of hazardous waste	41	GRI 306: Waste 2020: 306-3 Waste generated	
S1 S1.SBM-3 14	AR 6 - AR7	All people in its own workforce who can be materially impacted by undertaking are included in scope of disclosure under ESRS 2	57		
S1 S1.SBM-3 14 b		Material negative impacts occurrence (own workforce)	58		
S1 S1.SBM-3 14 c		Description of activities that result in positive impacts and types of employees and non-employees in its own workforce that are positively affected or could be positively	57		
S1 S1.SBM-3 15	AR 8	Disclosure of whether and how understanding of people in its own workforce with particular characteristics, working in particular contexts, or undertaking particular activities may be at greater risk of harm has been developed	63–64		
S1 S1-1 20		Description of relevant human rights policy commitments relevant to own workforce	59	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S1 S1-1 20a		Disclosure of general approach in relation to respect for human rights including labor rights, of people in its own workforce	59	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S1 S1-1 20b		Disclosure of general approach in relation to engagement with people in its own workforce	59	GRI 2: General Disclosures 2021: 2-29 Approach to stakeholder engagement	
S1 S1-1 20c		Disclosure of general approach in relation to measures to provide and (or) enable remedy for human rights impacts	59	GRI 3: Material Topics 2021: 3-3 Management of material topics	
S1 S1-1 21	AR 12	Disclosure of whether and how policies are aligned with relevant internationally recognized instruments	59	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S1 S1-1 23		Workplace accident prevention policy or management system is in place	59	GRI 403: Occupational health and safety 2018: 403-1 Occupational health and safety management system	
S1 S1-1 24a		Specific policies aimed at elimination of discrimination are in place	60	GRI 3: Material Topics 2021: 3-3 Management of material topics	
S1 S1-1 24b	AR 15 - AR 16	Grounds for discrimination are specifically covered in	60		
S1 S1-1 24c		Disclosure of specific policy commitments related to inclusion and (or) positive action for people from groups at particular risk of vulnerability in own workforce	60	GRI 2: General Disclosures 2021: 2-23 Policy commitments	

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
S1 S1-2 28		Disclosure of steps taken to gain insight into perspectives of people in its own workforce that may be particularly vulnerable to impacts and (or) marginalized	60–62	GRI 2: General Disclosures 2021: 2-29 Approach to stakeholder engagement	
S1 S1-3 32 b	AR 28	Disclosure of specific channels in place for its own workforce to raise concerns or needs directly with undertaking and have them addressed	62	GRI 2: General Disclosures 2021: 2-25 Processes to remediate negative impacts GRI 403: Occupational health and safety 2018: 403-2 Hazard identification, risk assessment, and incident investigation	
S1 S1-3 32 c		Grievance or complaints handling mechanisms related to employee matters exist	62		
S1 S1-3 32 d		Disclosure of processes through which undertaking supports or requires availability of channels	62	GRI 2: General Disclosures 2021: 2-26 Mechanisms for seeking advice and raising concerns	
S1 S1-4 38 a	AR 42	Description of action taken, planned or underway to prevent or mitigate negative impacts on own workforce	62–64	GRI 3: Material Topics 2021: 3-3 Management of material topics GRI 403: Occupational health and safety 2018: 403-9 Work-related injuries GRI 403: Occupational health and safety 2018: 403-10 Work-related ill health	
S1 S1-4 38 d	AR 38 - AR 39	Description of how effectiveness of actions and initiatives in delivering outcomes for own workforce is tracked and assessed	64	GRI 3: Material Topics 2021: 3-3 Management of material topics	
S1 S1-4 41	AR 37	Disclosure of whether and how it is ensured that own practices do not cause or contribute to material negative impacts on own workforce	61–62		
S1 S1-6 50 a	AR 57	Number of employees (head count)	65	GRI 2: General Disclosures 2021: 2-7 Employees GRI 405: Diversity and equal opportunity 2018: 405-1 Diversity of governance bodies and employees	
S1 S1-6 50 a	AR 57	Average number of employees (head count)	65	GRI 2: General Disclosures 2021: 2-7 Employees GRI 405: Diversity and equal opportunity 2018: 405-1 Diversity of governance bodies and employees	
S1 S1-6 50 a	AR 57	Number of employees in countries with 50 or more employees representing at least 10% of total number of employees	65	GRI 2: General Disclosures 2021: 2-7 Employees GRI 405: Diversity and equal opportunity 2018: 405-1 Diversity of governance bodies and employees	
S1 S1-6 50 a	AR 57	Average number of employees in countries with 50 or more employees representing at least 10% of total number of employees	65	GRI 2: General Disclosures 2021: 2-7 Employees GRI 405: Diversity and equal opportunity 2018: 405-1 Diversity of governance bodies and employees	
S1 S1-6 50 c	AR 59	Number of employees who have left undertaking	65	GRI 401: Employment 2016: 401-1 New employee hires and employee turnover	
S1 S1-6 50 c		Percentage of employee turnover	65	GRI 401: Employment 2016: 401-1 New employee hires and employee turnover	
S1 S1-6 50 d	AR 60	Description of methodologies and assumptions used to compile data (employees)	65	GRI 2: General Disclosures 2021: 2-7 employees	
S1 S1-6 50 d i		Employees numbers are reported in head count or full-time equivalent	65	GRI 2: General Disclosures 2021: 2-7 employees	
S1 S1-6 50 d ii		Employees numbers are reported at end of reporting period/average/other methodology	65	GRI 2: General Disclosures 2021: 2-7 employees	
S1 S1-6 50 e	AR 58	Disclosure of contextual information necessary to understand data (employees)	65	GRI 2: General Disclosures 2021: 2-7 employees	
S1 S1-6 50 f		Disclosure of cross-reference of information reported under paragraph 50 (a) to most representative number in financial statements	65		

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
S1 S1-9 66a		Gender distribution in number of employees (head count) at top management level	66	GRI 405: Diversity and equal opportunity 2018: 405-1 Diversity of governance bodies and employees	
S1 S1-9 66 a		Gender distribution in percentage of employees at top management level (this datapoint is the same as our committed datapoint 'proportion of women in senior	66	GRI 405: Diversity and equal opportunity 2018: 405-1 Diversity of governance bodies and employees	
S1 S1-9 66 b		Distribution of employees (head count) under 30 years old	66	GRI 405: Diversity and equal opportunity 2018: 405-1 Diversity of governance bodies and employees	
S1 S1-9 66 b		Distribution of employees (head count) between 30 and 50 years old	66	GRI 405: Diversity and equal opportunity 2018: 405-1 Diversity of governance bodies and employees	
S1 S1-9 66 b		Distribution of employees (head count) over 50 years old	66	GRI 405: Diversity and equal opportunity 2018: 405-1 Diversity of governance bodies and employees	
S1 S1-9 AR 71		Disclosure of own definition of top management used	66		
S1 S1-14 88 a	AR 80	Percentage of people in its own workforce who are covered by health and safety management system based on legal requirements and (or) recognized standards or guidelines	66	GRI 403: Occupational health and safety 2018: 403-8 Workers covered by an occupational health and safety management system	
S1 S1-14 88 b	AR 82, AR 89 - AR91	Number of fatalities in own workforce as result of work-related injuries and work-related ill health	66	GRI 403: Occupational health and safety 2018: 403-9 Work-related injuries GRI 403: Occupational health and safety 2018: 403-10 Work-related ill health	
S1 S1-14 88 c	AR 89 - AR 91	Number of recordable work-related accidents for own workforce	66	GRI 403: Occupational health and safety 2018: 403-9 Work-related injuries	
S1 S1-14 88 c	AR 89 - AR 91	Rate of recordable work-related accidents for own workforce	66	GRI 403: Occupational health and safety 2018: 403-9 Work-related injuries	
S1 S1-14 88 d		Number of cases of recordable work-related ill health of employees	66	GRI 403: Occupational health and safety 2018: 403-10 Work-related ill health	
S1 S1-14 88 e	AR 95	Number of days lost to work-related injuries and fatalities from work-related accidents, work-related ill health and fatalities from ill health related to employees	66		
S1 S1-17 103 a		Number of incidents of discrimination and harassment [table]	67	GRI 406: Non-discrimination 2016: 406-1 Incidents of discrimination and corrective action taken	
S1 S1-17 103 d	AR 103-AR 106	Disclosure of contextual information necessary to understand data and how data has been compiled (work-related grievances, incidents and complaints related to social and human rights matters)	67	GRI 2: General Disclosures 2021: 2-27 Compliance with laws and regulations	
S1 S1-17 104 a	AR 103-AR 106	No severe human rights incidents connected to own workforce have occurred	67	GRI 3: Material topics 2021: 3-3 Management of material topics	
S2 S2.SBM-3 11 a		Description of types of value chain workers subject to material impacts	68		
S2 S2.SBM-3 11 d		Description of activities that result in positive impacts and types of value chain workers that are positively affected or could be positively affected	69		
S2 S2.SBM-3 11 e		Description of material risks and opportunities arising from impacts and dependencies on value chain workers	68		
S2 S2-1 17		Description of relevant human rights policy commitments relevant to value chain workers	69–71	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S2 S2-1 17a		Disclosure of general approach in relation to respect for human rights relevant to value chain workers	70	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S2 S2-1 17b		Disclosure of general approach in relation to engagement with value chain workers	69	GRI 2: General Disclosures 2021: 2-23 Policy commitments GRI 2: General Disclosures 2021: 2-29 Approach to stakeholder engagement	

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
S2 S2-1 17 c		Disclosure of general approach in relation to measures to provide and (or) enable remedy for human rights impacts	69–70	GRI 2: General Disclosures 2021: 2-23 Policy commitments GRI 2: General Disclosures 2021: 2-25 Processes to remediate negative impacts	
S2 S2-1 18		Policies explicitly address trafficking in human beings, forced labor or compulsory labor and child labour	70	GRI 3: Material topics 2021: 3-3 Management of material topics GRI 408: Child labor 2016: 408-1 Operations and suppliers at significant risk for incidents of child labor GRI 409: Forced or compulsory labor 2016: 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	
S2 S2-1 18		Undertaking has supplier code of conduct	70	GRI 2: General Disclosures 2021: 2-24 Embedding policy commitments	
S2 S2-1 19	AR 14	Disclosure of whether and how policies are aligned with relevant internationally recognized instruments	70	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S2 S2-1 19		Disclosure of extent and indication of nature of cases of non-respect of the UN Guiding Principles on Business and Human Rights, ILO Declaration on Fundamental Principles and Rights at Work or OECD Guidelines for Multinational Enterprises that involve value chain workers	70		
S2 S2-2 22	AR 20	Disclosure of whether and how perspectives of value chain workers inform decisions or activities aimed at managing actual and potential impacts	71	GRI 3: Material topics 2021: 3-3 Management of material topics	
S2 S2-2 22 a		Engagement occurs with value chain workers or their legitimate	71	GRI 3: Material topics 2021: 3-3 Management of material topics	
S2 S2-2 22 b	AR 18	Disclosure of stage at which engagement occurs, type of engagement and frequency of engagement	71	GRI 3: Material topics 2021: 3-3 Management of material topics	
S2 S2-2 22 c	AR 17 - AR 18	Disclosure of function and most senior role within undertaking that has operational responsibility for ensuring that engagement happens and that results inform undertakings approach	71	GRI 3: Material topics 2021: 3-3 Management of material topics	
S2 S2-3 27 b	AR 22	Disclosure of specific channels in place for value chain workers to raise concerns or needs directly with undertaking and have them addressed	72	GRI 2: General Disclosures 2021: 2-25 Processes to remediate negative impacts	
S2 S2-3 27 c		Disclosure of processes through which undertaking supports or requires availability of channels	72		
S2 S2-3 27 d	AR 27	Disclosure of how issues raised and addressed are tracked and monitored and how effectiveness of channels is	72		
S3 S3.SBM-3 9 a)	AR 7	Description of types of affected communities subject to material impacts	73		
S3 S3.SBM-3 9 c		Description of activities that result in positive impacts and types of affected communities that are positively affected or could be positively affected	73		
S3 S3.SBM-3 9 d		Description of material risks and opportunities arising from impacts and dependencies on affected communities	73		
S3 S3-1 15		Disclosure of any particular policy provisions for preventing and addressing impacts on indigenous peoples	74		
S3 S3-1 16		Description of relevant human rights policy commitments relevant to affected communities	74	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S3 S3-1 16 a		Disclosure of general approach in relation to respect for human rights of communities, and indigenous peoples specifically	74	GRI 2: General Disclosures 2021: 2-23 Policy commitments	

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
S3 S3-1 17	AR 10	Disclosure of whether and how policies are aligned with relevant internationally recognized instruments	70	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S3 S3-3 27 b		Disclosure of specific channels in place for affected communities to raise concerns or needs directly with undertaking and have them addressed	75	GRI 2: General Disclosures 2021: 2-25 Processes to remediate negative impacts GRI 413: Local communities 2016: 413-1 Operations with local community engagement, impact assessments, and development programs	
S3 S3-3 27 d		Disclosure of how issues raised and addressed are tracked and monitored and how effectiveness of channels is	75		
S4 S4.SBM-3 10 a		Description of types of consumers and end-users subject to material impacts	76		
S4 S4.SBM-3 10 c	AR 19	Description of activities that result in positive impacts and types of consumers and end-users that are positively affected or could be positively affected	76		
S4 S4.SBM-3 10 d		Description of material risks and opportunities arising from impacts and dependencies on consumers and end-	76		
S4 S4-1 16		Description of relevant human rights policy commitments relevant to consumers and/or end-users	76	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S4 S4-1 16 a		Disclosure of general approach in relation to respect for human rights of consumers and end-users	76	GRI 2: General Disclosures 2021: 2-23 Policy commitments	
S4 S4-1 16 c	AR 24	Disclosure of general approach in relation to measures to provide and (or) enable remedy for human rights impacts	76	GRI 2: General Disclosures 2021: 2-25 Processes to remediate negative impacts GRI 3: Material topics 2021: 3-3 Management of material topics	
S4 S4-3 25 b		Disclosure of specific channels in place for consumers and end-users to raise concerns or needs directly with undertaking and have them addressed	77	GRI 2: General Disclosures 2021: 2-25 Processes to remediate negative impacts	
S4 S4-3 25 c		Disclosure of processes through which undertaking supports or requires availability of channels	77	GRI 2: General Disclosures 2021: 2-25 Processes to remediate negative impacts	
S4 S4-3 25 d		Disclosure of how issues raised and addressed are tracked and monitored and how effectiveness of channels is	77		
G1 G1.GOV-1 5a	AR 1	Disclosure of role of administrative, management and supervisory bodies related to business conduct	79	GRI 2: General Disclosures 2021: 2-12 Role of the highest governance body in overseeing the management of	
G1 G1.GOV-1 5 b		Disclosure of expertise of administrative, management and supervisory bodies on business conduct matters	79	GRI 2: General Disclosures 2021: 2-9 Governance structure and composition	
G1 G1-1 9		Description of how the undertaking establishes, develops, promotes and evaluates its corporate culture	79	GRI 2: General Disclosures 2021: 2-16: Communication of critical concerns GRI 2: General Disclosures 2021: 2-23, Policy commitments GRI 2: General Disclosures 2021: 2-24: Embedding policy commitments	
G1 G1-1 10a		Description of the mechanisms for identifying, reporting and investigating concerns about unlawful behavior or behavior in contradiction of its code of conduct or similar	83	GRI 2: General Disclosures 2021: 2-26 Mechanisms for seeking advice and raising concerns	
G1 G1-1 10 e	AR 2 - AR 3	Undertaking is committed to investigate business conduct incidents promptly, independently and objectively	83		
G1 G1-1 10 g		Information about policy for training within organization on business conduct	83	GRI 2: General Disclosures 2021: 2-24 Embedding policy commitments	
G1 G1-2 15 a		Description of approaches in regard to relationships with suppliers, taking account risks related to supply chain and impacts on sustainability matters	84	GRI 3: Material topics 2021: 3-3 Management of material topics	

ESRS reference	Related AR	Name	Location	GRI ¹	ISSB ²
G1 G1-2 15 b	AR 2 - AR 3	Disclosure of whether and how social and environmental criteria are taken into account for selection of supply-side contractual partners	84–87	GRI 308: Supplier Environmental Assessment 2016: 308-1 New suppliers that were screened using environmental criteria GRI 414: Supplier Social Assessment 2016: 414-1 New	
G1 G1-3 18 a	AR 5 - AR 6	Information about procedures in place to prevent, detect, and address allegations or incidents of corruption or bribery	88	GRI 2: General Disclosures 2021: 2-26 Mechanisms for seeking advice and raising concerns GRI 3: Material Topics 2021: 3-3 Management of material topics	
G1 G1-3 20		Information about how policies are communicated to those for whom they are relevant (prevention and detection of corruption or bribery)	88–89	GRI 205: Anti-corruption 2016: 205-2 Communication and training about anti-corruption policies and procedures	
G1 G1-3 21 a		Information about nature, scope and depth of anti-corruption or anti-bribery training programs offered or	89–91		

1 Please note that we are using ESRS definitions and breakdowns whenever the definitions and breakdowns provided by GRI differed from the one required by ESRS

2 Please note that we are using ESRS definitions and breakdowns whenever the definitions and breakdowns provided by ISSB differed from the one required by ESRS

LIST OF DATAPOINTS IN CROSS-CUTTING AND TOPICAL STANDARDS THAT DERIVE FROM OTHER EU LEGISLATION

		Location	SFDR reference	Pillar 3 reference	Benchmark Regulation reference	EU Climate Law reference
ESRS 2 GOV-1 21 d	Percentage of members of administrative, management and supervisory bodies by gender and other aspects of diversity; Board's gender diversity ratio	6	•		•	
ESRS 2 GOV-1 21 e	Percentage of independent board members	6			•	
ESRS 2 GOV-4 30	Disclosure of mapping of information provided in sustainability statement about due diligence process	10–11	•			
E1-4 34	GHG emission reduction targets	31	•	•	•	
E1-5 37	Energy consumption and mix, disaggregated by sources	33	•			
E1-5 38	Energy consumption from fossil sources disaggregated by sources (only high climate impact sectors)	33	•			

		Location	SFDR reference	Pillar 3 reference	Benchmark Regulation reference	EU Climate Law reference
E1-6 44	Gross scopes 1, 2, 3 and total GHG emissions - GHG emissions per scope [table]	34	•	•	•	
E1-6 53-55	GHG emissions intensity, location-based (total GHG emissions per net revenue)	34	•	•	•	
E5-5 37 d	Non-recycled waste; Percentage of non-recycled waste	41	•			
E5-5 39	Total amount of hazardous waste	41	•			
S1-1 20	Description of relevant human rights policy commitments relevant to own workforce	59	•			
S1-1 21	Disclosure of whether and how policies are aligned with relevant internationally recognized instruments	59			•	
S1-1 23	Workplace accident prevention policy or management system is in place	59	•			
S1-3 32 c	Grievance or complaints handling mechanisms related to employee matters exist	62	•			

		Location	SFDR reference	Pillar 3 reference	Benchmark Regulation reference	EU Climate Law reference
S1-14 88 b, c	Number of fatalities in own workforce as result of work-related injuries and work-related ill health; Number of recordable work-related accidents for own workforce.	66	•		•	
S1-14 88 e	Number of days lost to work-related injuries and fatalities from work-related accidents, work-related ill health and fatalities from ill health related to employees	66	•			
S1-17 103 a	Number of incidents of discrimination and harassment [table]	67	•			
S1-17 104 a	No severe human rights issues and incidents connected to own workforce have occurred	67	•		•	
S2-1 17	Description of relevant human rights policy commitments relevant to value chain workers	69–71	•			
S2-1 18	Policies explicitly address trafficking in human beings, forced labor or compulsory labor and child labour; Undertaking has supplier code of conduct	70	•			
S2-1 19	Disclosure of extent and indication of nature of cases of non-respect of the UN Guiding Principles on Business and Human Rights, ILO Declaration on Fundamental Principles	70	•		•	
S2-1 19	Disclosure of whether and how policies are aligned with relevant internationally recognized instruments.	70			•	

		Location	SFDR reference	Pillar 3 reference	Benchmark Regulation reference	EU Climate Law reference
S3-1 16	Description of relevant human rights policy commitments relevant to affected communities	74	•			
S3-1 17	Disclosure of whether and how policies are aligned with relevant internationally recognized instruments	70	•		•	
S4-1 16	Description of relevant human rights policy commitments relevant to consumers and/or end-users	76	•			

GRI CONTENT INDEX

Statement of use	ABB Ltd has reported the information cited in this GRI content index for the period 1 january 2024 to 31 December 2024 with reference to the GRI Standards.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	Not applicable

GRI STANDARD	DISCLOSURE	LOCATION
All relevant standards		For GRI disclosures other than GRI 301: Materials 2016 and GRI 302: Energy 2016 (as included below) refer to the ESRS Content Index, including GRI and ISSB interoperability above
GRI 301: Materials 2016	301-1 Materials used by weight or volume	42
GRI 302: Energy 2016	302-3 Energy intensity	33

SASB - ELECTRICAL & ELECTRONIC EQUIPMENT

Topic	Metric	Category	Unit of Measure	Code	ABB answer
Energy Management	a. Total Energy Consumed (Gigajoules)	Quantitative	Gigajoules (GJ)	RT-EE-130a.1	4650400.8
	b. Percentage Grid Electricity (%)		Percentage (%)		68%
	c. Percentage Renewable (%)		Percentage (%)		69%
Hazardous Waste Management	a. Amount of hazardous waste generated, percentage recycled (Metric tons, %)	Quantitative	Metric tons (t), Percentage (%)	RT-EE-150a.1	6201, 60% (Increase due to warehouse clean-ups in several sites for electronics)
	b. Number and aggregate quantity of reportable spills, quantity recovered (Number, Kilograms)		Number, kilograms (kg)	RT-EE-150a.2	1 spill, 470 liters of oil, none recovered .
Product Safety	a. Number of recalls issued, total units recalled (Number)	Quantitative	Number	RT-EE-250a.1	a. As of 2024, this number is not available on an aggregated level at ABB.
	b. Total amount of monetary losses as a result of legal proceedings associated with product safety		Presentation currency	RT-EE-250a.2	b. Not applicable. Due to NDA agreements with third parties, we are unable to disclose monetary values resulting from legal proceedings with these third
Product Lifecycle Management	a. Percentage of products by revenue that contain IEC 62474 declarable substances (% by revenue)	Quantitative	Percentage (%) by revenue	RT-EE-410a.1	As of 2024, we are unable to respond to this question. Please refer to the section "Circularity" in the Sustainability Statement.
	b. Percentage of eligible products, by revenue, certified to an energy efficiency certification (% by revenue)		Percentage (%) by revenue	RT-EE-410a.2	Only applicable to North America products. All ABB products are included in point c.
	c. Revenue from renewable energy related and energy efficiency related products (Reporting currency)		Presentation currency	RT-EE-410a.3	Using the EU taxonomy as reference: In 2024, ABB reached a 0% Taxonomy-aligned revenue under the Climate Change Mitigation environmental objective that covers partially this requirement. For further details please refer to ABB's EU Taxonomy disclosures in the Sustainability Statement.

Topic	Metric	Category	Unit of Measure	Code	ABB answer
Materials sourcing	a. Description of the management risks associated with the use of critical materials (Discussion & Analysis)	Discussion and Analysis	n.a.	RT-EE-440a.1	Please refer to the sections “Circularity” and “Responsible sourcing” in the Sustainability Statement.
Business ethics	Description of policies and practices for prevention				
	a. Corruption and bribery and anti-competitive behavior (Discussion & Analysis)	Discussion and Analysis	n.a.	RT-EE-510a.1	Please refer to the section “Integrity and transparency” in the Sustainability Statement.
	b. Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption (Reporting currency);	Quantitative	Presentation currency	RT-EE-510a.2	b. Immaterial amount associated with the resolution in Germany of the legacy Kusile enforcement matter.
	c. Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations (Reporting	Quantitative	Presentation currency	RT-EE-510a.3	—
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	Quantitative	Number	RT-EE-000.A	Please refer to the section “Analysis of results of operations” in the Financial Report 2024.
	b. Number of Employees		Number	RT-EE-000.B	112769



Independent limited assurance report on selected sustainability information in ABB Ltd's Sustainability Statement 2024

To the Board of Directors of ABB Ltd, Zurich

We have undertaken a limited assurance engagement on the following selected sustainability information, which are marked as "assured", in the Sustainability Statement of ABB Ltd and its subsidiaries (herein after "ABB") for the year ended December 31, 2024 (hereinafter "Sustainability Information"):

- Global Reporting Initiative (GRI) related KPIs
 - 301-1 Materials used by weight and volume (Metals used)
 - 302-1 Total energy consumption
 - 302-3 Total energy intensity
- Disclosures on the process of the Double Materiality Assessment (DMA) carried out by ABB
- European Sustainability Reporting Standards (ESRS) related disclosures
 - Energy consumption from fossil sources (ESRS E1-5 37a)
 - Energy consumption from renewable sources (ESRS E1-5 37c)
 - Gross Scopes 1,2,3 and Total GHG emissions (ESRS E1-6 44)
 - GHG emission intensity, location & market based (ESRS E1-6 53)
- Avoided Emissions
 - The 2024 value of the avoided emissions ambition reported in the ABB sustainability targets table on page 31 of the Sustainability Statement.
- ABB sustainability targets
 - The 2024 status for the ABB sustainability 2030 targets, within the tables presented on pages 31, 41, 58, 73, 85, 87, and 88 of the Sustainability Statement.
- Non-financial disclosures
 - Non-financial disclosures in accordance with article 964b of the Swiss Code of Obligation (CO), as included in the index table on page 102 and 103 of the Sustainability Statement.
- Disclosures in the subsection 'EU Taxonomy: Disclosures for Financial Year 2024' on pages 46 to 55 and the subsection 'EU Taxonomy: 2024 Tables' on pages 91 to 101 of the Sustainability Statement

Our Limited Assurance Conclusion

Based on the procedures we have performed as described under the *'Summary of the work we performed as the basis for our assurance conclusion'* and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Sustainability Information is not prepared, in all material respects, in accordance with the Sustainability Reporting Criteria, as defined below.

Our assurance engagement and our conclusion do not extend to information in respect of earlier periods or to any other information included in the Sustainability Statement or within the ABB Annual Reporting Suite (consisting of the Integrated Report, the Financial Report, the Corporate Governance Report, and the Compensation Report) or any other information linked to from the Sustainability Information or from the Sustainability Statement, including any images, audio files or embedded videos.



Understanding how ABB has Prepared the Sustainability Information

ABB prepared the Sustainability Information using the following criteria (hereinafter referred to as the "Sustainability Reporting Criteria"):

- For GRI related KPIs - GRI Standards;
- For the DMA- ESRS 2- IRO1;
- For ESRS related disclosures - ESRS standards;
- For avoided emissions - internally developed criteria and methodology based on Guidance on Avoided Emissions, issued by the World Business Council for Sustainable Development (WBCSD), as included on pages 36 to 37 of the Sustainability Statement;
- For ABB sustainability targets - ESRS Standards for Emission reduction targets, GRI Standards for Waste to landfill and Zero harm targets; ABB self-developed criteria for the remaining of the ABB sustainability targets, as included on pages 58, 73, 85, 87 and 88 of the Sustainability Statement;
- For the non-financial disclosures referenced in the index table on page 102 and 103 of the Sustainability Statement - article 964b of the Swiss Code of Obligation;
- For EU-Taxonomy disclosures - Article 8 of Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on establishing a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088

Consequently, the Sustainability Information needs to be read and understood together with the Sustainability Reporting Criteria, including the self-developed criteria. We believe that these criteria are a suitable basis for our limited assurance engagement.

Inherent Limitations in Preparing the Sustainability Information

Due to the inherent limitations of any internal control structure, it is possible that errors or irregularities may occur in disclosures of the Sustainability Information and not be detected. Our engagement is not designed to detect all internal control weaknesses in the preparation of the Sustainability Information because the engagement was not performed on a continuous basis throughout the period and the limited assurance procedures performed were on a test basis.

The calculation of avoided emissions described on pages 36 to 37 of the Sustainability Statement includes several inherently judgmental assumptions derived from internal ABB sources and analyses and external data for comparison purposes is limited or not available. In time, as the external guidance in the sector evolves and data precision improves, the determination of avoided emissions will be subject to less judgement and less estimation uncertainty.

ABB's Responsibilities

The Board of Directors of ABB is responsible for:

- Selecting or establishing suitable criteria for preparing the Sustainability Information, taking into account applicable law and regulations related to reporting the Sustainability Information;
- The preparation of the Sustainability Information in accordance with the Sustainability Reporting Criteria;
- Designing, implementing and maintaining internal control over information relevant to the preparation of the Sustainability Information that is free from material misstatement, whether due to fraud or error.



Our Responsibilities

We are responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the Sustainability Information is free from material misstatement, whether due to fraud or error;
- Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- Reporting our independent conclusion to the Board of Directors of ABB.

As we are engaged to form an independent conclusion on the Sustainability Information as prepared by the Board of Directors, we are not permitted to be involved in the preparation of the Sustainability Information as doing so may compromise our independence.

Professional Standards Applied

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board (IAASB).

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the *International Code of Ethics for Professional Accountants (including International Independence Standards)* issued by the International Ethics Standards Board for Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior.

Our firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our work was carried out by an independent and multidisciplinary team including assurance practitioners and sustainability experts. We remain solely responsible for our assurance conclusion.

Summary of the Work we Performed as the Basis for our Assurance Conclusion

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the Sustainability Information is likely to arise. The procedures we performed were based on our professional judgment. Carrying out our limited assurance engagement on the Sustainability Information included, among others:

- Assessing the design and implementation of systems, processes and internal controls for determining, processing and monitoring sustainability performance data, including the consolidation of data;
- obtaining an understanding of ABB's process to identify material information for reporting;
- Obtaining an understanding of the ABB's process to identify taxonomy-eligible and taxonomy-aligned economic activities and the corresponding disclosures in the Sustainability Statement.
- Inquiring of employees responsible for the determination and consolidation as well as the implementation of internal control procedures regarding the selected disclosures;
- Inspecting selected internal and external documents to determine whether quantitative and qualitative information is supported by sufficient evidence and presented in an accurate and balanced manner;
- Assessing the data collection, validation and reporting processes as well as the reliability of the reported data on a test basis and through testing of selected calculations;



- Analytically assessing the data and trends of the quantitative disclosures included in the scope of the limited assurance engagement;
- With respect to the avoided emissions calculated by ABB, reviewing the internally developed methodology based on the World Business Council for Sustainable Development (WBCSD) guidance, inquired management about the assumptions applied and the sources behind them and reviewed whether the calculation was performed in line with the methodology;
- Checking that the Sustainability Statement contains the information required by article 964b para. 1 and 2 CO to understand the business performance, the business results, the state of the undertaking and the effects of its activity on environmental matters, social matters, employee-related matters, respect for human rights and combating bribery and corruption, as well disclosures on environmental matters as required by article 964b para. 2 CO to contain the information laid out in the Ordinance on Climate Disclosures;
- Assessing of the consistency of the disclosures applicable to ABB with the other disclosures and key figures and of the overall presentation of the disclosures through critical reading of the Sustainability Statement.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

KPMG AG

Achim Wolper
Licensed Audit Expert

Mohamad Midani

Zurich, Switzerland
February 26, 2025

DEFINITIONS

Greenhouse gas emissions

Greenhouse gas (GHG) emissions refer to all emissions that have a warming effect on the earth's surface by trapping heat in the atmosphere. The Greenhouse Gas Protocol, which sets global standards to measure and manage GHG emissions, covers seven GHGs: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), as well as gases used in industry, including hydrofluorocarbons (HFCs), per-fluorocarbons (PCFs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). CO₂, CH₄, and N₂O are released during the combustion of fossil fuels, such as coal, oil, or natural gas. At ABB, we use the metric ton of CO₂-equivalent (CO₂e) to calculate our GHG emissions and to measure progress toward our emissions reduction targets.

Scope 1 GHG emissions

Direct emissions from company-owned and controlled resources, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles.

Scope 2 GHG emissions

Indirect emissions from the generation of purchased energy (electricity, steam, heat, cooling) from an utility provider.

Scope 3 GHG emissions

All other indirect emissions not included in scope 2 that occur in the value chain, both upstream and downstream. According to the GHG protocol, scope 3 emissions are separated into 15 categories and include, for example, purchased goods and services, business travel and commuting, and use of sold products.

Science Based Targets initiative (SBTi)

The SBTi is a global collaboration that enables businesses to set ambitious emissions reduction targets in line with the latest climate science. It independently assesses and approves companies' targets based on strict criteria.



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