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# Sustainability at ABB

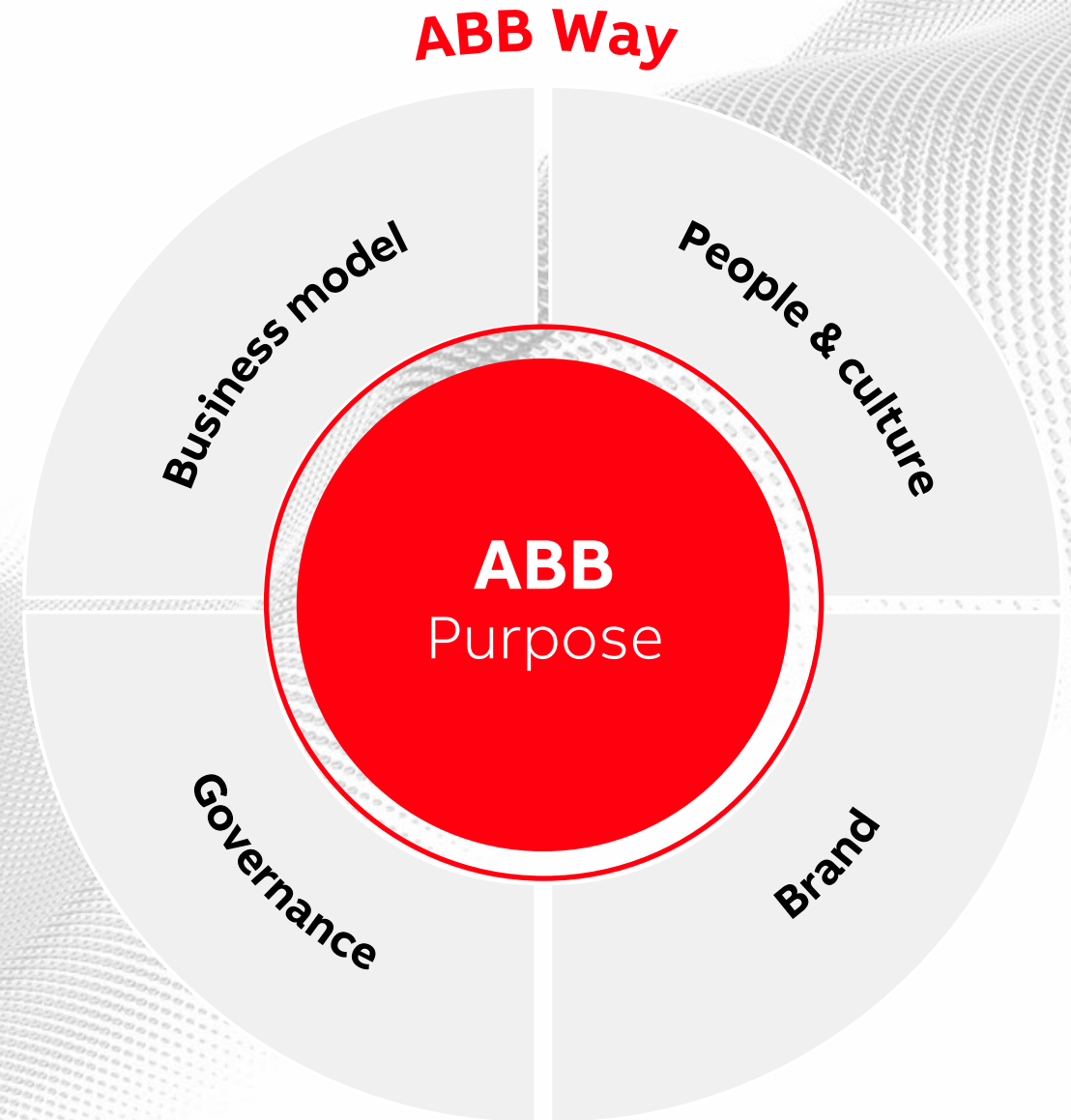
Last updated: August 22, 2024

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**We enable a more sustainable and resource-efficient future with our technology leadership in electrification and automation**





# Sustainability drives value creation across ABB

In a fast-changing world



## MEGATRENDS SHAPING THE ECONOMY

### Climate change & resource scarcity

- CO<sub>2</sub>e emissions
- Circular economy
- Energy saving

### Technological breakthroughs

- Robotization & automation
- Industrial automation
- Digitalization

### Shifting economic power: global/local

- Local rules & regulations
- Community engagement
- Supply chain localization

### Rapid urbanization

- Smarter buildings
- Smarter cities
- E-mobility

### Demographic & social change

- Diversity and inclusion
- Human rights
- Labor rights

## DIFFERENTIATION FOR ABB BUSINESSES



**Smart cities**



**Smart buildings**



**Productivity**



**E-mobility**



**Energy efficiency**



**Smart robotization**

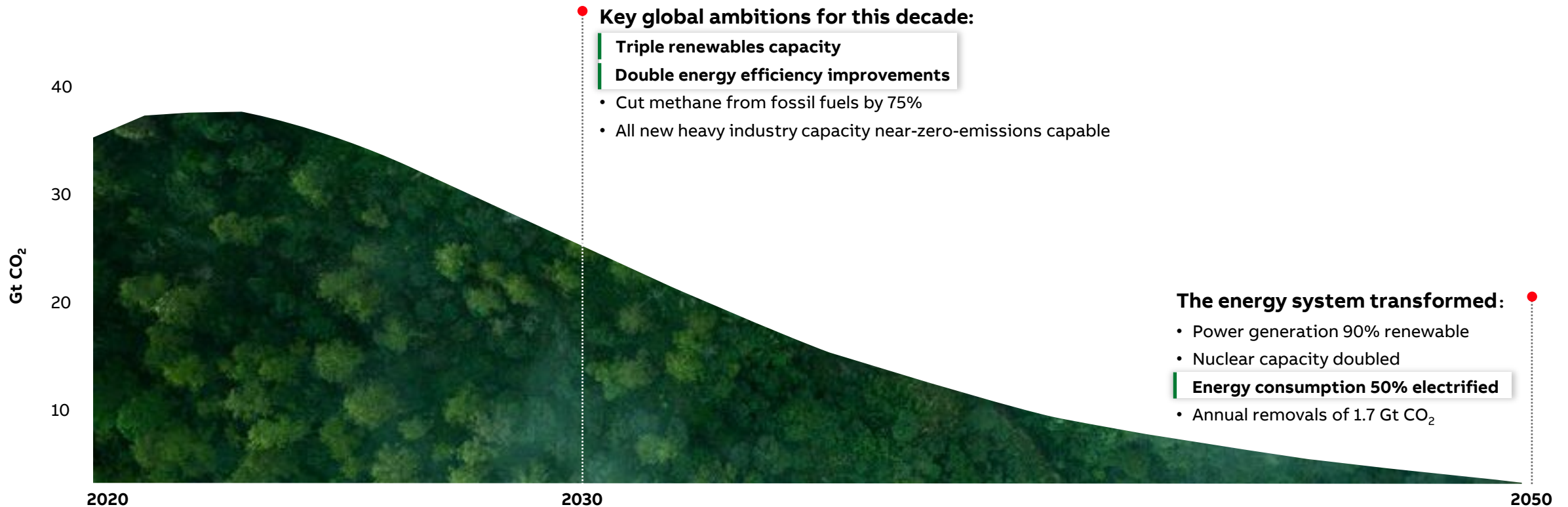
Customers asking to engage on sustainability partnerships



# Net Zero: available technologies can deliver 80% of 2030 emissions reduction

Energy efficiency, renewables and electrification to play a key role


## IEA Net Zero Roadmap: A Global Pathway to Keep the 1.5C Goal in reach







**A Net-zero  
Future is  
Possible**

 Net Zero Roadmap IEA



**More  
Renewables**




ABB's technologies  
are at the core of

**Accelerating the  
Energy Transition**

Supporting all relevant  
sectors to

**Optimize, Electrify  
and Decarbonize**



**More Energy  
Efficiency**

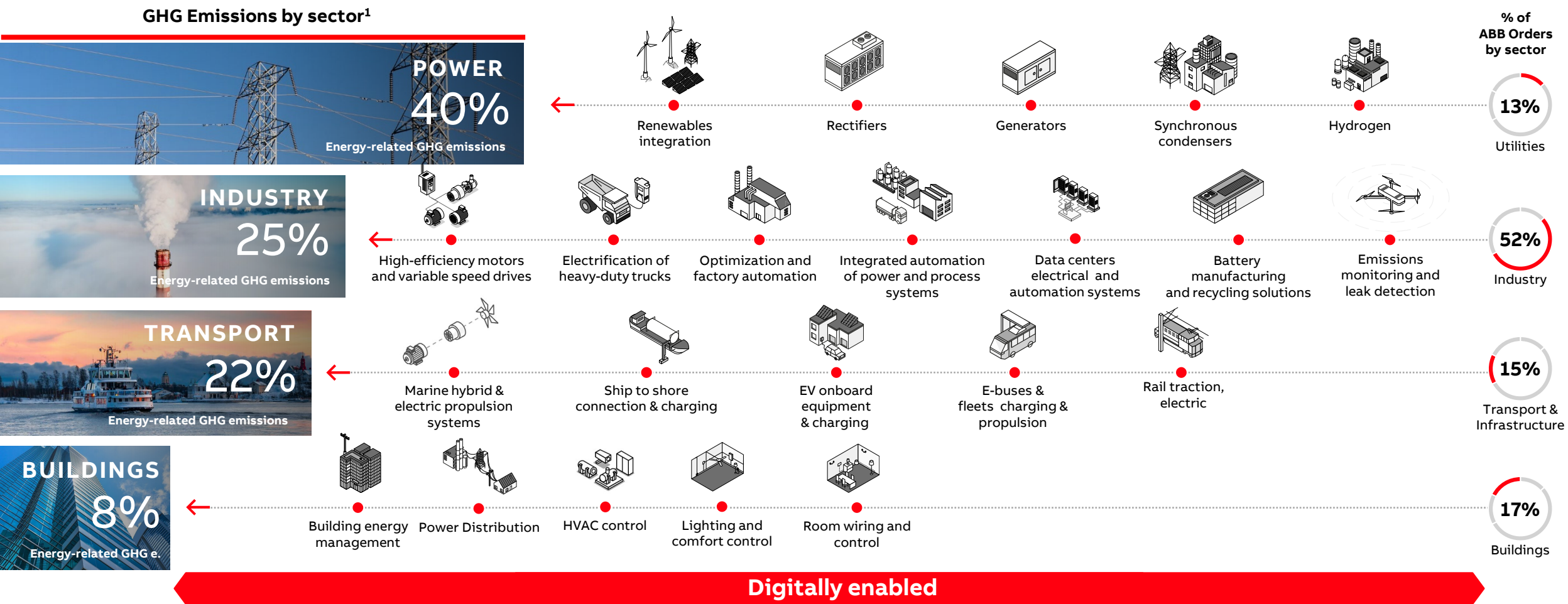


**More  
Electrification**



# ABB's technologies are at the core of accelerating the energy transition

Supporting all relevant sectors to optimize, electrify and decarbonize



1. Source: International Energy Agency  
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# ABB purpose aligned with key market trends

Businesses exposed to several key market trends

**Electrification - the world  
going electric**

supports demand for

~50%

of customer offering

**Energy security**

supports demand for

~20%

of customer offering

**Emission reduction,  
energy efficiency**

supports demand for

~35%

of customer offering

**Automation**

supports demand for

~40%

of customer offering



A woman with dark hair, wearing a light blue sleeveless dress and a chain necklace, is smiling and shaking hands with a man. The man is wearing a light blue shirt and a dark tie. In the background, another man with a beard is smiling. The scene is set in a professional environment, possibly a factory or office, with blurred industrial equipment in the background.

# Stakeholder engagement

We maintain regular contact with our various stakeholder groups, including customers, employees and suppliers. We **engage in a transparent dialogue** with the capital markets to enable participants to make informed investment decisions on a timely basis.

[DISCOVER MORE](#)



# Material topics

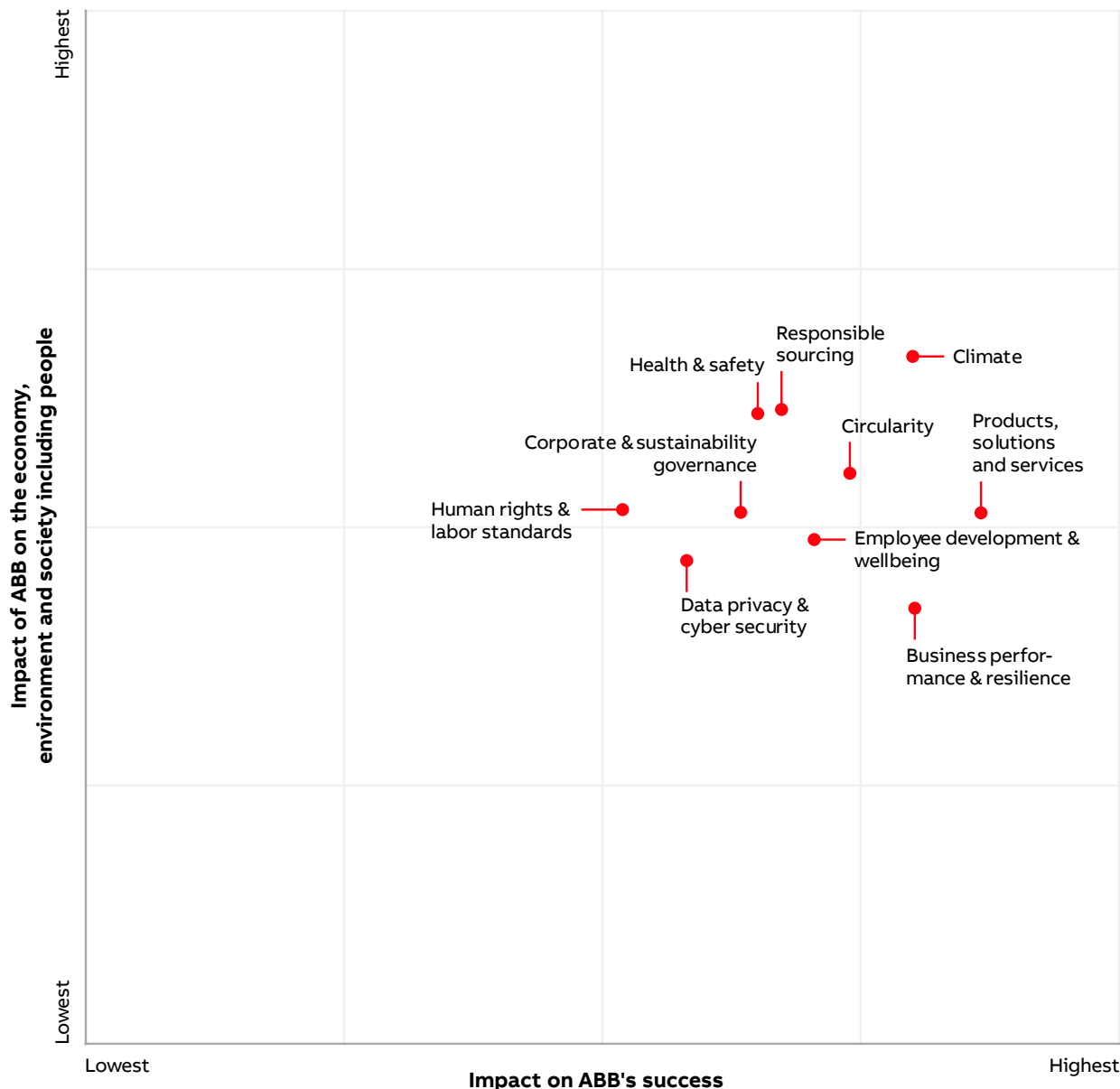
First double materiality assessment conducted in 2023.

Guided by recognized standards and frameworks.<sup>1</sup>

10 material topics identified.

Stakeholders included customers, employees, governments and civil society, investment community, suppliers, and partners.

1. Swiss Code of Obligations related to transparency on non-financial matters (Art. 964b CO), the European Sustainability Reporting Standards (ESRS), Global Reporting Initiative (GRI), Integrated Reporting Framework (IR), IFRS Sustainability Disclosure Standards, SASB Standards and recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

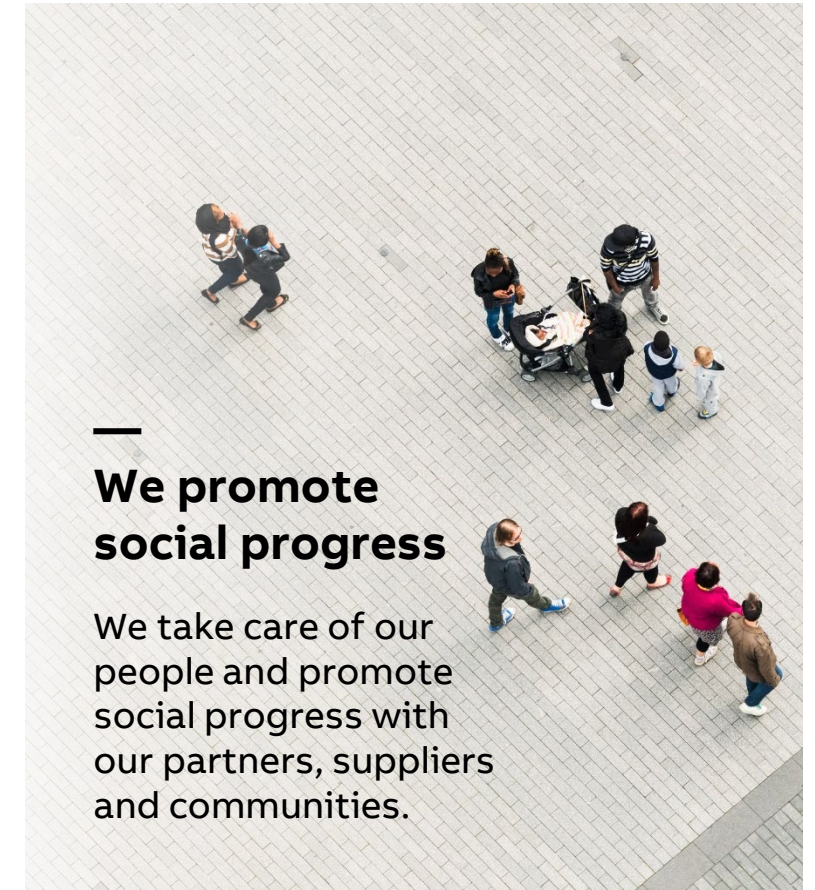
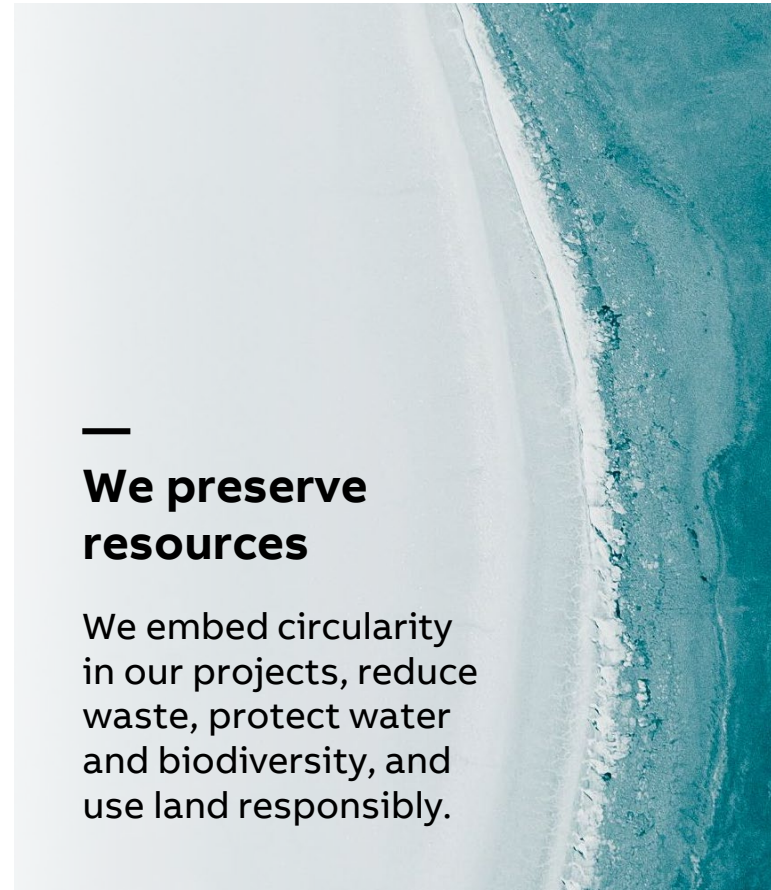
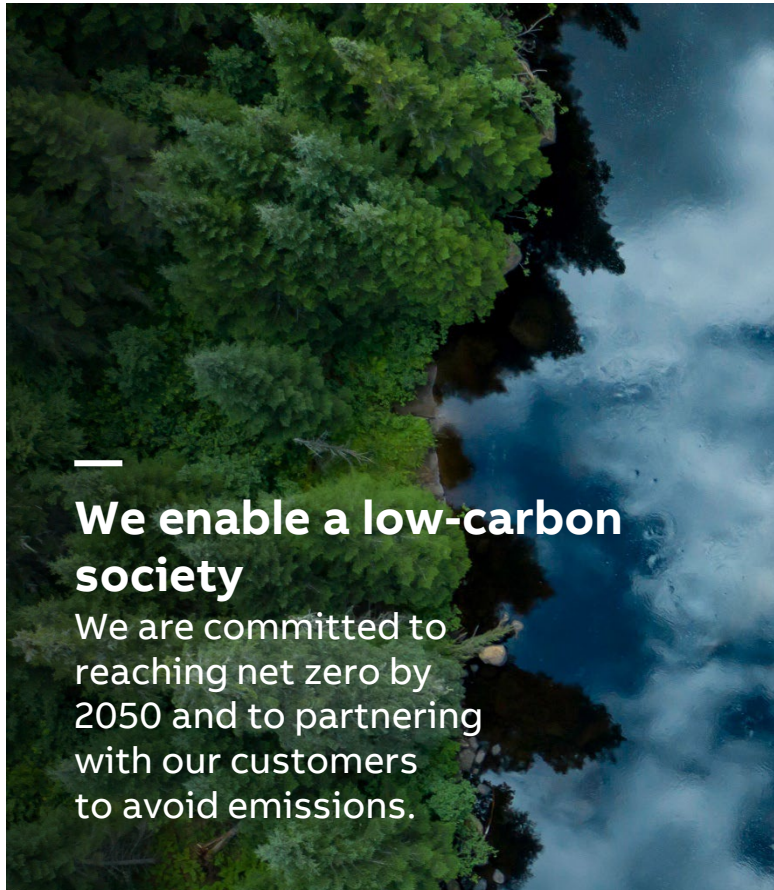


Water, Diversity & Inclusion, and Biodiversity remain core focus areas, though not material



# Our Sustainability Agenda is in line with this mission

Focus on a low-carbon society, resources and social progress









# Reinforced and accelerated sustainability agenda

Upgraded targets and ambition under low-carbon society

## UPGRADED IN 2023

### We enable a low-carbon society

- **Net zero targets**
  - Scope 1 and 2 CO<sub>2</sub>e emissions reduction of 80% by 2030 versus 2019 baseline and 100% by 2050
  - Scope 3 CO<sub>2</sub>e emissions reduction of 25% by 2030. 90% by 2050 Versus 2022 baseline
- **600Mt avoided CO<sub>2</sub>e emissions ambition**

## UNCHANGED

### We preserve resources

- **80% of ABB products & solutions covered by circularity approach**
- **Zero waste to landfill** from own operations wherever possible

### We promote social progress

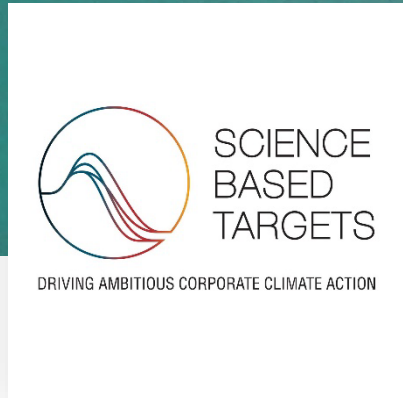
- **Zero harm to our people and contractors**
- **25% women in senior management roles**
- **Top-tier employee engagement score in our industry**
- **Impactful support for community-building initiatives**

**ABB Way:** Sustainability embedded throughout the business

Board of Directors | Executive Committee | Sustainability Council | Division-level implementation

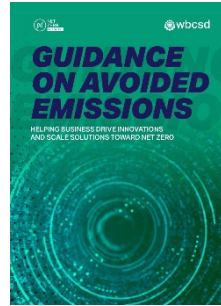


# Our sustainability targets and ambitions follow best-practice standards and guidance



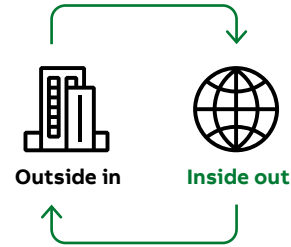
## NET ZERO TARGETS

Net-zero target validated by Science-Based Targets initiative (SBTi)



## AVOIDED EMISSIONS

ABB's methodology aligned with WBCSD guidance for avoided emissions



## DOUBLE MATERIALITY

10 material topics identified through double materiality assessment



## SUSTAINABLE DEVELOPMENT GOALS

Four SDGs identified as where ABB has the greatest impact



# UN Sustainable Development Goals

ABB supports the United Nations' Sustainable Development Goals. We focus on specific areas where we can make the most impact.



## **AFFORDABLE AND CLEAN ENERGY**

ABB enables access to affordable and sustainable energy through our portfolio of electrification, automation and energy-efficient solutions.



## **DECENT WORK AND ECONOMIC GROWTH**

ABB contributes to decent work and economic growth by providing safe and fair employment, paying taxes and supporting local communities.



## **INDUSTRY, INNOVATION AND INFRASTRUCTURE**

ABB's innovative technologies actively contribute to sustainable industrialization and give us, our business partners and our customers the ability to move, work and live more sustainably.



## **CLIMATE ACTION**

By cutting our own GHG emissions, empowering customers to avoid emissions and integrate renewables, and working with suppliers and partners to reduce their carbon footprints, ABB is enabling decarbonization and climate action.



# Reinforced and accelerated sustainability agenda

On track to deliver against 2030 targets

## ENABLING A LOW-CARBON SOCIETY

Reduce own scope 1 and 2 CO<sub>2</sub>e emissions by 80% by 2030



Reduce scope 3 CO<sub>2</sub>e emissions by 25% by 2030



Ambition to avoid emissions throughout lifetime of products sold between 2022 and 2030



## PRESERVING RESOURCES

Cover at least 80% of ABB's portfolio of products and solutions with our Circularity Approach by 2030



Send zero waste to landfill while reducing waste generation by 2030



## PROMOTING SOCIAL PROGRESS

Zero harm to our people and contractors – we aim for a gradual reduction in lost time from incidents



Increase proportion of women in senior management roles to 25% by 2030



Achieve a top-tier employee engagement score



2020 2021 2022 2023

1. **S Strict:** Absolute emissions increase considering energy input. Strict scenario resulted in a 11.3% absolute increase versus the 2030 target of a 25% reduction. **R Representative:** Absolute emissions decrease considering energy losses. Representative scenario resulted in a 0.2% absolute decrease versus the 2030 target of 25% reduction.

2. Portfolio assessed through Circularity Approach



# Sustainability highlights 2023



**Reduction of own scope 1 and 2 GHG emissions**

**76%**

compared to 2019 baseline



**Avoided customer GHG emissions**

**74Mt**

through lifetime of products sold from 2022 to 2030



**Women in senior management roles**

**21%**



**Reduce scope 3 CO<sub>2</sub>e emissions by 25% by 2030**

**↓ 0.2%**

„Representative” scenario

**↑ 11.3%**

“Strict” scenario



**Waste sent to landfill**

**6.3%**

of total waste



**Lost-time injury frequency rate (LTIFR)**

**0.13**



**Employee engagement score**

**77/100**

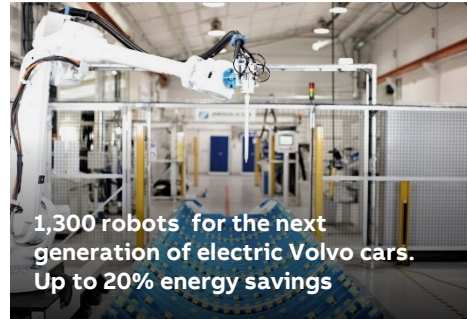


# Our impact

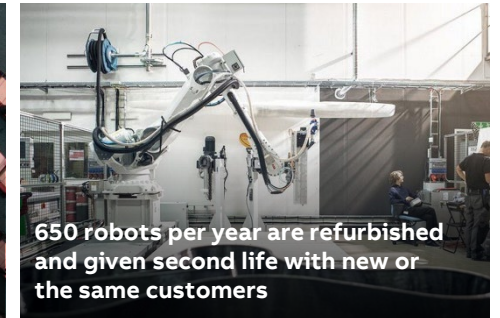
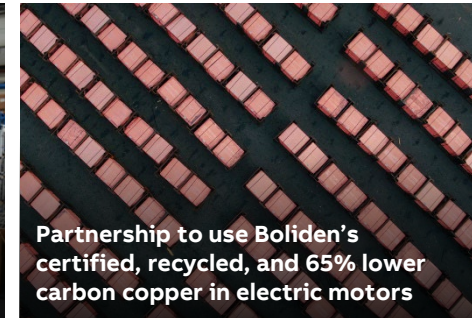
ABB technologies are shifting the way we produce, move, live and work

Here are just a few examples.

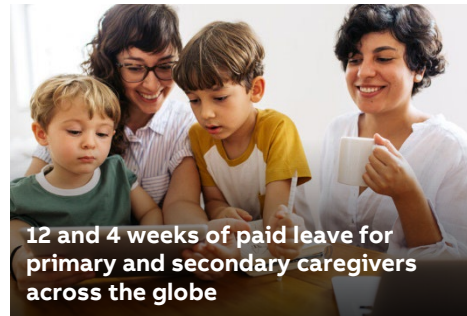
## ENABLING A LOW-CARBON SOCIETY



## PRESERVING RESOURCES



## PROMOTING SOCIAL PROGRESS





# ABB ESG ratings

## Performance recognized

ABB's sustainability performance reflects our commitment to minimizing environmental impact, fostering social responsibility, and maintaining strong governance practices and transparency, all while ensuring long-term economic viability.





# Sustainability disclosure dashboard



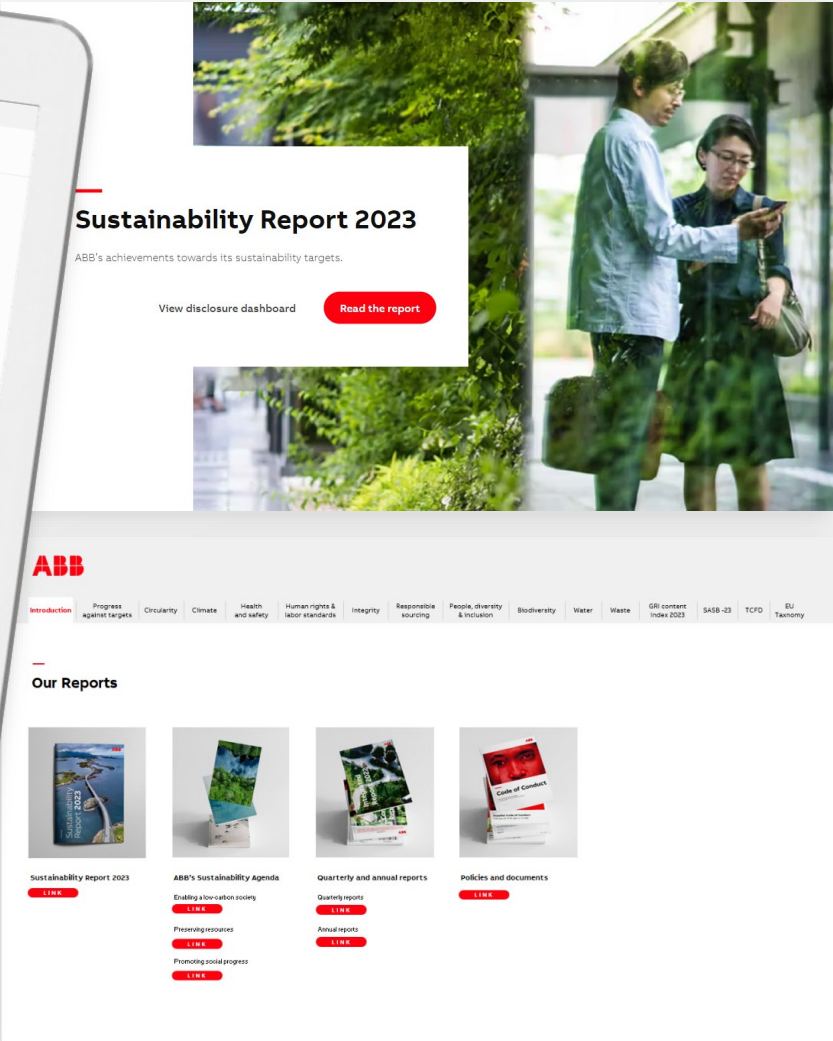
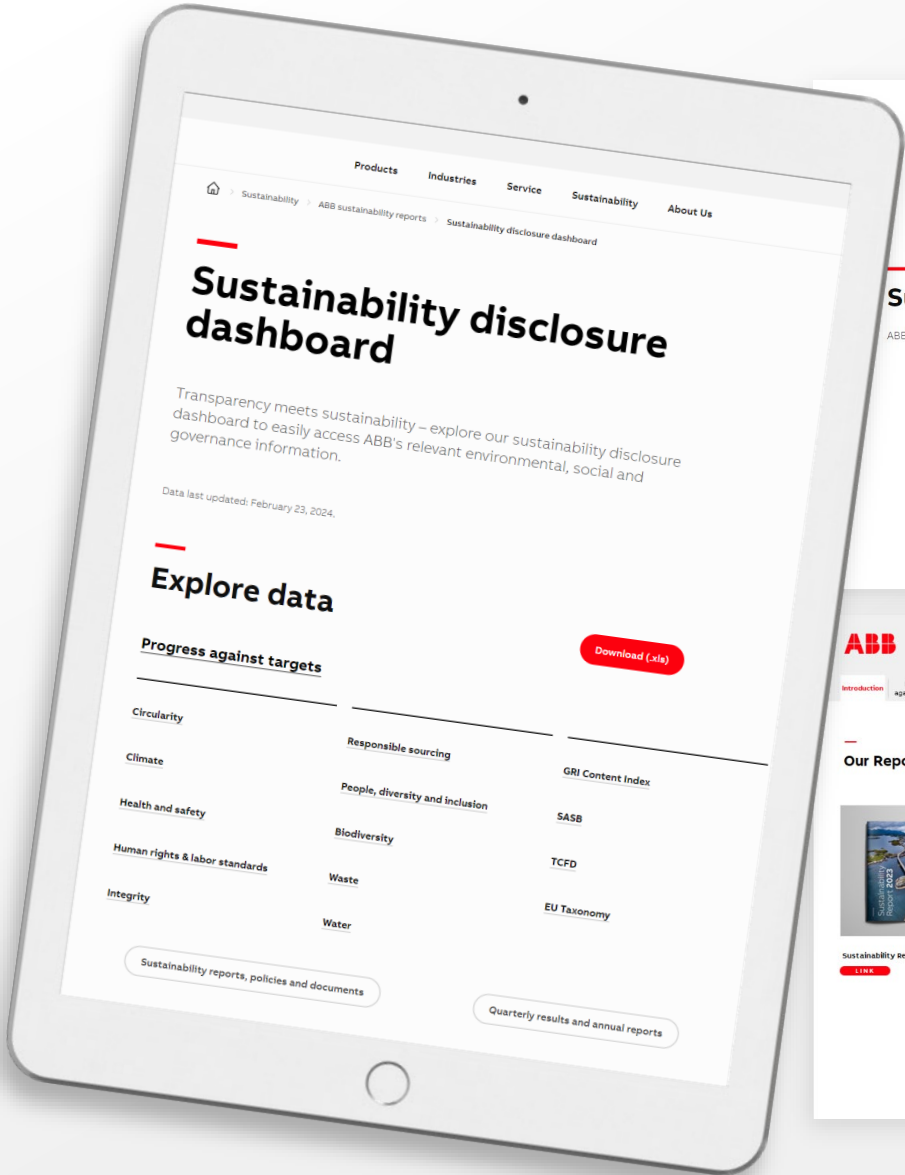
Explore the newest addition to our sustainability website



Making our ESG data easily accessible



In HTML and as a downloadable excel







# Enabling a low-carbon society

We are committed to **reaching net zero by 2050** and to partnering with our customers to avoid emissions

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# Setting ambitious climate targets

Science-based net-zero target  
and avoided emissions

## BEFORE

Reducing CO<sub>2</sub>e emissions by at least 80% and achieving carbon neutrality in own operations by 2030

Ambition to enable our customers to reduce their annual CO<sub>2</sub>e emissions by more than 100 megatons by 2030

## NOW

### Science-based targets



#### Scope 1 and 2

CO<sub>2</sub>e emissions reduction of  
**80% by 2030** - 1.5°C-aligned  
versus 2019 baseline and  
**100% by 2050** - 1.5°C-aligned

#### Scope 3

CO<sub>2</sub>e emissions reduction of  
**25% by 2030**  
**90% by 2050** - 1.5°C-aligned  
versus 2022 baseline

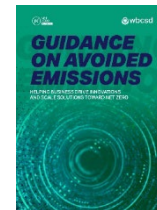
Overall Net-Zero Target approved by SBTi: Net-zero greenhouse gas emissions across the value chain by 2050.

### Avoided emissions

Ambition to enable our customers to avoid

**600 megatons** of CO<sub>2</sub>e emissions

throughout lifetime of products sold from 2022 to 2030





# ABB emissions

Taking a science-based, net-zero aligned targets approach, we have approved by the Science Based Targets initiative (SBTi), Corporate Net-Zero Standard our scope 1, 2 and 3 targets for 2030 and 2050.

## SCOPE 1 & 2 – TARGETS

2030

**80%**

reduction of scope 1 and 2 GHG emissions by 2030 (compared to 2019), 1.5°C-aligned

2050

**100%**

reduction of scope 1 and 2 GHG emissions by 2050, 1.5°C-aligned

## SCOPE 3 – TARGETS

2030

**25%**

reduction of scope 3 GHG emissions by 2030 (compared to 2022)

2050

**90%**

reduction of scope 3 GHG emissions by 2050 (compared to 2022), 1.5°C-aligned

## SCOPE 1 & 2 – PROGRESS

**76%**

reduction in scope 1 and 2 GHG emissions in 2022 versus our 2019 baseline

## SCOPE 3 – PROGRESS

Reduce scope 3 CO<sub>2</sub>e emissions by 25% by 2030

**↓ 0.2%**

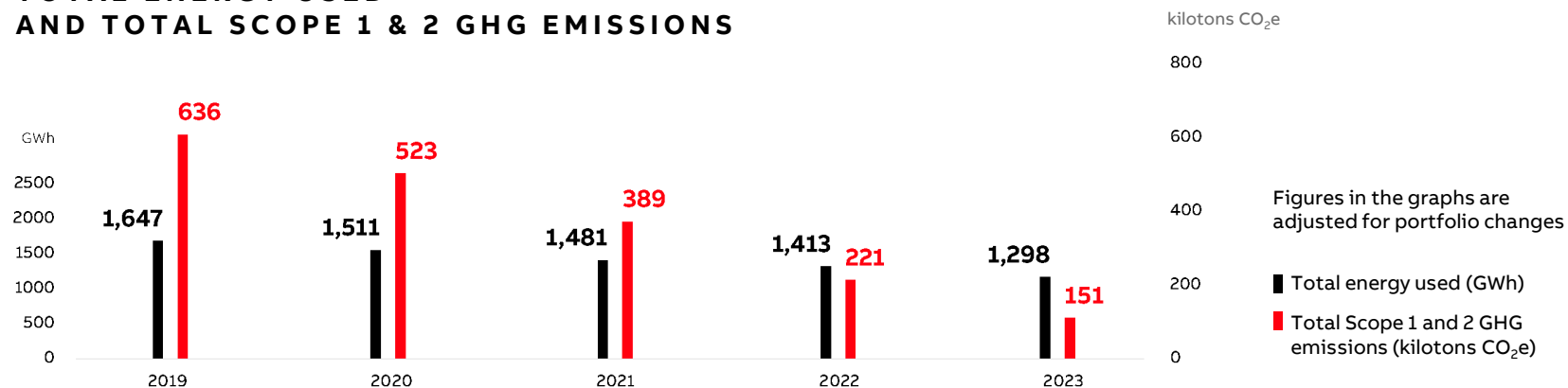
„Representative” scenario

**↑ 11.3%**

“Strict” scenario

Note, the difference being energy loss versus energy input.

## TOTAL ENERGY USED AND TOTAL SCOPE 1 & 2 GHG EMISSIONS





# Avoided emissions

To calculate avoided emissions at our customer sites, we follow the latest guidelines of the World Business Council for Sustainable Development (WBCSD).

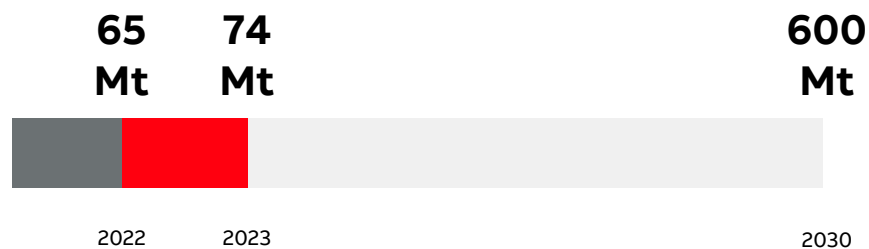
Our technologies enable emissions avoidance in industry, transport, buildings, data centers and more.

## AMBITION

Enable customers to avoid **600 Mt** of GHG emissions through ABB products sold from 2022-2030.

## UPDATE

**74 Mt** avoided GHG emissions in 2023 across industry, transport, buildings, data centers and more.





# ABB in action

## Enabling a low-carbon society Success stories



ABB robots to build Volvo Cars' next generation of electric vehicles while saving energy



Powering Sampkip's new hydrogen-fueled container vessels

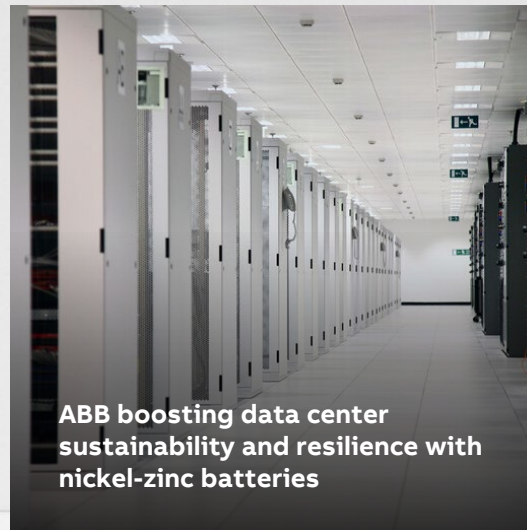


ABB boosting data center sustainability and resilience with nickel-zinc batteries



ABB's Frosinone factory reduces circuit breaker production emissions by one third





# Preserving resources

We embed circularity in our products, reduce waste, protect water and biodiversity, and use land responsibly

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# Waste

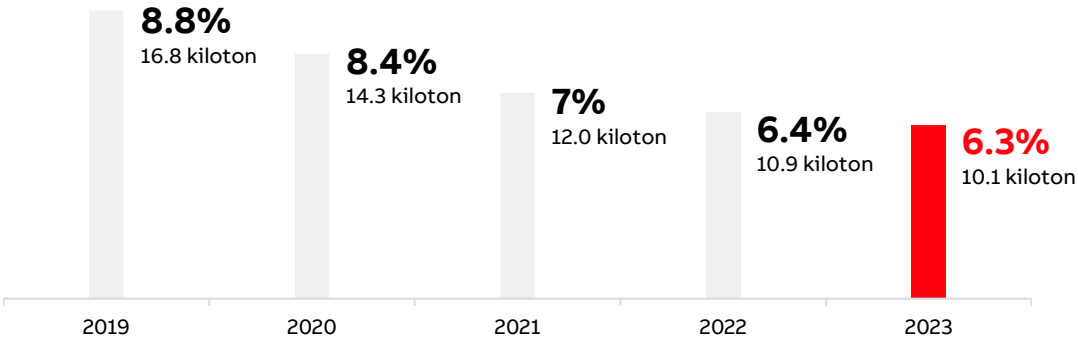
## TARGET

Send **zero waste to landfill** while reducing waste generation by 2030.

We aim to send zero waste from our own operations to landfill by 2030, wherever this is compatible with local conditions and regulations, while developing our capability to prevent waste generation.

## PROGRESS

Non-hazardous waste to landfill





# Circularity



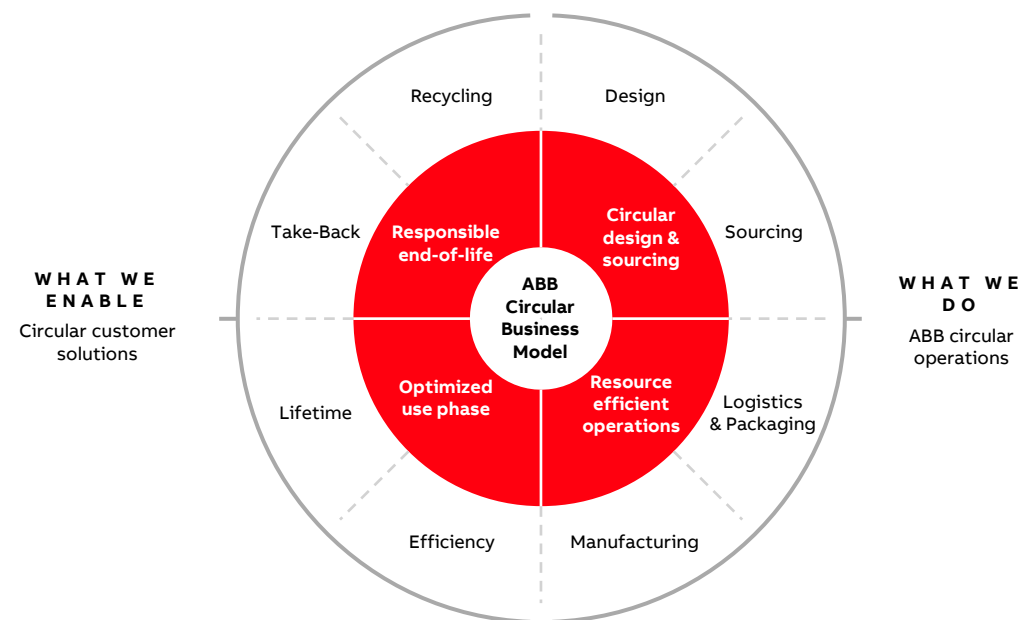
## TARGET

Cover at least **80%** of ABB's products and solutions with our Circularity Approach by 2030.

We are incorporating international standards into the ABB circularity framework to ensure it is robust, objective, quantifiable and auditable.

## PROGRESS

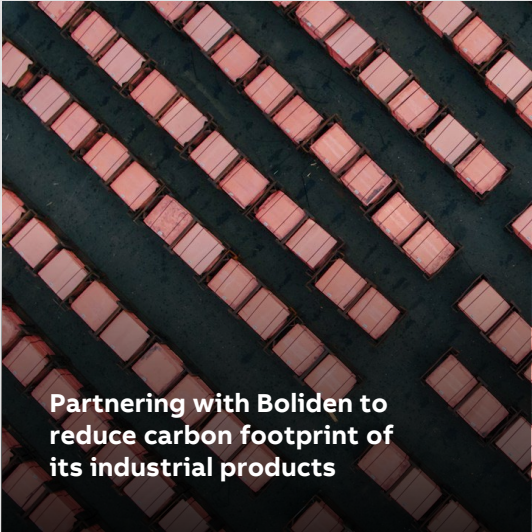
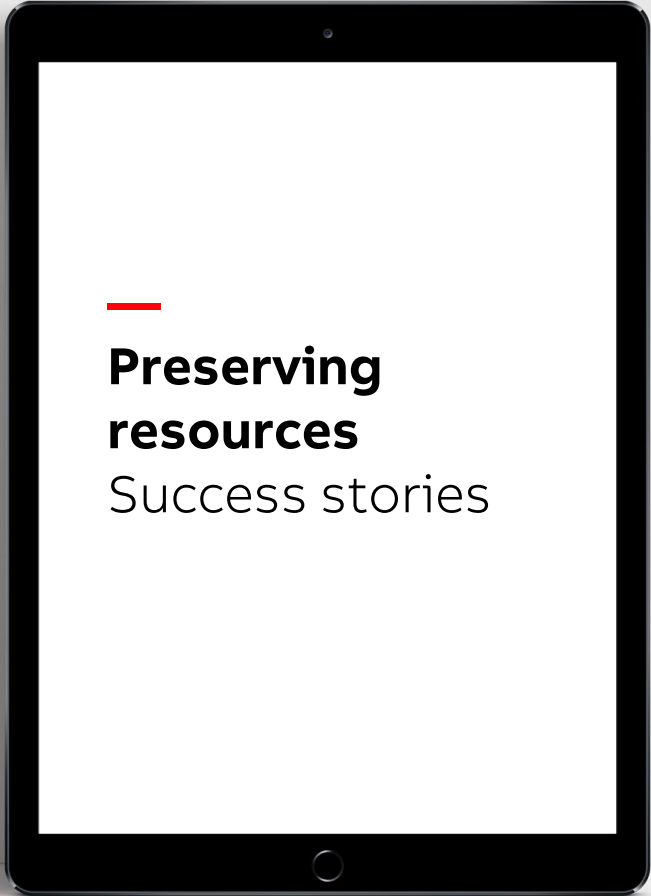
**31%** of our products and solutions are assessed against the requirements of our Circularity Approach





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# ABB in action





An aerial, high-angle photograph of a large, open public square paved with light-colored cobblestones. Numerous people of various ages and ethnicities are walking across the square in different directions. Some are in small groups, some are alone, and some are pushing strollers. The scene is bright and clear, suggesting a sunny day. The text is overlaid on the left side of the image.

# Promoting social progress

We take care of our people and promote social progress with our partners, suppliers and communities.

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# Occupational health and safety

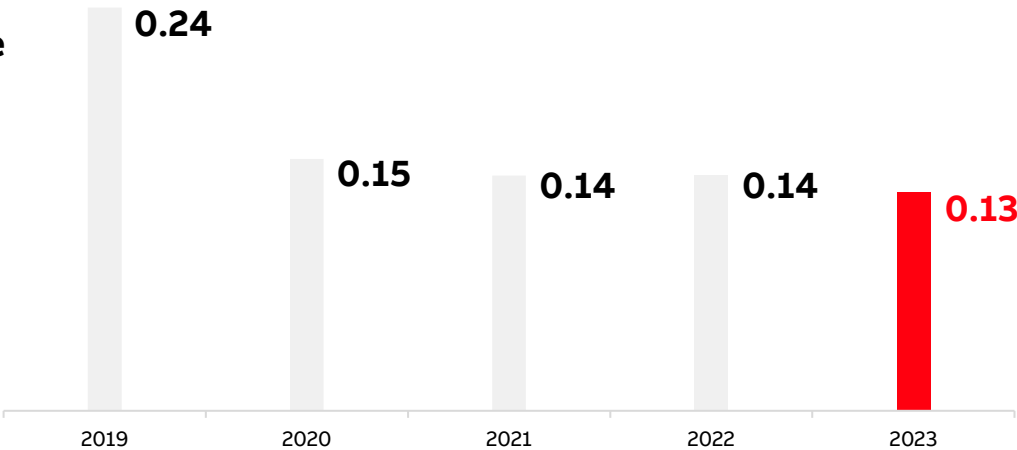
## AMBITION

**Zero harm** to our people and contractors and a gradual reduction in lost time from incidents.

Our long-term success, reputation and standing as the preferred partner for our customers and other stakeholders depends on our ability to ensure the safety of our people and contractors.

## UPDATE

Reduction of lost-time injury frequency rate (LTIFR) from 0.246 in 2019 to 0.13 in 2023.





# Diversity and inclusion

## TARGET

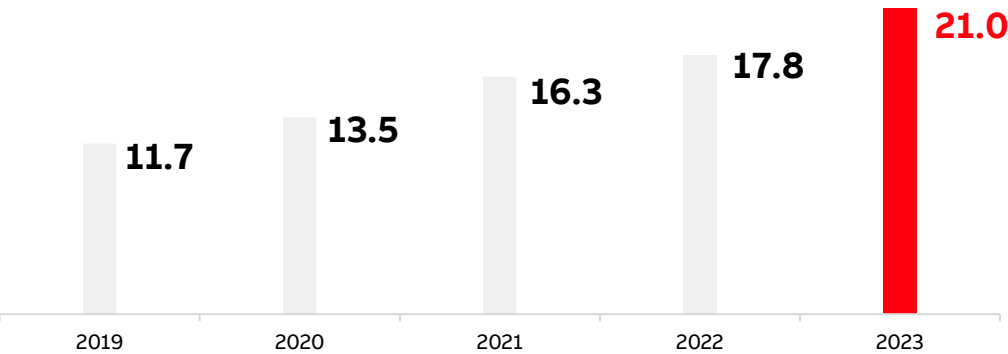
Increase proportion of women in senior management roles to **25%** by 2030.

At ABB, we see diversity and inclusion as a core strength for a successful and sustainable business. We take care of our people, respect and value differences, and seek to create an inclusive environment where everyone can succeed.

We are proud of our global gender-neutral parental leave program, which grants 12 weeks of paid leave for primary caregivers and four weeks for secondary caregivers.

## PROGRESS

Women in senior management (by percent)





# Employee engagement

## TARGET

Achieve a **top-tier** employee engagement score by 2030.

ABB is deeply interested in knowing what its people's on-the-job experiences are like. Our annual Engagement Survey helps us understand how our people feel and lets them voice their opinions on a broad set of topics.

## PROGRESS

**124,808**

comments received



**84%**

response rate  
(=88,988 employees)  
in **2023**



is an improvement  
compared to  
**82%**  
in **2022** and

**65%**

response rate in  
(baseline) **2019**



**106,046**

ABB employees invited  
to the **2023** Engagement Survey

Engagement score:

**71**

**76**

**77**



2019 (baseline) 2022

2023

**/ 100**



# Community engagement

## AMBITION

### Expand programs for community engagement.

- ABB's approach to community engagement combines strategic corporate partnerships with country-level projects to address local needs.
- We know that next-generation technologies and STEM disciplines will play a key role in making a net-zero future a reality. Our education and upskilling programs are helping current and future professionals succeed in a world where robotics, automation and innovative technologies will play an increasingly important role.

## UPDATE

In 2023, our employees and business areas supported communities in a number of ways:

**45**

**Countries  
engaged**

**4,800**

**person-days  
volunteered**

**\$11.5**

**million  
donated**

**500+**

**community projects and  
charities supported**

We have defined the scope of our community engagement to cover four focus areas: education, emergency and disaster relief, community empowerment, and environment and conservation.







# Human rights

## AMBITION

**Our goal is for human rights to be **well understood** and **managed** along our entire value chain and integrated into ABB's daily business.**

ABB's commitment to responsible business practices includes respecting and promoting human rights as expressed in the International Bill of Human Rights.

## UPDATE

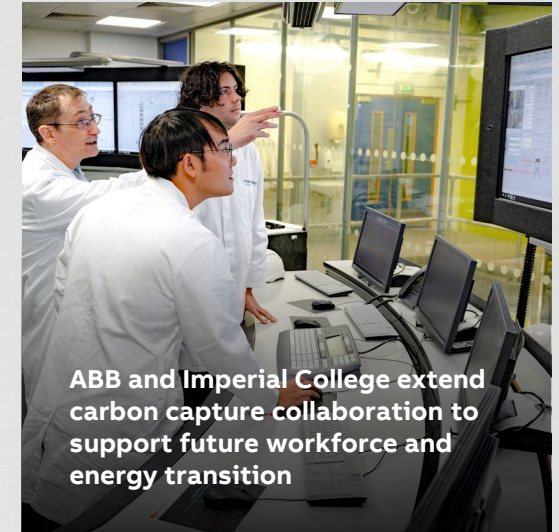
**Enhanced our human rights due diligence in line with UN Guiding Principles. Our Human Rights Policy and Due Diligence Framework place human rights at the heart of ABB's expectations.**

- ☞ Human Rights Policy and Due Diligence Framework
- ☞ ABB Code of Conduct
- ☞ ABB Supplier Code of Conduct
- ☞ Modern Slavery and Human Trafficking Statement



# ABB in action

## Promoting social progress Success stories





A woman and a man, both wearing red ABB polo shirts, are looking at a document together in a factory setting. The woman is pointing at the document, and the man is holding it. They are standing in front of large industrial equipment.

# Acting with integrity and transparency

Our Sustainability Agenda is underpinned by a culture of integrity and transparency across the value chain.

**At ABB, it's not just about what we do - but how we do it.**

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# Integrity

Our **commitment to integrity** in everything we do is embedded in our ABB Code of Conduct, the Supplier Code of Conduct, and a wide range of policies and procedures.

We have an integrity training program that takes a hybrid approach, combining self-guided learning with bespoke, role-specific, mandatory training, to encourage individual ownership and accountability.

- ☞ Integrity at ABB
- ☞ ABB Code of Conduct
- ☞ Annual reporting suite
- ☞ Global ABB Integrity Program
- ☞ Supplier Code of Conduct







# Sustainability governance

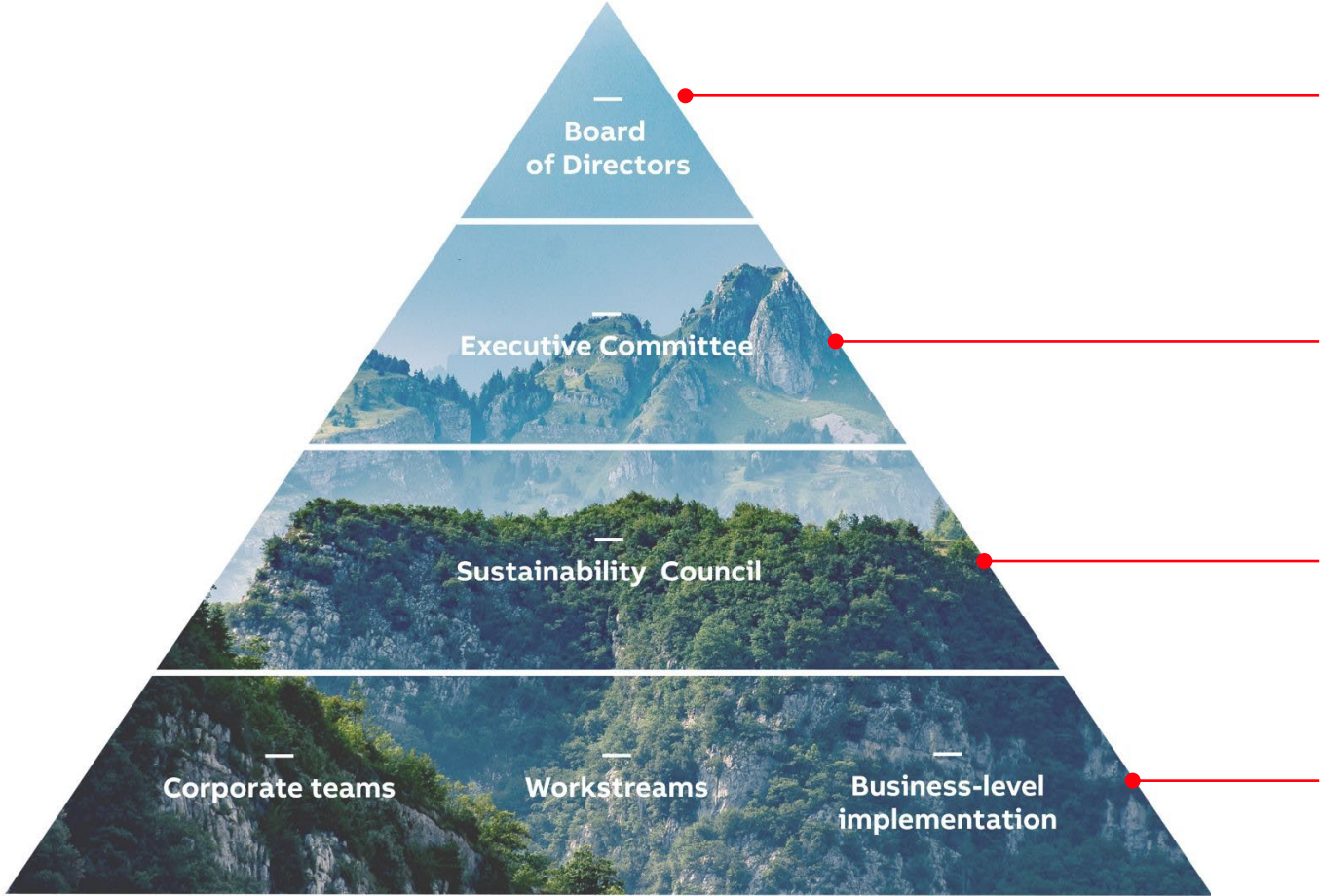
**At ABB, responsibility for sustainability is clearly defined** and covers all levels of the organization including the Board of Directors and the Executive Committee. In line with our ABB Way operating model, the business areas and divisions are ultimately accountable for their sustainability performance.

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# Sustainability governance

## Embedded across the business



**The Board of Directors** reviews and approves the ABB's Sustainability Agenda and related targets. The Governance & Nomination Committee (GNC) is responsible for overseeing ABB's Sustainability Agenda while the Compensation Committee ensures that ABB's executive compensation policies are appropriately aligned with its Sustainability Agenda. The Finance, Audit and Compliance Committee (FACC) is responsible for the integrity of ABB's sustainability-related reporting.

**The Executive Committee** validates the Sustainability Agenda and its implementation. It is responsible for reviewing sustainability targets and ensuring that a sustainability culture is embedded in our business decision-making.

**The Sustainability Council** is the operational body that oversees the implementation of the Sustainability Agenda, reviews developments, and monitors progress toward targets. All business areas are represented in this Council by their heads of strategy as well as their respective sustainability leads

**The Corporate teams** shape ABB's Sustainability Agenda and ensure an accurate assessment of our sustainability performance.

**The Workstreams** establish targets and roadmaps and determine the governance of their respective topics.

**The Business Areas and their Divisions** are ultimately responsible for putting action plans in place and ensuring that appropriate resources are available.





# ABB's sustainability history

At ABB, we have been enabling energy efficiency and electrification **for over 140 years**. Our solutions allow our customers to remain competitive while lowering their carbon footprint.

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## RECENT HIGHLIGHTS

**2024**

ABB's scope 1, 2 and 3 net-zero targets validated by SBTi

**2020**

Launch of ABB's sustainability targets for 2030

**2000**

ABB's first sustainability report, including environmental and social performance



**ABB**