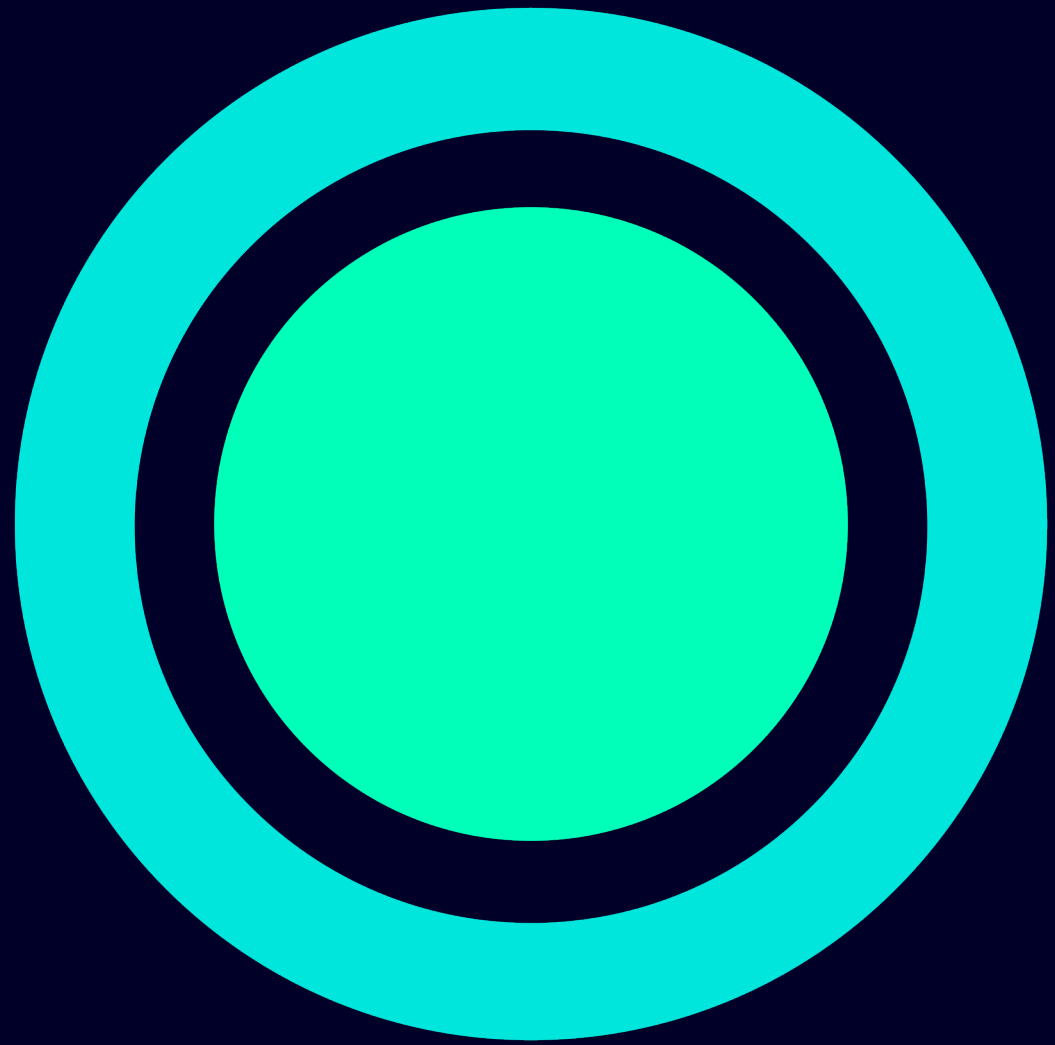
Sustainability at Siemens

Scaling sustainability impact
2025



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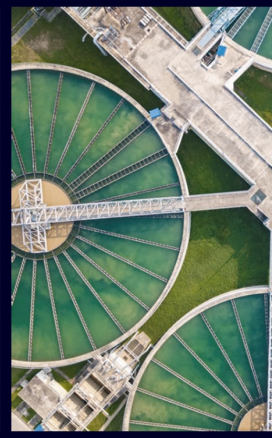
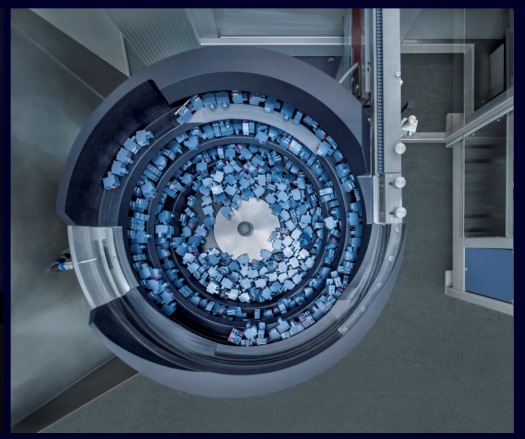
SIEMENS

OUR PURPOSE

We create technology
to transform the everyday,
for everyone





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Five megatrends shape our future

Demographic change

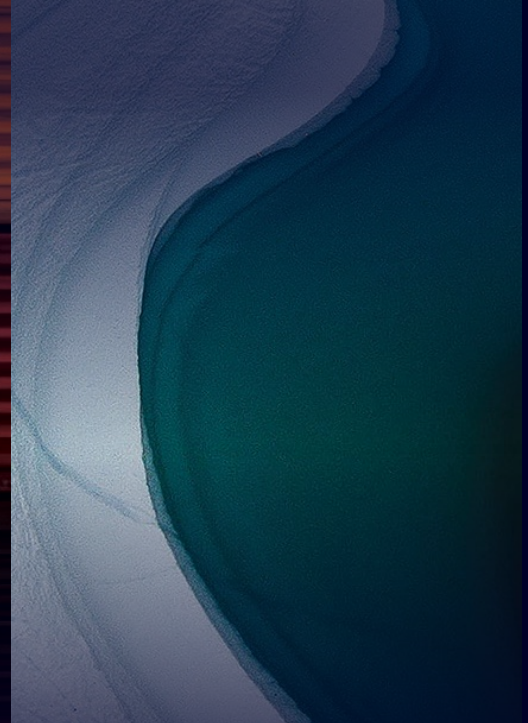
- Aging society impacting healthcare systems
- Productivity improvements as main GDP growth driver in particular mature markets
- Heterogeneous population growth among regions impacting labor development and migration

Urbanization

- Urbanization especially in developing regions
- Increasing investment in buildings and infrastructure
- Increasing demand for urban transport and logistics

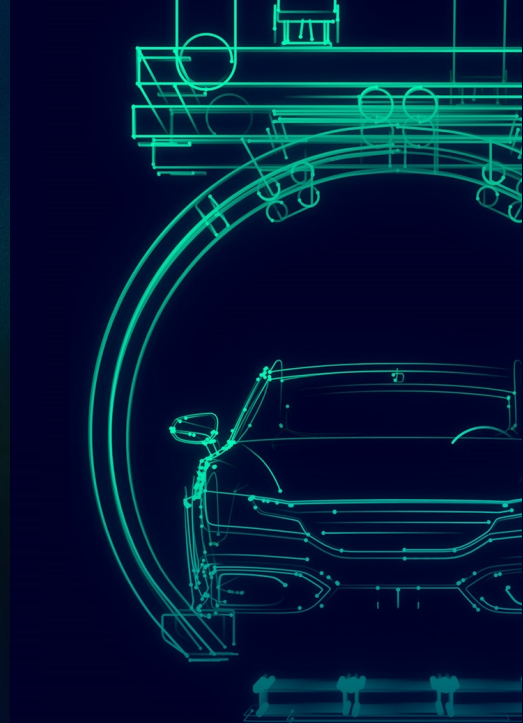
Glocalization

- From globalization to glocalization
- Shifting center of gravity from EU27 and USMCA to RCEP and India
- Demand for higher resilience



Environmental change

- Climate change
- Biodiversity loss
- Pollution
- Increasing material extraction and circular economy



Digitalization

- Digital value creation
- Connectivity and IoT
- Automation
- Artificial intelligence
- Industrial metaverse
- Cybersecurity

USMCA: United States, Mexico, Canada; RCEP: Regional Comprehensive Economic Partnership

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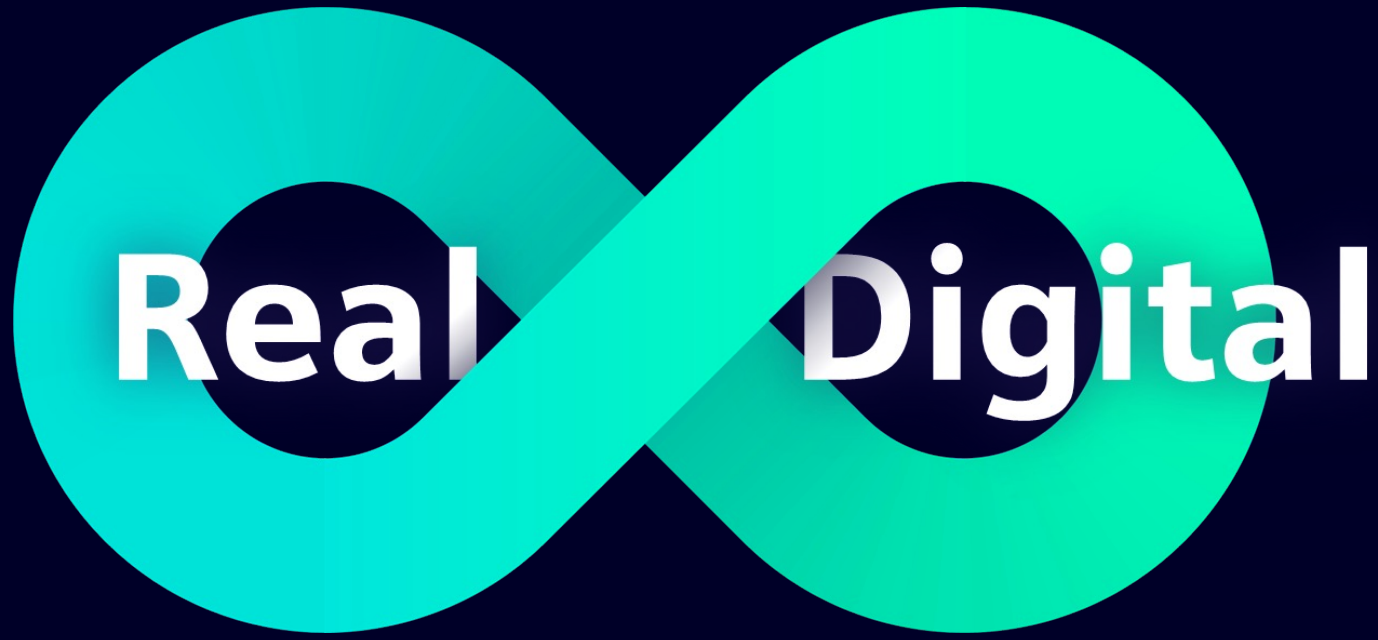
Technology drives sustainability

We combine the real and the digital worlds to empower our customers to become more competitive, resilient, and sustainable



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Accelerating our customers’ **sustainability transformation**

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Technology is the most powerful tool humanity has to build a more sustainable future.

By combining the real and the digital worlds and harnessing the transformative power of technologies like AI, we're helping customers and societies accelerate their path to sustainability, while also reducing our own environmental footprint.

Dr. Roland Busch

President and CEO of Siemens AG

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As ONE Tech Company, we will create more value

For our
customers

We help them become more competitive, resilient and sustainable

For our
shareholders

We are laying the foundation for greater long-term value

For
society

We fulfill our purpose even better: To create technology to transform the everyday, for everyone

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By combining the real and the digital worlds

>90%

of our business enables customers to achieve a positive sustainability impact scaled across three key areas ... ...

Note: Calculation based on revenue. <10% is excluded as it relates to products that contain SF6-gas or stems from business with sectors like oil and gas, coal mining, or coal power generation.

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Scaling sustainability impact

Impact areas

For our customers, planet and society

Across our own operations, products and people

Decarbonization & energy efficiency

We drive decarbonization of products, operations and supply chains via dedicated software and hardware, and by enabling renewables integration, energy efficiency, and electrification.

We reduce emissions in our operations and supply chain by designing low-carbon, energy-efficient products, produced in optimized production facilities using our portfolio.

Resource efficiency & circularity

We improve resource efficiency and empower circularity by equipping industries with technologies, extending asset lifecycles while enhancing performance, availability and utilization.

We decrease our environmental footprint and secure our supply chain by designing for circularity, optimizing resource use, eliminating waste, as well as conserving water and biodiversity.

People centricity & society

We advance societies by transforming and providing access to infrastructure and industries, engaging with local communities and enabling people in our ecosystem to grow, compete and thrive.

We empower our people to build skills for life and promote diverse teams, inclusive workplaces and work-wellbeing to ensure our people and our business remain resilient and relevant in ever-evolving environments.

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Our businesses drive sustainability impact

Decarbonization, resource efficiency, and people centricity through all businesses	**Decarbonization & energy efficiency**	**Resource efficiency & circularity**	**People centricity & society**
Industry	Energy optimization and carbon footprint management across product lifecycle and supply chain	Optimal use and reuse of resources and materials, extending product lifecycles	Ergonomics and safety in manufacturing and workflow optimization, product safety
Buildings	Building energy efficiency, sustainability consulting, modular solutions and services	Optimized asset performance, availability, and lifetimes, building space utilization	Healthy indoor climates, fire safety
Electrification & grids	Renewables integration and electrification in real and digital domain, eMobility	Optimized asset performance, availability, and lifetimes, electrical asset protection	Access to reliable and resilient electricity, electrical safety
Mobility	Efficient rail transport with zero local greenhouse gas emissions, e.g. high-speed, battery, and hydrogen trains	Extended lifecycles from repairability, reusability, or refurbishment	Safe, efficient, and reliable mobility as backbone for societal and economical development
Financial Services	Financing new clean technologies, new business models, and sustainable innovation		

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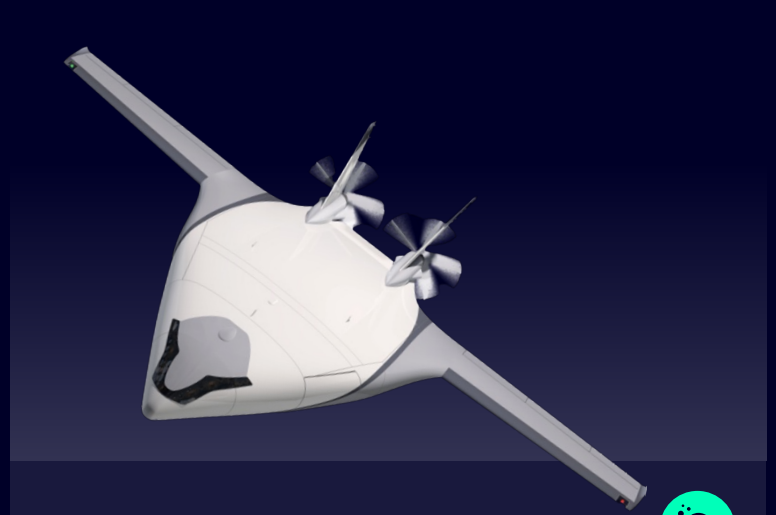
Digital Industries



DECARBONIZATION & ENERGY EFFICIENCY

Natilus

Real-time, scalable digital twin builds a more sustainable aviation industry

- 1.5 times increase in cargo capacity per flight and reduction in fuel consumption by 50% compared to traditional planes
- Compatible with sustainable aviation fuels and future hydrogen propulsion
- Digital twin software accelerates time to market by 50%
- Immersive engineering improves team collaboration and customer engagement

RESOURCE EFFICIENCY & CIRCULARITY

HERU Technologies

Automation technology optimizes a hybrid energy resource unit (HERU) using pyrolysis

- Production of twice the energy required for operation
- CO_2 emission reductions and cost savings achieved by producing energy to heat water
- Energy generation from products that would otherwise be incinerated or sent to landfill

PEOPLE CENTRICITY & SOCIETY

Blendhub

Automation and digital twin complement portable food powder blending factories

- Local processing of harvests enables access to nutrition in underserved communities and supports local economies
- Plug-and-play factories optimized with Siemens technology reduce deployment time from years to 6 months
- Portable factories empower local SMEs and entrepreneurship

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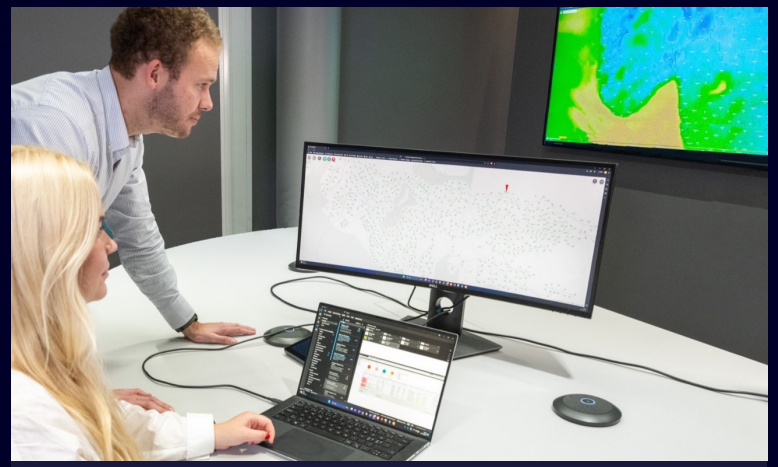
Smart Infrastructure

DECARBONIZATION & ENERGY EFFICIENCY

HEINEKEN

Multi-phase decarbonization program to support HEINEKEN to reach net-zero in Scopes 1 and 2 across all production sites by 2030

- Scalable solution designed with digital twin to optimize heating and cooling requirements in production and packaging processes
- 50% CO_2 reduction by 2025 and estimated energy savings between 15-20% at each site
- Five-year monitoring service contract to ensure ongoing project optimization



RESOURCE EFFICIENCY & CIRCULARITY

Elvia

Siemens SaaS solution supports Elvia in achieving their goal in enhancing grid capacity by 20%

- LV Insights® X is used to automate processes and handle grid complexity in the Low Voltage grid
- Enablement of a future-proof distribution grid management in Norway, one step further on the journey towards autonomous grids

PEOPLE CENTRICITY & SOCIETY

Humber College

Long-term strategic alliance to advance higher education and support an ambitious campus decarbonization plan in Canada

- 30% Reduction in overall GHG emissions
- 15% Reduction in overall energy use
- Smart Lab for hands-on experience using around 30% of real-time data from the microgrid for student coursework

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Mobility

DECARBONIZATION & ENERGY EFFICIENCY

ICE4 fleet for Deutsche Bahn

New standards in intercity transport

- 30% less energy than previous models, as lighter and more aerodynamic
- Replacement of 20,000 cars and savings of 400,000 tons CO_2 over the lifetime of each train
- Modular design with flexible powercar technology, adapts to different intercity transport needs to ensure high reliability with redundant systems

RESOURCE EFFICIENCY & CIRCULARITY

S-Bane Copenhagen

Capacity increase of up to 40% on network through full automation

- CBTC system increases network efficiency, enabling smoother traffic flow and reducing delays
- More precise control of train operations minimizes energy waste, contributing to resource efficiency
- The upgraded S-bane system supports sustainable urban growth

PEOPLE CENTRICITY & SOCIETY

Brightline Florida

Inventory and reservation system drives the shift to rail

- Scalability of operations supports expanding service to new destinations and ensures efficient management of higher passenger volumes with 100% less manual tracking effort
- S3 Passenger system enhances accessibility, offering passengers a seamless booking experience and reduces time to book by 70%
- Focus on hospitality-driven service ensures personalized travel options

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Financial Services

DECARBONIZATION & ENERGY EFFICIENCY

Stegra

Investment in the world's first large-scale green steel plant in Sweden

- Decarbonization of a hard-to-abate sector (steel sector responsible for ~7% of global CO_2 emissions)
- Flagship green steel plant, with integrated green hydrogen and green iron production, secured total funding of ~€6.5bn
- 95% reduction in CO_2 emissions compared to traditional steel production expected

RESOURCE EFFICIENCY & CIRCULARITY

PlantSwitch

Financing the production of biodegradable plastic resin in the US

- Revolution in plastics production through biodegradable plastic resin (recycling rate of non-biodegradable plastic <10%)
- Production capacity of up to 50mn pounds of bioplastic pellets p.a.
- Compatibility with existing machines leading to negligible switching costs

PEOPLE CENTRICITY & SOCIETY

Velindre Cancer Center

Financing for a state-of-the-art cancer treatment center in the UK

- Access to cancer care to be improved in an area of >1.7mn people
- Leadership in national and international education, research, and innovation in cancer patient care
- Strong focus on sustainability with low carbon emissions and renewable energy systems

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For the first time Siemens enables customers to avoid more emissions than caused along our entire value chain

Scope 1, 2 & 3 Emissions[1]

121 Mt CO_2e

Scope 1 & 2

0.4 Mt CO_2e

Positive Customer Avoided Emissions[2, 3]

144 Mt CO_2e

Committed to reducing our footprint with science-based net-zero targets

- -90% in Scope 1 & 2 and -30% in Scope 3 by FY2030 from FY2019 base year ***DEGREE*** ambition 2030
- Reach net-zero CO_2e across the value chain by FY2050 ***DEGREE*** ambition 2030

Enabling customers to avoid emissions via our portfolio's impact on

- Energy efficiency
- Electrification
- Renewable energy integration

1 121 Mt CO_2e represent Siemens Scope 1, 2 and 3 emissions, whereby Scope 3 downstream emissions exclude Innomotics

2 Numbers showing Siemens without Innomotics as Innomotics was sold on October 1st, 2024

3 CO_2e impact (saved or avoided emissions) at customers compared to reference solution. Accounting for avoided emissions of offerings sold in reporting year over their entire use phase. For more details, please refer to our Whitepaper "Customer Avoided Emissions. Calculation Methodology".

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Our portfolio's contribution to decarbonization
Enabling customers to avoid emissions

Customer Avoided Emissions

144

million metric tons of
CO_2e avoided emissions
through Siemens
offerings sold in FY24[1]

Positive CO_2e impact (saved or avoided emissions) at customers compared to reference solution.

Impact Examples

Energy Efficiency: Digital industries enables up to 60% energy savings in the overall production system by offering energy-efficient drive components

Electrification & Energy Efficiency: Siemens Mobility enables ~18,5 megatons of CO_2e of Customer Avoided Emissions over the lifetime of electric locomotives delivered in FY24

Renewable Energy: ~8 Mt CO_2e of Customer Avoided Emissions achieved through Smart Infrastructure, Digital Industries, and Siemens Financial Services, supporting the enablement, expansion and use of additional renewable electricity globally

Calculation methodology

Siemens' proprietary methodology aligned with GHG Protocol Scope 3 use phase reporting: Accounting for avoided emissions of offerings sold in reporting year over their entire use phase

Accounting for both product-level and system-level decarbonization effects.

Avoided emissions methodological updates in FY24:

- Dynamic emissions factors consider grid decarbonization over time
- Expanded methodology to capture Customer Avoided Emissions across three levers: energy efficiency, electrification, increase in renewable energy

Main contributors include, e.g. frequency converters, building systems, railbound passenger, and freight transportation as well as electrification and automation offerings

1 Numbers showing Siemens without Innomotics as Innomotics was sold on October 1st, 2024

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Enabling sustainability with **Siemens Xcelerator**

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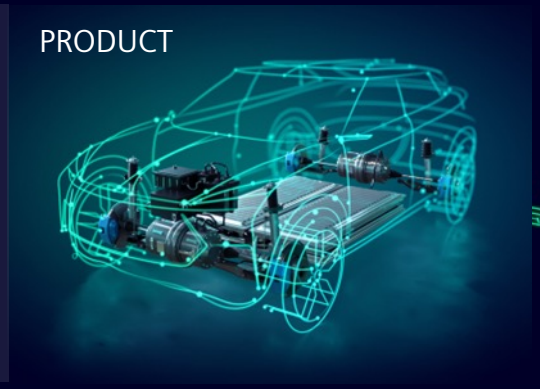
A comprehensive digital twin unlocks sustainability potential

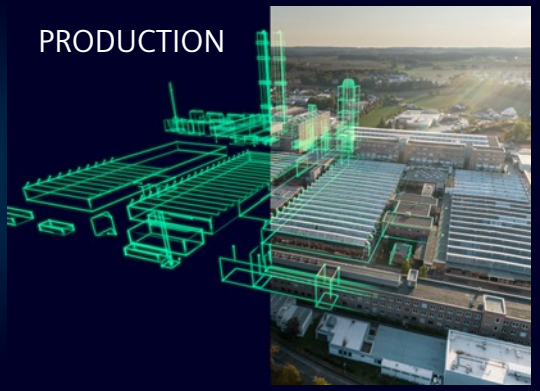
A digital twin is a virtual representation of a physical object.

Covering the entire lifecycle of assets, from their design and production to operation, servicing, and maintenance, Siemens' comprehensive digital twin contributes to a circular economy by creating unlimited design freedom for endless lifetimes, including reuse, remanufacturing, and recycling.

We build digital twins for products like trains, machines, and aircraft and for complex systems like buildings, chemical plants, and electricity grids.

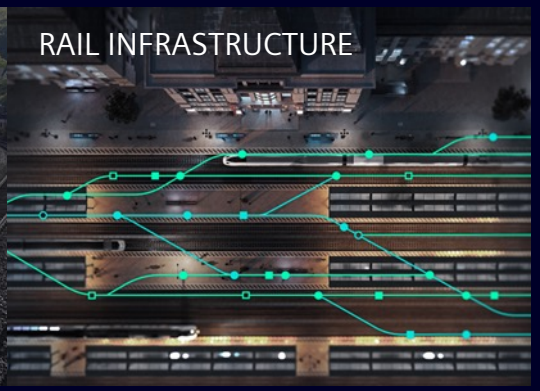
Digital Industries





Smart Infrastructure

Mobility



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Digital twin technology tackles sustainability challenges along the entire value chain

Selected examples showcasing different uses of digital twin technology

Enhance energy system performance with Digital Energy Twin

- Improve energy efficiency to achieve saving potential up to 50-60% of CO_2 and kWh
- Analyze energy system performance providing transparency and actionable information, saving up to 50% of time
- Simulate different scenarios by assessing decarbonization and energy saving potential, reducing audit costs by up to 50%

Increase asset life and reduce waste with AI-based predictive maintenance in production

- Optimize consumption, stock level, and lead time of spare parts
- Improve downtime forecasting by up to 85% and reduce unplanned machine downtime by up to 50%
- Increase maintenance staff productivity by up to 50% and optimize maintenance schedules

Manage carbon footprint impact of electronics components early in development

- Analyze bill of materials for CO_2e values, from material selection to end of life, while considering risk, cost, and requirements
- Get actionable insights to make trade-off decisions that meet emission targets and regulatory requirements
- Get access to CO_2e values for more than 300 million parts to validate electronic components up to 5x faster

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Siemens Xcelerator enables our customers' digital and sustainability transformation at scale and speed

Our open digital business platform

Scaling sustainability impact through technology and ecosystems

Portfolio

A curated, modular portfolio of IoT-enabled hardware, software, and digital services from Siemens and qualified partners

Ecosystem

An ever-growing, diverse ecosystem of companies, startups, and developers

Marketplace

An evolving marketplace to explore, evaluate, and exchange digital offerings in a simple and seamless way

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More than 300 offerings on the Siemens Xcelerator marketplace deliver sustainable outcomes

Empowering a more sustainable production

Industrial Operations X is a continuously growing open and interoperable portfolio for industrial production, empowering automation technology with IT and software capabilities leading to less resource consumption

Optimizing sustainable transportation

Mobility Software Suite X provides an ecosystem of software products addressing intermodal operators that aim to optimize processes and maximize passenger comfort

Improving rail maintenance efficiency

Railigent X is an open application suite that makes intelligent use of rail asset data to create added value

Siemens Xcelerator

portfolio highlights

Optimizing buildings for net-zero

Building X is a digital building platform that allows data-driven decisions to improve sustainability by digitalizing, managing, and optimizing building operations

Increasing energy efficiency

Electrification X combines the **real and the digital** worlds in a scalable IoT SaaS offering to help manage entire energy networks, increase uptime and improve reliability, asset utilization, energy efficiency, sustainability, and cyber security

Empowering a cleaner grid

GridScale X provides modular software to support utilities to tackle their most pressing challenges related to the energy transition

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Advancing **circularity**

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Our circularity approach supports our commitment to sustainability

We do more with less, for our customers, society, and planet

Resource efficiency & circularity

Create circular products

We design for sustainable materials, optimal use, and value recovery. We optimize secondary material use and increase supply chain resilience. Our commitment to improving production efficiency helps minimizing resource consumption.

Embrace circular business

We aim to enhance and preserve value through lifetime-extending services and the reuse of products and components. By closing the loop, we effectively recover value.

Empower customer circularity

We enable the creation of circular products with our software portfolio. We provide solutions for optimized, resource-efficient customer operations and generate value through innovative business models, agreements, and partnerships.

Examples

Siemens EcoTech products enhance circularity by outperforming in value recovery and circularity, optimal use, and sustainable materials

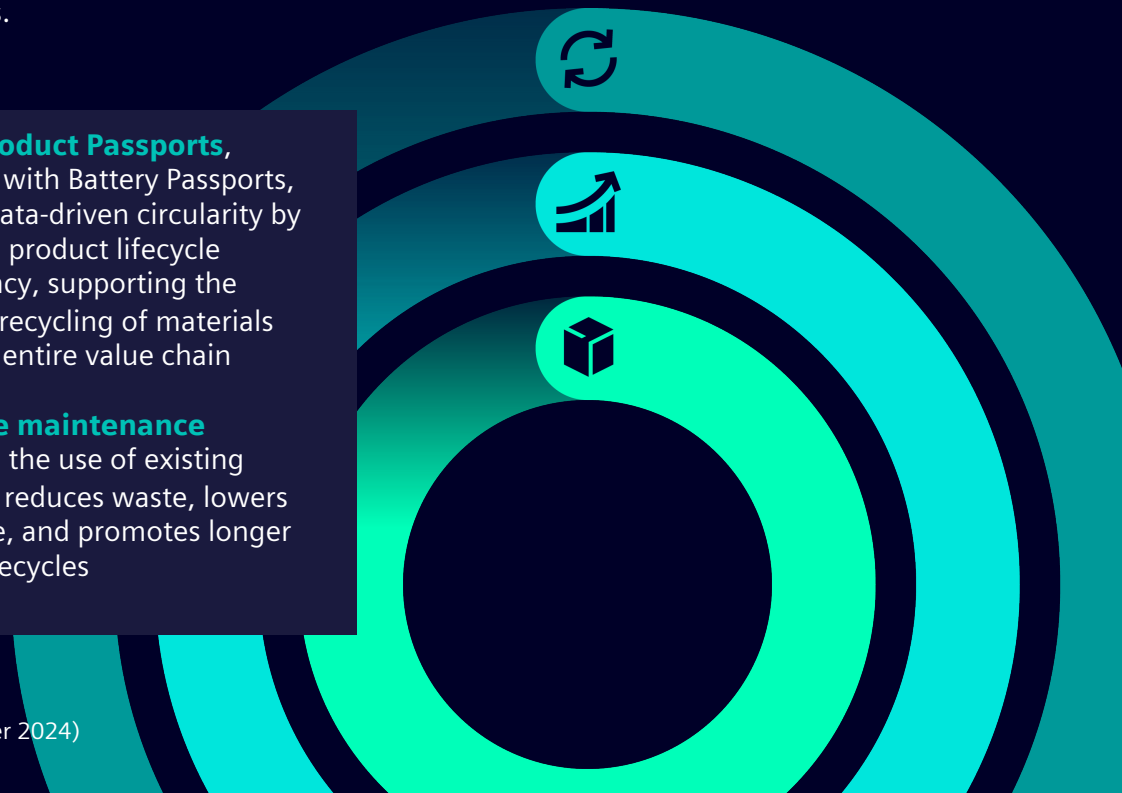
Recycled materials save resources and reduce emissions, for example, up to 70% upstream CO_2e by use of scrap, arc furnace, and green electricity for green steel production

Sustainable lifecycle services enable circularity throughout the entire lifecycle of rail assets by maximizing efficiency and availability, lifetime extension and marketplaces for repair services and resale

Retrofit of switchgears extends operational lifetime by up to 15 years, decreases CO_2e emissions by up to 75%, and reduces material usage by up to 80% (compared to new installations)

Digital Product Passports, beginning with Battery Passports, facilitate data-driven circularity by enhancing product lifecycle transparency, supporting the reuse and recycling of materials across the entire value chain

Predictive maintenance maximizes the use of existing resources, reduces waste, lowers energy use, and promotes longer product lifecycles



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Siemens EcoTech empowers our customers to make informed decisions on sustainable products

Siemens EcoTech is an environmental product performance self-declaration designed to drive the sustainable transformation of industry and infrastructure

Siemens EcoTech

Individual product assessments based on Siemens Robust Eco Design framework

1. Mandatory requirements

- Overall requirements for all Siemens EcoTech products

- Environmental transparency provided by Environmental Product Declaration Type II/III (incl. Lifecycle Impact Assessment)
- Compliance with current substance of concern regulations
- Manufactured in production facilities using 100% renewable electricity

+

2. Product assessment

- Individual product to prove its outperformance compared to an existing norm, market standard or predecessor product
- Fulfillment of minimum one criteria from each dimension of our Robust Eco Design framework

Sustainable materials

- Low carbon material
- Secondary material
- Minimum material use
- Sustainable Packaging
- Substances of concern

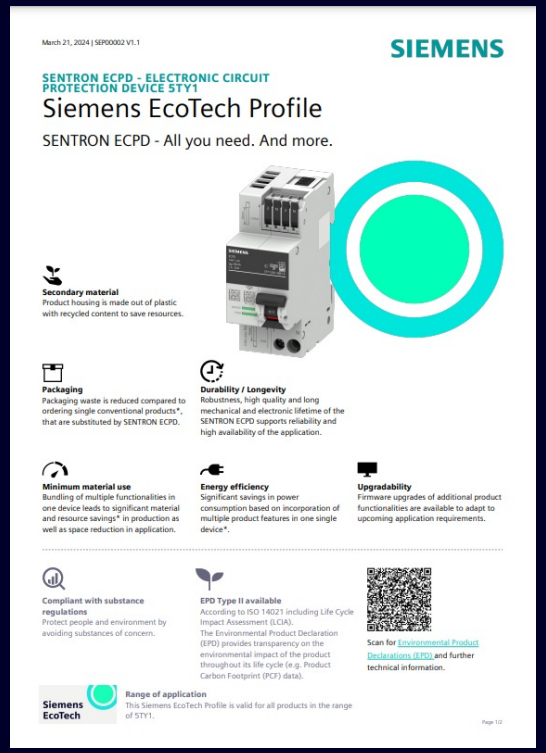
Optimal use

- Energy efficiency
- Durability/longevity
- Maintenance possible/updatability

Value recovery and circularity

- Repairability
- Upgradability
- Ease of disassembling/ circularity instructions
- Recyclability
- Take-back scheme

Siemens EcoTech Profile provides maximum transparency through product-specific KPIs



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Commitments and track record

From strong foundation to leading ambitions

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Siemens sustainability track record
More than 20 years of leadership ...

2003
UN Global Compact

2015
Carbon-neutral pledge

2018
Charter of Trust

2021
SBTi commitment

2024
Siemens EcoTech launch

2025
New DEGREE ambitions launch

2008
Environmental Portfolio

2016
Business to Society®

2020
Eco Efficiency @Siemens

2021
Siemens DEGREE launch

2022
Step-up CO_2 ambitions

SCOPE 1&2 EMISSIONS
-55% by 2025
-90% by 2030

2024
SBTi Net-Zero commitment &
Step-up CO_2 ambitions

SCOPE 3 EMISSIONS
-30% by 2030

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Siemens sustainability rating scores at a glance
... and a widely recognized sustainability performance

ecovadis	80 pts	Platinum medal awarded (Top 1% of all companies assessed)
CDP DISCLOSURE INSIGHT ACTION	A	Over 10 years at leadership level (A/A-) in Climate Change
MSCI	AA	Constant leader for 10 years (AAA/AA)
Corporate ESG Performance Prime RATED BY ISS ESG	Prime	Prime status in ESG Corporate Ratings since 2016
S&P Global	78 pts	More than 20 years in the Dow Jones Sustainability World Index (top 10%)
SUSTAINALYTICS	25.6 pts	Strong Score in "Carbon - Products and Services" risk management

Rating highlights

- Green products and service and eco-design
- Compliance management system
- Environmental management system
- Customer relationship management
- Cybersecurity program
- Innovation management

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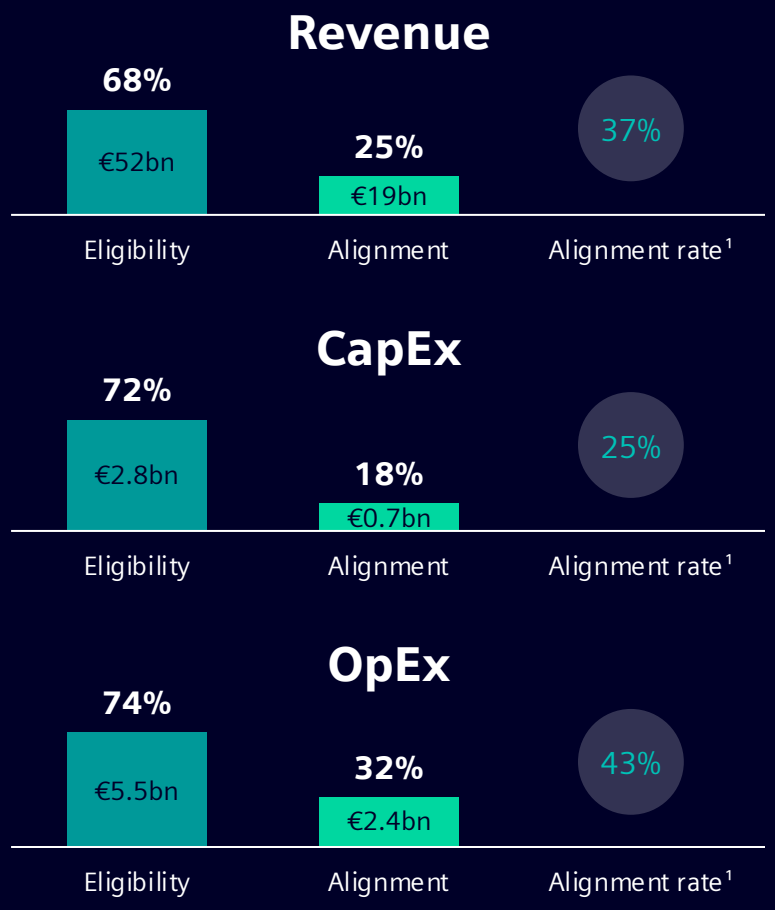
EU taxonomy for sustainable activities

Siemens' portfolio enables sustainable transformation based on EU objectives

EU's environmental objectives

- Climate change mitigation
- Climate change adaptation
- Protection and restoration of biodiversity and ecosystems
- Pollution prevention and control
- Sustainable use and protection of water and marine resources
- Transition to a circular economy



Siemens' **portfolio enables sustainable transformation** for EU's **climate change mitigation** and **circular economy** objectives

First full scope EU taxonomy assessment with **voluntary alignment** reporting for **all environmental objectives**

Main alignment gap is due to EU taxonomy criteria on **substances of concern**, which go beyond current regulations

Siemens works towards **continuous improvement** of **EU taxonomy numbers.** Siemens **numbers** are independently **audited**

1 Alignment rate of eligibility ("scope"), for reference only

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Siemens' strategic sustainability partnerships and commitments
Driving towards standardization and sustainable outcomes at scale

Environment and climate

- Science Based Targets initiative: Pledge to limit global warming to 1.5°C
- The Climate Group: Climate Week NYC, EV100, EP100, RE100 initiatives
- United Nations: Conference of the Parties, Global Compact Working Group on Climate
- U.S. Department of Energy: Better Buildings initiative
- The World Bank Carbon Pricing Leadership Coalition
- The World Economic Forum: Alliance of CEO Climate Leaders, Clean Power, Grids and Electrification, Circular Transformation of Industries, Global Future Council on the Future of Advanced Manufacturing and Value Chains
- The European Union Business and Biodiversity Platform
- The European Union Circular Plastics Alliance Declaration
- The Federation of German Industries Circular Economy Initiative
- Responsible Minerals Initiative

Social

- International Bill of Human Rights
- United Nations: Guiding Principles on Business and Human Rights, Global Compact Women's Empowerment Principles, European Working Group on Business and Human Rights
- OECD Due Diligence Guidance for Responsible Chains of Minerals from Conflict-Affected and High-Risk Areas
- G7 and the International Labour Organization, e.g. Declaration on Fundamental Principles and Rights at Work, Vision Zero Fund
- The World Economic Forum: AI Governance Alliance, Chief Diversity and Inclusion Officers, Chief Health Officer Group, Chief Learning Officers
- The European Union Agency for Safety and Health at Work
- Global Business Initiative on Human Rights
- The International Organization of Employers Global Occupational and Health Network
- Healthy Workplaces Lighten the Load
- One Young World
- Charter of Trust

Governance

- United Nations Agenda 2030, including 17 Sustainable Development Goals
- 10 Principles of UN Global Compact, UN Convention against Corruption
- OECD Guidelines for Multinational Enterprises
- OECD Anti-Bribery Convention
- The World Business Council for Sustainable Development

Limited Assurance in line with Global Reporting Initiative

Reporting in line with CDP

Disclosure
Support for World Economic Forum Intl. Business Council (IBC) Measuring Stakeholder Capitalism

Supporting the Task Force on Climate related Financial Disclosures

Mapping acc. to Sustainability Accounting Standards Board

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Investments into Research and Development following the eleven Siemens Company Core Technologies

€6.3bn
R&D invest **~8%** of revenue

5,136
new inventions

41,700
patents granted

47.9%
of active patent families contributing to SDGs

Selected examples within the eleven Siemens Company Core Technologies

Decarbonization & energy efficiency

Sustainable Energy & Infrastructure
70% less CO_2 emissions of apartments by combination of energy and building technologies in one of Europe's most innovative energy efficiency projects in Seestadt Aspern, Vienna

Simulation & Digital Twin
Predictive maintenance of industrial drive systems through virtual sensing with a unified Executable Digital twin reduces sensor hardware by 30% and CO_2 emissions by 60 kg per drive

Power Electronics
Silicon carbide technology in traction converters reduces power consumption of light rail vehicles by up to 10% and noise emissions by up to 10dB(A)

Software Systems & Processes
Scalable and adaptable SaaS offerings for low-voltage grid monitoring and outage management increases the capacity of existing grids and helps accelerate the energy transition

Resource efficiency & circularity

Advanced Manufacturing & Circularity
Exploring the potential of automated battery recycling to protect staff from hazards during manual opening and to reduce carbon footprint up to 75% by enabling circularity of battery materials

Connectivity & Edge
Automated quality detection in fresh food production by multimodal sensor data fusion requires powerful in-field edge computing, enhancing food safety and reducing food waste

Integrated Circuits & Electronics
Computational physics instead of physical testing for electronic designs reduces hardware samples, enabling a more efficient and eco-friendly product validation

People centricity & society

Data Analytics & AI
Generative AI-powered assistants like the Industrial Copilot optimize operations and support automation tasks – and empower less-experienced employees to grow into engineering roles

Cybersecurity & Trust
Replacing analog with digital interlocking systems in rail networks reduces trackside delays by 50% and enhances safety, punctuality, and capacity

Future of Automation
Autonomous driving technology in trams uses advanced algorithms to interpret and predict driving situations. This reduces the driver's workload and ensures safe operation

User Experience
Digital customer experience delivered with low-code within 4 weeks: accessible planning app enabling train passengers to travel as safely and pleasantly as possible

Note: Numbers showing Siemens AG without Innomotics as Innomotics was sold on October 1st, 2024

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SIEMENS

DEGREE
How we measure our impact

Delivering on our commitments

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New DEGREE framework applicable from FY25

	2030 ambitions		
Decarbonization & energy efficiency	**Scope 1 and 2** Reduce by 90% and compensate residual emissions **Baseline:** 691 kt CO_2e FY19 **Ambition** **-90%**	**Total Scope 3** Reduce by 30% by 2030 and achieve net-zero by 2050 **Baseline:** 153 Mt CO_2e FY19 **Ambition** **-30%** & net-zero	**Customer Avoided Emissions** Achieve >1000 Mt cumulatively **Baseline:** 264 Mt CO_2e FY23 **Ambition** **>1000 Mt**
Ethics & Governance	**Siemens Integrity Initiative** Fight corruption globally by training 50K people and implement 30 Collective Action initiatives **Baseline:** 0% FY24 **Ambition** **100%**	**Cybersecurity** Cover 100% of our relevant applications with Siemens Zero Trust **Baseline:** 16% FY24 **Ambition** **100%**	**EU Taxonomy** Increase our EU Taxonomy revenue alignment rate **Baseline:** 46% FY24 **Ambition** **Rate increase**
Resource efficiency & circularity	**Robust Eco Design** Achieve 100% for relevant hardware, software, and service portfolio **Baseline:** 16% FY21 **Ambition** **100%**	**Waste to landfill** Support circularity by pursuing zero waste to landfill **Baseline:** 0% FY21 **Ambition** **100%**	**Biodiversity** Implement a conservation program at 100% of our relevant sites **Baseline:** 17.7% FY24 **Ambition** **100%**
People centricity & society Equity Employability	**Pay equity** Pursue pay equity by reducing the global adjusted pay gap **Baseline:** 2.5% FY24 **Ambition** **Gap reduction**	**Inclusion level** Sustain an inclusion level above 80% **Baseline:** 80% FY24 **Ambition** **> 80%**	**Work Well-being Score** Maintain a Work Well-being Score above 80 **Baseline:** 84 FY24 **Ambition** **> 80**

Total learning hours	Increase our average to 40 hours per person **Baseline:** 34.2h FY24 **Ambition** **40h**
External learning offerings	Reach 3 million people in our business ecosystem and society focused on digitalization and sustainability **Baseline:** 615k FY24 **Ambition** **3 million people**

Note: DEGREE ambitions that have not been achieved but are no longer part of DEGREE have been operationalized and will continue to be part of public reporting under CSRD

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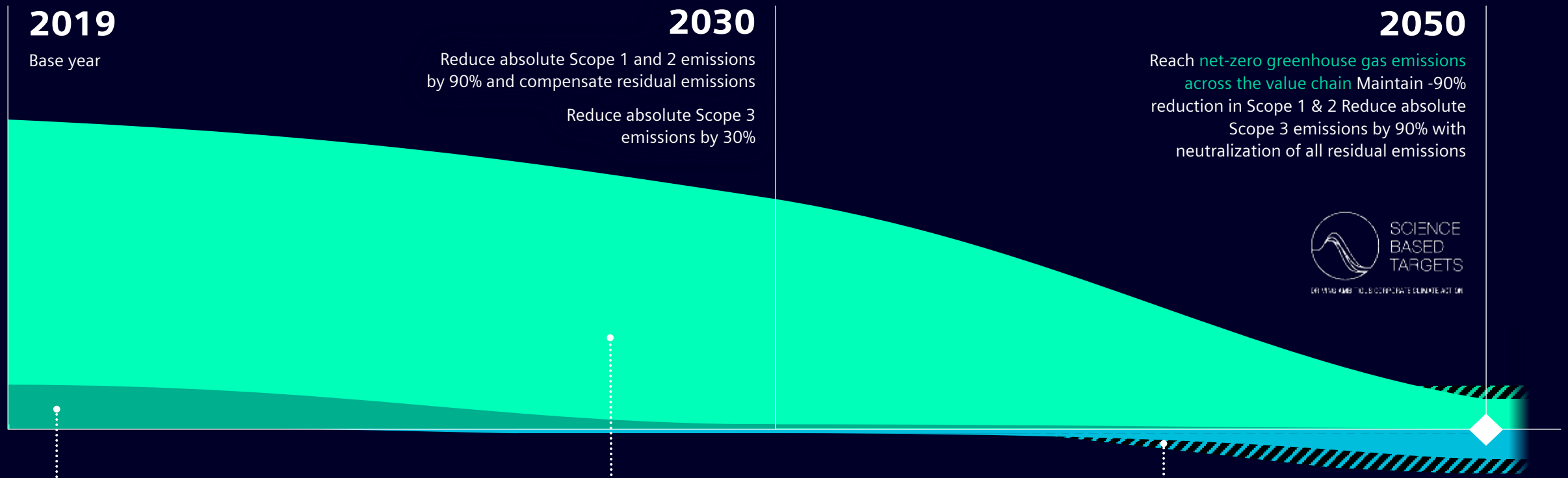
SIEMENS

With our SBTi net-zero target we are leading the way towards a decarbonized future

Scope 1, 2, and 3 emissions



Scope 1 and 2 emissions

Decarbonize our own operations via the electrification of our vehicle fleet as well as increasing efficiency and electrification in our production facilities and buildings

Scope 3 emissions

Reduce the GHG footprint across our value chain, particularly focused on the use phase of our products transitioning to renewable energy and decarbonizing the supply chain

Carbon credits

Compensate residual emissions using high-quality carbon credits

Note: Chart segments and curves only indicative and not proportional in their size

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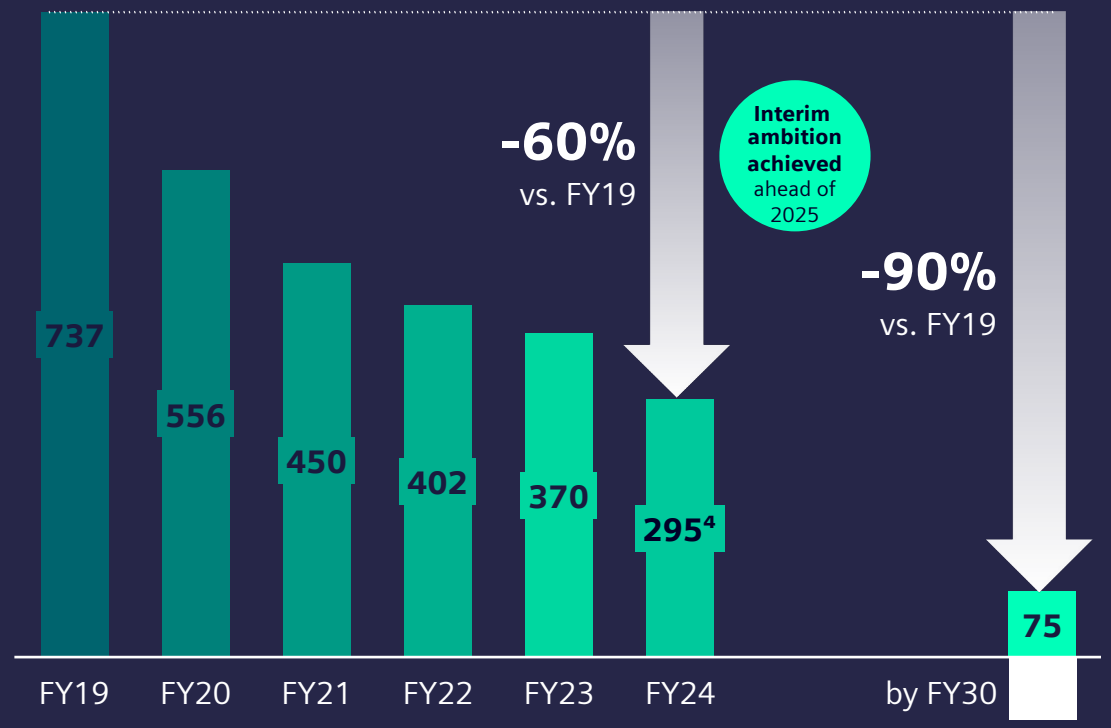
SIEMENS

Decarbonizing our operations – CO_2e reductions in Scope 1 and 2 emissions lead the way to support our 1.5 °C-aligned SBTi net-zero commitment

CO_2 footprint in own operations[1]



We reached our DEGREE interim ambition (w/o SHS)

- **Reached** our FY25 interim DEGREE ambition of -55% Scope 1 and 2 emissions from a FY19 base year one year in advance **(-60%)**
- FY30 ambition: reduce emissions in own operations by 90% by 2030 and compensate residual emissions ***DEGREE*** ambition 2030
- Already 21% electric cars at Siemens (up from 11% in FY23)
- Already 91% of electricity from renewable sources[2] (up from 80% in FY23)
- Invest of ~€650m in operational decarbonization between FY22–FY30 (for fleet electrification, buildings, and production emissions)

Our Siemens commitments (w/ SHS)

- Validated 1.5 °C-aligned SBTi Net-Zero target
- 100% electrical vehicles, 100% renewable energy, and 100% net-zero buildings by 2030

1 Siemens without SHS, in 1,000 metric tons of CO_2e 2 70% already meets the new requirements of RE100 (plant age <15 years) 3 With high-quality carbon offsets 4 Without Innomotics: ~277 kt

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Our commitment to decarbonizing our operations is powered by our own portfolio

GERMANY

Digitalization powers holistic decarbonization

- **25% lower energy** consumption while also increasing production capacity
- **50% less energy** needed to produce one converter
- **70% reduction** in the energy consumed by the ventilation system
- Factory cut its carbon footprint in half and is on track to become **net-zero by 2030**
- **Third Siemens** location to be named **Digital Lighthouse Factory** by the World Economic Forum
- Blueprint for the **industrial metaverse** by utilizing technologies like AI, digital twins, and robotics

UNITED STATES OF AMERICA

Fit for long-term sustainable growth

- Future on-site microgrid, powered by a **1.5 MW AC solar photovoltaic array** and supported by a **3.9 MWh battery storage system,** scheduled for completion by fall 2025
- Renewable-powered microgrid will generate nearly **100% of the facility's energy needs**
- Replacing natural gas-fired heating units with **electric heat pumps**
- CO_2e savings of 800 metric tons per year

MEXICO

All-electric manufacturing hub

- All electric design enables net-zero operations using **100% renewable energy**
- Superior energy performance monitored by Siemens **SI products and services**
- Awaiting **LEED Gold** green building certificate
- Solar carport with 500 kW solar PV modules
- Advanced rainwater management and water use reduction measures

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SIEMENS

Consistent steps toward a net-zero supply chain (Scope 3 upstream)
Reduce Scope 3 upstream emissions by 20% by 2030 Additional ambition*

Impact through global supplier footprint

~67,500
Suppliers

~€35bn
goods and services purchased

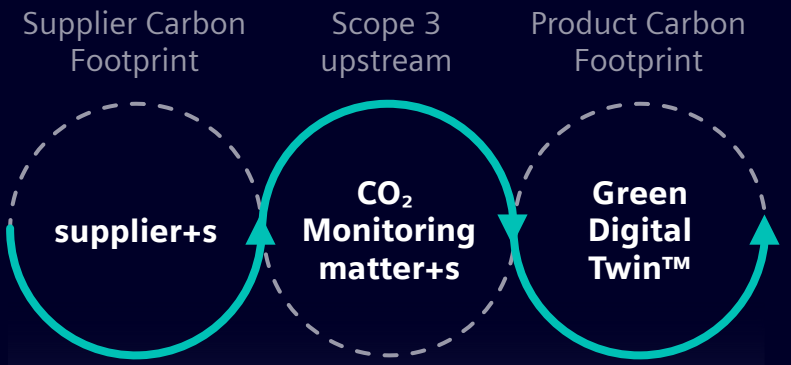
~140
countries

Scope 3 upstream development in FY24[1]

~2%
decrease of Scope 3 upstream emissions compared to FY20 baseline

~26%
increase in purchasing volume at the same time

Collaboration and technology as enabler to reach targets



~5,356
suppliers reported their CO_2 reduction efforts leading to

~9%
average reduction of CO_2 footprint of suppliers actively engaged

1 Siemens without SHS

*DEGREE ambitions that have become ordinary course of business for Siemens will continue to be reported under CSRD

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SIEMENS

Responsible Business Practices – A global, risk-based compliance system

Ethics and integrity are the basis for sustainable business practices

Siemens has **zero tolerance** for corruption, other breaches of applicable law and of our Business Conduct Guidelines. In all our interactions, and without exceptions, **we are committed to always act ethically**, legally, and with the highest integrity.

The **Siemens Integrity Initiative** supports organizations and **85 projects** in over **50 countries** that combat corruption and fraud through Collective Action with more than **120 million USD.**

Siemens has set itself the goal of training all our people on our **Business Conduct Guidelines** in a three-year cycle. By end of this fiscal year the BCG training "Doing the right thing!" has been rolled out to 97% of all active employees worldwide with a current KPI result of 91% trained employees.[1]

Additional ambition*

Our responsibility towards our employees, customers, partners, society, and the environment involves **prioritizing ethical standards** and responsible business conduct in the **development and use of AI-based products to ensure responsible AI.**

1 Siemens without SHS

*DEGREE ambitions that have become ordinary course of business for Siemens will continue to be reported under CSRD

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SIEMENS

Integrating Responsible AI
Tackling ethical challenges in the real and the digital worlds

We address ethical challenges by integrating Responsible AI into our business processes and portfolio

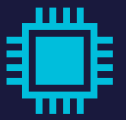
Responsible AI Principles

- Address **legal requirements**
- Align with **international standards** and best practices
- Follow **Siemens Business Conduct Guidelines** and adhere to **Siemens Ethical Principles**
- Guide and ensure **responsible development and deployment of AI technologies**

Siemens Generative AI Guardrails

- Siemens Generative AI Guardrails broken down **into actionable Guidelines**
- Ensure **compliant, responsible, and secure use of Generative AI**
- Accompany Siemens Business Conduct Guidelines and Siemens Ethical Principles

Siemens Industrial Copilots



- **Constantly evolving** implementation of Generative AI-powered Industrial Copilots aims to
  - Enhance human-machine collaboration
  - Accelerate innovation
- **Commitment to Responsible AI Principles**

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SIEMENS

Cybersecurity and data privacy

Cyber resilience is a key business enabler and essential foundation for Siemens' and customers' data

Protection of our **IT & OT infrastructure** and protection of our **products, solutions, and services**

Culture of ownership for cybersecurity attracting, developing, and retaining **best talent**

DEGREE ambition 2030

Cover **100% of our relevant applications** with Siemens **Zero Trust**

Cybersecurity **Zero Trust** as a holistic approach aiming to use **high-quality, real-time signals** to verify and authorize access in IT, OT and products

Data Privacy as integral part of Siemens' business activities and processes

Commitment to protecting the privacy of our people, customers, suppliers, and consumers

AI-based threat detection: Dynamic detection of anomalies in network and systems as potential **security threats**

Siemens' cybersecurity governance certified with **ISO 27001:2022**

Cybersecurity in our products – Siemens ProductCERT

- **The Security Vulnerability Monitoring** team checks for vulnerabilities in the many software and hardware parts that make up Siemens products
- Siemens' **SiESTA** application is used to test the security of components, products, and solutions, even in live systems and important IT/OT networks
- The **SBOM** (Software Bill of Materials) team keeps detailed lists of all the components used in products, tracking them through the supply chain
- Information about any security issues found in Siemens products is **publicly reported** to pursue Siemens' high standards of **transparency**

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SIEMENS

Continuous assessment of actual and potential impacts on people and environment throughout our value chain

Clear requirements for our suppliers

~ €35bn goods and services purchased, sourcing in ~140 countries (FY24)

~67,500
Suppliers

6,878
Corporate Responsibility Self-Assessments

430
External Sustainability Audits

Risk-based approach in supplier management

ESG secured supply chain[1]

Ambition achieved ahead of 2025

Commitment to human rights along the value chain

Commitment to responsible business conduct **led from the top** – Human Rights Officer reporting to the Supervisory Board and Managing Board and governance ownership in place at central functions level.

Own workforce

Commitment to human rights-related core working conditions, based on the **comprehensive, global due diligence processes.** It includes, among other measures, local and global risk assessments.

Supply chain

Supplier Code of Conduct affirms the fundamental human rights of our suppliers' employees. Potential risks are identified via Corporate Responsibility Self-Assessments and External Sustainability Audits.

Customer-related business

Comprehensive **environmental, social, and human rights due diligence** in place to support transactional, site level and business partner due diligence in customer related business (ESG Radar).

Regular stakeholder dialogues with external human rights advisors, investors, rating agencies, and NGOs as well as external collaborative dialogues

GLOBAL BUSINESS INITIATIVE ON HUMAN RIGHTS

United Nations Global Compact

econsense

1 Siemens without SHS

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SIEMENS

Strong sustainability governance and accountability
Anchored across the organization

Supervisory Board

Managing Board incl. Chief Sustainability Officer

Sustainability Executive Committee

Task: Guidance body for Siemens' sustainability business

Members: CEO (Chair), CSO, Business CEOs, Chief Strategy Officer, General Counsel, and Global Head of Sustainability

Siemens Sustainability Board

Task: Monitors and provides guidance on Siemens' sustainability topics including tracking of DEGREE ambitions

Members: Representatives from Businesses, Countries, and Service and Governance units

Sustainability Organization incl. Global Head of Sustainability

Business and SFS

Service & Governance units

Countries

20% of board members' and senior managers' **long-term compensation** (stock awards) based on Siemens **ESG criteria**.

For FY24 two equally weighted components:

- CO_2e emissions
- Digital learning hours

Ambition achieved ahead of 2025

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SIEMENS

Robust Eco Design
Accelerated commitment for software and service portfolio

Eco Design

	DEGREE ambition 2030	Additional ambition*
Key ambitions	**Robust Eco Design** for 100% of relevant hardware, software, and service portfolio by 2030[1]	Natural resource decoupling through increased purchase of secondary materials for metals and resins[1]
Where we stand	Degree of coverage of our Robust Eco Design approach on the relevant hardware, software, and service portfolio increased to 54%[1] (from 41% in FY23)[2]	35% of metals used in manufacturing purchased from recycled sources[1]

Robust Eco Design (RED)

- With our eco design approach we aim to support circularity and increase dematerialization
- **Expanding our effort beyond hardware portfolio to software and services**, we amplify our efforts to reduce the footprint of our offerings
- RED is the **foundation for Siemens EcoTech**, integrating eco design systematically into our product development
- Siemens EcoTech Profiles showcase the outcomes of the RED approach and highlight outperforming portfolio elements

Siemens EcoTech

1 Siemens without SHS 2 Prior periods are presented on a comparable basis, based on an adjusted portfolio scope

*DEGREE ambitions that have become ordinary course of business for Siemens will continue to be reported under CSRD

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SIEMENS

Our strong ambitions regarding conserving resources

	Waste	Energy	Water	Biodiversity
	DEGREE ambition 2030			***DEGREE*** ambition 2030
Key ambitions	• **Support circularity by pursuing zero waste to landfill**[1]	• **Improve energy efficiency of our sites** until 2030[1,2]	• **Managing water efficiently** at own facilities and providing solutions for customers to handle water and wastewater more efficiently	• **Drive biodiversity protection by implementing a conservation program at 100% of our relevant sites**
Where we stand	• Share of **material recycling** in total waste in FY24 at 82% • Waste-to-landfill **reduced by 30%** to the base year[1]	• **53% improvement** of efficiency in primary and secondary energy use compared to 2021[1] • Accomplished **energy reduction of 16.9%** as part of our energy efficiency ambition compared to 2021[1]	• 97% of our locations have a water strategy in place • Water strategy supports our compliance with the Do No Significant Harm (DNSH) criteria for sustainable use and protection of water and marine resources in the EU Taxonomy	• Calculated our **biodiversity footprint** for own operations and upstream value chain according to SBTN principles • Conducting site-specific **impact assessments** using the Siemens Biodiversity Assessment Tool (SBAT)

1 Siemens without SHS 2 Energy consumption in relation to sales development

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Strengthening health, safety, resilience, and well-being of our people

The **Siemens Global Healthy and Safe @ Siemens** program aims to empower our people to make a difference to health and safety within the organization.

Based on our **five core principles**, the program guides locations in taking informed actions to enhance the health, safety, and well-being of our people.

We care for our own and each other's well-being.

We speak up and take part in making the workplace healthier and safer.

We are inclusive and invite a diverse range of views on health and safety.

We are engaged in learning and sharing about how we can work better, safer, and healthier.

We prepare for and adapt well to changing circumstances.

Additional ambition*

30% improvement in Siemens' globally aggregated LTIFR by 2025: **19% of improvement in FY24** compared to FY20 (from 0.31 down to 0.25)[1]

Additional ambition*

100% access to **Employee Assistance Programs (EAP)** by 2025: **99% in FY24** (82% in FY20)[1]

- Siemens received multiple **awards for excellence in Health and Safety Management**
  - ISSA Vision Zero Award at the World Congress Safety and Health at work
  - Canada Safest Employer award for Best Environmental Management Program
  - Brazil Excellence Safety and Sustainability Leadership Award

1 Siemens without SHS

*DEGREE ambitions that have become ordinary course of business for Siemens will continue to be reported under CSRD

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SIEMENS

Scaling sustainability impact with a shared value approach – Siemens total community investment in FY24

Provision of **>1 million laptops and software licenses** to disadvantaged families all over the world[1].

Provision of control & automation tools incl software **for > 5.000 students in Argentina** to improve LOGO! coding skills and work readiness.

Access to Technology

Access to Education

€48.4m

total contributions

as disclosed in Siemens Sustainability Information[2]

Sustainable Community

Promoting development of **> 40,000 young talents** in Industry 4.0 together with SENAI in **Brazil**[1].

Empowering **> 600 young women in Africa** through digital skills and mentoring to support career opportunities together with the African Girls Can Code initiative of UN Women.

Making culture accessible to **>1 million people** with our Siemens Festival>Nights linked to Salzburg Festival[1].

Promote **intercultural understanding to foster societal dialogue** and democracy in Germany.

Empowering **>500,000 people in India** through provision of Siemens solutions, knowledge, and technology in rural areas[1].

The SIE-HOPE program in **China** aims to improve social issues by providing tech classes to **> 20,000 children**.

Siemens Employee Engagement Programs

Disaster Relief Fund

> €2.5m

to support victims of the earthquakes & floodings in Türkiye, Syria, Morocco & Libya via the charitable organization Siemens Caring Hands.

Corporate Volunteering

> 55k hours

in support for charitable organizations (2 volunteering days/ year granted to each employee).

Cents4Sense Initiative

> €1.6m

for social projects from share dividend donations by employee shareholders (since 2019).

Solidarity Hub

offer our employees various opportunities for **personal engagement**, including volunteering, in-kind donations, in addition to monetary donations.

1 Multi-annual project 2 Sponsorships in Education and Arts as well as Donations; incl. SHS

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Read more
about our approach and commitment to sustainability

Sustainability website

Sustainability report 2024

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Appendix

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Our DEGREE sustainability framework until FY24

In FY24 we achieved 7 out of 14 ambitions ahead of target year 2025

	DEGREE ambitions	Baseline	Progress until end of FY24	Ambitions	Achieved
Decarbonization	1. Reduce emissions in own operations by 55% by 2025	FY 19: **737 kt CO_2e**	**-60%**	**-55%** by 2025	✓
	Reduce emissions in own operations by 90% by 2030 and compensate residual emissions	FY 19: **737 kt CO_2e**	**-60%**	**-90%** by 2030	
	2. Net-Zero supply chain by 2050, 20% emissions reduction by 2030	FY 20: **8,098 kt CO_2e**	**-2%**	**-20%** by 2030 **-100%** by 2050	
Ethics	3. Strive to train 100% of our people on Siemens' Business Conduct Guidelines every three years	From FY 23	**91%**	**100%** by 2025	
Governance	4. ESG-secured supply chain based on supplier commitment to the Supplier Code of Conduct	--	**Suppliers committed**	--	✓
	5. Long-term incentives based on ESG criteria[1]	--	**ESG criteria anchored**	--	✓
Resource efficiency	6. Robust Eco Design for 100% of relevant hardware, software, and service portfolio by 2030[2]	FY 21: **16%**	**54%**	**100%** by 2030	
	7. Natural resource decoupling through increased purchase of secondary materials for metals and resins[3]	--	**Metals: 35%, Resins 1%**	--	
	8. Circularity through waste-to-landfill reduction of 50% by 2025 and toward zero landfill waste by 2030	FY 21: **0%**	**-30%**	**-50%** by 2025 **~ -100%** by 2030	
Equity	9. 30% female share in Top Management by 2025	FY 20: **22.7%**	**32.6%**	**30%** by 2025	✓
	10. Access to employee share plans – maintain high level and expand globally to up to 100%[4]	FY 21: **98%**	**99,96%**	**~100%** by 2025	✓
	11. Global commitment to the New Normal Working Model[5]	--	**Committed**	--	✓
Employability	12. Increase digital learning hours to "25 by 25"[6]	FY 20: **7h**	**27h**	**25h** by 2025	✓
	13. Access to Employee Assistance Program: maintain high level and expand to 100% globally by 2025	FY 20: **82%**	**99%**	**100%** by 2025	
	14. 30% improvement in Siemens' globally aggregated LTIFR[7] by 2025	FY 20: **0.31**	**-19%**	**-30%** by 2025	

1 Assessment based on the Siemens internal ESG/Sustainability Index, which is based on CO_2e reduction and digital learning hours

2 Prior periods are presented on a comparable basis, based on an adjusted portfolio scope

3 Product specifications for the use of secondary plastics are in development

4 Where legally possible and reasonable

5 For employees with job profiles that make this possible and reasonable

6 Digital learning hours per headcount on average

7 LTIFR: Lost Time Injury Frequency Rate (Siemens employees and temporary workers)

Note: DEGREE sustainability framework and its ambitions apply to Siemens without SHS

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