



2024 Sustainability report

2023 performance

About this report

Scope and reporting period

This annual sustainability report outlines the sustainability strategy, programs, and performance of STMicroelectronics (ST) during the calendar year 2023. It is aimed at stakeholders who want to learn more about our commitment and approach to sustainability. Unless otherwise stated, the information and data cover all our activities and sites. | 2-1 | 2-2 | 2-3 |

There are no significant changes to the organization and its supply chain.

There is no restatement of information given in previous reports. | 2-4 |

Report structure and content

This report is aligned with Global Reporting Initiative (GRI) Standards for stakeholder inclusiveness, sustainability context, materiality, and completeness. It focuses on the material topics of our sustainability strategy (see [Sustainability strategy](#)), which are aligned with our business priorities.

We identify these topics through a materiality exercise that considers the sustainability context and involves a review of stakeholders' concerns (see [Stakeholder engagement](#)). For each material topic, we define ambitions and goals, and implement programs. In response to our stakeholders' expectations and for a better understanding of our performance, we disclose data and information from previous years. We also include examples of actions we have carried out at our sites and quotes from stakeholders, enabling them to express their own views on our sustainability performance. | 2-29 | 3-1 | 3-2 |

The report has been prepared in accordance with GRI Standards. We use labels to disclose GRI Standards throughout the report and we list all references to GRI Standards and the corresponding page numbers in the [GRI content index](#).

We also disclose how and to what extent our economic activities are associated with environmentally sustainable economic activities, as defined in the recent EU taxonomy regulation (see [EU taxonomy](#)).

In addition, our disclosures are aligned with the [Sustainability Accounting Standards Board \(SASB\)](#) semiconductor standard and the [Task Force on Climate-related Financial Disclosures \(TCFD\)](#) framework.

Use of symbols

We use the following symbols in this report to indicate our progress towards our objectives:



✓ Target achieved



◌ In progress



✗ No progress/not achieved

External verification

ST's Sustainability Group Vice President has appointed DNV Business Assurance France (DNV) to provide us with assurance services. DNV has verified the content and data in this report and confirmed it has been prepared in accordance with the GRI Standards: Core option. DNV interviewed all relevant corporate departments and three of the stakeholders quoted in this report. DNV audited three manufacturing sites – Bouskoura (Morocco), Calamba (the Philippines), and Crolles (France) – to validate our data reporting process and provide assurance for this year's report. In addition, DNV conducted a higher verification of four sustainability indicators related to safety, climate change, gender diversity, and employee engagement. Information and data relating to the ST Foundation were not part of DNV's external verification exercise. See [External assurance statement](#). | 2-5 |

Availability

This sustainability report is available in PDF format at www.st.com/company-reports, along with last year's report (April 20, 2023) and those from previous years. You can access the online version at sustainabilityreports.st.com. Printed copies are available on request. | 2-3 |

Supporting the UN Global Compact and Sustainable Development Goals

We have been a signatory of the United Nations Global Compact since 2000 and we follow its 10 principles (see [International standards](#)). This report describes the actions we took during 2023 to implement these principles. It therefore serves as a reference for answering the Communication on Progress questionnaire.

ST supports the United Nations Sustainable Development Goals (SDGs). Our contribution to 11 of the 17 SDGs is highlighted throughout this report, including indicators to measure our performance against these goals: SDG

Feedback

| 2-1 | 2-3 |

We value feedback and encourage contributions and suggestions from all our stakeholders. You can email us at sustainable.development@st.com or write to us at our headquarters:

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STMicroelectronics International NV
39 Chemin du Champ-des-Filles
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CH-1228 Geneva – Plan-Les-Ouates
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This report has been prepared according to GRI Standards and is externally assured. It represents a balanced and reasonable presentation of our organization's economic, environmental and social performance. It also demonstrates our commitment to the UN Global Compact, to which we have been a signatory since 2000.

Jean-Marc Chery, President and CEO

Although reasonable efforts have been made to ensure the consistency of the summary financial information for the year 2023 in this report with ST's financial reporting, reliance should only be placed upon the complete financial reporting contained in ST's Annual Report on Form 20-F for the year ended December 31, 2023, as filed with the SEC on February 22, 2024, which can be found at www.st.com. Some of the statements contained in this report that are not historical facts are statements of future expectations and other forward-looking statements (within the meaning of Section 27A of the Securities Act of 1933 or Section 21E of the Securities Exchange Act of 1934, each as amended) that are based on management's current views and assumptions, and are conditioned upon and also involve known and unknown risks and uncertainties that could cause actual results, performance, or events to differ materially from those in such statements. Certain such forward-looking statements can be identified by the use of forward-looking terminology such as 'believes', 'may', 'will', 'should', 'would be', or 'anticipates', or similar expressions or the negative thereof or other variations thereof or comparable terminology, or by discussions of strategy, plans, or intentions. Some of the relevant risk factors are described in 'Item 3. Key Information – Risk Factors' included in our Annual Report on Form 20-F for the year ended December 31, 2023. We do not intend, and do not assume any obligation, to update any information or forward-looking statements set forth in this report to reflect subsequent events or circumstances.

Contents

2024 edition

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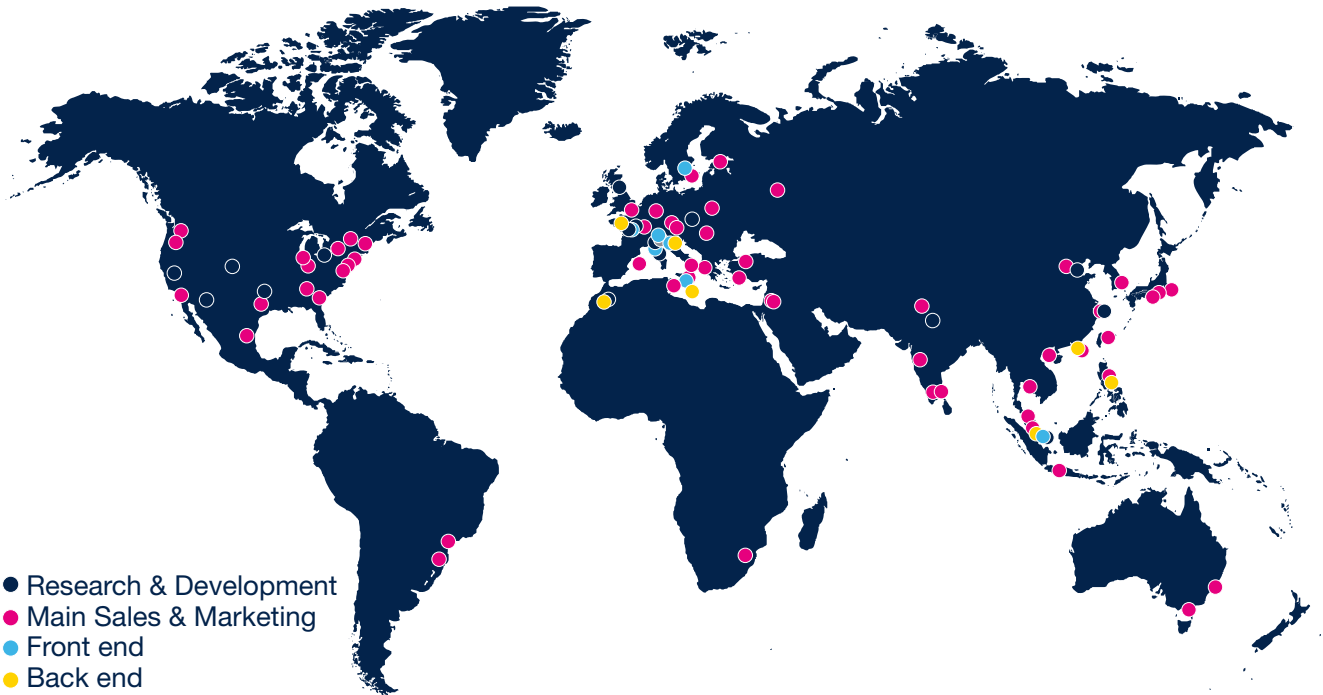
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We also would like to thank:

- everyone who kindly agreed to be quoted in this report and provide testimony of their collaboration with ST
- everyone who kindly agreed to have their pictures published in the report
- our interfaces at ST sites, organizations and sites sustainability champions and EHS teams who support our activity all year round
- site directors and human resources managers
- the teams audited in Agrate, Ang Mo Kio, Bouskoura, Calamba, Crolles, Kirkop and Rousset for their availability

4	ST at a glance
5	Foreword by our President and CEO
6	Our business model
8	ST process and packaging technologies
11	ST products and solutions
16	Significant events
18	2023 highlights
19	Our sustainability goals
20	Awards 2023 overview
22	Company
23	Governance
27	Ethics and compliance
32	Risk management
37	Sustainability strategy
41	Stakeholder engagement
43	Contributing to the Sustainable Development Goals
46	Business
47	Sustainable financial performance
51	Innovation
56	Sustainable technology
61	Customer satisfaction
66	Business indicators
68	People
69	Health and safety
74	Labor and human rights
81	Talent attraction and engagement
87	Diversity, equity and inclusion
93	People indicators
101	Environment
102	Our approach to the environment
105	Energy and climate change
112	Water
119	Waste
124	Chemicals
130	Biodiversity
134	Environmental indicators
138	Community
139	Responsible supply chain
145	Responsible mineral sourcing
149	Community and education
155	Community indicators
158	Key data
159	EU Taxonomy
169	GRI content index
175	SASB index
177	TCFD index
179	International standards
180	External assurance statement

ST at a glance



as of December 31, 2023

| 2-1 |

- one of the world’s largest semiconductor companies
- 2023 revenues of US\$17.3 billion
- listed: NYSE, Euronext Paris, and Borsa Italiana, Milan
- 50,000+ employees worldwide
- 9,500+ people working in R&D
- 14 main manufacturing sites
- over 80 sales & marketing offices serving over 200,000 customers across the globe
- signatory of the United Nations Global Compact (UNGC)
- member of the Responsible Business Alliance (RBA)

Our value proposition

For our shareholders

Return value in line with our objective

Sustainable and profitable growth

For our customers

Provide differentiating enablers

Independent, reliable, and secure supply chain

For all our stakeholders

Committed to sustainability

Our values: Integrity – People – Excellence

Foreword by our President and CEO

This is ST's 27th sustainability report, highlighting the longstanding commitment to sustainability within our business model and culture. Sustainability is not just a corporate responsibility, but a core component of our value proposition delivering benefits to our company, our customers, and to society. I am proud of what ST employees have achieved throughout the year, and we remain committed to doing more.

We believe that technology has a critical role to play in addressing the environmental, social, and economic challenges facing our world today. We are committed to developing innovative technologies and products that enable the transformation of our economies and societies through digitalization, smarter mobility, and decarbonization.

During the year, we saw continued business growth, driven by strong demand in Automotive and, to a lesser extent, Industrial. This was partially offset by lower revenues for Personal Electronics. To enable our future growth and drive enhanced profitability, we made further progress on the transformation of our manufacturing base. This included the expansion of our 300mm capacity and a strong focus on wide-bandgap semiconductors. Investments in manufacturing capacity were complemented by investments to reduce emissions and improve the operational footprint of our facilities.

In the context of evolving trade dynamics and challenges resulting from climate change, we remain committed to driving progress across our sustainability programs and improving resilience across all aspects of our business. This commitment is also reflected in our ambitious goal of becoming carbon neutral on scope 1 and 2, and partially on scope 3 by 2027.

Each year we make substantial progress towards these ambitious targets. In 2023, the global sourcing of electricity from renewable energy grew to 71%, on track to reach our target of 100% by 2027. Long-term power purchasing agreements are a key part of our strategy and we signed a significant agreement in Italy to produce 250GWh renewable energy per year. In 2023 our scope 1 and 2 greenhouse gas emissions were down 45% in absolute terms compared to 2018. We achieved this while transforming our manufacturing footprint and despite the challenges in the global energy markets.

Minimizing our own carbon footprint is critical, but we also focus on the positive impact of our products by developing solutions for a more sustainable society. We continue to collaborate with our global network of academic and private partners, as we recognize the importance of partnerships in the innovation process.

We are also passionate about supporting and empowering our employees across a range of key topics including employee experience, career planning, diversity, equity, wellbeing, and inclusion. Employee engagement is high and still growing. In 2023 we established employee resource groups (ERGs) to promote inclusion in the workplace, employee dialogue and professional development. In less than one year our first ERG for women – WISE (Women Inspiring Supporting and Empowering) – is growing fast, with 1,400+ members in 60 locations.

Finally, the strategic value of, and interest in, our industry has never been higher. With this comes an increasing need for talent. During 2023 we continued to expand our awareness, education, and training initiatives around STEM, targeting future young professionals globally.

In 2023, our progress across multiple areas, as detailed in this report, was once again acknowledged by multiple third-party assessments. This external recognition is an important validation of our actions and transparency, helping us ensure we remain aligned with the expectations of our stakeholders.

We look forward to continuing to accelerate sustainability together with our customers, partners, and employees worldwide.

Jean-Marc Chery
President and CEO



Our business model

Resources

Human

- 50,000+ employees
- 122 nationalities
- 35% women, 65% men
- Average age: 41

Financial

- US\$24.45 billion total assets
- US\$4.11 billion capital expenditures
- US\$3.16 billion net financial position

Intellectual

- 9,500+ employees in R&D
- US\$2.1 billion R&D investments
- 195 active R&D partnerships

Manufactured

- 14 main manufacturing sites in 9 different countries
- ~64% of employees in manufacturing
- 6,000+ suppliers

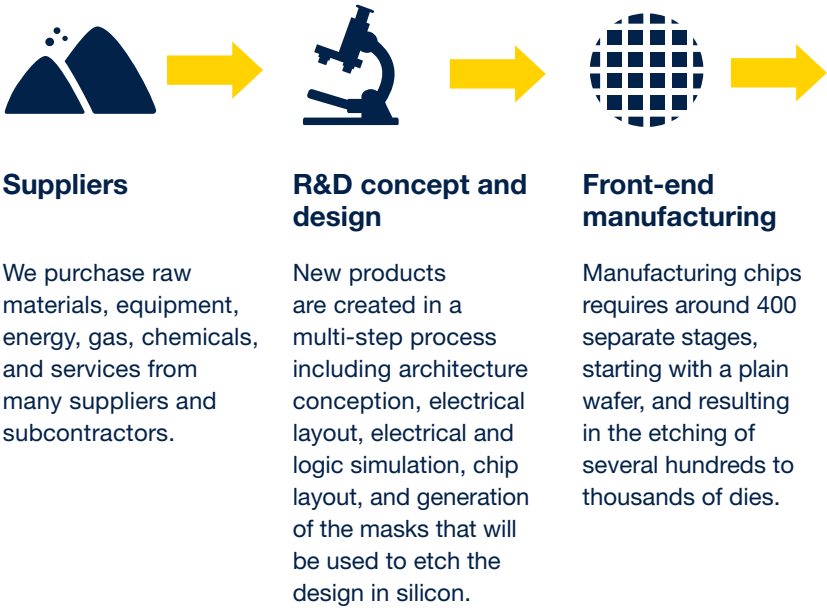
Natural

- 3,077GWh of energy consumed
- 71% of renewable electricity
- ~24 million m³ of water withdrawn
- ~6,500 chemicals used

Social and relationship

- ST values and Code of Conduct
- US\$3.5 million cash donated by ST to local communities
- 156,000+ hours donated to local communities

Main steps in our value chain



Management of our impacts

Suppliers

We require our suppliers to implement the Responsible Business Alliance (RBA) standards and encourage ISO and OHSAS certifications to address ethics, social, environmental, health and safety risks. We participate in the Responsible Minerals Initiative.

Products

Through our Sustainable Technology program we design products systematically taking into consideration the environmental impact of the device during its whole lifecycle, including raw materials, transportation, manufacturing, usage and end of life.

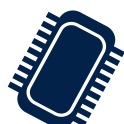
People

We protect the health and safety of our employees through advanced management systems and certification. We implement our Code of Conduct and the RBA standards in all our sites to mitigate our ethics and labor and human rights risks, and carry out regular assessments and audits in all our production sites.



Electrical wafer sorting

Dies on the wafer are electrically tested. This step is known as wafer sort or probe.



Back-end manufacturing

The dies are cut from the wafer before being assembled in a package. The chips are then tested prior to delivery to the customer.



Product use and end of life

We offer a large portfolio of products suitable for the wide range of applications addressed by our customers.

Environment

We deploy programs to reduce our direct and indirect greenhouse gas emissions from all our operations, including Perfluorinated Compounds (PFCs), which have a very long atmospheric lifetime and high global warming potential.

We minimize the environmental, health and safety risks related to the chemicals and materials used in the manufacturing process, by basing the selection, handling, and substitution on the precautionary principles.

We are continually reducing our water footprint through reuse and recycling and all our wastewater is treated before being discharged into the environment.

We reduce, reuse, recycle or recover as much of our waste as possible, rather than sending it to incineration or landfill.

| 2-6 | 201-1 |

Unless otherwise stated, all data refer to 2023.

Value created

Human

Engaged and skilled people in an inclusive and safe workplace

- average of 49 hours of training per employee
- 87% of employees recommend ST as a great place to work
- 0.14 total recordable case rate (injuries and illnesses) for employees and contractors

Financial

Sustainable financial performance

- US\$17.29 billion net revenues
- US\$4.04 billion salaries and benefits
- US\$489 million income tax paid
- US\$223 million cash dividends

Intellectual

Innovative products and solutions

- ~20,000 active and pending patents
- 82% of new products classified sustainable technology
- 10.2% of revenues generated by new product lines

Manufactured

Responsible and effective business operations

- >200,000 customers served
- ISO 9001, 14001, 14064, 22301, 50001, 45001 and IATF certifications
- 100% of largest manufacturing sites covered by RBA audits
- 71% of suppliers' agreement to comply with ST business ethics and corporate responsibility standard

Natural

Mitigation of the impact of our activities

- 45% decrease in GHG emissions scopes 1 and 2 vs 2018 (in absolute value)
- 96% of waste reused, recovered or recycled
- 42% of water recycled or reused

Social and relationship

Knowledge and values shared with all

- 255,000+ beneficiaries in local communities
- 810+ volunteering initiatives worldwide
- 1,095,000+ people trained on computer basics by ST Foundation since 2003

ST process and packaging technologies

We create technologies to help our customers address their challenges and opportunities.

Creating innovative semiconductor solutions

The technology developments we make are guided by long-term market trends. These enable or enhance applications for our customers by turning state-of-the-art chip fabrication technologies into cutting-edge commercial products. The manufacturing of an integrated circuit can be divided into two steps.

- Wafer fabrication, known as front end, entails extremely sophisticated process technologies to manufacture silicon or composite material chips.
- Assembly and test, known as back end, involves highly precise and automated packaging and die testing processes.

Our products are built using various fundamental semiconductor process technologies. Many of these are unique to ST and represent the culmination of significant investment and development efforts over decades. Each process is designed and refined to meet the needs of our customers' target applications. [I 2-6 I](#)

A unique range of semiconductor processes

Smart power technology for greener solutions

Combining power technologies with embedded intelligence is a technical challenge and is vital to enable our customers across the globe to develop more efficient and compact power and energy management solutions. ST has deep expertise in this field, with over 25 years of R&D and multiple generations of products on the market. Below are some of our technologies that are widely used in automotive, industrial, personal electronics, and communications equipment, computer, and peripherals applications.

- Bipolar-CMOS-DMOS (BCD) is an important technology for power integrated circuits (ICs). We invented this revolutionary technology in the mid-1980s and have continually developed it ever since. We have created a family of silicon processes, each of which combines the strengths of three different process technologies into a single chip.
- VIPower technologies integrate diverse functionality into single devices. They help applications control high power and sensing and communicate operating status while providing device protection.
- Our STi2GaN product family allows designers to get the most out of gallium nitride (GaN) technology with a higher level of integration and performance. By combining the advantages of GaN technology with traditional semiconductor materials, a large variety of power applications will benefit in terms of size, performance, and cost.
- STi2Fuse intelligent switches provide electronic, digitally resettable fuses for use in digitalized power distribution. They help simplify vehicle wiring harnesses and reduce weight by eliminating user-accessible fuse boxes and the associated cabling and installation overheads.

We are building on our innovations in BCD and other wide-bandgap technologies to make design easier and bring more flexibility and performance to our customers.

High-power innovation

Power transistors are a critical component of every power system. We are constantly innovating to deliver greater efficiency and reliability in silicon and wide-bandgap materials in advanced packages.

- Silicon carbide (SiC) has intrinsic advantages over mainstream silicon, enabling higher energy efficiency in many sustainable applications. ST has been investing in SiC R&D for over 25 years and has developed market-leading SiC solutions, with full supply chain control.
- Gallium nitride (GaN)-based transistors offer unrivaled energy efficiency and power density in power conversion applications. ST's GaN technology portfolio targets a wide variety of applications, such as power supplies and adaptors, as well as electric vehicles and renewable energy.
- Our Trench Gate Field-Stop (TGFS) architecture ensures more balanced conduction and switching losses and greater robustness in insulated gate bipolar transistors (IGBTs). ST TGFS devices exhibit structural uniformity measured in fractions of micrometers and remain free of residues left from the various lithography, deposition, etching, metallization, and related phases.
- Our world-leading super-junction technology is the driving factor behind our highly successful range of MDmesh Power MOSFETs. This technology allows us to offer higher power densities for more compact customer solutions.

Micro-Electro-Mechanical Systems (MEMS)

Sensors and actuators based on MEMS technology are vital for transforming the way the digital and analog worlds interact. ST develops leading-edge MEMS process technologies, packaging, and manufacturing capabilities to create industry-leading solutions for our customers.

We serve all market needs with industry-leading MEMS process technology, innovative product design, and in-depth application expertise.

- Our Thick Epitaxial Layer for Micro-gyroscopes and Accelerometers (ThELMA) process enables the integration of accelerometer and gyroscope mechanical elements in a single chip.
- Other specialized processes allow the creation of MEMS microphones and pressure sensors.
- MEMS actuator technologies such as thermal, electrostatic, electromagnetic, and piezoelectric enable applications such as thermal printheads, laser-based scanning micromirrors, and miniature sound systems.

Digital and mixed-signal technologies for tomorrow's applications

Advances in digital and mixed-signal technologies enable smaller systems without compromising performance. Constant innovation in our radio frequency (RF), analog, mixed signal, and digital technologies are helping our customers meet their current and future power and integration requirements.

- Fully Depleted Silicon-On-Insulator (FD-SOI) delivers outstanding low-power performance and high reliability for cost-effective RF/mmW, digital, and mixed-signal applications.
- Our advanced embedded Non-Volatile Memory (eNVM) CMOS processes, including our unique eSTM technology, allow the creation of high-performance general-purpose and secure microcontrollers with embedded memory within a single chip, as well as innovative EEPROM devices.
- Our embedded Phase Change Memory (ePCM) offers substantially better density and robustness over flash memory and other embedded memories.

- Our BiCMOS technology combines the strengths of two different process technologies into a single chip and allows the development of high-performance RF ICs in a compact and power-efficient design.
- Radio Frequency Silicon-On-Insulator (RF-SOI): our solutions enable the design of a full range of advanced RF Front-End Modules (FEMs).
- Our imaging technology portfolio of proprietary technologies enables specialized and differentiated imaging solutions.
- Our specialized technology platforms and differentiated radiation-capable technologies support customers in the space industry.

Semiconductor packaging

Innovation in packaging is an essential part of the semiconductor industry. Our unique combination of expertise in process technology development, product design, packaging, and manufacturing enables us to offer our customers the solutions they need for the wide variety of applications we serve. We are constantly innovating to create smaller and more highly integrated chips that increase performance and enhance reliability, while delivering more affordable solutions to the market.

ST's in-house packaging R&D activities allow us to optimize packaging technology to adapt to process and product design requirements. We maximize the technical interactions across our product design, front-end, and back-end manufacturing teams to jointly evaluate new process technologies or features and packaging materials.

Some of the areas in which ST is innovating in packaging include:

- power System-in-Package (SiP) integrating multiple dies into a single package for smart power solutions based on GaN, BCD, and ViPower
- silicon carbide power modules for car electrification using innovative design, material, and processes to maximize power density
- power discrete packaging with direct bond copper substrate on the top side of the package to improve thermal coupling with heatsinks
- packages for harsh environments, such as those encountered in automotive and industrial applications
- galvanic isolation built into the chip package for factory automation applications
- high-reliability and low-cost high-pin-count packages for automotive MCUs
- Wafer Level Chip Scale Packaging (WLCSP) for highly size-constrained devices, such as smartphones and wearables
- advanced miniaturization of packages embedding sensors, such as our Time-of-Flight and MEMS devices
- antenna-in-package integration for millimeter wave RF devices (5G and 60 GHz)
- 3D packaging involving stacking multiple dies on top of each other and connecting them using Through-Silicon Vias (TSVs) or other advanced interconnects
- radiation hardened packages for aerospace applications

ST products and solutions

We create unique innovations and products that solve real-world problems. Through decades of investment, we have developed leading-edge chip-manufacturing and packaging technologies that help our customers to bring great ideas to life.

Our chips and systems are an essential part of billions of products, from electric cars and industrial robots, through washing machines and solar panels, to smartphones and satellite communications equipment. Our technology helps our customers make all these products more autonomous, more energy-efficient, more connected, safer, and more secure.

Our strategy is based on long-term trends: cloud-connected autonomous things, power and energy, and smart mobility. These trends drive the evolving requirements of our customers and our solutions across the four end markets we address – Automotive; Industrial; Personal Electronics; and Communications Equipment, Computers and Peripherals. [I 2-6 I](#)

Cloud-connected autonomous things

We envision a world of billions of cloud-connected autonomous things. Processing capabilities supported by embedded artificial intelligence (AI), connectivity, and security, as well as sensing and actuating products and solutions, are vital making this a reality.

Extending our general-purpose embedded processing offer

We offer general-purpose microcontrollers with a wide variety of device options across our STM32 family. This ensures designers can find the best solution for their application, whether they require ultra-low power consumption, high performance, AI, advanced security, or a high level of wireless and wired connectivity.

During 2023, we announced multiple new products, including a new highly affordable series, a new performance-oriented series with cutting-edge security, and new wireless microcontrollers.



Making AI more accessible

There is a lot of excitement around AI powered by large data centers and large-scale networking. There is also a very different kind of AI running directly at the edge, on a myriad of tiny devices running innumerable applications. This is edge AI, and it is powered by a very different set of chips and software stack to those used in data centers.

We took multiple steps in 2023 to make edge AI more accessible to the developer community. These included launching the world's first microcontroller unit (MCU) Edge-AI Developer Cloud – giving access to an extensive suite of online STM32 development tools, making our NanoEdge AI Studio free for unlimited deployment on any STM32 MCU, and announcing our ST Edge AI Suite – a comprehensive, integrated set of software and tools offering a simpler, more cost-effective way for developers and companies to embed AI-enabled ST products.

Introducing our next generation of microprocessors

Our STM32 microprocessor (MPU) family addresses demanding industrial and internet-of-things (IoT) applications that require support for large open-source software. Such applications are memory-intensive and often run on operating systems and software packages that require 64-bit architecture.

During 2023, we announced our second generation of Industry 4.0-ready microprocessors. The STM32MP2 series 64-bit microprocessors come with SESIP Level 3 certification, industrial-application-ready interfaces, and dedicated Edge AI acceleration.



Wireless microcontrollers with advanced security, tailored for IoT devices

Our wireless connectivity solutions include STM32 microcontrollers with embedded wireless, standalone RF transceivers, and network processors for Bluetooth®, Bluetooth Low Energy, Zigbee, Matter, Thread, sub-1GHz long-range networks and Cellular IoT. We work with expert partners to make it easier for our customers to use cloud services thanks to optimized connectivity software.

In 2023, we introduced new devices, modules, development tools, and supporting software. These included the STM32WBA52 microcontrollers that combine Bluetooth connectivity with ultra-low-power modes, advanced security, and a broad selection of peripherals familiar to STM32 developers. They help IoT device developers add wireless, cut power, strengthen cyber-protection, and boost processing in the edge.

Simplifying development of secure embedded applications

Security is an increasingly critical function of all connected devices. ST's portfolio covers the full range of secure solutions, including software and hardware embedded in general-purpose microcontrollers and microprocessors. These are supported by the STM32Trust ecosystem, which offers a multi-level strategy to enhance security.



In 2023, in addition to numerous embedded security features in new products, we introduced the market's first out-of-the-box, certified MCU protection for customer embedded developments. The STM32TrusTEE Secure Manager saves developers writing and validating their own code while providing security services developed according to best practices.

We also provide dedicated secure microcontrollers that meet the highest security standards. These can be found in smartcards used for ID, transport, banking, and SIM cards, as well as pay TV applications.



First AI-enhanced smart accelerometers

STmotion and environmental MEMS and sensors offer accuracy, sensitivity, ultra-low power consumption, and embedded intelligence. Our products power flagship smartphones and accessories and help deliver the best user experience. We are present in many automotive and industrial applications, with products designed to meet the performance and reliability requirements of harsh environments.

We enable the transition to in-sensor processing with a new generation of smart, open, and accurate sensors to help developers exploit their potential while improving overall system efficiency. In 2023, we launched three new accelerometers with advanced processing engines built in to extend sensor autonomy, enabling systems to respond more quickly to external events while lowering power consumption.

Next-generation multizone time-of-flight sensor

Our patented FlightSense technology, based on the time-of-flight (ToF) principle, ensures a high-accuracy, low-power, all-in-one solution for proximity and ranging sensors. They are used for personal electronics and industrial applications, as well as 3D sensing for smartphones and smart driving (LiDAR) features.



In 2023, we announced the latest-generation 8x8 multizone ToF ranging sensor which delivers a range of improvements, including greater ambient-light immunity, lower power consumption, and enhanced optics. We also announced a multizone distance sensor with camera-like field of view – the industry's best and 33% larger than the previous generation.

Power and energy

Our technology and solutions for power and energy management enable customers to increase energy efficiency everywhere and support the use of renewable energy sources.



Boosting efficiency in industrial applications

We offer power discrete devices and power modules serving applications across our end markets. Our silicon, silicon carbide (SiC), and gallium nitride (GaN) power devices deliver energy efficiency and enhanced performance to applications in all the end markets we serve. Other ST products are first-choice solutions for high-end power conversion, home appliances, power supplies, and motor control.

In 2023, we introduced power MOSFETs using an ST proprietary technology that enables very low conduction losses and efficient operation at high switching frequencies, improving a key figure of merit by 40%. We also introduced a number of other new products that improve efficiency in a range of industrial and consumer applications.

Extending performance and value with new 200W and 500W GaN devices



We address applications that require generic and application-specific solutions for power management. Our solutions enable energy-saving, high-power-density, and lower-standby-power designs. Our offering includes SiC and GaN power discretes, silicon MOSFETs, insulated gate bipolar transistors, customized power modules, AC/DC and DC/DC converters, battery management ICs, wireless power ICs, digital controllers, and gate drivers.

In 2023, we introduced the next generation of integrated GaN bridge devices that simplify power-supply design, leveraging wide-bandgap technology to achieve the latest eco-design targets. The devices integrate features that save designers tackling the complex gate drive requirements of GaN transistors and also enhance reliability, reduce materials costs, and ease circuit layout.



New high-current motor drive series for increased efficiency and flexibility

We provide an array of motor control solutions that enable motors to run with higher efficiency and greater precision. We cover the requirements of brushed DC motors, stepper motors, and brushless DC motors over an extensive range of voltage and current ratings. We offer highly integrated motor drivers that embed all the functions needed to drive motors efficiently and with the highest accuracy. They include a low-voltage series designed for battery-powered smart devices, and a series embedding an STM32 microcontroller.

In 2023, we introduced a high-current motor drive series targeting high-end industrial, home and professional appliances. The devices integrate control logic and a power stage with system protection and two operational amplifiers for current sensing. This allows greater efficiency, flexibility, and scalability, while streamlining costs.

Smart mobility

To meet the smart mobility needs of our global customer base, we provide products and solutions that serve the main trends in the automotive market – vehicle digitalization and electrification. We enable customers to create the next generation of vehicles that are safer, greener, and more connected.



Silicon carbide power modules offering versatile package configurations

We provide high-efficiency smart power solutions and automotive embedded processing solutions to ensure that every device used to power, control, and monitor car subsystems consumes less energy. Our wide-bandgap solutions for electric vehicles (EVs) and charging stations enable our customers to create lower-weight EVs with longer range and faster charging.

We introduced a wide variety of new solutions in 2023, including new silicon power modules targeted at systems such as onboard chargers (OBC), DC/DC converters, fluid pumps, and air conditioning. These modules deliver significant advantages for automotive system developers, including high power density, very compact design, and simplified assembly.

Powerful automotive MCUs for next-generation cars



Our automotive microcontrollers support the ongoing transformation of the automotive industry, ranging from MCUs for cost-sensitive applications to advanced integration MCUs. New vehicle architectures require open hardware platforms, offering high real-time computing efficiency with easily upgradable devices. These platforms need to handle massive dataflows while observing stringent security guidelines and functional safety requirements.

In 2023, we deployed our new family of automotive microcontrollers, which address the needs of next-generation vehicles through a range of tailored products. These include integration platforms for motion control, gateway and body applications, and products that support car electrification.



Enabling functional-safety applications with internal sensing units

Working closely with our partners, we provide solutions that make driving safer by reducing traffic-related accidents. These include cutting-edge RF, vision processing systems, vehicle communications, and in-cabin monitoring solutions, as well as automotive-grade sensors.

In 2023, we introduced an automotive-qualified MEMS inertial-sensing module which, with the dedicated software provided, addresses functional-safety applications up to ASIL B1. The module contains a three-axis digital accelerometer and three-axis digital gyroscope to provide accurate measurements for a wide variety of vehicle functions. It also provides ADAS or vehicle-to-everything (V2X) communication to help stabilize sensing systems such as radar, LiDAR and visual cameras, and assist semi-automated driving applications.

Simplifying automotive power management with integrated solutions



We offer ICs dedicated to body and convenience solutions, including body control modules and car lighting systems, as well as ASIC and ASSP solutions for engine control. Our in-vehicle telematics and infotainment systems cover high-end integrated platforms, digital radio, audio power amplifiers, and satellite navigation receivers.

We introduced a new family of highly integrated automotive power management devices in 2023, with multiple power sources and transceivers integrated on chip. These devices help simplify the design of car-body controllers for sunroofs, seats, tailgates, doors, and lighting modules.

Significant events

June

ST and GlobalFoundries Agreement

ST and GlobalFoundries finalized an agreement for a new 300mm semiconductor manufacturing facility in Crolles, France. This marked a significant milestone in the project, which is supported by the French government and European Commission. The initiative will reinforce the European and French FD-SOI ecosystem, building more capacity for customers in advanced technologies.



ST and Sanan Optoelectronics Agreement

ST and Sanan Optoelectronics signed an agreement to create a joint venture for a high-volume, 200mm silicon carbide (SiC) device manufacturing facility in Chongqing, China. The joint venture will support rising demand for SiC devices in China for car electrification and industrial power and energy applications. The new facility is targeting to start production in Q4 2025.



R&D Collaboration with Airbus

ST announced a collaboration with Airbus on advanced power semiconductors, as a key enabler of the aerospace industry's transition to hybrid and full-electric systems. The partnership will focus on developing SiC and gallium nitride (GaN) devices, packages, and modules adapted to Airbus' aerospace applications.



September

Supervisory board proposal to reappoint Jean-Marc Chery

Our Supervisory Board announced on September 19, 2023, that it will propose the reappointment of Mr. Jean-Marc Chery as sole member of the Managing Board, President and Chief Executive Officer for another three-year term for shareholder approval at the 2024 AGM.



Opening bell at the New York Stock Exchange

Our President and CEO, joined by members of the Executive Management, and Investor Relations team rang The Opening Bell® at the New York Stock Exchange (NYSE) on behalf of ST. Jean-Marc Chery shared the Company's ambitions and strategy with John Tuttle, Vice Chairman of the NYSE and President of the NYSE Institute, as well as a global audience of investors, employees, and customers.



October

New power R&D lab in Italy

A new power system and module reliability testing (P-S&MART) lab was inaugurated in Catania, Italy. The P-S&MART lab, designed with customers, allows products to be tested in real-world conditions and facilitates new collaborations.



November

Shenzhen innovation center

A new back-end innovation center was launched at our Shenzhen site (China). The new center will gather and integrate innovation and R&D activities related to manufacturing, packaging, and testing technology. It will also allow for more efficient cooperation with Chinese customers.



December

ST accelerates Edge AI

We announced the ST Edge AI Suite, a comprehensive, integrated set of software and tools offering a simpler, more cost-effective way for developers and companies to embed AI-enabled ST products into industrial, automotive, consumer, and communication applications. This will empower customers to deploy edge AI more easily and accelerate adoption globally.



PPA in Italy

ST signed a 15-year power purchase agreement (PPA) with ERG for the supply of renewable energy to our operations in Italy. This will provide approximately 250GWh of renewable energy annually, covering our two high-volume manufacturing sites in Agrate and Catania, as well as multiple R&D, design and sales, and marketing sites. The energy will be generated by Italian wind farms.



2023 highlights



96%
of waste reused,
recovered, or recycled

DJSI
included in World and
Europe indices

-45%
scope 1 & 2 emissions in absolute vs
2018

CARBON NEUTRAL

8,000+
employees trained on DEI

156,000+
hours of volunteering donated to communities

71%
of renewable energy

150
supplier responsibility
audits

100%
of our products are conflict-mineral free

0.14
total recordable case rate (employees and
contractors)

Our sustainability goals

Sustainability goals (SG)		Progress	Status end of 2023
We create technology for a sustainable world			
SG1	Generate at least 20% of our revenues from new product lines by 2025.		10.2%
SG2	Generate at least 33% of our revenues from our Sustainable Technology's most advanced responsible products by 2027.		23.2%
We prioritize people			
SG3	Reach a Total Recordable Case Rate of 0.15% or less by 2025 (work-related injuries and illnesses, including contractors).		0.14%
SG4	Maintain our Severity Rate at 2% or less each year (work-related injuries and illnesses, including contractors).		2.80%
SG5	Get 100% of ST's largest manufacturing sites recognized for social responsibility by external international bodies by 2025.		91%
SG6	Engage employees in deploying STEM partnerships in 20 countries by 2025.		18 out of 20 countries
SG7	Recruit at least 30% women in all exempt positions every year.		29%
SG8	Reach at least 20% women in every management level by 2025.		27% (junior managers) 21% (experienced managers) 16% (directors and senior managers) 14% (executives)
We protect the planet			
SG9	Be carbon neutral by 2027 in all direct and indirect emissions from scope 1 and 2, and focusing on product transportation, business travel and employee commuting emissions for scope 3.		906KT net CO ₂ eq emissions
SG10	Adopt 100% renewable energy sources by 2027 through energy procurement and green energy installations.		71% of total electricity (65% of total energy)
SG11	Implement programs to reduce energy consumption by at least 150GWh per year by 2027.		27GWh saved in 2023 139GWh saved since 2018
SG12	Reduce energy consumption per wafer by 20% in 2025 vs 2016.		-17%
SG13	Improve our water efficiency by 20% by 2025 vs 2016.		-10%
SG14	Recycle at least 50% of the water used each year.		42%
SG15	Ensure an annual landfill waste rate below 3%.		1.9%
SG16	Reuse or recycle 95% of our waste by 2025.		96%
We generate long-term value for all stakeholders			
SG17	Ensure every year that 100% of our employees have access to and are aware of our Ethics Hotline.		100% have access For awareness actions see Ethics and compliance
SG18	Ensure every year that 100% of exempt employees sign an agreement to comply with our Code of Conduct and related procedures.		99%
SG19	Follow highest standards for 100% of the materials we use: Hazardous Substances Process Management (IECQ080000) and responsible sourcing initiatives, such as RMI.		HSPM: 97% RMI: 100%
SG20	Conduct an annual risk assessment of our supply chain and audit 100% of our high-risk suppliers by 2025.		Risk assessment conducted Audit: 49% with valid audit (2 year cycle - 263 out of 537 facilities at risk)
SG21	Further reduce defects by 20% per production unit by 2027 (vs 2020).		+10%
SG22	Achieve an employee engagement rate of at least 10 percentage points above local norms in all major countries by 2025.		2 out of 13 countries
SG23	Annually report our progress on all our long-term goals, following the most advanced standards.		Sustainability reporting according to GRI, SASB, TCFD, UNGC, SDG
SG24	Maintain certification for 100% of manufacturing sites (ISO 14001, ISO 45001, ISO 14064, ISO 50001).		89% certified

Awards 2023 overview

Every year we receive external recognition for our approach to sustainability. Here are some highlights from 2023.

Manager's Award

Jean-Marc Chery, our President and CEO, received the 'Manager's Award' at the 2023 Digital Technologies awards organized by Télécom Paris alumni. This prestigious award recognizes his outstanding leadership and longstanding contribution to the microelectronics industry. The event, which has been held for 25 years, honors key players in the digital transformation of society.



Supplier Sustainability Award

ST received a supplier Sustainability Award from GoPro, a US technology manufacturer. The award recognizes ST's long-term commitment to sustainability and our collaborative efforts with all stakeholders. A wide range of environmental and social criteria were assessed for the award, including renewable energy use, waste and water reduction, conflict minerals, and new employee sustainability training.

Top 100 Global Innovators™

ST was named among the Top 100 Global Innovators™ 2023 by Clarivate™. The ranking acknowledges companies and organizations that are at the forefront of innovation, driving significant advances in their industries. ST creates unique technologies and products that provide solutions for a more sustainable future.

Top 100
Global
Innovator
2023

Clarivate™



GSA Women's Leadership Initiative

One of our employees, Aradhana Kumari, based at our Greater Noida site (India), received the 'Female Up & Comer' Award from the Global Semiconductor Alliance Women's Leadership Initiative. The award recognizes emerging talent in the semiconductor industry and is a testament to Aradhana's exceptional contribution towards innovation and growth.

The Philippines' Best Employers

ST was named as one of the Philippines' Best Employers 2023 in an independent ranking by the Philippine Daily Inquirer and Statista. The ranking was the result of extensive research that evaluated criteria such as salary, work-life balance, and work environment.



Lalla Hasnaa Trophy

Our Bouskoura site (Morocco), was awarded the Lalla Hasnaa Trophy for Sustainable Coasts, within the 'Social and Environmental Responsibility' category. The ceremony was led by Her Royal Highness Princess Lalla Hasnaa to reward initiatives that contribute to the protection of coastlines and oceans. The award recognizes our commitment to sustainability and positive impact on the Moroccan coastline.

Top Employer in France and Italy

ST was recognized as one of the Top Employers 2024 (based on 2023 performance) in both France and Italy by the Top Employers Institute. These are the fourth and third consecutive years, respectively, that ST has received these awards. They highlight our strong performance in areas such as ethics and integrity, talent acquisition, employer branding, learning, and work environment.



Electronics Maker Industry Awards

ST won three awards at the annual Electronics Maker Best of Industry Awards 2023: Most Innovative Semiconductor Company, Most Sustainable Semiconductor Company and Most Innovative Product of the Year for STM32H5. This achievement demonstrates the dedication of ST's teams to innovation and business excellence.

Living our values



24
sustainability
goals



Speak up
Culture



27
years of
sustainability
reporting





Governance

Headquarters, ST Geneva, Switzerland

LIVING OUR VALUES

Our corporate governance structure and policies reflect best practice, promoting a consistent, ethical business culture.

44%

women on the
Supervisory Board

12

Supervisory Board
meetings

100+

Sustainability
Champions

ST has a longstanding commitment to operating in line with best practice corporate governance principles. We have adopted policies that consider the interests of our stakeholders and cover important issues, such as business ethics and conflicts of interest. Our corporate governance statement and policy objectives support our efforts to foster an ethical business culture that is consistent throughout the organization.

Corporate governance structure

ST's parent company, STMicroelectronics NV, is registered in the Netherlands and is listed on the New York Stock Exchange (NYSE), Euronext Paris, and Borsa Italiana, Milan. Our headquarters and operational offices are managed through our wholly owned subsidiary, STMicroelectronics International NV, located in Plan-les-Ouates, Geneva, Switzerland. Our operations are also conducted through our various subsidiaries. These are organized and operated according to the laws of their respective countries of incorporation and consolidated by STMicroelectronics NV.

We have a two-tier governance structure, in accordance with Dutch law. Our management is entrusted to our Managing Board under the supervision of our Supervisory Board.

Our corporate governance policies and practices are outlined in our Corporate Governance Charter, Supervisory Board Charter, and Managing Board and Executive Committee Charter. These charters are available in the corporate governance section of our website (see investors.st.com ). | 2-1 |

Supervisory Board

Our Supervisory Board is responsible for supervising the policies pursued by our Managing Board and supporting the Managing Board with its advice. It also oversees the Managing Board's implementation of long-term value creation and the general course of affairs and business at ST.

Our Supervisory Board is a separate and independent body that comprises nine non-executive members (four women and five men), each appointed at our Annual General Meeting of Shareholders. Members are carefully selected in accordance with our Supervisory Board Charter, the Profile of the Supervisory Board, and the Diversity Policy adopted by our Supervisory Board. Skills, expertise, and soundness of judgment are among the competencies required from members of our Supervisory Board. The composition of the Supervisory Board also aims to be diverse in terms of characteristics such as nationality, experience, background, gender, and age. Further information can be found in the corporate governance section of our website (see investors.st.com ).

5 standing committees

The Supervisory Board is assisted in its duties by five standing committees. These are independent from the Managing Board and senior management.

- Audit Committee
- Strategic Committee
- Compensation Committee
- Nominating and Corporate Governance Committee
- Sustainability Committee

Our Supervisory Board met 12 times in 2023, with an average attendance rate of 91%. Full details of attendance at meetings of the Supervisory Board and its committees are shown in our Annual Report on Form 20-F, and in our Statutory Annual Report. | [2-9](#) |

Managing Board

Our President and CEO, Jean-Marc Chery, is the sole member of our Managing Board, and as such is entrusted with our general management. Jean-Marc Chery also chairs our Executive Committee. The Executive Committee acts under the authority and responsibility of the Managing Board, and in this respect manages the Company. The Managing Board remains legally responsible for the management of the Company.

The other members of the Executive Committee are:

- Marco Cassis, President, Analog, Power and Discrete, MEMS and Sensors Group, Head of STMicroelectronics' Strategy, System Research and Applications, Innovation Office
- Rajita D'Souza, President, Human Resources and Corporate Social Responsibility
- Remi El-Ouazzane, President, Microcontrollers, Digital ICs and RF products Group
- Lorenzo Grandi, President, Finance, Purchasing, ERM and Resilience, Chief Financial Officer
- Fabio Gualandris, President, Quality, Manufacturing and Technology
- Steven Rose, President, Legal Counsel and Public Affairs
- Jerome Roux, President, Sales and Marketing

Their biographies can be found in the 'About ST' section of our website (see www.st.com ). | [2-9](#) |

Corporate Audit

Corporate Audit is strictly independent from corporate and local management. Its primary objective is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight.

Franck Freymond, Executive Vice President, Chief Audit and Risk Executive, is the Head of Corporate Audit. He reports directly to the Audit Committee of our Supervisory Board and attends quarterly meetings with the Audit Committee and senior management.

Independent audit function

Current functional reporting lines and practices ensure he has the appropriate level of organizational independence and unrestricted access to senior management and the Supervisory Board.

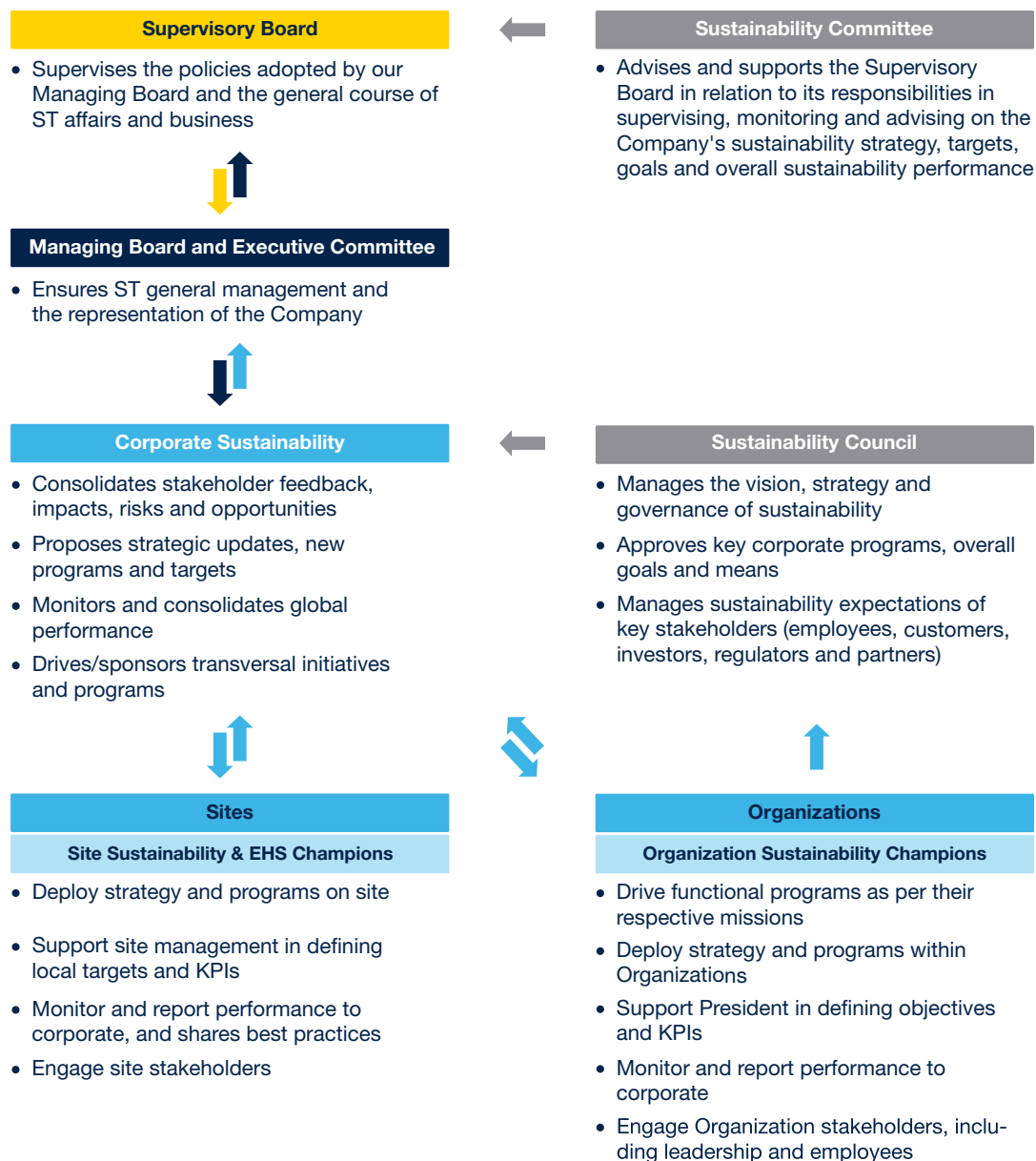
The internal audit process is based on a formal and structured audit methodology, which ensures a risk-based approach. Corporate Audit activities are coordinated with other risk assurance functions within the Company, allowing effective risk coverage.

Corporate Audit performs its activities in accordance with the International Standards for the Professional Practice of Internal Auditing, published by the Institute of Internal Auditors.

Sustainability governance

Sustainability is central to ST's business model and is a key consideration at all levels of the organization.

ST Sustainability Governance



Supervisory Board

Sustainability Committee

The Managing Board is responsible for directing our sustainability roadmap, and the Supervisory Board is responsible for overseeing it, considering both risk and opportunity.

The Executive Committee holds quarterly meetings attended by our President and CEO, Presidents, and Executive Vice Presidents to review sustainability performance and targets. | [2-12](#) |

Since 2022, our Sustainability Committee has supported and advised the Supervisory Board on sustainability strategy, targets, and performance.

The responsibilities of the Sustainability Committee include:

- monitoring and advising on sustainability policies and practices, including, but not limited to, social and environmental issues
- monitoring and assessing sustainability developments and emerging trends in the semiconductor industry
- reviewing stakeholder feedback relating to sustainability
- monitoring the sustainability performance of the Company
- reviewing and advising on the Company's sustainability report
- monitoring and advising on the Company's sustainability strategy, targets, goals, and overall sustainability performance
- monitoring alignment between our corporate strategy and sustainability strategy

In 2023, the Sustainability Committee met four times. These meetings focused on reviewing the pillars of our sustainability strategy and assessing future considerations for sustainable progress. In addition to the regular agenda, there were expert-led sessions on key focus areas, such as reporting, climate change, environment, product stewardship, responsible supply chain, health and safety, labor and human rights, and diversity, equity, and inclusion.

Our executive Sustainability Council, composed of Company Vice Presidents and their delegates, helps validate strategy and maintain alignment, as well as ensuring the means are in place to deploy the relevant corporate programs. The Sustainability Council further ensures the sustainability concerns of our key stakeholders are addressed, including employees, customers, investors, regulators, communities, and partners.

The Corporate Sustainability department is responsible for developing our sustainability strategy and programs. It is supported by a network of over 100 Sustainability Champions who manage the programs and monitor our performance across all our sites and organizations.

In 2023, Organization Sustainability Champions were nominated to further embed ST's sustainability strategy into all groups and divisions of the Company. In addition, each site has a Site Sustainability Champion, and our major sites have a dedicated local sustainability committee responsible for overseeing its site sustainability roadmap.

ST has been a signatory of the United Nations Global Compact since 2000 and a member of the Responsible Business Alliance since 2005. | [2-12](#) | [2-13](#) | [2-14](#) |

Ethics and compliance

LIVING OUR VALUES

Integrity, respect, and accountability are central to the decision-making process and culture at ST.

Zero

tolerance approach to bribery and corruption

24/7

Ethics Hotline

20,000+

e-learning delivered

Putting integrity, respect and accountability at the core of our decision-making process is vital to support our ambition, create value, and earn the trust of our stakeholders. These values are some of our most important assets and an integral part of our long-term strategy.

Our vision speaks for itself: we want to be everywhere microelectronics brings a positive contribution to people's lives. We must reflect this in everything we do. We believe business integrity is everyone's job and responsibility, and that conducting our business with the highest ethical standards is critical to our long-term success.



Philippe Dereeper

Chief Ethics and Compliance Officer,
and Executive Secretary of the
Supervisory Board

“Cultivating a culture of ethics, accountability, and respect is critical to the success of any organization. By upholding these values, we not only ensure the integrity of our Company, but also create a workplace culture that attracts and retains top talent, builds trust with our stakeholders and creates a foundation for long-term success.”

Code of Conduct

Our Code of Conduct is all about our values, which are shared throughout the Company. It sets clear expectations for our employees and other stakeholders, helps to foster a culture of integrity, and provides practical guidance on the way we conduct our business and make our decisions.

- **Integrity:** we conduct our business with the highest ethical standards, honor our commitments, and keep our promises; we are loyal and fair and stand up for what is right.
- **People:** we behave with openness, trust, and simplicity; we are ready to share our knowledge, encourage everyone's contribution, develop our people through empowerment, teamwork, and training; every one of us is committed and personally involved in the continuous improvement process.
- **Excellence:** we strive for quality and customer satisfaction and create value for all our partners; we are flexible, encourage innovation, develop our competencies, seek responsibility and are accountable for our actions; we act with discipline, base our decisions on facts, and focus on the priorities.



An Addendum to our Code of Conduct, published in 2022, provides supplementary guidance and practical information to help prevent and detect risks related to corruption or influence peddling. It also includes specific recommendations regarding charitable donations or sponsorship, gifts, meals and entertainment, and other risky situations that employees may encounter.

Our Code of Conduct and its Addendum are distributed to all our employees, including newcomers. They are available on our website (see www.st.com/code_of_conduct), our ST Integrity app, and in 10 languages on our intranet | 2-23 | 2-24 | 2-27 |

Yearly declaration

In 2023, we ran our annual worldwide campaign asking all eligible employees to sign and confirm our business ethics declaration, in line with the values and principles described in our Code of Conduct. Employees who have not completed their yearly declaration are contacted to understand the reasons behind it and, as applicable, identify any follow-up action plan.

E-signature of Code of Conduct⁽¹⁾ (%)

2019	2020	2021	2022	2023
98	99	97	99	99

⁽¹⁾ Percentage of eligible employees (all employees in the exempt category).

Communication and awareness

In 2023, we continued to deploy our Compliance, Ethics and Privacy multi-channel communication and awareness strategy via our intranet pages (generating more than 100,000 views in 2023), through our mobile application ST Integrity, and our Viva Engage community 'Building Trust Together'. Compliance, Ethics and Privacy was also a topic of interest for external users in 2023, leading to more than 87,000 views on our new Compliance, Ethics & Privacy internet page and Privacy Portal. Finally, we participated for the fourth time in the Distribution and Sales Convention for Asia Pacific, with more than 300 business partners.

Privacy

In 2023, we continued to monitor and adapt to the evolving privacy environment as we faced many new personal data protection laws with varying requirements, deadlines, enforcement dates, and rulemaking. The ability of multinational companies to export personal data from the European Union and Mainland China has been challenged in recent years. We welcomed the EU-US Data Privacy Framework, which stabilizes cross-border transfers and makes it easier to provide services to our

stakeholders. To this end, we updated our Privacy Portal at www.st.com to comply with several new personal data protection laws (for example, Mainland China, Switzerland, California) and to provide our stakeholders with dedicated privacy notices to expand our transparency obligations.

In 2023, we did not receive any formal grievance made by individuals or personal data protection authorities regarding our handling of personal data.

Bribery and corruption

zero tolerance

towards bribery and corruption

We have a zero-tolerance approach towards any forms of bribery and corruption, regardless of the identity or position of the originator or recipient of the bribe. It is also strictly forbidden for anybody in ST to use Company funds or assets to make a political contribution.

This applies to all our employees, organizations and third parties acting on behalf of ST and all transactions in any country where we operate and do (or seek to do) business. Any violation will be deemed a serious violation of our Code of Conduct and lead to disciplinary action, including termination of the relationship with ST.

Our Anti-Bribery and Corruption policy (see www.st.com) provides clear definitions regarding instances of bribery and corruption and includes detailed descriptions of the Company's rules for engaging with third parties. It also explains how to report actual or suspected violations and outlines the potential disciplinary actions and legal consequences of any non-compliance.

Speak up and reporting of concerns

At ST, we believe that maintaining a culture of transparency and ethical behavior is crucial to our success. That's why we encourage everyone, including our external business partners, to speak up and report any concerns they might have regarding possible violations of our Code of Conduct, policies, or the law. Our managers are accountable for creating a working atmosphere where employees feel comfortable speaking up and expressing their concerns freely.

We take all concerns raised seriously and review them thoroughly. To make it easy for our employees, business partners, and stakeholders to report any concerns, we have an independent multilingual Ethics Hotline that is available 24/7 online or via phone. We communicate this Ethics Hotline to all employees through various channels, including our Code of Conduct, dedicated intranet web pages, and our ST Integrity app. A link to our Ethics Hotline is also accessible on our intranet, our website, many communication and training materials, and our ST Integrity app.

See something?

**Say
something!**

Ethics Hotline Reports

	2021	2022	2023
Number of cases	80	102	337
Number of cases under review as of January 1 st	7	7	17
Number of cases reported during the year	73	95	320
Number of cases per category			
Asset misappropriation	9	3	24
Bribery and corruption	10	9	11
Conflict of interest	2	2	7
Fraudulent statements	0	0	0
Harassment and other behavioral issues	42	66	187
Environment, health and safety issues	0	2	5
Data privacy	0	0	0
Cybersecurity	-	0	9
Insider trading	0	0	0
Other grievance	17	20	94
Cases closed after a preliminary assessment or formal investigation	73	85	260
Number of confirmed external misconduct cases	1	5	4
which led to terminating contracts with business partners	0	4	0
Number of confirmed internal misconduct cases	23	29	71
which led to employees being dismissed or disciplined ⁽¹⁾	22	28	51
Cases still open at year end	7	17	77
Number of litigations or investigations conducted by authorities regarding corruption against ST or its employees	0	0	0

⁽¹⁾ After follow-up actions, including coaching, training and awareness sessions, which are not considered disciplined measures.

We apply the highest standards of confidentiality in handling all reports received, and we ensure that no employee who reports a concern suffers retaliation in the form of harassment, or adverse employment or career consequences. | [2-25](#) | [2-26](#) |

FOCUS

SPEAK UP CAMPAIGN

In 2022, we refreshed our Ethics Hotline, which is available 24/7 online and via phone in more than 30 languages. We accompanied this with a new global communication and training campaign ‘See something? Say something!’ focusing on the importance of speaking up and building a culture of trust, accountability, and transparency within the Company.

The campaign continued throughout 2023, and since its launch, we have published 22 communications on our internal channels, generating 53,000 views. We also created posters, business cards, flyers, and videos that were made available to sites.



In addition, we updated all Compliance, Ethics & Privacy e-learning modules to include a module on our new Speak Up policy and tool, which were taken 20,895 times in 2023, demonstrating a high level of engagement and commitment from employees at all levels.

To ensure that our managers are equipped with the knowledge and skills to create and maintain an environment where employees feel free to speak up and report any concerns, we also trained 5,243 managers on the importance of fostering a culture of transparency and ethical behavior throughout the Company.

All these actions resulted in a 3-fold increase in the number of concerns raised through the Ethics Hotline in 2023, strengthening a speak up culture.

Ethics committees

The purpose of our Corporate Ethics Committee is to support ST management in its efforts to foster a consistent ethical culture across all regions, functions, and organizations. Formed in 2007 and chaired by our Chief Ethics and Compliance Officer, Philippe Dereeper, the committee comprises senior managers representing various ST organizations.

The role of the Corporate Ethics Committee includes:

- evaluating the principles in our Code of Conduct, with reference to our culture and commitment to business ethics
- reviewing the main ethical breaches, allegations, and related investigations
- providing guidance on ethical dilemmas that may be faced by the Company, upon request from our Managing Board or our Chief Compliance Officer
- promoting and coordinating the activities of our four local ethics committees in France, Italy, Asia Pacific, and the Americas

Our four local ethics committees contribute to this mission within their respective geographical areas. Their activities are complementary to the Corporate Ethics Committee, with which they are in regular communication. [I 2-16 I](#)

Annual sustainability goal	Status	Comments
SG17: Ensure every year that 100% of our employees have access to and are aware of our Ethics Hotline.	✓	100% have access For awareness actions see Ethics and compliance
SG18: Ensure every year that 100% of exempt employees sign an agreement to comply with our Code of Conduct and related procedures.	⦿	99%



Risk management

Employees at work, ST Croles, France

LIVING OUR VALUES

Risk management is embedded throughout our organization to provide resilience, agility, and growth.

ERM

global approach

9

priority 1 risk areas

100+

ERM and resilience champions

Our tailored enterprise risk management approach

As a company operating globally in the semiconductor market, we are exposed to risks of increased volatility, uncertainty, complexity, and ambiguity, particularly due to current geopolitical instabilities. For a description of ST's risk factors, please refer to the relevant section in our 2023 Annual Report Form 20-F and our 2023 Statutory Annual Report, including IFRS Financial Statements, available on investors.st.com .

Our embedded approach to enterprise risk management (ERM) is formalized in a specific policy and is aligned with ISO 31000. It enables us to:

- set and enable our Company strategy, manage our performance, and capitalize on opportunities
- systematically identify, evaluate, and address specific risk scenarios

Our ERM improvement roadmap includes implementing our risk framework, which is tailored to ST. Our risk framework is an integral part of our processes and decision-making. It considers the interests of our stakeholders and addresses uncertainty explicitly. Based on the best available information, the risk framework is proactive, structured, dynamic, iterative and responsive to change.

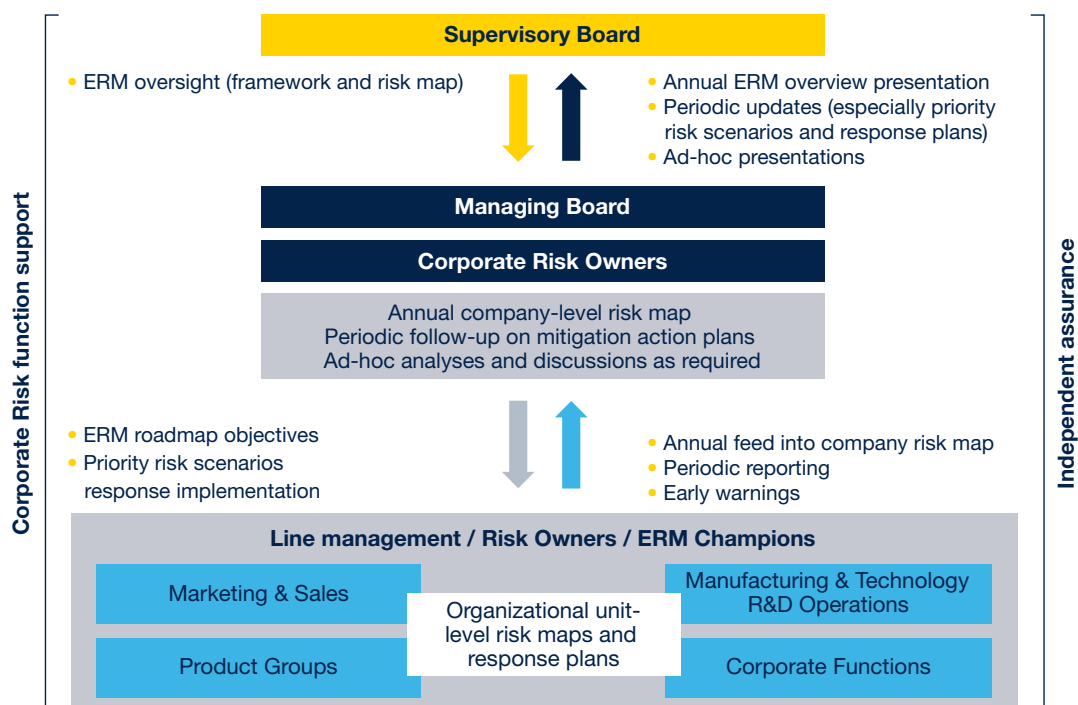
ERM process aligned with

ISO 31000

ST's ERM framework	
Governance, organization, and culture	• Risk oversight and governance
	• Risk culture
	• Risk appetite
	• Risk functions and communities
Managing risk and opportunity	• Response to and monitoring of risk and opportunity (enabling strategy and performance)
Risk enablers	• Risk reference documentation (policies and procedures)
	• Risk processes (definition and methodologies)
	• Risk tools

Our risk approach is managed by our Chief Audit and Risk Executive under the direct responsibility of our Managing Board and the oversight of our Supervisory Board. The scope of this oversight role is detailed in our Supervisory Board Charter.

Our risk governance is described in the following chart:



Managing risk

Risk management activities are governed by our risk appetite strategy, which is discussed annually at Supervisory Board and Audit Committee levels.

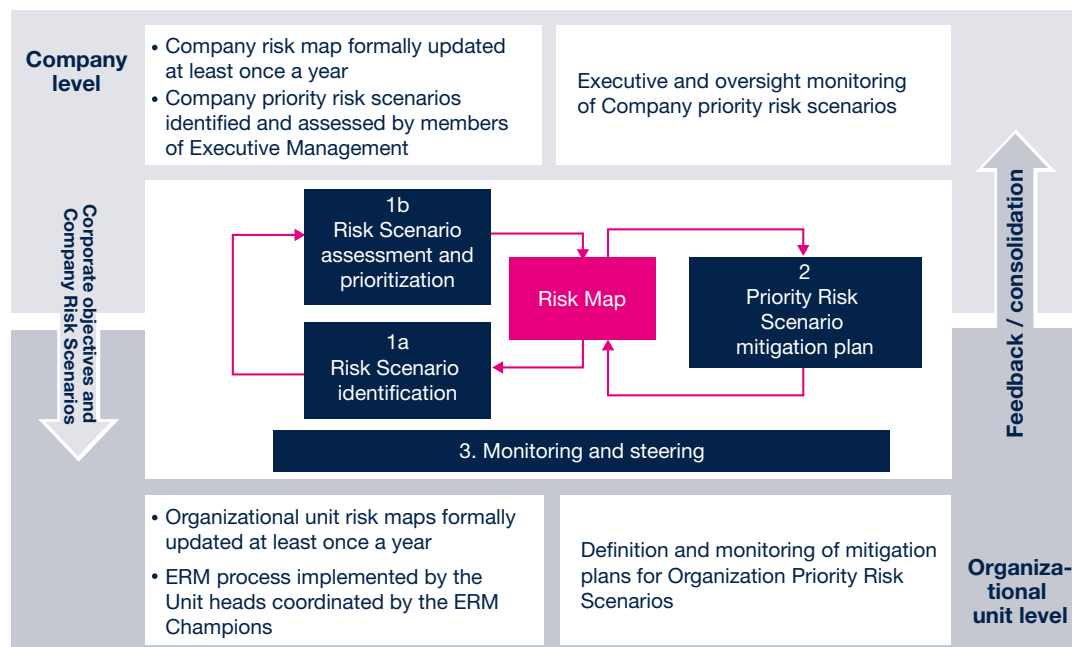
We determine the amount of risk we are willing to pursue or retain, depending on the expected rewards, opportunities, and costs.

Our risk appetite depends on the nature of risks. As an illustration, through well-designed and effective internal controls, we strive to reduce residual exposure to a level as low as reasonably practicable for the following risk categories:

- corporate governance
- product quality
- operations resilience (internal events)
- protection of intellectual property and other sensitive information
- people, health and safety
- compliance with environmental regulations and commitments

- adherence to our Code of Conduct and compliance with applicable laws and regulations
- protection against cyber threats

Our holistic ERM process is embedded company-wide and within more than 20 organizational units, to ensure specific risk scenarios are addressed at the right level. By systematically considering the views of numerous executives and external sources, we continually strive to identify and address emerging risks, including those that are externally driven, fast-evolving, or that might be of significance in the medium- to long-term, for instance risks related to artificial intelligence in 2023. This process is facilitated by a global network of ERM champions.



During 2023, we refreshed our Company risk assessment with the executive management team. The output from this exercise was a risk map linked to our strategic objectives, including nine redefined 'priority 1' risk areas.

Risk owners (members of senior management) were appointed for each priority risk area to develop risk response plans, adapt to changing external conditions, and enhance monitoring capabilities. These risk response plans are regularly reviewed by the Executive Committee and periodically discussed with the Audit Committee of the Supervisory Board.

Each organizational unit throughout the Company completes its own risk assessment. This includes marketing and sales regions, product groups, manufacturing and technology, and corporate functions. In addition, we implemented further risk assessments on large company programs, including transformation programs.



Franck Freymond

Executive Vice President, Chief Audit and Risk Executive

In the spirit of continuous improvement, independent assessments are conducted every five years on ERM and resilience activities. This allows us to evaluate our level of maturity, benchmark our practices against peers or market practices, and design improvement roadmaps.

Improving our resilience

Our risk approach encompasses a dedicated resilience management system (RMS), focusing on business continuity and crisis management, to address the following risk factors:

- continuity of the main sites
- manufacturing flexibility across internal and/or external sites
- continuity of full supply chain, including third parties
- managing business continuity and crisis communication to clients and other stakeholders
- improving company-wide capability to respond to crises

As part of our multi-year improvement roadmap, we further embedded the RMS at our main sites and selected organizations in 2023, leveraging our Corporate Resilience Competence Center and a global network of resilience champions.

In 2023, over 50 ERM and resilience champions gathered for a three-day internal conference where best practices and upcoming improvements were discussed. We implemented several incremental improvements to our RMS, with fully aligned methodologies and toolkits across ERM, resilience, business continuity, and crisis management. This provides a consistent methodology to address potential business disruptions to our resources, such as:

- site unavailability
- people unavailability
- IT system disruptions, such as cyber-attacks
- critical sourcing and logistics/transportation disruptions

As such, we address scenarios that may affect our supply chain and operations, enabling us to continually improve our continuity plans. Such scenarios include:

- pandemics
- natural hazards (such as earthquakes, floods, snowstorms, volcanic eruptions, or tsunamis)
- industrial accidents (such as fires and explosions)
- facilities and energy interruptions
- major impacts related to human activities (such as geopolitical tensions, terrorism, or strikes)

In 2023, we further developed an ST-specific methodology that underpins our global risk management dashboard. This comprises a range of indicators based on internal or external standards, covering dimensions such as:

- exposure to natural hazards
- loss prevention
- facilities robustness
- equipment modernization and redundancy
- IT infrastructure
- cyber protection

For every significant site, these indicators are compiled in a site resilience index (SRI), that is updated and improved quarterly. Site management teams prepare and update an annual site improvement plan accordingly.

Regular evaluation of our risk and resilience framework

The maturity of our overall risk framework design and implementation, which includes cybersecurity risks, is periodically audited by a leading independent organization. This was last performed in 2022, confirming a significant improvement in maturity compared to the previous audit in 2017. In 2023, additional independent audits were completed (as outsourced assignments within our Corporate Audit Plan) focusing on the following specific areas:

ISO 22301
certified

- maturity assessment of the design and implementation of our resilience framework, confirming its current level of maturity
- dedicated review of our cyber crisis playbook

In addition, ST has been ISO 22301 certified since 2016, with the current certification valid until 2025. Throughout 2023, our RMS and improvements have been subject to both internal audits and surveillance audits from the certification body. Such internal audits and external surveillance audits are scheduled to take place again in 2024.

Sustainability risks

Company-level sustainability risk scenarios are addressed as part of our ERM program. Our response level corresponds to the level of risk identified. This mapping enables sustainability risks to be fully integrated into the priority risks of the Company.

In 2023, the main focuses and long-term risk mitigation actions were related to:

- climate change, through investment towards carbon neutrality, maximizing energy savings and renewable energy (see [Energy and climate change](#)), and implementing our carbon neutrality program in our supply chain to reduce our scope 3 GHG emissions (see [Responsible supply chain](#))
- water management, through reinforcement of our water strategy and policy (see [Water](#))
- diversity, equity, and inclusion, through new and updated training, employee resource groups, and enhanced monitoring (see [Diversity, equity and inclusion](#))
- health and safety, through programs dedicated to preventing work-related injuries and illnesses, and reducing psychosocial risks (see [Health and safety](#))
- working conditions in our supply chain, through suppliers' assessment and trainings on labor and human rights (see [Responsible supply chain](#))
- chemical and pollution management, through the substitution of hazardous substances, and monitoring of our impact and appropriate treatment (see [Chemicals](#) and [Water](#))

By identifying these risks and mitigating them through dedicated actions and programs, we can reduce our environmental and social footprint and find new opportunities to create positive value for our Company and our stakeholders.



Sustainability strategy

LIVING OUR VALUES

Sustainability has been ingrained in ST's business model and culture for 30 years.

27

years of sustainability reporting

24

sustainability goals

2027

carbon neutrality commitment

For three decades, our business model has been built on a foundation of sustainability. Our ambition is to create sustainable technology for a sustainable world, creating long-term value for all our stakeholders. We strongly believe that our dedication to a sustainable culture is beneficial for people, the environment, the economy, and society.

Accelerating sustainability, together

Throughout our value chain, we have integrated sustainability into our business model. We have implemented numerous programs to effectively manage our impacts, opportunities, and risks, ensuring that sustainability remains at the forefront of our operations and activities.

Our guiding principles and 24 sustainability goals are detailed in our sustainability charter, which is available at www.st.com/sustainabilitycharter . This is endorsed by Jean-Marc Chery, our President and CEO. Our progress towards these annual, 2025 and 2027 goals is described in this report, with a focus on transparency.

To support our ambitions, we include sustainability criteria among performance indicators for both short-term and long-term incentive schemes for all senior executives and all other employees eligible for incentives. The sustainability/corporate social responsibility index short-term incentives are weighted at 10% with criteria comprising health and safety, environment and climate, diversity and inclusion as well as people management. Sustainability/corporate social responsibility index criteria for long-term incentives are weighted at 33.3% and comprise environment and climate, diversity, inclusion and people engagement, investor ESG index and carbon rating.

As part of our plan to accelerate sustainability and engage our stakeholders, in February and November 2023 we conducted a series of internal sustainability webcasts, each attracting more than 3,000 people. The aim was to share our approach to sustainability trends and challenges, and

to update employees on our sustainability programs and performance. There was also an opportunity for employees to ask their own questions on sustainability during and after the live events.

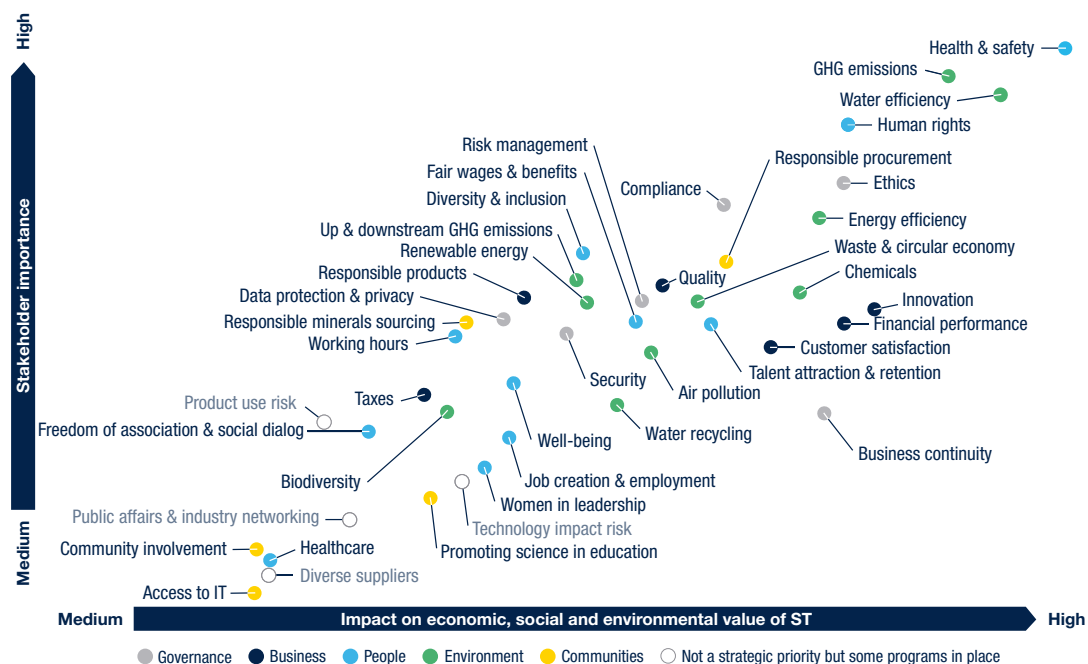
Assessing material topics

We have been conducting materiality assessments since 2010 to identify and prioritize the most significant sustainability topics for our business and stakeholders. We carry out a materiality exercise every year, including a review with our main stakeholders. This allows us to focus our efforts on the most relevant issues and integrate them into our strategy, programs, and objectives.

We assess our impacts continually, taking into account the global sustainability context, identifying emerging and evolving topics, the role of our industry, and evaluating any changes in our activities and business relationships. We consult with experts and regularly engage with our stakeholders to gather their views (see [Stakeholder engagement](#)). This enables us to understand and integrate the topics most significant to our stakeholders and that have a positive or negative impact on our business' economic, social, and environmental value. Where appropriate, we combine topics to reflect our highest priorities and the rapidly evolving sustainability environment.

In 2023, we considered sustainability trends and challenges at a global and industry level, reviewing different sources from the electronics industry and business associations, as well as data-driven insights from an AI software platform. This provided a framework for a deeper analysis, including data points from public sources such as corporate financial reports, regulations, voluntary initiatives, news, and social media.

As in previous years, the most material topics we identified in 2023, and which form the basis of our priorities, are health and safety, GHG emissions, water efficiency, and human rights. However, we also took into account concerns expressed by our external stakeholders regarding the potential impact of our activities on pollution (see [Chemicals](#)).



We address each identified material topic in the matrix above through dedicated programs, with associated goals and targets.

[I 2-29](#) | [3-1](#) | [3-2](#) |

Living our values

Governance, Ethics and compliance, Risk management,
Stakeholder engagement, and commitment to sustainability

Augmenting everybody's
life



Sustainable financial
performance
Innovation
Sustainable technology
Customer satisfaction

Putting people first



Health and safety
Labor and human rights
Talent attraction and
engagement
Diversity, equity, and inclusion

Protecting the
environment



Energy and climate change
Water
Waste, circular economy,
chemicals
Biodiversity

Acting together

Responsible supply chain, Responsible mineral sourcing, Community and education

Interview



Rajita D'Souza

President, Human Resources and
Corporate Social Responsibility

Can you give an overview of sustainability at ST in 2023?

2023 marked yet another acceleration of sustainability at ST. We see sustainability as a question of systemic balance. Economic, social, and environmental issues are interdependent, and many decisions need to be taken to balance short- and long-term needs, risk and opportunities, mitigation, and adaptation, among others. This approach involves the entire organization, which is why we appointed additional sustainability champions in 2023. They are responsible for further embedding ST's sustainability strategy into all groups and divisions of the Company.

We launched 'Accelerating sustainability, together', a program to strengthen and support our sustainability strategy. It aims to develop ST's sustainability leadership and embed sustainability in each step of business strategy, planning, and decision-making. We also implemented accelerator workstreams to facilitate cross-organization collaboration in priority areas.

What sustainability achievements were you most proud of in 2023?

I'm thrilled that we have been able to support important business growth, while maintaining our commitment to sustainability. We exceeded all our absolute targets for our carbon neutrality program and continued to work towards our ambitious sustainability goals. I'm also proud that we made significant progress in our diversity, equity, and inclusion strategy, particularly with the creation of employee resource groups. Our women's network – WISE – continues to go from strength to strength and we created our LGBTQIA+ and allies' network – STAND. Our Blossom network, established three years ago to represent younger employees, is actively supported by a growing number of executives, including our President and CEO. Horizon, our transformation program to support ST's growth ambition, has entered a new phase with the introduction of several new ways of working to positively impact employee experience. We have also integrated the pillars of our associated leadership model – smart, agile, bold, and engaged – into our performance management to grow and develop competencies. I continue to believe that prioritizing and investing in our people is crucial and helps us achieve our goals as one ST.

What factors will shape ST's sustainability strategy in the future?

There are many factors that shape our sustainability strategy. We engage closely with all our stakeholders to strictly monitor their needs and expectations. We are operating within an increasingly complex and volatile environment, which presents many local and global challenges. To address these, we aim to be agile, adapting our approach where necessary while remaining true to our core beliefs and strategy.

We believe our technology can play a crucial role in addressing many of these challenges. It is our goal to have a positive impact on society, while maintaining a proactive approach to mitigating the impact of our operations as far as possible.

Stakeholder engagement

Regular engagement with internal and external stakeholders is essential to help us assess our performance and meet expectations. By maintaining open communication and actively listening, we can integrate feedback into our decision-making and evolve to create long-term value.

Our diverse range of stakeholders includes employees, customers, suppliers, investors, communities, and industry associations. To help us work towards common goals, we collaborate through a broad range of channels across all levels of the Company. These vary across our sites according to their size and activity and take into account cultural and language differences.

During the verification process for this report, external auditors interviewed three stakeholders (an industrial partner, a think tank and an association on human rights) to gain valuable insights into their views of ST. This helps us maintain a balanced perspective, assess the effectiveness of our actions, and consider the views of our stakeholders going forward.

Stakeholders	Key expectations	How we engage
EMPLOYEES	- Health and safety at work - Respecting human rights - Ethics	- Employee surveys and workshops - Training - Intranet with global and local content
CUSTOMERS	- Health and safety at work - Respecting human rights - Greenhouse gas emissions	- Trade shows and Technodays - Seminars, conferences, workshops - Site visits, meetings, audits
INVESTORS & ANALYSTS	- Health and safety at work - Greenhouse gas emissions - Talent attraction and retention	- Capital Markets Day - Regulatory filings and sustainability report - Extra-financial questionnaires and meetings
SUPPLIERS	- Health and safety at work - Ethics - Respecting human rights	- Adherence to ST Code of Conduct - Supplier training - Audits and interviews
LOCAL PARTNERS AND COMMUNITY	- Respecting human rights - Greenhouse gas emissions - Health and safety at work	- Partnerships - Conferences, conventions, meetings - Donations, training, volunteering, local initiatives
NATIONAL AND LOCAL AUTHORITIES	- Ethics - Greenhouse gas emissions - Respecting human rights	- Partnerships with municipalities - Correspondence and visits - Annual reports
ACADEMIC INSTITUTIONS AND LABORATORIES	- Ethics - Respecting human rights - Product and technology innovation	- Internships, scholarships, PhDs - Joint R&D projects, joint labs - Conferences, technical seminars
INDUSTRY ASSOCIATIONS	- Ethics - Respecting human rights - Renewable energy	- Public-private partnership activities - Participation in industry consortiums and working groups - Meetings, conferences, seminars
MEDIA	- Fair wages and benefits - Greenhouse gas emissions - Renewable energy	- Press releases and interviews - Conferences and conventions - Social networks

Key expectations are the top three issues identified by each group of stakeholders in our 2020 materiality exercise.

Involvement in industrial and international organizations

STMicroelectronics is a key player in the semiconductor industry. We participate in industrial and international organizations and aim to advance the semiconductor industry in the countries where we operate. We work with others to respond to developments and challenges related to our core business and areas of sustainable development.

Our President and CEO is one of the board members of the Global Semiconductor Alliance, which supports collaboration and innovation for the industry and across the ecosystem.

We are also active members of the World Semiconductor Council, chairing committees and participating in working groups in both the Semiconductor Industry Association in Europe and the Semiconductor Industry Association in the United States.

In 2023, ST's Senior Director of Corporate Social Responsibility, Sheila D'Annunzio, was elected to the board of directors of the Responsible Business Alliance (RBA), strengthening our longstanding collaboration. The role will give us the opportunity to support the RBA in its drive for sustainable value for workers, the environment, and business throughout the global electronics supply chain. Further details of our memberships, collaborations, and engagements can be found at [st.com](https://www.st.com) .

Sharing our values and vision

We organize numerous events and activities throughout the year, both formal and informal.

In May 2023, we organized 'ST Sustainability Days' at our Agrate site (Italy), to raise awareness of our role and contribution to sustainability. A diverse range of stakeholders including partners, customers, and students were hosted in our new 300mm manufacturing facility.

The event included product demonstrations, presentations, and panel discussions designed to engage participants and build knowledge. Over 1,000 stakeholders attended, demonstrating our commitment to actively pursuing sustainability together.

We value the different perspectives of our team members and encourage open dialog and honest feedback. To ensure our employees feel informed and part of our community, we regularly share news and updates throughout the Company. Our President and CEO provides official updates through CEO calls and videos, while local news and events are published on our intranet and social media channels. Throughout the year, we publish communication and awareness campaigns on a wide range of topics, such as new training opportunities, sustainability initiatives, and employee health and safety.

| 2-28 | 2-29 |

Contributing to the Sustainable Development Goals

The Sustainable Development Goals (SDGs) set by the United Nations define global sustainable development priorities and aspirations for 2030, highlighting the world's biggest social and environmental challenges. As a multinational company, we are convinced we have a responsibility and a role to play to help achieve these goals. We mapped the 17 SDGs to our material topics and business strategy. We then identified the 11 goals that are most relevant to our sustainability strategy. Our performance against these SDGs is highlighted throughout this report.



Good health and well-being

- We aim to ensure healthy lives and well-being for all.
- We are engaged in minimizing risks of negative impact on people due to our activities.

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

Health and safety, People indicators

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

Waste, Chemicals, Environmental indicators



Ensure inclusive and quality education for all and promote lifelong learning

- We support education in all the countries where we operate.
- We develop the competence of our employees through a blended approach.

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

Talent attraction and engagement, Community and education, People indicators, Community indicators



Achieve gender equality and empower all women and girls

- We aspire to achieve full gender equality.
- Our Women in Leadership program prepares the next generation of women leaders.

5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

Diversity, equity and inclusion, People indicators



Clean water and sanitation

- We are committed to reducing our water consumption and recycling more.
- All our wastewater is treated before being discharged into the environment.
- We strive for zero waste in landfill.

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

Waste, Chemicals, Environmental indicators

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

Water, Environmental indicators



Ensure access to affordable, reliable, sustainable and modern energy for all

- We deploy programs to improve energy efficiency in all our manufacturing sites.

7.3 By 2030, double the global rate of improvement in energy efficiency

Energy and climate change, Environmental indicators



Promote inclusive and sustainable economic growth, employment and decent work for all

- We apply a zero tolerance approach to forced labor.
- We assess and mitigate social risks in our extended supply chain.
- We focus on providing a safe workplace with zero injuries and zero occupational diseases.

8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms

Labor and human rights, Responsible supply chain, People indicators

8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

Health and safety, Labor and human rights, Responsible supply chain, People indicators



Build resilient infrastructure, promote sustainable industrialization and foster innovation

- We promote open innovation and partner with a wide range of universities and research institutes throughout the world.

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

Innovation, Business indicators



Reduce inequality within and among countries

- We promote equal opportunities for all.
- Our ambition is to be a leader in cultural and disability inclusion.
- Our ST Foundation is bridging the digital divide.

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

[Diversity, equity and inclusion](#), [Community and education](#), [People indicators](#)



Ensure sustainable consumption and production patterns

- We strive for zero waste in landfill, reduce our consumption of chemicals and eliminate hazardous materials.

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their lifecycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

[Chemicals](#), [Environmental indicators](#)



Take urgent action to combat climate change and its impacts

- We are committed to being carbon neutral by 2027.
- We deploy programs to reduce our GHG emissions.
- We actively participate in industry initiatives for action on climate change.

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

[Energy and climate change](#), [Environmental indicators](#)



Revitalize the global partnership for sustainable development – Multi-stakeholder partnerships

- As a member of the Responsible Business Alliance and other industry associations, we share knowledge and expertise to help achieve the SDGs.

17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries

[Labor and human rights](#)

Augmenting everybody's life



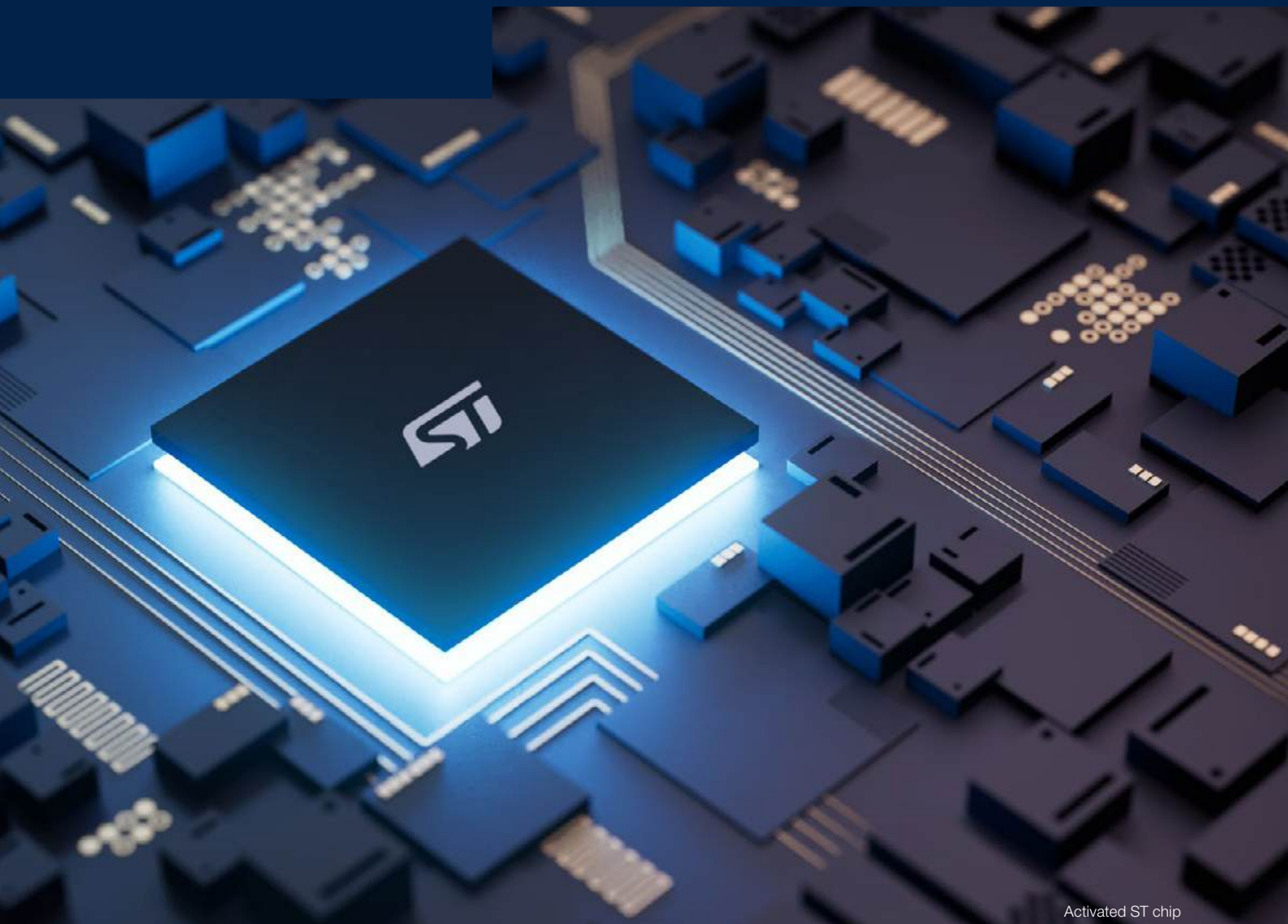
DJSI
included in
World and
Europe indices



9,500+
people
working
in R&D



23.2%
of revenue from
responsible
products



Activated ST chip

Sustainable financial performance

ST 300mm wafer

AUGMENTING EVERYBODY'S LIFE

We create profitable growth, managing risks and increasing long-term value for all stakeholders.

47.9%

gross margin

26.7%

operating margin

US\$4.21

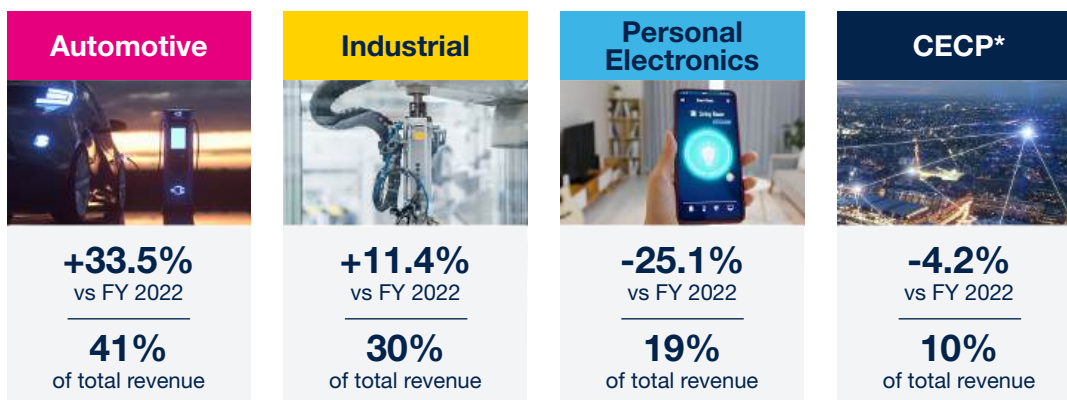
billion net income

Our net revenues increased 7.2% to US\$17.29 billion in 2023, driven by strong demand in Automotive and, to a lesser extent, Industrial, partially offset by lower revenues in Personal Electronics.

Gross margin was 47.9%, up from 47.3% in 2022; operating margin was 26.7%, compared to 27.5%; and net income increased 6.3% to US\$4.21 billion.

We invested US\$4.11 billion in net capital expenditure and increased our free cashflow by 11.3% to US\$1.77 billion. Our net financial position increased to US\$3.16 billion on December 31, 2023, from US\$1.8 billion the previous year.

US\$17.29 billion
revenues



* Communications Equipment, Computers and Peripherals

Full details of our financial results are available in our annual reports (Form 20-F and IFRS), which can be found on our website (investors.st.com )

Business dynamics

In Automotive, we again saw strong demand across all geographies, driven by increasing semiconductor pervasion and structural transformation. The year was also positively impacted by inventory replenishment and a high level of capacity reservation fees.

**Over
60%
increase in SiC
revenue vs 2022**

In 2023, we continued to execute our strategy to support car electrification. Our revenue for silicon carbide (SiC) products for the year was US\$1.14 billion, a growth of more than 60% versus 2022.

In car digitalization, we saw continued design win momentum, with our latest generation of automotive microcontrollers across applications such as software-defined vehicle architectures and car electrification systems.

In Industrial, demand was still strong during 2023, especially in power and energy, factory automation and robotics, and industrial infrastructure. Towards the end of Q3 we saw a progressive weakening of demand, that accelerated during Q4. In power and energy management applications, such as EV charging stations, renewable energy systems, and factory automation, we had a broad range of design wins. We further strengthened our embedded processing solutions leadership with our STM32 microcontroller and microprocessor families and related ecosystem, introducing many new products and tools.

During the year, we had a strong focus on Edge AI. We announced and provided updates on multiple hardware products, including microcontrollers, microprocessors, and smart sensors. We unveiled the world's first MCU-Edge AI Developer Cloud and held our first ST Edge AI Summit online, with over 2,000 attendees and participation from many customers and partners. We also made good progress with sensors for industrial applications, introducing new MEMS and optical sensors suitable for industrial robotics and embedded vision applications.

Edge AI focus

In Personal Electronics and Computer Peripherals, market demand remained weak in 2023, while Communications Equipment demand remained solid in our focus areas. In Personal Electronics, we continued to be successful with our focused approach, winning sockets in flagship devices with sensors, wireless charging, touch display controllers, and secure solutions.

In Communications Equipment, our RF communication business delivered strong results. We continued to progress well with engaged customer programs in satellite and cellular communication infrastructure. | 2-6 | 3-3 |



Lorenzo Grandi

President, Finance, Purchasing, ERM & Resilience,
Chief Financial Officer

“2023 was another year characterized by revenue growth and increased profitability, with our revenues and net income increasing 7.2% and 6.3%, respectively. The solidity and resilience of our financial results demonstrate the strength of our product and technology portfolio and the reliability of our integrated manufacturing and independent supply chain. The continued execution of our established strategy and operating model, the transformation of our manufacturing base, and our strong commitment to sustainability, enable our future growth and drive enhanced profitability. Our ultimate focus remains the creation of long-term value for our stakeholders.”

Manufacturing

We continued to transform our manufacturing base in 2023 to enable our future growth and drive enhanced profitability, with the expansion of our 300mm capacity and a strong focus on wide-bandgap semiconductors.

In SiC, we continued to ramp our front-end device production at our Catania (Italy) and Singapore facilities, and we increased back-end manufacturing capacity at our sites in Morocco and China. We also started production at our new integrated SiC substrate manufacturing facility in Catania as a significant step in our SiC vertical integration strategy.

As part of our SiC strategy, we announced a joint venture with Sanan Optoelectronics for high-volume 200mm SiC device manufacturing in China. Production is expected to start in Q4 2025. These are important moves to further scale our global SiC manufacturing operations and they will be key enablers of the opportunity we see to reach above US\$5 billion SiC yearly revenues by 2030.

We also advanced with our 300mm capacity expansion plans. At our Agrate site (Italy), our new 300mm wafer fab was qualified for production and capacity of slightly more than 1,000 wafers per week was installed as planned.

In June, we announced the conclusion of a three-party agreement among the State of France, GlobalFoundries and our Company, as approved by the European Commission for a new 300mm semiconductor manufacturing facility in Crolles.

All these initiatives are aligned with our sustainability strategy and our sustainable manufacturing commitment, in terms of energy consumption and greenhouse gas emissions, air, and water quality.

EU Taxonomy

On July 12, 2020, EU Regulation 2020/852 of the European Parliament and of the Council of June 18, 2020 (EU Taxonomy Regulation) entered into force. The EU Taxonomy Regulation establishes the basis for a classification system to determine which economic activities can be considered environmentally sustainable. It is part of the EU's efforts to achieve the objectives of the European 'green deal', Europe's strategy towards climate neutrality in 2050. The EU Taxonomy Regulation is designed as a transparency tool to help companies and investors make sustainable investment decisions, with the overall purpose of steering finance towards more sustainable economic activities. Under the EU taxonomy regulation, we are required to disclose information on how and to what extent our activities qualify as environmentally sustainable, see [EU taxonomy](#).

Extra-financial performance

Each year, socially responsible investment rating agencies, analysts, and investors evaluate our corporate behavior and performance based on a wide range of environmental, social, and governance (ESG) topics.

In 2023, we participated in the Dow Jones corporate sustainability assessment for the 25th consecutive year, making us one of the very few companies who have participated continuously since its inception. We maintained our presence in the Dow Jones Sustainability Index World and Europe indices and maintained a strong presence in other major sustainability indices, including FTSE4Good, EuroNext VIGEO Europe 120, Eurozone 120 and Benelux 120, CAC 40 ESG, MIB ESG, ISS ESG Corporate Rating, and Vérité40. As of 2023, we received an MSCI ESG Rating of AAA⁽¹⁾. Furthermore, we have been included in the Bloomberg Gender Equality Index since 2018.

We received an A- score for CDP water security, which is in the 'leadership' band. This is higher than the Europe regional average of C, and higher than the electrical and electronic equipment sector average of C. We received an A- for CDP climate change, which is also in the leadership band. This is higher than the Europe regional average of B, and higher than the electrical and electronic equipment sector average of C.

These achievements acknowledge our longstanding commitment to conducting our business responsibly, and recognize our performance in many areas, ranging from business ethics, innovation, and quality to environment and labor practices. Participating in these evaluations provides an opportunity to assess our performance within a wider context, benchmark ourselves against our peers, measure our progress, and identify areas for further improvement.



⁽¹⁾ The use by ST of any MSCI ESG RESEARCH LLC or its affiliates ("MSCI") data, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of ST by MSCI. MSCI services and data are the property of MSCI or its information providers and are provided 'as-is' and without warranty. MSCI names and logos are trademarks or service marks of MSCI.



Innovation

ST Edge AI technology

AUGMENTING EVERYBODY'S LIFE

Innovation is the fuel that drives our sustainability and growth.

US\$2.1

billion invested in R&D

~20,000

patents

195

active R&D partnerships

Innovation is a crucial element that propels our growth and helps us achieve our business goals. Our focus is on creating technology-based products that provide solutions to real world challenges and contribute to a sustainable future. We believe technology plays a key role in solving environmental and social challenges. In 2023, we invested US\$2.1 billion in research and development (R&D) to support innovation, representing 12.2% of our net revenues.

How we innovate

Building an internal framework

Innovation is a collaborative effort that should involve the entire organization. We have therefore developed an ecosystem to initiate, develop, and sustain innovation throughout the Company and beyond.

Our Innovation Office provides a framework for accelerating innovation processes and searching for disruptive technologies and applications. Its mission is to create internal and external innovation opportunities by connecting emerging markets and technology trends with our internal technology expertise.

Innovation Office

Under the guidance of our Innovation Office, our Technology Council reviews the most advanced R&D activities and develops a three-to-five-year roadmap. The council is supported by world-leading academic and industrial experts in technologies relevant to our business. | 3-3 |

In 2022, our Technology Council launched cross-functional teams known as 'Affinity Teams' to drive innovation within crucial areas of business and sustainability. These teams facilitate knowledge sharing between internal and external innovators, including networking activities with startups, academia, and R&D leaders. In 2023, we built on this structure, creating communities of experts to advance our competencies.

Internal technology expertise

Over 9,500 ST employees work in R&D and design. This includes more than 800 technical staff members who are recognized for their advanced expertise.

Top

100

Global Innovator

This community drives our most advanced innovations, enabling us to develop new technologies and helping to foster R&D partnerships with prestigious universities and partners worldwide. Our expertise is recognized externally through our involvement and contribution at key scientific conferences.

Our sites around the world help to nurture the entrepreneurial spirit of our employees through our fab labs and hubs that connect our technical employees within local innovation ecosystems.

In 2023, we were named a Top 100 Global Innovator™ by Clarivate™, recognizing our position among the world's most innovative organizations.

Leading-edge technologies

The focus of our innovation and the evolution of our technology is centered on three long-term trends reshaping industry and society and supporting the transition to a more sustainable world. These trends are:

- smart mobility
- power and energy
- cloud-connected autonomous things

Thanks to our broad portfolio of patents and strong pipeline of innovation, we are one of the few semiconductor companies with expertise across a very broad range of chip manufacturing technologies. We currently have about 20,000 active and pending patents. See more details about our technologies at www.st.com .

~20,000
patents

Artificial intelligence

ST is a leading provider of software and hardware for edge artificial intelligence (edge AI) solutions for tiny devices, such as sensors and microcontrollers.

As technology advances and data becomes more abundant, artificial intelligence (AI) is poised to revolutionize many industries and change the way we live and work. Exploiting distributed systems located at the 'edge' allows significant advantages in end-to-end energy saving and data security. This is because information is directly processed on sensors and microcontrollers, therefore avoiding centralizing data transmission and processing in the cloud. By harnessing AI in a wide range of sectors and situations, it can contribute to new, more effective ways of managing environmental impacts and climate change.

In 2023, we made significant advances in AI solutions. We unveiled ST Edge AI Suite, which provides a comprehensive, integrated set of software and tools. We also announced the ST Edge AI Core as the fundamental technology used in our AI unified tool, see [ST products and solutions](#).



Alessandro Cremonesi

Executive Vice President, Chief
Innovation Officer,
General Manager, System Research
and Applications

“ST’s products are at the core of many connected, autonomous ‘edge’ devices addressing sensing, processing, connectivity, and actuation needs. Our products allow those devices to be AI enabled, coupling efficient ST hardware solutions with our unique, industry-leading edge AI software suite. This dramatically increases our customers’ productivity to develop more intelligent and sustainable edge-AI products.”

Innovation ecosystem

ST’s innovation model is based on a balance between internal and external initiatives that guarantee continuous capability to identify, develop, attract, absorb, and create innovation. In 2023, we introduced an innovative network-based organization model based on the 3-3-3 approach:

- 3 scouting channels: ST driven, partner driven, venture capital driven
- 3 scouting targets: ecosystem expansion, IP acquisition, new market segments and R&D exploration
- 3 funnels to feed: ST product groups and R&D funnels, ST partner ecosystem, ST technical community

The scouting network is led by innovation specialists nominated for their expertise. The system streamlines our processes so we can work more efficiently towards potential collaborations. It also allows us to conduct business and technical analysis to better understand potential synergies.

Fab labs are a crucial part of our innovation ecosystem. These are dedicated areas with the technical resources to drive innovation. The labs help form local ecosystems by connecting ST employees and technical communities with external innovators. In line with the ongoing expansion of our global network of fab labs, we opened two new labs in 2023, in Le Mans (France) and Sophia Antipolis (France), bringing the total to 13.

External partnerships

We recognize the importance of partnerships in the innovation process and build strategic alliances, engage in bilateral research cooperation, and participate in standardization bodies. These bring together industry leaders from along the value chain to accelerate innovation, mainly in the automotive and industrial sectors, and diversify our scouting process in the smart mobility sector. In 2023, we were involved in 195 active R&D partnerships.

Throughout 2023, we continued to develop our program of external partnerships. To achieve this, we improved the way we work with accelerators to recruit startups. ST also launched a new initiative to attract and work with startups in France. In India, we launched a similar project with a rolling innovation application format, where a startup may apply to be part of ST India’s incubation program.

ST FOR STARTUPS SUSTAINABILITY CHALLENGE FRANCE

For many years, our French sites have been developing support and assistance initiatives for startups. As part of this approach, in 2023 we launched 'ST for Startups – Sustainability Challenge France' to address pressing topics such as energy efficiency, water management, and positive social or environmental impact.



We received 75 entries from startups, SMEs, microenterprises, and student entrepreneurs in France. After careful consideration, 10 were shortlisted by ST managers from across the country. The final of the event took place in Paris, where the finalists pitched their ideas to a jury including Frédérique Le Grevès, ST's Executive Vice President Europe & France Public Affairs and President of STMicroelectronics France. The evaluation was based on criteria such as adherence to the theme, level of innovation, and the quality of the business plan. Based on this, three winners were selected:

- Usense, a company that enables the detection, monitoring, and evolution of disease through urine analysis
- Fractal Energy, which provides a plug-and-play energy storage system to maximize the use of clean energy
- Cixi, which has designed an electric vehicle powered in part by a chainless crankset

The winners will benefit from technical and material support, such as access to equipment, products, and tailored advice from ST engineers via quarterly check-ins. Above all, the initiative demonstrates the combined benefits of collaboration and innovation in accelerating sustainability.

In 2023, ST France, Italy and Malta joined the second Important Project of Common European Interest on microelectronics and communication technologies (IPCEI ME/CT). This strategic initiative involves 14 European Union member states and nearly 100 companies, SMEs, startups, and more than 600 research and technology partners.

The project aims to advance R&D and innovation, and the first industrial deployment of microelectronics and communication technologies across the entire European semiconductor value chain, including materials, design, chip manufacturing, and integration into final systems. The impact of IPCEI ME/CT goes beyond technical achievements. It also significantly increases collaboration within the microelectronics ecosystem and European scientific communities.

Alongside this, the first IPCEI program on microelectronics (IPCEI ME) is still running in Italy, with additional objectives for technologies and products to be achieved by the end of 2024 on energy efficient chips, power semiconductors, and smart sensors.



We continually nurture our open innovation ecosystem through a range of programs.

ST internal programs include:

- **ST Partner Program** raises the profile of authorized high-quality partners, showcasing their products and services through our website. We have more than 300 partners, including startups.
- **ST Proof-of-Concept (PoC) Centers** provide coworking spaces for small and medium-sized enterprises to speed up their proof-of-concept phase.
- **ST for Startups Program** provides a number of different ways that ST engages with eligible startups. These include providing advanced technologies and support, sharing knowledge, or direct business engagement. We also give visibility to startups through ST's events and communications activities.
- **ST-Up accelerator program** supports hardware and technology startups through an 18-month, five-step process.

External programs include:

- **Accelerators** – we collaborate with accelerator initiatives such as Motor Valley and Startup Autobahn within the Plug and Play ecosystem.
- **Incubators** – we work with a global network of expert partners, such as Software République, Silicon Catalyst and e-novia.

Through our various initiatives and our partnership programs, ST was actively engaged with 80 startups in 2023. We also continued to improve our process for managing the startup lifecycle to further enhance our capability to drive successful partnerships.

Thanks to these programs, we are constantly exploring new sustainable solutions and enabling responsible applications for safer, greener, and smarter living (see [Sustainable technology](#)) via a model that supports both a push (inside-out) and pull (outside-in) approach to innovation.

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 9.5 – Enhance scientific research, upgrade the technological capabilities of industrial sectors, and increase private research and development spending.

2025 sustainability goal	Status	Comments
SG1: Generate at least 20% of our revenues from new product lines by 2025.		10.2%

Sustainable technology

ST development board

AUGMENTING EVERYBODY'S LIFE

Our technology plays a key role in helping to solve environmental and societal challenges.

2011

launch of product stewardship program

23.2%

of revenue from responsible products

95%

of our products exceed RoHS directives

At ST, we develop technologies that are key enablers for creating a more sustainable future. Sustainable technology is our comprehensive product stewardship program that aims to ensure sustainability is considered when we develop new products and technologies. It helps us create value for our Company, our customers, and society in general. | 3-3 |

Our responsible products

Our sustainable technology program enables us to classify our products into four categories of 'responsible products' that provide environmental and social benefits.

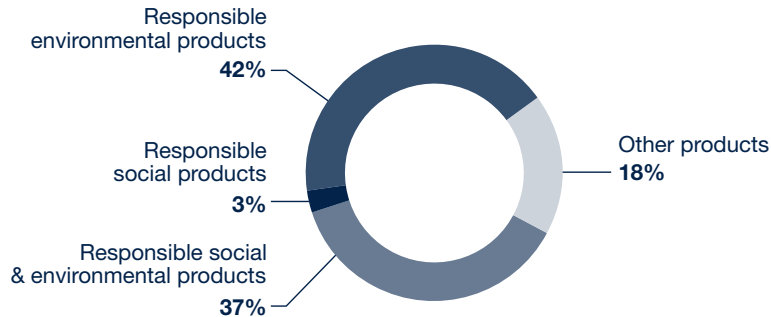
Responsible products

Environmentally responsible products			Socially responsible products
Power-efficient products	Low-carbon products	Green applications	Well-being applications
Reducing power consumption: • Increased chip power efficiency • Lower power loss • Electronic system improved efficiency in power dissipation/consumption	Reducing manufacturing footprint: • Reduced die size • Reduced package size • Lower number of metal layers • Higher ECOPACK grade	Enabling ecological technologies: • Renewable energy • LED lighting • Car electrification • Emissions control • Energy management	Enabling fundamental usages: • Health • People safety • Security of private property • Security of private information
Eco-design products		Responsible applications	

A product is given a 'responsible product' label when it can demonstrate that it enables social or environmental benefits. Examples of responsible products are available at www.st.com .

In 2023, we identified 82% of our new products as responsible, compared to 77% in 2022. We progressed towards our 2027 goal to generate at least 33% of our revenues from responsible products, reaching 23.2%, compared to 22.6% in 2022.

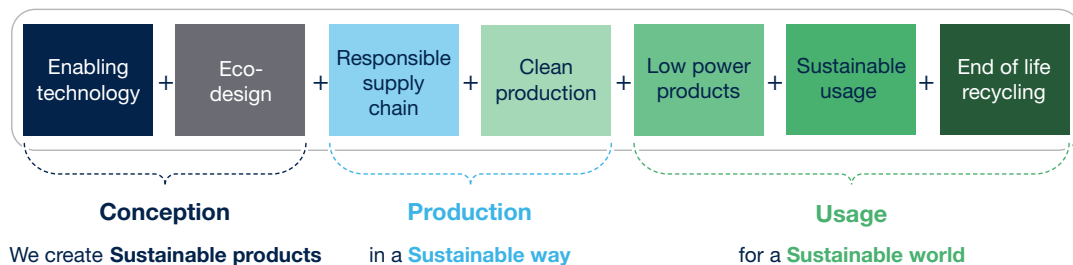
ST new products in 2023 | 417-1 |



Our lifecycle approach

Since launching our product stewardship program in 2011, we have applied a robust product lifecycle approach. This means we seek to improve the social and environmental impact at every stage of a product's life. Our lifecycle assessment (LCA) methodology has been developed in line with ISO standards 14040 and 14044.

In 2023, to better support our customers and enhance data accuracy and robustness, we scaled up our LCA methodology. We can now provide the carbon footprint for 98% of our products based on semi-automated LCA methodology. Furthermore, we can undertake an LCA for any product in our portfolio based on specific product parameters. At the end of 2023, we initiated the certification of our LCA process to ISO standard 14067.



Enabling technologies and eco-design

ST creates advanced semiconductor technologies by offering innovative power electronic solutions based on wide-bandgap technologies, such as silicon carbide (SiC) and gallium nitride (GaN). These technologies enable the creation of energy-efficient responsible applications (see [ST process and packaging technologies](#)).

By keeping eco-design at the heart of our product development, our designers innovate to create low-carbon and power-efficient products. Our product management system tracks key indicators to encourage our product development teams to implement green designs wherever possible.

Responsible supply chain

Our responsibility begins with the raw materials and resources we use to manufacture our products. All our raw materials are sourced in line with the latest environmental and social guidelines, and sustainability criteria are included in our purchasing processes (see [Responsible supply chain](#) and [Responsible mineral sourcing](#)).

Clean production

We strive to reduce the impact of our manufacturing activities on natural resources by managing our greenhouse gas (GHG) emissions, reducing our energy, water, and chemical consumption, and recycling waste.

Low power products and sustainable usage

Reducing the power consumption of electronic devices is a major focus of our strategy, helping to reduce our environmental footprint year after year. Yet our products go beyond power efficiency and contribute in other ways to address environmental and social challenges (see ‘Considering our product handprint’ below).

End of life recycling

We strive to ensure our products meet or exceed applicable environmental requirements, such as REACH⁽¹⁾, RoHS⁽²⁾, and HSPM⁽³⁾ (see [Chemicals](#)). ECOPACK processes and classification help us monitor the substances used in our products, which in turn facilitates end of life and recycling when our devices are disposed of. By the end of 2023, 95% of our products exceeded RoHS directives and were rated ECOPACK2 or ECOPACK3.

95%
of our products
exceed RoHS
directives

Considering our product handprint

As well as continually working on reducing our product footprint, we also strive to increase our product handprint. Handprint refers to a positive impact on the system or the application in which the product is integrated. This might be by enabling a green or social application, contributing to a reduction in the footprint of the application, or by consuming less energy than current alternatives.



Jean-Louis Champseix

Group Vice President, Corporate
Sustainability

“ At ST, we view sustainability as a question of balance. We strive to reduce our environmental footprint while increasing our product handprint with sustainable technologies. By doing so, we enable our customers to create products that have a more positive impact on the world. This approach supports our sustainable growth, minimizing risks and creating long-term value for our stakeholders, as we move towards a more responsible future. ”

⁽¹⁾ REACH: Registration, Evaluation, Authorization and Restriction of Chemicals.

⁽²⁾ RoHS: Restriction of Hazardous Substances.

⁽³⁾ HSPM: Hazardous Substance Process Management.

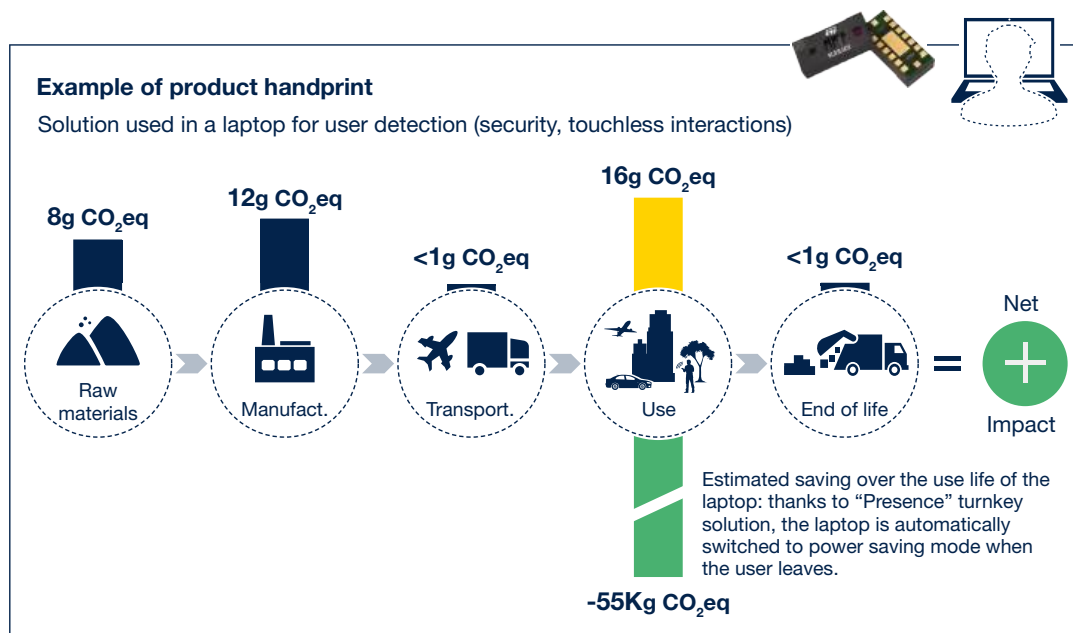
Enabling green or social applications

Enabling the transition to planet-friendly alternatives, our semiconductor solutions are used in a wide variety of environmental applications, from electric mobility and renewable energy grids to smart industries. In addition, our products and technologies cater for a wide variety of human-welfare applications with social benefits.

As an example, several ST products are indispensable for car electrification, such as traction inverters and onboard chargers. (see [ST products and solutions](#)). In 2023, a collaborative smart farm project was completed that uses ST chips and technical expertise for an air probe aimed at optimizing efficiency and reducing GHG emissions.

Reducing power consumption

Thanks to specific product features, our products can significantly contribute to reducing power consumption (and thus GHG emissions) of the application they are embedded in. For example, a Time-of-Flight sensor embedded in a laptop with the [Presence turnkey solution](#), can save a significant amount of electricity by automatically switching to power saving mode when the laptop is idle. This carbon saving exceeds by far the emissions generated by the production and use of the chip itself. See focus, below, for another example.



A ZEST TO CREATE POSITIVE ENVIRONMENTAL IMPACT

In 2023, we launched 'STM32 ZeST' (zero speed full torque), a new embedded software that reduces electricity consumption. When applied to a washing machine, it can reduce electricity consumption by at least 10%. This represents approximately 110kWh of energy saved over the lifespan of the machine. It is a clear demonstration of product handprint, as the embedded device brings a substantial positive environmental impact.



All ST devices required for the washing machine to operate, such as voltage regulators, inverters, microcontrollers, converters, and diodes, generate carbon emissions during their lifecycle. This is mainly due to manufacturing and use. However, thanks to the ZeST, the handprint outweighs the carbon footprint, resulting in a net positive impact.

Additionally, we use Edge AI (NanoEdge AI Studio) technology to estimate the weight of the laundry to be washed, based on motor current measurements. We have created a virtual sensor that determines the weight of the laundry using data already available in the microcontroller that controls the motor. The washing machine can then adjust its water consumption according to the actual load, reducing water consumption.

This is not restricted to high-end washing machines. Since it does not require additional devices to perform the function, it is accessible to mid-range appliances at virtually no extra cost and can be deployed on a large scale.

Consuming less

Our Stellar automotive microcontrollers (MCUs) are an example of reduced energy consumption, as they significantly improve the efficiency of cars (and therefore their energy consumption) and reduce CO₂ emissions. Stellar MCUs offer a reduced lifetime carbon footprint compared to previous-generation MCUs. A case study was conducted using the body platforms of a major original equipment manufacturer (OEM), to compare the emissions of a next-generation platform using Stellar MCUs, with a current platform using current-generation MCUs.

The results showed that:

- The manufacturing process for the Stellar device produced 40% less CO₂ emissions compared to the previous generation solution for the platform.
- Over the lifetime of the vehicle, the CO₂ emissions of the Stellar MCU solution were 30% lower than the previous generation solutions, while maintaining the same level of performance.
- Overall, the calculations revealed a significant reduction in CO₂ emissions for the Stellar MCU solution throughout the manufacturing and lifetime of the vehicle.

2027 sustainability goal	Status	Comments
SG2: Generate at least 33% of our revenues from our Sustainable Technology's most advanced responsible products by 2027.		23.2%



Customer satisfaction

ST participation at a tradeshow

AUGMENTING EVERYBODY'S LIFE

We have adopted a proactive approach to addressing our customers' expectations, helping us build strong relationships.

84%

of customers satisfied with online support

RBA

audit results shared with customers

IATF

16949 certified since 2018

Building strong and trusting relationships with our customers, considering their needs, and serving them effectively is essential for our business. This includes the range, performance, quality, and reliability of our products, as well as our approach to the environment, health and safety, and social responsibility.

Among the most important factors influencing customer satisfaction at ST are sustainability, product quality, and continuous dialog. | 3-3 |

Unlocking value with sustainability

We value the voice of our stakeholders. In our materiality review in 2023, we focused on our customers and their priorities. Therefore, we prepared a short survey that helped us identify, evaluate, and prioritize the sustainability topics that best reflect our customers' expectations.

Analysis showed that climate change is a high priority for our customers. In 2020, we announced our commitment to becoming carbon neutral by 2027 on scope 1 and 2, and partially scope 3. We were the first semiconductor company to have near-term targets validated by the science-based targets initiative (SBTi). Our carbon neutrality roadmap gives us the opportunity to actively contribute to our customers' climate commitments and become the partner of choice on this important journey.

Climate change
high priority

Other priorities identified include water, circular economy, and chemicals, where we have many established programs, as detailed in this report (see [Water](#), [Chemicals](#), and [Waste](#)).

We have also adopted a proactive approach with other important topics, such as safety, corporate governance, human rights, and supply chain management. We have been an active member of the Responsible Business Alliance (RBA) since 2005. Our largest manufacturing sites are subject to RBA third-party audits (see [Labor and human rights](#)). We share the results of these questionnaires, audits, and corrective actions with our customers through the RBA platform or via our online support. In addition to this, we regularly complete an assessment from EcoVadis, an independent sustainability rating platform, and share the results with our customers. In 2023, we received a platinum medal, placing us in the top 1 % of companies evaluated for sustainability performance.



To better align with our customers we have also joined the CSR Europe Drive+ initiative, a partnership of 16 leading automotive companies and their suppliers that have made a collective commitment to improve supply chain sustainability in the automotive industry.

Sustainability is a collective responsibility. We prioritize traceability and openly communicate the environmental and social impacts of our products to our customers. This includes information on product compliance, material declaration, working conditions, environmental impact, and the sourcing of materials. Where relevant, we publish this information on our website at www.st.com or provide it through online support.



Jérôme Roux
President, Sales and Marketing

“At ST, our leadership in sustainability is integral to the value we offer. Our commitment to sustainability is a key pillar of our customer partnership, setting new industry requirements and standards in our search for continuous innovation and mutual success.”

Customer satisfaction through quality

We are committed to delivering the highest-quality products and services that meet or exceed customer expectations. We are constantly looking for ways to improve and innovate in quality. This focus on quality helps us build strong, trusting relationships with our customers. By delivering the highest-quality products and services, we aim to ensure our customers are satisfied with their experience with ST. Our quality policy is available at www.st.com.

Our approach to quality

Our quality strategy sets out how we can be our customers' most valued and trusted partner by focusing on excellent quality, reliability, and responsiveness. Our company-wide quality program, structure, and working model focus on meeting the needs of our global customers, bringing all our organizations and sites together to work as one unified team.

Our strategy is supported by our quality excellence culture, which we see as a competitive advantage and a differentiating factor for our Company and the products and solutions we provide. It is driven by our principles of strength, teamwork, resilience, innovation, value, and expertise.

This global approach has contributed to an improvement in our quality KPIs and customer perception. Our people, programs, and processes have helped us improve our quality performance and increase overall customer satisfaction and trust.

In 2023, we continued our journey to ensure our products meet the highest quality and reliability requirements of our customers, with a quality performance management model called ‘Strive for excellence’.

FOCUS

‘STRIVE FOR EXCELLENCE’

Our quality management program, ‘Strive for excellence’, is designed to anticipate and proactively achieve excellence, rather than react to existing situations. It is implemented in three-year cycles, based on five strategic pillars:

- boost innovation
- digitalize solutions
- transform governance
- enhance leadership and culture
- excel in operation

We have established a project management office to define the program structure, choose and apply methodologies, and monitor objectives daily.

Between 2018 and 2023, we have seen significant improvements in quality indicators such as defect rate, leading to lower product returns, confirming the effectiveness of our approach. In 2023, we entered a new phase focused on consolidating our achievements and strengthening our assets, processes, programs, and working models, while remaining committed to our core pillars of design flow quality: prevention, detection, and innovation. We have also enhanced our network of experts and invested in digitalization and data analytics to drive our ambitions of excellence further.



Nicolas Yackowlew

Executive Vice President,
Product Quality & Reliability

“Embedding quality and reliability into the design of ST solutions is part of our eco-responsible approach. We integrate quality management into the development phase and continually assess reliability along the product lifecycle. This enables us to create sustainable value for our stakeholders and offer robust and durable solutions to the market.”

Moving forward, we will continue to focus on quality prevention measures through R&D and new product development, investing in leadership and expertise, and digitally transforming our quality processes to improve prediction, prevention, and detection. By continually improving our quality processes and investing in our people, we believe we can better serve our customers and drive customer satisfaction.

Management systems

Our quality management system is the foundation of our quality approach. We have been certified to internationally recognized quality standards, such as ISO TS 16949, IATF 16949:2016, and ISO 9001:2015, which demonstrate our strong commitment to quality governance and compliance. Our company-wide certification has been renewed every three years since 2003, and ST has been certified IATF 16949:2016 and ISO 9001:2015 since 2018.

ISO 9001

certified

Quality performance

In 2023, our customer incidents increased slightly, due to exceptional circumstances associated with a specific product. Despite this, our general level of quality performance remained stable, and we continued to increase customer perception.

Quality

	2019	2020	2021	2022	2023
Customer incidents	84	66	57	50	65
Cycle time to process customer incidents	98	102	93	84	89

Baseline 100 in 2016.

A continuous customer dialog

We maintain a continuous, wide-ranging dialog with customers at all levels to understand, assess, and address their needs and concerns.

Multiple channels for seamless customer support

The materiality assessment is one of many examples of how we gather feedback from our customers.

In addition, we offer our customers various channels to obtain information about our products or find answers to any questions they may have about our business.

- Our website (www.st.com ) provides a wealth of information and insights into ST customer solutions, including product brochures and flyers, product datasheets, application solutions, and short videos on key products and how they can help in application designs. Customers can also purchase samples and tools online.
- Online communities for specific product families or applications enable people to share knowledge and post questions to other members of the community.
- Phone and online support are available for customer support requests. We regularly review customer feedback and use it to improve our customer support processes. In 2023, 84% of users were satisfied with our online support service.
- In-person and online seminars and training courses to help customers understand and use our products, either directly hosted by ST or in partnership with third parties.
- Regular newsletters to keep customers and partners up to date on new products and events, including seminars, conferences, webinars, and online courses.
- Social media channels, YouTube videos, and blog posts to reinforce communication and awareness.

84%

**of customers satisfied
with online support
service**

Maintaining close relationships at all levels

To maintain an even closer relationship with our customers, in 2023, we created sustainability functions in Sales and Marketing to support our customers in achieving their sustainability strategies.

Working with teams from across ST, including representatives from Sales, Logistics, Technical Support, and Quality, enables us to develop a deeper understanding of our customers, their internal processes, and their preferences. It also helps to increase trust and satisfaction. We work to build close relationships between ST executives and key customer executives, further strengthening trust and satisfaction at the highest levels.

Relationships with smaller customers are managed by the ST distribution partner network. This comprises ST personnel and distribution partners from across the globe. Network personnel regularly visit customers to assess opportunities, present our product portfolio, and support them in their product design and development.

Collecting customer feedback on our performance

We collect feedback on our performance during our interactions with customers. Feedback may be communicated informally during meetings or phone calls, or it may be provided formally via a scorecard. Each customer scorecard is closely reviewed so the various components of the performance evaluation (such as technology, delivery, sustainability, and quality) can be analyzed and communicated to the appropriate functions within ST.

We make these scorecards and customer feedback available via our ‘Vivavoce’ internal portal, visible to all organizations within ST. This visibility provides each organization with customer feedback on its performance, helping to drive continuous improvement.

2027 sustainability goal	Status	Comments
SG21: Further reduce defects by 20% per production unit by 2027 (vs 2020).		+10%*
* Increase due to an isolated incident with a specific product.		

Business indicators

This section includes indicators and GRI Standard disclosures.

ST key figures | 201-1 |

	2019	2020	2021	2022	2023
Net revenues (US\$m)	9,556	10,219	12,761	16,128	17,286
Gross profit (US\$m)	3,696	3,789	5,326	7,635	8,287
Gross profit as a percentage of sales (%)	38.7%	37.1%	41.7%	47.3%	47.9%
Net earnings (US\$m)	1,032	1,106	2,000	3,960	4,211
Diluted earnings per share (US\$)	1.14	1.20	2.16	4.19	4.46
Market share versus TAM (%) (Total Available Market)	2.32%	2.32%	2.30%	2.81%	3.28%

Operating income and cash flow (US\$m) | 201-1 |

	2019	2020	2021	2022	2023
Operating income	1,203	1,323	2,419	4,439	4,611
Net operating cash flow	497	627	1,120	1,591	1,774

Net revenues by location of order shipment^(1,2) (%)

| 2-6 | 201-1 |

	2019	2020	2021	2022	2023
Americas	14	11	12	14	16
Asia Pacific	62	69	68	63	56
EMEA	24	19	20	22	28

⁽¹⁾ Net revenues by location of order shipment are classified by location of customer invoiced or reclassified by shipment destination in line with customer demand. For example, products ordered by US-based companies to be invoiced to Asia Pacific affiliates are classified as Asia Pacific revenues. Furthermore, the comparison among the different periods may be affected by shifts in shipment from one location to another, as requested by our customers.

⁽²⁾ The sums may not add up to 100% due to rounding of the figures.

ST sales by market channel⁽¹⁾ (%) | 2-6 |

	2019	2020	2021	2022	2023
OEM	70	73	66	67	66
Distribution	30	27	34	33	34

⁽¹⁾ Original Equipment Manufacturers (OEM) are the end-customers to which we provide direct marketing application engineering support, while Distribution customers refers to the distributors and representatives that we engage to sell our products around the world.

Dividends paid (US\$m) | 201-1 |

	2019	2020	2021	2022	2023
Dividends	214	168	205	212	223

Research partnerships SDG 9.5

	2019	2020	2021	2022	2023
Contracts with higher education institutions or research labs	138	143	187	186	195

On-time delivery

	2019	2020	2021	2022	2023
Delivery date in line with customer request	105	79	67	66	87
Delivery date in line with ST commitment	103	90	80	78	88

Baseline 100 in 2016.

ECOPACK® labelling⁽¹⁾ (%) | 417-1 |

	2019	2020	2021	2022	2023
Non ECOPACK®	0.2	0.1	0.2	0.1	0.1
ECOPACK® 1: Compliant with the RoHS/ELV directives, second level interconnect lead-free ⁽²⁾	6.3	4.2	3.9	3.8	4.5
ECOPACK® 2: as ECOPACK® 1, plus free of brominated, chlorinated and antimony oxide flame retardants	85.2	88.4	87.4	88.5	86.1
ECOPACK® 3: as ECOPACK® 2, plus free of halogens with no RoHS exemptions	8.3	7.3	8.5	7.5	9.3

⁽¹⁾ The sums may not add up to 100% due to rounding of the figures.

⁽²⁾ Including exemptions for the RoHS directive to ensure reliability for soldering at higher temperature, necessary mainly for the automotive market.

ST site certifications

ST is ISO 9001, ISO 22301 and IATF 16949 certified company-wide

	ISO 45001 Health & Safety	ISO 14001 Environ- ment	EMAS Environment performance disclosure	ISO 14064 GHG Emissions	ISO 50001 Energy
Manufacturing sites					
Agrate	✓	✓	✓	✓	✓
Ang Mo Kio	✓	✓	✓	✓	✓
Bouskoura	✓	✓	✓	✓	✓
Calamba	✓	✓	✓	✓	✓
Catania	✓	✓	✓	✓	✓
Crolles	✓	✓	✓	✓	✓
Kirkop	✓	✓	✓	✓	✓
Marcianise	✓	✓	✗	✗	✗
Muar	✓	✓	✓	✓	✓
Norrköping	✗	✗	✗	✗	✗
Rennes ⁽¹⁾	✓	✓	✗	✓	✓
Rousset	✓	✓	✓	✓	✓
Shenzhen	✓	✓	✗	✓	✓
Tours	✓	✓	✓	✓	✓
Other sites					
Castelletto	✓	✓	✓	✓	✗
Geneva	✗	✗	✗	✗	✗
Greater Noida	✓	✗	✗	✗	✗
Grenoble	✓	✓	✓	✓	✗
Le Mans	✗	✗	✗	✗	✗
Loyang	✓	✓	✗	✗	✗
Napoli	✓	✗	✗	✗	✗
Toa Payoh	✓	✓	✓	✗	✓
Total	19	17	13	14	13

⁽¹⁾ Rennes Space & High-Reliability Products.

Putting people first



0.14
total recordable
case rate for
employees and
contractors



86%
employee
engagement
rate



8,000+
employees
trained on
diversity and
inclusion



Happy employees at ST



Health and safety

Emergency response training, ST Kirkop, Malta

PUTTING PEOPLE FIRST

We constantly promote a culture of health, safety, and well-being for our employees and subcontractors.

24/7

well-being support platform

0.10

employee recordable injury case rate

57,400+

safety field visits by managers

Health and safety is a constant priority at ST. We protect our employees and contractors by preventing work-related injuries and illnesses and providing a safe working environment. We believe it is essential to invest in healthcare and the well-being of our people for a positive and productive workforce. These values are shared and reinforced across all our sites.

We have implemented a robust health and safety management system throughout our Company. In 2003, we were one of the first semiconductor companies to be certified OHSAS 18001 at our main manufacturing sites. This has now been replaced by ISO 45001.

Our performance and management systems are evaluated annually through third-party surveillance audits, and certifications are renewed every three years. All sites follow our corporate occupational health and safety policy, which aims to establish and maintain best practices. This can be found at www.st.com .

ISO 45001

certified

In 2023, we continued our internal corporate Environmental Health and Safety (EHS) audit program that aims to assess a site's performance against EHS objectives, programs, and procedures. This year, we audited nine sites. Our site certifications are available at www.st.com  . | 3-3 |

Health

Promoting employee health

We believe adopting a healthy lifestyle is fundamental for an engaged and productive workforce. To support our employees, our various sites design health programs adapted to local legislation and requirements. Many sites offer regular medical check-ups and vaccinations. We take a preventive approach and also offer blood analyses, x-rays, and cancer screening, among other things, to facilitate early detection of illnesses.

To further support employees, our various sites offer targeted health initiatives or awareness campaigns. For example, our Catania site (Italy) ran a two-year voluntary health plan between 2021 and 2023 focusing on medical evaluation to prevent metabolic syndrome, a cluster of conditions that can lead to heart disease, diabetes and other serious illnesses. Nearly 2,000 employees participated in the program, which led to new diagnosis of conditions such as type 2 diabetes and high cholesterol. It also led to greater awareness and acknowledgement of non-critical health indicators.

At our Muar site (Malaysia), regular doctor-led health seminars are organized as part of the health program. Topical issues are covered, such as a presentation on nasopharyngeal cancer, focusing on early detection and treatment of the disease.

Well-being

In 2020, we launched our STCare program to support the well-being of our employees. We take a proactive approach and have implemented measures to reduce risk and assist our people. Every quarter, we monitor four key metrics globally and regionally to ensure they meet our defined standards of acceptability:

- stress levels
- anxiety levels
- depression levels
- risk of burnout

To provide additional support we partnered with Eutelmed, a healthcare platform which provides 24/7 access to dedicated confidential assistance. Nearly 16,000 connections to the platform have been registered since it opened in 2020. A network of over 300 psychologists and other specialists is also available to employees and their families.

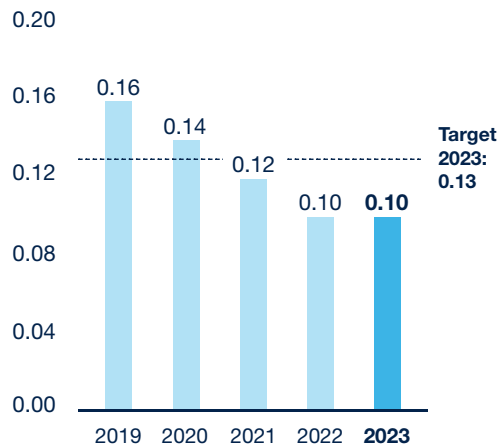
We have taken practical steps to promote employee well-being across our sites. This includes e-learning for employees and managers, and prevention and well-being webinars and workshops on a range of topics. In total, more than 4,500 managers have attended awareness sessions on psychosocial risk prevention and quality of life in the workplace since 2021. In 2023, almost 2,500 employees completed self-assessment evaluations which have helped them gain a better understanding of their well-being and take appropriate actions where necessary.

In 2023, we created a well-being index to gain insights into employee well-being and productivity across our sites. This tool enables sites to assess themselves and identify areas for improvement. It is based on 10 criteria including working environment, people, culture, working time, and workload management. Going forward, we intend to organize sharing sessions to promote best practices and raise awareness of relevant topics.

Safety

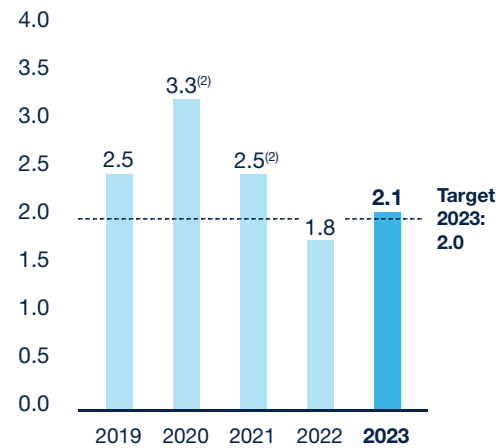
Through the collective efforts of our sites, we maintained strong safety performance results in 2023. Our employee recordable injury case rate was 0.10, better than our target of 0.13.

Employee recordable case rate⁽¹⁾ – injuries
| 403-9 |



⁽¹⁾ Per 100 employees per year as defined by OSHA-US regulation.

Employee severity rate⁽¹⁾



⁽¹⁾ Number of days lost per 100 employees per year as defined by OSHA-US regulation.

⁽²⁾ Rate updated due to several prolongations after the closure of the previous reporting period.

The total recordable case rate was 0.14, which also exceeded our 2023 target of 0.16. This includes injuries and occupational diseases and covers both employees and contractors.

The severity rate related to employees' and contractors' injuries and illnesses was 2.80, a slight increase from 2.70 the previous year. We will continue to enhance communication and collaboration on safety between our sites to further improve our results.

Total recordable case rate⁽¹⁾ for employees and contractors – including injuries and illnesses
| 403-9 | 403-10 |

	2021	2022	2023
Total recordable case rate for employees and contractors	0.15	0.12	0.14
Total severity rate for employees and contractors	3.20	2.70 ⁽²⁾	2.80

⁽¹⁾ Per 100 employees and contractors per year as defined by OSHA-US regulation.

⁽²⁾ Rate updated to include additional information not available in the previous reporting period.



Martine Druges
EHS Director, Crolles (France)

My top priority is to ensure a safe working environment on site every day. This requires anticipation, dialogue, and training for all employees, partners, and suppliers. In 2023, we received an ST safety award in Crolles, which I view as a testament to our hard work and collaboration. I'm proud of the team for this achievement, which shows commitment to our strong safety culture and an innovative approach to changing behaviors. Safety is everyone's business, and we all have to get involved every day!

PREVENTING RISKS FOR CONSTRUCTION WORKERS

Many of our sites have ongoing construction work which has led to an increase in contractors on site. Our sites have adapted their procedures accordingly to prioritize communication, knowledge transfer, and awareness.

At our Crolles site (France), the annual safety week was attended by over 1,000 ST employees and over 700 subcontractors, the highest number to date. Events were tailored to this demographic and included activities led by safety, medical, and fire teams, along with interactive sessions to cut risks on construction sites.

Our Kirkop site (Malta), introduced a new contractor management system for health and safety auditing. Under the new system, ST personnel conduct daily audits to assess the level of vigilance among contractors. The new system allows information to be digitally registered. This facilitates instant access to data, which can also be accurately communicated to health and safety managers on site. Where necessary, additional preventive measures can be put in place to reduce the hazards and potential risks related to construction work.

At our Shenzhen site (China), a contractor management system has been implemented to improve communication on the site. This includes daily 'toolbox meetings' conducted for contractors by EHS or facility guardians. A safety dashboard is updated on a weekly basis and shared with all construction project owners.

Overall, our efforts to improve contractor management and safety demonstrate our commitment to ensuring a safe working environment.



Monitoring our performance

Everyone at ST is part of our shared vigilance approach and has a responsibility towards safety at work. To demonstrate visible involvement and lead by example, managers are encouraged to conduct regular safety visits and inspections. In 2023, we continued to improve our training for managers and offered coaching on conversation skills. This aimed to improve safety-related communications through positive reinforcement and by building engagement.

57,400+
safety field visits

We also implemented more ambitious targets for site visits and internal audits. As a result, the number of safety field visits by managers increased to 57,400, a 17% increase on the previous year. We also increased the number of evacuation drills, which involved 92% of ST employees worldwide and 97% of employees at front-end and back-end manufacturing sites.

We encourage the reporting and investigation of near-misses, hazards, and unsafe behaviors and conditions as part of our proactive approach. Due to increased visits and investigations by managers, as well as improved hazard identification, more than 45,800 potential hazards were detected and investigated in 2023. It is our aim to conduct thorough, structured, and objective investigations for all incidents and share best practice responses across our sites.

To recognize the efforts of our sites, we held our third Safety, Environment and Corporate Social Responsibility awards ceremony in 2023. Our Shenzhen site (China) and Crolles site (France) won the safety awards for consistently pursuing effective prevention programs and strong teamwork dedicated to enhancing safety on site.

Advancing our practices

ST's Safety First program was launched in 2013 based on the principle that 90% of accidents can be avoided. We believe safety is a value that must never be compromised. This commitment is endorsed throughout the Company and was renewed by senior management in 2023.

Within this program, we constantly strive to strengthen our safety culture by reinforcing safe behaviors and working conditions through visits, training, audits, communication, and best practice sharing. This year we provided an average of 6.7 hours of training per employee on EHS topics.

In addition, each year we organize numerous safety events across our sites that are open to all employees. These include safety weeks and diverse activities to promote continuous improvement. The overall aim is to raise awareness, explore new ideas, and share best practices, with a focus on prevention.

In 2023, our sites recognized world day for safety and health at work, an international celebration endorsed by the United Nations. Our sites in Japan organized an event focused on disaster prevention and emergency response, with the support of an external speaker. Similarly, our Ang Mo Kio site (Singapore) conducted a range of health and safety activities, including a chemical prevention workshop and personal protection equipment showcase. In Rousset (France), screen savers were an effective reminder to employees to prioritize good posture, with ergonomics workshops also supporting the initiative.

As part of our disaster prevention program, members of the emergency response team at our Kirkop site (Malta) received a minimum of 30 hours training from fire fighters to equip them with 'first-level preparedness' on site for emergency situations. This included laying and using fire hoses, controlling real fires, and a search and rescue operation in challenging conditions.

We actively search for new and innovative methods to promote a strong safety culture and bring new meaning to our safety initiatives. In 2023, we used drama and theatre techniques as a learning tool. Actors helped simulate real-life scenarios, humanize safety messages, and bring a fresh perspective to a serious topic. At our Crolles site (France), the 'nudge' theory, a strategy that influences behavior was introduced. Nudges were used to improve traffic circulation on site and promote safe behavior within the building for employees and visitors alike.

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 3.8 – Achieve universal health coverage, including access to quality essential healthcare services and access to safe, effective, quality, and affordable essential medicines and vaccines for all.



SDG target 8.8 – Protect labor rights and promote safe and secure working environments for all workers.

2025 sustainability goal	Status	Comments
SG3: Reach a Total Recordable Case Rate of 0.15% or less by 2025 (work-related injuries and illnesses, including contractors).	✓	0.14%

Annual sustainability goal	Status	Comments
SG4: Maintain our Severity Rate at 2% or less each year (work-related injuries and illnesses, including contractors).	✗	2.80%
Subcontractors recordable case rate (injuries) of 0.22 or less.	✗	0.28%
Employee recordable case rate (injuries) of 0.13 or less.	✓	0.10%
Employee severity rate ≤2.0 (injuries).	✗	2.10%

Labor and human rights

Employee, ST Ang Mo Kio, Singapore

PUTTING PEOPLE FIRST

We believe companies play a vital role in respecting labor and human rights, and we strive to be a role model.

9

core principles in our due diligence approach

80%

of our employees covered by RBA audits

10/11

sites with RBA Platinum recognition

We aim to uphold the highest standards of labor and human rights, placing it at the core of our strategy and culture. We do this by developing and implementing robust due diligence programs to identify, prevent, mitigate, and remediate actual and potential adverse impacts, both within our operations and throughout our supply chain. (For more information on our supply chain human rights due diligence program, please see [Responsible supply chain](#)).



Responsible Business Alliance

Advancing Sustainability Globally

Our due diligence program for our own operations is based on:

- embedding responsible business conducts into policies
- identifying and assessing adverse impacts (including through audit programs)
- ceasing, preventing, and mitigating adverse impacts
- tracking implementation and results
- disclosing how impacts are being addressed

| 3-3 | 2-23 |

Embedding responsible business conduct into policies

We joined the Responsible Business Alliance (RBA) in 2005 and are currently a full member. As an RBA member, we follow the [RBA code of conduct](#)  which respects the OECD Guidelines on Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, the UN

Universal Declaration of Human Rights, the ILO Core Conventions, and ILO Declaration on Fundamental Principles and Rights at Work

The principles covered by these standards are embedded in our internal policies, including:

- [ST Code of Conduct](#) 
- [ST Corporate Social Responsibility Policy](#) 
- [ST Labor and Human Rights Procedure](#) 
- [ST Sustainability Charter](#) 

We also expect our business partners, suppliers, and distributors to have business practices and processes aligned with these standards and/or with the RBA code of conduct. For more information on our supply chain due diligence program, see [Responsible supply chain](#).

The above-mentioned policies emphasize ST's commitment to respecting salient human rights issues including:

 Freely chosen employment We prohibit forced labor, including bonded, trafficked, slave, involuntary, exploitative prison labor.	 Fair wages and benefits We offer wages in compliance with all applicable laws, including minimum wages, overtime hours, and legally mandated benefits.	 Freedom of association We respect the rights of all workers to form and join trade unions of their choosing, to bargain collectively, and to engage in peaceful assembly.
 Prevention of underage labor and protection of young workers We prohibit child labor and ensure workers under the age of 18 are not exposed to potential hazardous work.	 Fair treatment, anti-harassment We apply a zero-tolerance approach to any form of mistreatment and harassment.	 Fair working conditions and employee well-being We commit to providing a safe and healthy working environment, conducive to employee well-being.
 Fair organization of working time We maintain reasonable working hours and sufficient rest, in compliance with applicable laws and industry standards.	 Non-discrimination We prohibit any discrimination and provide equal opportunities to all employees based on their behaviors, skills, and abilities.	 Privacy of personal information We safeguard the privacy of all personal data we gather.

In 2023, we updated our Corporate Labor and Human Rights Procedure, available at www.st.com  to strengthen our approach and enhance our comprehensive due diligence beyond legislation. The main changes and new requirements included:

- strengthened labor agency due diligence
- enhanced parental leave policy (see focus)
- maximum threshold for training fee reimbursement requests, when relevant
- emphasis on the right to equal pay and adequate social protection
- adapted work environment for workers with medical conditions and disabilities

FOCUS

FOSTERING PARENTAL RIGHTS

As part of our Labor and Human Rights Procedure update, we have enhanced parental leave protection across ST. Since May 2023, on joining the Company every female employee has the right to 14 weeks of fully paid maternity leave, including at least six weeks of compulsory postnatal leave. We also provide the second parent

with at least two weeks of fully paid parental leave. Family structures have been evolving for some time and we recognize that paid parental leave must encompass a broad spectrum of parenthood. In line with our policy of non-discrimination, we provide fully paid parental leave in cases of adoption and surrogacy.

We are also committed to safeguarding parental rights and benefits by:

- providing full protection from dismissal during parental leave
- emphasizing the right to return to work in the same or equivalent position and pay
- requiring our sites to define and implement local carer's benefits for people with caring responsibilities
- guaranteeing that women on maternity leave receive at least the average increase given to employees on the site or country in a given year

These requirements also contribute to our diversity, equity and inclusion strategy and goals (see [Diversity, equity and inclusion](#)). More information on our new parental leave protections can be found in our Labor and Human Rights Procedure.



Identifying and assessing adverse human rights impacts

Our risk assessment processes are deployed at our major sites (700+ employees and/or manufacturing sites). They support the identification and assessment of actual or potential adverse human rights impacts for 89% of our workforce.

Risk assessments are undertaken using several methods, including:

- a corporate assessment of the inherent risks related to our activities and locations
- site-specific assessments to identify the labor and human rights risks associated with local operations at our major sites
- RBA human rights self-assessment questionnaires (SAQs). In 2023, our sites scored from 73.7/100 to 97.0/100. Our sites' average score is 85.6/100, exceeding the industry average of 79.6/100.

These tools are complemented by two audit programs covering up to 80% of our workforce. In addition to this, we also have a program of audits covering our suppliers and subcontractors. (For more information, see [Responsible supply chain](#)).

RBA audit program

RBA third-party audits are conducted on a two-year basis at our 11 largest manufacturing sites. All our manufacturing sites eligible for the RBA audit program were audited during 2022–23 (including initial and closure audits).

In 2023, thanks to the continual efforts of our teams, five of our manufacturing sites obtained RBA Platinum recognition with full compliance (200/200) during their initial audits:

- Bouskoura (Morocco)
- Catania (Italy)
- Crolles (France)
- Rousset (France)
- Tours (France)

These five scores complement the RBA Platinum recognition obtained in 2022 by our Calamba (the Philippines), Ang Mo Kio (Singapore), and Agrate (Italy) sites during their initial audits and in 2021 by our Muar site (Malaysia) during their closure audit.

Our Kirkop site (Malta) achieved RBA Platinum recognition during its last closure audit in 2021. The site conducted its next initial audit in 2023, and received Gold recognition, exceeding the industry average by 49 points.

Our Shenzhen site (China) obtained RBA Silver recognition during its closure audit in 2023, exceeding the industry average by 6 points.

Our 2023 RBA audit average score exceeds the industry average by 55 points in initial audits and by 6 points in closure audits.

RBA self-assessment questionnaire (SAQ) and VAP audit scores

Country	Site	SAQ score ⁽¹⁾	VAP score ⁽²⁾
High risk			
China	Shenzhen	75.9	187.1
Malaysia	Muar	80.9	164.7 ⁽³⁾
Singapore	Ang Mo Kio	73.7	200 ⁽³⁾
The Philippines	Calamba	81.1	200 ⁽³⁾
Medium risk			
Malta	Kirkop	79.5	193.2
Morocco	Bouskoura	91.7	200
Low risk			
France	Crolles	97.0	200
	Rousset	94.2	200
	Tours	92.9	200
Italy	Agrate	91.0	200 ⁽³⁾
	Catania	91.0	200

Initial audit

Closure audit

(1) SAQ score: low risk ≥85, medium risk ≥65 & <85, high risk <65.

(2) Full marks = 200/200

(3) Audits conducted in 2022. All other audits were conducted in 2023.

The main non-conformances identified during our third-party RBA audits related to working hours.

Number of audits: 7

Total of priority or major non-conformances			
Labor, Ethics		Health and Safety	
Working hours	2	N/A	0
Management systems		Environment	
N/A	0	N/A	0

Labor and human rights (LHR) internal audit program

We conduct internal audits at least every three years on major ST sites. The LHR audit program assesses alignment with ST's Corporate Labor and Human Rights Procedure, as well as national, regional, and local regulatory requirements. It enables us to proactively identify risks and opportunities for improvement.

In 2023, we conducted two LHR internal audits. For this audit cycle, the areas identified for improvement were related to management systems and labor issues such as working hours, overtime rates, days off, and housing standards.

Preventing and mitigating impacts on human rights

We continually develop and implement measures to prevent or mitigate any adverse impacts identified through our risk assessment tools. Corrective action plans (CAPs) are established to close any gaps between local practices and ST's human rights standards.

CAPs identify and address root causes and aim to prevent any recurrence of identified adverse impacts by:

- providing a description of the preventive and corrective actions to address the root cause(s)
- including time frames that corrective actions must align with
- being tracked at both site and corporate level
- enhancing our management systems and sharing best practices

CAPs may include policy or procedure changes, communication or training, and impact measurements.

In 2023, we implemented a range of preventive and remediation actions.

Description	Actions implemented
Risk assessment	• Extension of labor and human rights risk assessment to smaller sites.
Reporting of violations and promise of non-retaliation	• Enhanced communication on grievance mechanisms, including posters, roundtables, and informative sessions, including with supervisors. • Design of checks, including post-meeting questionnaires to verify the effectiveness of the communication channels implemented.
Prevention of underage (child) labor and protection of young workers	• Update of local policies and implementation and check of procedures to ensure full overview and verification of all workers' ages before entering the premises.
Awareness of RBA standards and workers' rights	• Design and implementation of tools to communicate and address questions from employees on social responsibility standards.

Alongside CAPs, we provide labor and human rights training to raise awareness among employees and suppliers. ST's commitments in this regard emphasize compliance with the policies and standards mentioned above. | 409-1 |

In addition, any labor and human rights concerns from internal and external stakeholders can be reported through an independent multilingual [Speak Up Hotline](#) . Cases are handled with the utmost confidentiality, and we apply a zero-tolerance approach to retaliation. (For more information on ST's grievance mechanisms, see [Ethics and compliance](#)). | 3-3 |

Tracking effectiveness and performance monitoring

We continually monitor and review our sites' and suppliers' performance by tracking CAPs to measure and improve their effectiveness in addressing adverse human rights impacts. Corrective actions must be identified and implemented within 12 months. Audit and CAP updates are followed up and shared with sites quarterly.

ST sites' social performances are monitored every quarter through specific reporting tools, such as working hours and leave reports. We also regularly monitor and review site performance against specific objectives and targets. These are included in the personal objectives of the site Sustainability Champion and relevant human resources team.

Communicating

We annually communicate how we are addressing our risks and impacts, including through our sustainability report and French due diligence report available at www.st.com .

In light of rapidly evolving human rights due diligence legislation, we also increasingly receive and address corporate social responsibility (CSR), labor and human rights-related requests from our customer request platform, [OLS](#) . In 2023, over 900 CSR-related requests were addressed by our teams. These included:

- information sharing on our labor and human rights due diligence through RBA documentation (including SAQs and audit certificates)
- ST's statement on labor and human rights issues, such as forced labor
- sharing of sustainability assessment results, such as EcoVadis

Collaborating on labor and human rights

We are a member of [Entreprise pour les Droits de l'Homme](#)  (EDH), a French business association for human rights. EDH membership supports us in enhancing our due diligence through stakeholder engagement by shaping practices and building capacity to uphold human rights.



edh

Laurent Lhopitallier

President, Entreprise pour les Droits de l'Homme (EDH) (France)

“EDH is an association of practitioners dedicated to human rights practices within companies. In a context of growing regulatory obligations and increasing stakeholder expectations, it enables STMicroelectronics and other members to better understand human rights issues, to share knowledge and best practices with their peers, and to raise awareness of the importance of human rights in the corporate world.”

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 8.7 – Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking, and secure the prohibition and elimination of the worst forms of child labor.

SDG target 8.8 – Protect labor rights and promote safe and secure working environments for all workers.



SDG target 17.16 – Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.

2025 sustainability goal	Status	Comments
SG5: Get 100% of ST's largest manufacturing sites recognized for social responsibility by external international bodies by 2025.		91% of largest manufacturing sites 10/11 RBA platinum recognition or a score of 200/200*
* Status related to the last closure or initial RBA VAP third-party audit.		
Annual sustainability goal	Status	Comments
100% of priority, major and minor non-conformities closed during the RBA closure audit (annual objective)	✓	100% of findings closed
100% of all manufacturing sites audited every 2 years for compliance with the RBA standard (annual objective)	✓	100% of our largest manufacturing sites audited (11/11)



Members of ST Blossom's network

PUTTING PEOPLE FIRST

We aim to offer the best employee experience in all our locations to attract and retain a diverse workforce.

86%

employee engagement score

49

average hours of training per employee

53

strategic academic partners

As a fast growing and inclusive high-tech leader, recruiting and retaining the best talent is a critical cornerstone to supporting and sustaining our business growth ambitions. We aim to be recognized as a market-leading, attractive, people-centric organization; an innovative employer where entrepreneurial spirit, feedback, cooperation, responsibility, and leadership are the norm. | 3-3 |

Enhancing employee experience

Our business growth ambitions depend on our ability to transform and adapt to challenges. In 2022, we launched our company-wide transformation program called Horizon. This aims to positively transform the experience of everyone at ST throughout every stage of their career, thanks to a simplified process and new digital tools.

Horizon addresses many aspects of the professional journey:

- leadership and culture
- talent acquisition
- onboarding/offboarding
- performance management
- learning and development
- career, internal mobility, and competency management
- well-being

Reinforcing our leadership culture

We strongly believe all employees are leaders and role models for the Company, and that success comes not only through what we do, but how we do it.

Our leadership model represents a set of common behaviors across the organization that capture our values of people, integrity, and excellence, while also driving ever-increasing levels of performance to meet our strategic ambitions.



This model is not only being embedded into all our people processes (talent selection, assessment, development, succession planning, and performance management) but also into our daily work at all levels of ST.

Revitalizing our employer value proposition (EVP)

In mid-2023, we launched a project to refresh and reinvigorate our EVP, to support our ambitious growth goals, to build awareness of these goals with our target talent market, and to enhance our attraction and retention strategies.

We started with primary research:

- 7 regional workshops covering all our ST regions: Italy, France, India, EMEA, Americas, Asia Pacific, and China
- 32 leadership and newcomers' interviews
- 8 human resources (HR) focus groups
- 740 participants in a conversation-survey with our people

The objective was to discover insights from across the globe and build a 360° view of the organization. This initial discovery phase allowed us to ensure alignment with ST's current transformation. It also ensures we continue to align the internal reality with the EVP messaging to manage external market expectations and showcase what makes ST different from our competitors. The aim is to develop a consistent and accurate portrayal of what it is like to work at ST – and why people should choose to join us.

To help attract talent, our people act as ST ambassadors during external events, such as campus fairs, job fairs, and conferences, as well as on social media. ST ambassadors share their experience as employees, showcasing our opportunities and promoting ST as a great place to work.

53

strategic partnerships

In 2023, we continued to build strategic partnerships with universities and engineering schools throughout the world to ensure a robust and healthy pipeline of candidates, while also establishing education pathways to respond to our specific skills needs. During the year, we collaborated with 53 strategic academic partners globally and over 250 sourcing partners.

We also launched the 'ST student job world tour', a series of video testimonials from interns and graduates who have experienced working at ST. The videos aim to inspire future talent by demonstrating the diverse career paths we offer.

STUDENT JOB WORLD TOUR

In 2023, we launched the 'ST student job world tour' as an innovative approach to attracting and retaining talent. The series features video testimonials from interns and graduates who have gained practical experience at ST through internships, PhDs, and other opportunities. The videos provide a glimpse into their daily life at ST and offer a chance to explore various aspects of the Company's culture. Participants from many countries and regions, including France, Italy, India, Singapore, China, the USA, and Switzerland have contributed to the series.

The student job world tour is designed to engage a diverse group of students, including internal and external candidates from different backgrounds, genders, and roles. It also showcases the different career paths available at ST and our Company's commitment to diversity and inclusion. The videos are available on our intranet and social media, allowing prospective candidates to gain a deeper understanding of ST and envision a career with us.



Developing and supporting our talent pool

We aim to offer our diverse workforce a rewarding career experience, providing flexible opportunities for growth and development, as well as transparent processes for advancement and progression.

To support this ambition and build on our progress in recent years, we established a new center of excellence for end-to-end talent management in 2023 to engage, empower, and enable our workforce. We also launched a new performance management approach to bring greater objectivity and consistency to how we recognize and reward performance. This is supported by 300 regional change ambassadors and dedicated training for more than 4,000 people managers.

Each year, we have a goal setting process for employees, followed by a mid-year goal review. This helps ensure that objectives are clear, relevant, and achievable. We have incorporated the pillars of our leadership model into this process to encourage employees to demonstrate these behaviors in their work. Performance is evaluated annually. To complement this, we have implemented a 'continuous individual feedback for development' program. This provides an efficient way to help employees progress and offers a collaborative and holistic approach to team management.

In parallel, we are continuing our journey to digitize the talent experience, including the processes around recruitment, onboarding, learning, and development.

2023 involved a focused effort to build knowledge and awareness of our new leadership model, which helps to frame the expectations of leaders across the organization, including more than 40,000 employees participating in relevant awareness and development sessions.

We also accelerated our rollout of digital learning solutions covering a mix of themes from diversity, equity and inclusion to leadership development and technical and engineering topics. Our approach included internally developed e-learning (34,700 employees engaged) and leveraged growing partnerships with external providers, such as LinkedIn Learning (12,300 employees engaged) and Coursera (1,000 employees engaged). Overall, we delivered more than 88,000 digital learning hours across the organization. When considering our entire development portfolio, we provided an average of 49 training hours per person in 2023.

Average

49

hours of training per person

Our commitment to embed the leadership model and support succession planning was further enhanced through coaching activities. This included the delivery of 158 individual coaching programs, with female participation boosted through our 'Advanced Women in Leadership' and 'Coach Her' initiatives. In addition, 36 'Team Up' team coaching sessions were delivered to foster collaboration and improve organizational alignment.

In our 2023 succession planning process, we extended our efforts to cover all senior management, going beyond the president and executive vice president roles. We are now well placed to focus on business continuity, further grow the succession pipeline, and foster a culture of growth and career development.

Achieving the full potential of our people

Listening to our employees

As our employees are at the heart of our success, listening to their feedback and input is essential to evaluate progress towards our transformation and growth.

Our 2023 employee survey consisted of 75 questions covering key categories including engagement, organizational agility, quality, and customer focus. The global participation rate was 87% of employees and the overall engagement index was 86%. This is an increase of three points on 2021 (when our last full engagement survey was conducted), and one point above the Global High Performance⁽¹⁾ Benchmark (75th percentile score).



87%
of employees would
recommend ST as a
great place to work

Overall, we saw positive trends in most categories, including organizational alignment, direct manager support, and employee experience. In particular, the results showed a six-point increase in 'receiving feedback that helps me improve my performance' and 87% of employees 'would recommend ST as a great place to work', four points higher than 2021.

We regard the survey as a critical source of information to identify opportunities to better understand and meet the needs of our evolving workforce. We have embarked on an action-planning process across regions and functions to ensure we analyze and understand the vital input it provides.

Once again, in 2023 we were independently awarded 'Top Employer 2024' in both Italy and France by the Top Employers Institute.

Considering the voice of the younger generation

By the end of 2023, over half of our employees belonged to generations Y and Z, and by the end of 2025, they will represent 75% of our workforce. It is crucial to listen to their perspectives to enhance employee experience and make ST an attractive and engaging place to work. With this in mind, we launched our 'Blossom' program three years ago to enable younger employees to voice their opinions, offer their ideas, be creative, and share their expectations.

In 2023, the Blossom network successfully organized 56 events. This included 14 meetings between groups of 'Blossomers' from around the world and our President and CEO, as well as 23 meetings with ST Presidents and Executive Vice Presidents. These regular exchanges between the Blossomers and senior management are crucial for ST as they allow our leaders to gain a better understanding of the expectations of generations Y and Z. This, in turn, helps us take follow-up actions to keep these generations engaged, as they are the future leaders of our Company.

During the year, Fabio Gualandris, President of Quality, Manufacturing, and Technology, met with Blossomers during his site visits to several countries, including France, Italy, and China. These visits provided open discussion and feedback on various aspects of the organization. As a result of these discussions, an action plan was launched, targeting key areas such as careers, collaboration, and innovation. We plan to incorporate the feedback received from Blossomers into concrete actions that will help us continue to improve and grow as a company.

⁽¹⁾ GHP norm: Global High Performance norm, global, cross industry, benchmark made up of the 75th percentile score for any given item across all organizations surveyed by our partner.



Alexandra Viaud

Extra-financial reporting, Corporate Sustainability

“As a member and ambassador of the Blossom network at ST Rousset (France), my job is to understand the expectations of the younger generation of ST employees. Our 2023 survey revealed the importance of issues such as career evolution, mobility, and sustainability. I'm proud to have helped build a roadmap for 2024 to engage employees on these topics and build a sense of belonging at ST for all Blossomers.”

Enhancing quality of life at work

We believe that hybrid work can improve quality of life and help us to attract and retain talent. We have introduced a company-wide framework for flexible working arrangements. This allows employees to work from home or other locations, in accordance with local regulations.

We understand the importance of supporting the well-being of our employees. Our STCare program, among other initiatives, offers a range of resources which help promote a healthy work-life balance (see [Health and safety](#)).

In addition, we have introduced a new parental leave policy which supports new families and protects their rights (see [Labor and human rights](#)).

Compensation and reward

Our compensation and benefits policy is a critical part of our employee value proposition, supporting our growth and recognizing the contribution of our people.

We offer a short-term incentive scheme to almost 23,000 employees. As well as rewarding operational performance, it also recognizes the achievement of our sustainability objectives through a dedicated sustainability index focusing on four of our priorities:

- health and safety
- environment and climate
- diversity and inclusion
- people management

The same sustainability index applies to every ST employee, including senior management.

The sustainability index is also one of the three criteria for our long-term incentive (performance stock awards) scheme. In 2023, we increased the number of beneficiaries in our long-term incentives scheme by more than 1,300, to include more young and entry-level talent.

Appreciation and recognition

In 2023, we celebrated the 30th edition of the ST Annual Recognition (STAR) awards, recognizing more than 2,000 employees. This edition of the awards fully reflected our leadership model, with the creation of a leadership award and the inclusion of leadership criteria in several award categories. Innovation being essential for us, we also celebrated our Innovation awards, which recognize three categories of innovative achievements: extraordinary competitive advantage patents, high potential inventions, and technical papers.

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 4.3 – Ensure equal access for all women and men to affordable and quality technical vocational and tertiary education, including university.

2025 sustainability goal	Status	Comments
SG22: Achieve an employee engagement rate of at least 10 percentage points above local norms in all major countries by 2025.		2 out 13 countries*

* Germany, USA. 12 countries are above the local norms and two of them are at least 10 percentage points above. Our previous supplier, CultureIQ, was acquired by Perceptyx. The calculation method for the country norms used by Perceptyx is different from the one used by CultureIQ.



Diversity, equity and inclusion

Members of ST women's employee resource group

PUTTING PEOPLE FIRST

We believe diversity enables innovation and stakeholder engagement, as well as personal and company growth.

35%

women in our workforce

77%

DEI overall index score

8,000+

employees trained on DEI

With over 50,000 people from more than 120 nationalities and 40 countries, ST is a global company working together as one team. We are convinced that diversity, equity and inclusion (DEI) have a positive impact on innovation and stakeholder engagement, as well as personal and Company growth. | [3-3](#) |

Accelerating our cultural transformation

DEI maturity assessment

Our DEI vision is, “At ST, you can be the true version of yourself”. To help us achieve this, we accelerated our efforts towards a cultural transformation of the Company in 2023.

Changing behaviors and culture takes time. An important step in this journey is to understand our baseline and build a roadmap with clearly defined actions and milestones.

At the beginning of 2023, we received the results of our first DEI maturity assessment. This was conducted by an external firm, specialized in DEI analytics and advice. The DEI maturity assessment was a holistic process that included:

- Artifact review: human resources (HR) policies and processes, strategy presentations, internal communications material, and employee survey data.
- Stakeholder interviews: with the President and CEO, Executive Committee, and Vice Presidents.
- Focus groups: with seven different employee groups representative of our global employee base.
- Results of our DEI employee survey: from over 33,500 respondents worldwide, with optional self-declaration questions for people belonging to certain minorities (LGBTQIA+, caregivers, people with disabilities, and ethnic and cultural minorities).

Findings and actions

The detailed report and recommendations from the DEI assessment were shared with respective program owners, with an action plan and agreed timelines. Below, are some of the key findings included:

- Our HR policies and processes are inclusive and in line with our DEI goals, but we need to recognize the influence of management culture on our DEI efforts. Additionally, the assessment revealed that ST employees face similar challenges, regardless of whether or not they belong to a minority. As a result, proactive steps have been taken to reinforce our efforts to develop inclusion for all employees. 2024 will see an awareness campaign and dedicated DEI events at organization and site level.
- To overcome cultural barriers, the assessors felt that further alignment and awareness was needed on ST's position against misbehaviors such as sexism and microaggressions, for example. One action we took to address this was the creation in 2023 of a worldwide taskforce for preventing sexism. The taskforce built on the work done by ST France to reduce workplace sexism: a series of educational videos and web conferences were launched, along with a poster campaign and deployment of sexual harassment advisors at all our French sites.
- Our hiring trend for women is progressing well, helping us move towards our target for the representation of women in Company management. However, more efforts are needed when it comes to promoting women. To address this, we established DEI scorecards for each organization, including hiring and promotion rates, with assigned DEI objectives. Progress towards the objectives is monitored on a quarterly basis.

29.2%

**women hired in
exempt positions**

DEI index within our employee survey

Following our DEI pulse survey in 2022, we created a DEI index in our employee engagement survey. The index is composed of several questions covering different dimensions of DEI, such as discrimination, inclusion, equity, diversity, and belonging.

In line with our DEI vision, one of the statements respondents were asked to agree or disagree with was "At ST, I don't have to hide who I really am in order to be accepted." In 2023, we achieved an 81% positive response rate for this statement, the same score as in 2022. We regard this as a positive indicator of the solid foundations for creating a truly inclusive culture at ST.

The overall 2023 DEI index score for the Company was 77%, a slight decrease from the 78% achieved in our 2022 focus survey. It is worth noting that the 2022 DEI focus survey had a 67% response rate, while the employee engagement survey had a significantly higher response rate of 87%.

Going forward, the DEI index will serve as a baseline to measure our progress and drive our priorities.

Strengthening diversity

Diversity is an important pillar of our employer value proposition. Our ambition remains to attract, recruit, and retain a diverse workforce by offering equitable and inclusive workplace opportunities, including flexible working.

At the end of 2023, women represented 35% of our global workforce, 26% of our exemptions⁽²⁾ and 21% of our global STEM positions. In an under-represented technical field, we almost achieved our target of hiring 30% women for exempt positions, falling just short at 29.2%.

Our target for 2025 is to increase the percentage of women at each management level to 20%. As shown in the table below, we continue making progress, with each level of management gaining 1 percentage point. For the first time, we achieved an overall total of 20% of women in management positions.

⁽²⁾ Employees who hold positions normally requiring graduate or post-graduate education and who are not eligible for overtime compensation.

	2019	2020	2021	2022	2023
Junior managers	24	25	26	27	27
Experienced managers	18	19	20	20	21
Directors and senior managers	13	13	14	15	16
Executives (total)	9	10	10	13	14
of which belong to the Executive Committee and Executive Vice President group ⁽¹⁾	4	4	12	9	10
Total women in management positions	17	17	18	19	20
Women on the Supervisory Board	44	44	44	44	44

⁽¹⁾ List available on: <https://investors.st.com/corporate-governance/leadership>

We aim to create a diverse workforce that reflects society, including people with different abilities. In 2023, our sites in Singapore participated in a local government initiative called 'SG Enable', to hire persons with disabilities in engineering positions. At the end of 2023, one employee with a disability was successfully hired and integrated, with plans for more in 2024.

ST France launched a self-diagnosis tool to help people research their own potential disabilities anonymously, and then be supported through the declaration process. This enabled over 450 people to learn more about their situation and the support available to help them make the most of their working life at ST.

Growing equity

We value all employee contributions and have zero tolerance for any kind of discrimination. Our objective is to safeguard equity in development, career opportunities, and remuneration.

We monitor our gender pay ratio each quarter, comparing women's and men's salaries by job level for each country where we operate.

At the end of 2023, we recorded an overall gender pay ratio of 99.2%⁽³⁾. While the overall gap is small, we identified some areas to focus on and the relevant regions and organizations are working on closing these gaps.

Gender pay ratio

99.2%

Gender pay gap ratio⁽¹⁾ (%)

		2021 ⁽²⁾	2022 ⁽²⁾	2023
Operators		103.0	101.9	102.5
Non-exempts		100.1	101.4	101.4
Exempts	Non-management	98.3	98.2	98.1
	Management	96.5	96.3	96.2
	Executive	98.2	97.2	98.3
Total		100.0	99.3	99.2

⁽¹⁾ Includes base and variable salary.

⁽²⁾ Data changed due to methodology update.

New parental policy

We recognize that paid parental leave concerns all parents. Since May 2023, women are offered 14 weeks of fully paid maternity leave, with two weeks of fully paid leave for the second parent. Paternity leave is crucial for supporting men's care rights and responsibilities. Employees on maternity leave receive at least the average salary increase given to employees at the site or in the country that year (see [Labor and human rights](#)).

⁽³⁾ Calculation: (average annual salary plus variable women/average annual salary plus variable men) x100. Global averages are calculated weighted by country and job level headcount.

Supporting women's career development

We are committed to strengthening the role of women in building the future of our Company. To support this, we have developed a two-step training program to prepare the next generation of female leaders.

The program begins with Women in Leadership (WIL) training, targeted at junior and middle management. The training focuses on becoming a confident, authentic leader and the importance of building a network. In 2023, more than 100 women across all regions participated in 11 sessions.

840+

**participants in our
Women in Leadership
program**

Our Advanced Women in Leadership (AWIL) training, launched in 2021, is aimed at senior women managers and directors to help them identify their leadership style and become more visible and recognized within ST. It is a five-step blended learning training, including a two-and-a-half-day workshop, individual coaching, self-awareness, and a personal development plan. In 2023, we delivered 10 sessions across all regions, training 96 women in total.

This training program plays a key role in preparing a pipeline of women for executive management positions within ST. Since 2015, we have delivered over 80 WIL and AWIL sessions, across all regions, with more than 840 women benefitting from the training.

ST women have been increasingly active in the public sphere, presenting their work and participating in panel discussions at a variety of high-profile events. At the 2023 RADECS European Conference, ST sponsored a session dedicated to women in engineering where the chairperson and panelists were ST women from our French sites. In 2023, ST also became an advocate sponsor for the Women Leadership Initiative (WLI) organized by the Global Semiconductor Alliance. At WLI's flagship technical conference, Aradhana Kumari from our Greater Noida site (India) won the prestigious Female Up and Comer Award (see [Awards 2023 overview](#)). Frédérique Le Grevès, ST's Executive Vice President Europe & France Public Affairs and President of STMicroelectronics France, was chosen to chair the new IndustriELLES collective aimed at improving the place of women in the industry.

Court case in France

In 2015, 10 employees in France took their case of gender discrimination related to salary and career advancement in ST to the French court. After three years, the first instance judgement ruled out any discrimination. However, in 2023, the court of appeal overturned the initial decision.

ST does not tolerate discrimination of any kind. All concerns raised are taken seriously and investigated. If an allegation is confirmed actions are taken. (see [Ethics and compliance](#), speak up and misconduct reporting).

In terms of gender equality, ST has been taking proactive measures for many years, as outlined in this article and in previous sustainability reports. However, we recognize that we have to continue our efforts in creating a truly equitable and inclusive workplace. We remain committed to making progress and ensuring that all employees are treated with respect and fairness.

Developing inclusion

Creating awareness

We aim to overcome stereotypes by continuously reinforcing an inclusive mindset that recognizes the value and richness of a diverse workforce.

To help us achieve this, we provide two main training courses:

- diversity, equity and inclusion e-learning
- unconscious bias workshops

In 2023, over 8,000 employees completed the diversity, equity and inclusion e-learning course, a 36% increase from 2022. This increase was mainly thanks to strong support from the presidents of each organization within ST.

More than 2,100 employees from all regions where we operate participated in unconscious bias workshops in 2023. The workshop is supported by a team of more than 60 internal trainers. During these workshops, participants explore how their own unconscious bias and micro-behaviors can impact their decision-making and learn how to be more attentive and mindful when interacting with others.

2,100+
**people trained on
unconscious bias**

Following the transgender inclusion guide for employees we published last year, in 2023 we developed a user guide for HR personnel and managers, as part of our commitment to ensuring a safe, equitable, and inclusive environment for everyone. The guide contains procedures for navigating HR systems for name and gender change. It also contains a list of recommendations relating to dress code, restrooms, and how to communicate these changes sensitively.

Employee resource groups (ERGs)

In 2023, we established a strong focus on setting up ERGs to promote inclusion in the workplace. These are voluntary, employee-led groups of people belonging to a minority or having a shared characteristic. The aim of the ERGs is to provide a safe space for members to share their experiences and challenges, help leaders understand what matters to these employees, and to support their professional development.

In less than one year, our first ERG for women – WISE (Women Inspiring Supporting and Empowering) – has strengthened its reach and taken on some important projects.

FOCUS

WISE ERG FOR WOMEN

The WISE community is growing fast, with some **1,400+ members** in 60 locations. Sponsored by Frédérique Le Grevés, ST's Executive Vice President Europe & France Public Affairs and President of STMicroelectronics France, and Steve Rose, President Legal Counsel and Public Affairs, more and more allies and local sponsors are playing a key role in this network.

Since its launch in 2023, 26 WISE local networks and 44 local ambassadors have been appointed worldwide, with each defining their own local WISE roadmap.

A shadowing program, Discov'HER, was launched to raise awareness of different career paths in ST. Several women volunteered to talk about their role in ST, their professional journey, and their day-to-day responsibilities and activities.

Additionally, many roundtables and webcasts were organized at a global level to enhance the discussion around important topics, such as work-life balance or career evolution, and highlight the stories of ST's inspiring women and allies.



Following the success of a webinar on LGBTQIA+ inclusion in the workplace, we launched an ERG for this community with sponsors from our top management. The webinar and taskforce creation were done in collaboration with Têtu Connect, a think tank specializing in LGBTQIA+ issues. The governing committee is currently preparing a roadmap and a number of activities are planned for 2024.



têtu-connect

Loic Dumoulin-Richet

Project director, Têtu Connect

“From the start of our collaboration, STMicroelectronics showed great commitment towards the inclusion of LGBTQIA+ people in the workplace. At management level, there was strong support for employees to build an ERG which reflects their diversity and ways of life. It was very enriching and a pleasure to help this group of talented and committed people successfully launch their initiative.”

Inclusive communication guidelines

We recently released internal inclusive communication guidelines. We believe our language and visuals shape attitudes as to what is considered normal and acceptable. Inclusive communication goes beyond avoiding offensive words and includes non-stereotypical, unbiased, and gender-neutral language, as well as proper acknowledgment of people and cultures.

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 5.5 – Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.



SDG target 10.2 – By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, disability, race, ethnicity, origin, religion or economic or other status.

2025 sustainability goal	Status	Comments
SG8: Reach at least 20% women in every management level by 2025.		27% (junior managers) 21% (experienced managers) 16% (directors and senior managers) 14% (executives)
Annual sustainability goal	Status	Comments
SG7: Recruit at least 30% women in all exempt positions every year.		29%
Recruit at least 60% of new non-manufacturing employees with less than five years' experience		53%

People indicators

This section includes indicators and GRI Standard disclosures.

DEFINITIONS

-	Data not available or not required.
NA	Not applicable.
Operator	Employees working in production operations.
Non-exempt	Employees who hold positions normally requiring higher education and who are eligible for overtime compensation.
Exempt	Employees who hold positions normally requiring graduate or post-graduate education and who are not eligible for overtime compensation.
Direct workers	Workers employed directly by ST.
Indirect workers	Workers employed by a third-party, such as interim agencies.
Data coverage	Unless otherwise stated, the data covers all our sites.

Headcount evolution by region⁽¹⁾ | 2-7 |

	2019	2020	2021	2022	2023
Americas	761	766	759	789	828
Female	192	188	185	212	233
Male	569	578	574	577	595
Asia Pacific	18,398	18,276	18,951	19,829	18,820
Female	7,484	7,432	7,616	8,202	7,718
Male	10,914	10,844	11,335	11,627	11,102
Europe	21,633	22,594	23,668	25,096	25,697
Female	5,320	5,616	5,941	6,392	6,513
Male	16,313	16,978	17,727	18,704	19,184
Mediterranean	4,762	4,380	4,876	5,656	5,943
Female	2,667	2,396	2,722	3,175	3,381
Male	2,095	1,984	2,154	2,481	2,562
Total	45,554	46,016	48,254	51,370	51,288
Female	15,663	15,632	16,464	17,981	17,845
Male	29,891	30,384	31,790	33,389	33,443

⁽¹⁾ Includes direct and indirect workers.

Employees by gender and by category | 405-1 |

	2019	2020	2021	2022	2023
Number of operators	15,794	15,894	16,524	17,343	16,024
Female (%)	56%	54%	54%	56%	57%
Male (%)	44%	46%	46%	44%	43%
Number of non-exempts	10,024	9,598	10,302	10,704	10,709
Female (%)	22%	22%	22%	22%	23%
Male (%)	78%	78%	78%	78%	77%
Number of exempts	19,736	20,524	21,428	23,323	24,555
Female (%)	23%	24%	24%	25%	26%
Male (%)	77%	76%	76%	75%	74%

External hires in manufacturing (%)

	2019	2020	2021	2022	2023
Jobs filled externally vs overall jobs filled	96	97	97	96	87

Hires by job type | 401-1 |

	2019	2020	2021	2022	2023
Operator	6,687	6,345	8,687	7,588	3,359
Female	2,114	1,870	3,125	3,828	1,735
Male	4,573	4,475	5,562	3,760	1,624
Non-exempt	3,033	2,473	3,255	1,849	3,419
Female	635	523	692	316	932
Male	2,398	1,950	2,563	1,533	2,487
Exempt	2,603	2,121	2,710	2,923	2,890
Female	713	573	808	894	800
Male	1,890	1,548	1,902	2,029	2,090
Total	12,323	10,939	14,652	12,360	9,668
Female	3,462	2,966	4,625	5,038	3,467
Male	8,861	7,973	10,027	7,322	6,201

Hires by age group (%) | 401-1 |

	2019	2020	2021	2022	2023
Under 30 years old	72	72	73	63	61
30–50 years old	26	27	25	32	34
Over 50 years old	2	1	2	5	5

Hires by region (%) | 401-1 |

	2019	2020	2021	2022	2023
Americas	1	1	1	1	1
Asia Pacific	65	61	56	46	27
Europe	26	32	34	40	55
Mediterranean	8	6	9	13	17

Workforce by employment type (% of workers) | 2-7 |

	2019	2020	2021	2022	2023
Full-time contract	97	97	97	98	98
Female	94	94	95	95	95
Male	99	99	99	99	99
Part-time contract	3	3	3	2	2
Female	6	6	5	5	5
Male	1	1	1	1	1

Workforce by employment contract (% of workers) | 2-7 |

	2019	2020	2021	2022	2023
Permanent contract	97	97	96	96	97
Female	96	96	94	93	94
Male	98	97	97	97	98
Temporary contract ⁽¹⁾	3	3	4	4	3
Female	4	4	6	7	6
Male	2	3	3	3	2

⁽¹⁾ Includes direct and indirect workers.

Workforce by employment contract by region (% of workers) | 2-7 |

	2019	2020	2021	2022	2023
Permanent contract					
Americas	99.3	99.7	99.6	99.5	99.6
Asia Pacific	99.4	98.8	99.7	99.7	99.9
Europe	97.1	95.8	95.0	96.0	98.6
Mediterranean	89.2	92.6	86.5	78.7	78.6
Temporary contract⁽¹⁾					
Americas	0.7	0.3	0.4	0.5	0.4
Asia Pacific	0.6	1.2	0.3	0.3	0.1
Europe	2.9	4.2	5.0	4.0	1.4
Mediterranean	10.8	7.4	13.5	21.2	21.4

⁽¹⁾ Includes direct and indirect workers.

Workforce by employment relation (% of workers) | 2-7 | 2-8 |

	2019	2020	2021	2022	2023
Direct relation ⁽¹⁾	99	98	98	99	99
Indirect relation ⁽²⁾	1	2	2	1	1

⁽¹⁾ Workers employed directly by ST.

⁽²⁾ Workers employed by a third-party, such as interim agencies.

Remuneration (%)

	2019	2020	2021	2022	2023
Employees below the ST minimum salary scale in their job grade (exempt)	13	13	9	11	18
Employees with individual salary increase	83	30	96	87	90

Benefits, bonus & Unvested Stock Awards | 201-1 |

	2019	2020	2021	2022	2023
Eligible (exempt >JG 11) employees receiving unvested stock awards (%)	30%	27%	26%	28%	32%
Number of employees rewarded	5,590	5,070	5,126	6,400	7,750

Number of nationalities in the headcount by region⁽¹⁾ | 405-1 |

	2019	2020	2021	2022	2023
Americas	21	21	20	22	25
Asia Pacific	34	35	35	35	34
Europe	87	87	102	110	114
Mediterranean	50	46	50	52	60
Total	105	103	115	118	122

⁽¹⁾ Expatriates and assignees are counted in host country.

Number of nationalities in Executive Committee | 405-1 |

	2019	2020	2021	2022	2023
Different nationalities represented in the Executive Committee	6	6	6	11	11

Employees by gender and by region (%) | 405-1 |

		2019	2020	2021	2022	2023
Americas	Female	25	25	24	27	28
	Male	75	75	76	73	72
Asia Pacific	Female	41	41	40	41	41
	Male	59	59	60	59	59
Europe	Female	25	25	25	25	25
	Male	75	75	75	75	75
Mediterranean	Female	56	55	56	56	57
	Male	44	45	44	44	43

Average⁽¹⁾ overall turnover rate⁽²⁾ by age group (%) | 401-1 |

	2019	2020	2021	2022	2023
Under 30 years old	49	40	42	25	15
30 – 50 years old	9	8	10	8	6
Over 50 years old	6	7	6	5	5

⁽¹⁾ Turnover rate calculated on average headcount in activity throughout the year.

⁽²⁾ Resignations, retirements and dismissals.

Average⁽¹⁾ turnover rate (%) | 401-1 |

	2019	2020	2021	2022	2023
Average voluntary turnover rate ⁽²⁾	16.1	12.6	14.6	10.3	5.9
Average overall turnover rate ⁽³⁾	17.7	14.0	16.0	12.0	7.9

⁽¹⁾ Turnover rate calculated on average headcount in activity throughout the year.

⁽²⁾ Resignations.

⁽³⁾ Resignations, retirements and dismissals.

Average⁽¹⁾ overall turnover rate⁽²⁾ by gender, by category and by region in 2023 (%) | 401-1 |

	Operator		Non-exempt		Exempt	
	Female	Male	Female	Male	Female	Male
Americas ⁽³⁾	NA	NA	4.4	60.8	6.4	6.6
Asia Pacific	16.8	24.6	11.6	12.4	6.2	6.9
Europe	5.7	3.5	4.0	3.9	3.4	3.8
Mediterranean	3.8	9.0	3.8	9.3	17.4	15.3

⁽¹⁾ Turnover rate calculated on average headcount in activity throughout the year.

⁽²⁾ Resignations, retirements and dismissals.

⁽³⁾ The Company has no manufacturing sites in these regions.

Average employee age by category

	2019	2020	2021	2022	2023
Operator	35	36	35	35	36
Non-exempt	39	40	40	40	41
Exempt	44	44	44	44	44
Average employee age (years)	40	40	40	40	41

Employees by category and by age group in 2023 (%)

| 405-1 |

	Under 30 years old	30–50 years old	Over 50 years old
Operator	38	49	13
Non-exempt	23	55	22
Exempt	15	52	33

Promotion ratio female/male by category and by region in 2023 (%) SDG 5.5

	Operator		Non-exempt		Exempt	
	Female	Male	Female	Male	Female	Male
Americas ⁽¹⁾	NA	NA	NA	NA	13	10
Asia Pacific	12	13	21	15	15	12
Europe	9	6	9	7	19	15
Mediterranean	14	8	25	14	20	17

⁽¹⁾ The Company has no manufacturing sites in these regions.

Disabled employees (%) SDG 10.3

	2019	2020	2021	2022	2023
Disabled people employed as % of total workforce	1.8	2.0	1.9	1.9	2.0

Career development (%)

	2019	2020	2021	2022	2023
Employees with a promotion in the year	10	8	12	12	13
Employees with a job function change in the year	2	2	2	2	2

Employee yearly Individual Performance Management (%)

| 404-3 |

	2019	2020	2021	2022	2023
Operator	84	70	93	83	82
Female	77	54	92	81	80
Male	94	90	94	84	83
Non-exempt	90	92	52	75	83
Female	87	89	60	76	84
Male	92	93	49	75	82
Exempt	95	97	94	92	92
Female	95	96	94	91	91
Male	96	97	94	93	93
Total	90	85	85	85	87
Female	82	70	88	84	84
Male	95	97	83	86	88

Employees with a formal career development review⁽¹⁾ (%)

| 404-3 |

	2019	2020	2021 ⁽²⁾	2022	2023
Non-exempt	47	50	13	36	28
Female	51	55	18	39	31
Male	45	48	12	35	27
Exempt	64	66	18	54	36
Female	66	68	19	55	35
Male	63	66	18	54	36

⁽¹⁾ Operators are managed through a different process.

⁽²⁾ New performance review system implemented in Q2 2021. Cycle extended to Q1 2022.

ST population recognized through the technical ladder⁽¹⁾

(%)

	2019	2020	2021	2022	2023
Asia Pacific	3.5	3.5	3.8	4.0 ⁽²⁾	4.1
Europe & Mediterranean	6.7	6.9	7.1	7.1 ⁽²⁾	7.3
Worldwide	5.7	5.8	6.0	6.1	6.2

⁽¹⁾ The specified path starts from job grade 14.

⁽²⁾ Data corrected due to error in reporting.

Employee survey – engagement rate (%)

	2019	2020	2021	2022 ⁽¹⁾	2023
Overall participation rate	90	89	89	67	87
Individual engagement index	79	82	83	86	86
Organizational agility index	68	73	73	NA	75
Goal alignment index	80	82	84	NA	86

⁽¹⁾ In 2022 we did not run a full engagement survey, but rather a focus survey on diversity, equity and inclusion.

Internal mobility⁽¹⁾ (%)

	2019	2020	2021	2022	2023
Operator	4	3	2	3	15
Non-exempt	5	6	8	10	20
Exempt	20	27	23	18	22
Total	8	9	7	8	18

⁽¹⁾ Jobs filled internally.

Average number of training hours per year⁽¹⁾ | 404-1 |



	2019	2020	2021	2022	2023
Operator	65	64	61	70	76
Female	62	55	59	65	73
Male	68	72	64	75	79
Non-exempt	46	35	34	32	47
Female	40	27	27	27	38
Male	47	37	36	34	49
Exempt	33	29	25	30	28
Female	37	31	27	34	31
Male	32	28	24	29	27
Total	50	44	42	47	49
Female	53	44	47	52	55
Male	47	44	40	44	46
Total number of employees trained⁽²⁾	–	42,989	47,039	50,914	50,611

⁽¹⁾ Based on the total headcount including turnover. Includes training on equipment and outside training.

⁽²⁾ Based on the total headcount on December 31, excluding turnover.

Average number of training hours per age group

	2022	2023
Under 30 years old	61	57
30–50 years old	43	51
Over 50 years old	23	23

Employees enrolled in ST supported external education programs (%)

	2019	2020	2021	2022	2023
Operator	1.1	1.0	0.8	0.9	0.7
Non-exempt	2.1	2.0	2.3	2.8	3.5
Exempt	3.6	2.2	1.5	1.6	1.2

Working time and overtime hours

	2019	2020	2021	2022	2023
Employees with regular worktime less than 48 hours per week (%)	85%	85%	85%	85%	96%
Average weekly overtime (hours per employee)	4.3	5.4	5.8	5.6	4.9

Unplanned absenteeism (%)

	2019	2020	2021	2022	2023
Unplanned absenteeism	2.77	3.32	2.93	3.35	3.08
% by region					
Americas	0.03	0.01	0.01	0.01	0.01
Asia Pacific	2.83	2.62	2.78	3.12	3.14
Europe	2.89	3.68	3.01	3.57	2.77
Mediterranean	2.45	5.03	3.59	3.89	4.50
% by gender					
Female	3.19	3.87	3.61	4.11	3.82
Male	2.54	3.02	2.57	2.96	2.68

Collective bargaining | 2-30 |

	2019	2020	2021	2022	2023
Number of collective agreements signed in the year	30	62	55	36	37
People covered by collective bargaining agreements (%)	78%	78%	79%	79%	80%
People covered by representatives (%)	71%	71%	72%	74%	75%

Fair wages (%) SDG 10.3

	2019	2020	2021	2022	2023
Employees paid above 105% of the legal or conventional minimum wage	93.2	90.1	95.1	92.9	92.9

Average weekly working time, including overtime, in selected countries⁽¹⁾ (hours)

		2019	2020	2021	2022	2023
China	ST standard working time	40	40	40	40	40
	Overtime	8.9	10.2	11.8	13.5	14.6
France	ST standard working time ⁽²⁾	38.5	38.5	38.5	38.5	38.5
	Overtime	0.1	0.1	0.1	0.2	0.4
Italy	ST standard working time	40	40	40	40	40
	Overtime	0.3	0.2	0.3	0.3	0.3
Malaysia	ST standard working time	48	48	48	48	45
	Overtime	12.2	11.7	10.4	11.7	11.8
Malta	ST standard working time	40	40	40	40	40
	Overtime	6.9	7.3	7.8	4.6	4.4
Morocco	ST standard working time	44	44	44	44	44
	Overtime	1.7	0.4	0.4	0.4	0.3
Singapore	ST standard working time	44	44	44	44	44
	Overtime	4.7	6.9	11.3	9.6	4.9
The Philippines	ST standard working time	48	48	48	48	48
	Overtime	0.9	11.5	11.0	10.1	8.5

⁽¹⁾ For non-exempts and operators.

⁽²⁾ French standard legal working time is 35 hours, but ST has a collective agreement for 38.5 hours.

ST sites subject to regular human rights SAQ & audits
(RBA) | 409-1 | SDG 8.8

Country	Major site ⁽¹⁾	2023		
		% Workforce	Self- assessment	Audit
High risk				
China	Shenzhen	7.1%	✓	✓
Malaysia	Muar	9.3%	✓	✓ ⁽³⁾
Singapore	Ang Mo Kio and Toa Payoh	10.4%	✓	✓ ⁽³⁾
The Philippines	Calamba	4.3%	✓	✓ ⁽³⁾
Medium risk				
Malta	Kirkop	3.5%	✓	✓
Morocco	Bouskoura	7.6%	✓	✓
Low risk				
France	Crolles	9.1%	✓	✓
	Grenoble ⁽²⁾	4.3%	✓	✗
	Rousset	5.3%	✓	✓
	Tours	2.5%	✓	✓
	Rennes	0.2%	✓	✗
India	Greater Noida ⁽²⁾	2.1%	✓	✗
Italy	Agrate	10.3%	✓	✓ ⁽³⁾
	Castelletto ⁽²⁾	2.2%	✓	✗
	Catania	10.3%	✓	✓
	Marcianise	0.5%	✓	✗
Sweden	Norrköping	0.1%	✓	✗
Percentage coverage of total workforce		89%	89%	80%
Number of sites subject to regular human rights SAQ and audits			17	11

⁽¹⁾ Site with >700 employees or manufacturing operations.

⁽²⁾ Design centers.

⁽³⁾ Audits conducted in 2022. All other audits were conducted in 2023.

RBA VAP⁽¹⁾ audit score (score out of 200)⁽²⁾

	2019	2020	2021	2022	2023
Number of initial audits	3	5	6	5	6
ST average score (initial audit)	176	186	155	173	199
Comparison ST vs electronic industry average	+47	+45	+10	+29	+55
Number of closure audits	5	4	6	5	1
ST average score (closure audit)	183	198	198	200	187
Comparison ST vs electronic industry average	+13	+22	+20	+19	+6

⁽¹⁾ VAP: Validated Assessment Program.

⁽²⁾ Covers our 11 main manufacturing sites.

RBA audit results for ST operations | 409-1 | SDG 8.7

	2019	2020	2021	2022	2023
Number of audits	8	9	12	10	7
Total of priority non-conformances (NC)	0	0	0	1 ⁽¹⁾	0
Total of major NC	12	11	37	15	2
Average major/priority NC/audit	1.5	1.2	3.1	1.6	0.3
Labor					
Working hours	1	3	6	2	2
Wages and benefits	0	0	2	1	0
Freely chosen employment	2	0	3	2 ⁽¹⁾	0
Non-discrimination	1	0	2	1	0
Young workers	0	0	2	0	0
Total of major/priority NC	4	3	15	6	2
Average major/priority NC/audit	0.5	0.3	1.3	0.6	0.3
Ethics					
Intellectual property	0	0	1	0	0
No improper advantage	0	0	1	0	0
Total of major NC	0	0	2	0	0
Average major NC/audit	0.0	0.0	0.2	0.0	0.0
Health and Safety					
Emergency preparedness	2	2	5	0	0
Occupational injury and illness	1	0	1	2	0
Industrial hygiene	1	0	0	0	0
Machine safeguarding	0	1	0	0	0
Food, sanitation and housing	0	1	0	2	0
Occupational safety	1	2	2	1	0
Health and safety communication	0	0	1	0	0
Physically demanding work	0	0	0	1	0
Total of major NC	5	6	9	6	0
Average major NC/audit	0.6	0.7	0.8	0.6	0.0
Environment					
Hazardous substances	0	0	0	2	0
Energy consumption and GHG emissions	1	0	0	0	0
Total of major NC	1	0	0	2	0
Average major NC/audit	0.1	0.0	0.0	0.2	0.0
Management Systems					
Supplier responsibility	1	2	2	0	0
Training	0	0	2	1	0
Audits and assessments	1	0	1	0	0
Improvement objectives	0	0	1	0	0
Company commitment	0	0	2	0	0
Management accountability and responsibility	0	0	2	0	0
Legal and customer requirements	0	0	1	1	0
Total of major NC	2	2	11	2	0
Average major NC/audit	0.3	0.2	0.9	0.2	0.0

⁽¹⁾ One priority finding related to our on-site contractors' working hours. The other one is a major finding.

Employees with healthcare coverage provided by ST⁽¹⁾ (%)



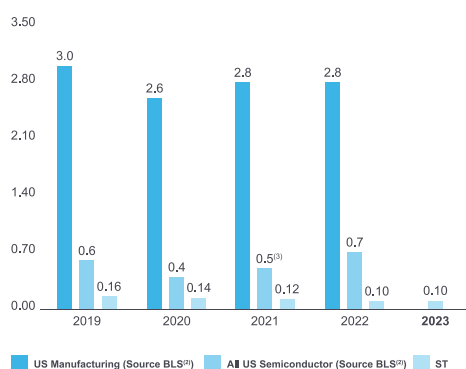
	2019	2020	2021	2022	2023
Work-related health issues	79	88	79	81	82
Personal health issues	89	98	98	98	98
Direct family members health issues	68	83	82	80	83

⁽¹⁾ In addition to national healthcare schemes.

EHS training

	2019	2020	2021	2022	2023
Average number of EHS training hours per employee	7.4	5.7	6.0	7.4	6.7

Recordable case rate benchmarks⁽¹⁾



⁽¹⁾ Including injuries only. 2023 Benchmark data not available at time of publishing.

⁽²⁾ Bureau of Labor Statistics (United States Department of Labor)

⁽³⁾ Data corrected due to error in reporting.

Recordable case rate⁽¹⁾ by gender and by region | 403-9 |



	2019	2020	2021	2022	2023
Gender					
Female	0.21	0.15	0.15	0.13	0.15
Male	0.13	0.13	0.10	0.08	0.08
Region					
Americas	0.00	0.00	0.00	0.00	0.12
Asia Pacific	0.11	0.12	0.10	0.09	0.09
Europe & Mediterranean	0.21	0.16	0.14	0.11 ⁽²⁾	0.11

⁽¹⁾ Work-related injuries per 100 employees per year as defined by OSHA-US regulation.

⁽²⁾ Data corrected due to error in reporting.

Employee recordable case rate – injuries and illnesses

| 403-9 | 403-10 |

	2019	2020	2021	2022	2023
Employee recordable case rate ⁽¹⁾	0.17	0.15	0.13	0.11 ⁽²⁾	0.11

⁽¹⁾ Per 100 employees per year as defined by OSHA-US regulation.

⁽²⁾ Rate updated to include additional information not available in the previous reporting period.

Contractor recordable case rate – including injuries and illnesses | 403-9 | 403-10 |

	2021	2022	2023
Contractor recordable case rate ⁽¹⁾	0.28	0.18 ⁽²⁾	0.28

⁽¹⁾ Per 100 contractors per year as defined by OSHA-US regulation.

⁽²⁾ Data corrected due to error in reporting.

Recordable case rate⁽¹⁾ on-site industrial/domestic⁽²⁾

| 403-9 |

	2019	2020	2021	2022	2023
Recordable case industrial rate	0.09	0.07	0.06	0.06	0.07
Recordable case domestic rate	0.07	0.07	0.06	0.04	0.04

⁽¹⁾ Work-related injuries per 100 employees per year as defined by OSHA-US regulation.

⁽²⁾ Industrial recordable cases are directly linked with industrial activity. Domestic recordable cases are on-site cases such as a fall or slip on stairs or struck by or against door/chair/building and structures etc.

Recordable cases by type of event, accident or exposure

(%) | 403-9 |

	2019	2020	2021	2022	2023
Fall or slip	45	47	49	45	40
Struck by or against	32	24	25	27	30
Overexertion	1	3	4	2	9
Caught in, under or between	7	8	4	4	2
Contact with chemicals	1	8	5	6	6
Bodily reaction from slip or motion	6	6	9	12	2
Others	8	4	4	4	11

Severity rate⁽¹⁾ by gender and by region

	2019	2020	2021	2022	2023
Gender					
Female	3.3	2.8	3.2	1.5	2.6
Male	2.0	3.5	2.2	1.9	1.8
Region					
Americas	0.0	0.0	0.0	0.0	0.0
Asia Pacific	0.7	1.7	2.3	0.7	0.6
Europe & Mediterranean	4.1	4.7	2.7	2.7	3.3

⁽¹⁾ Number of days lost per 100 employees per year as defined by OSHA-US regulation.

Severity rate⁽¹⁾ – injuries and illnesses

	2020	2021	2022	2023
Employee severity rate	4.0	2.6	2.4 ⁽²⁾	2.3
Contractor severity rate	–	7.2	4.3	5.1
Total severity rate for employees and contractors	–	3.2	2.7⁽²⁾	2.8

⁽¹⁾ Number of days lost per 100 employees and contractors per year as defined by OSHA-US regulation.

⁽²⁾ Rate updated to include additional information not available in the previous reporting period.

Occupational disease rate by gender and by region

| 403-10 |

	2019	2020	2021	2022	2023
Occupational disease rate^(1,2)	0.01	0.01	0.02 ⁽³⁾	0.01 ⁽⁴⁾	0.00
Gender					
Female	0.03	0.01	0.02 ⁽³⁾	0.01 ⁽⁴⁾	0.00
Male	0.00	0.01	0.01 ⁽³⁾	0.00	0.01
Region					
Americas	0.00	0.00	0.00	0.00	0.00
Asia Pacific	0.00	0.00	0.00	0.00	0.00
Europe & Mediterranean	0.02	0.01	0.03 ⁽³⁾	0.01 ⁽⁴⁾	0.01

⁽¹⁾ Work-related illnesses per 100 employees per year as defined by OSHA-US regulation.

⁽²⁾ The main types of occupational diseases are linked to musculoskeletal disorders.

⁽³⁾ Rate updated due to a late recognition from authorities, after the closure of the previous reporting period.

⁽⁴⁾ Rate updated to include additional information not available in the previous reporting period.

Occupational disease severity rate by gender and by region

	2019	2020	2021	2022	2023
Occupational disease severity rate⁽¹⁾	0.93	0.72	0.12 ⁽²⁾	0.60 ⁽³⁾	0.22
Gender					
Female	2.70	0.13	0.15	1.48 ⁽³⁾	0.00
Male	0.00	1.03	0.11 ⁽²⁾	0.13	0.34
Region					
Americas	0.00	0.00	0.00	0.00	0.00
Asia Pacific	0.00	0.00	0.00	0.00	0.00
Europe & Mediterranean	1.78	1.36	0.23 ⁽²⁾	1.13 ⁽³⁾	0.40

⁽¹⁾ Number of days lost per 100 employees per year as defined by OSHA-US regulation.

⁽²⁾ Rate updated due to a late recognition from authorities, after the closure of the previous reporting period.

⁽³⁾ Rate updated to include additional information not available in the previous reporting period.

Lost workday incidence rate – contractors | 403-9 |

	2019	2020	2021	2022	2023
Lost workdays per 100 contractors	4.1	5.3	7.2	4.3	5.1

Lost workday incidence rate⁽¹⁾ – contractors by region

| 403-9 |

	2019	2020	2021	2022	2023
Americas	0.0	0.0	0.0	0.0	0.0
Asia Pacific	0.0	1.1	5.6	0.9	3.0
Europe & Mediterranean	6.9	8.2	8.2	6.6	6.4

⁽¹⁾ Number of days lost per 100 contractors per year as defined by OSHA-US regulation.

Lost workday – contractors by gender (%) | 403-9 |

	2019	2020	2021	2022	2023
Female	26	18	30	19	33
Male	74	82	70	81	67

Contractors lost workday case incidence rate (LWDC)

| 403-9 |

	2019	2020	2021	2022	2023
Lost workday cases per 100 contractors	0.26	0.24	0.27	0.17	0.26

Lost workday case incidence rate⁽¹⁾ – contractors by region

| 403-9 |

	2019	2020	2021	2022	2023
Americas	0.00	0.00	0.00	0.00	0.00
Asia Pacific	0.00	0.04	0.14	0.07	0.40
Europe & Mediterranean	0.44	0.39	0.35	0.23	0.21

⁽¹⁾ Number of cases with days lost per 100 contractors per year as defined by OSHA-US regulation.

Lost workday cases – contractors by gender (%) | 403-9 |

	2019	2020	2021	2022	2023
Female	30	18	20	12 ⁽¹⁾	13
Male	70	82	80	88	87

⁽¹⁾ Data corrected due to error in reporting.

Injuries costs and savings (US\$m)

	2019	2020	2021	2022	2023
Injuries costs	1.9	2.5	2.2	1.6	2.2
Costs if no action	10.1	10.5	11.7	12.0	13.1
Savings ⁽¹⁾	8.2	7.4	9.5	10.4	10.9

⁽¹⁾ Around US\$138m savings in 21 years.

Health & safety fines and total number of non-monetary sanctions in 2023 | 2-27 |

Ang Mo Kio (Singapore) fined \$SGP280,500 for work-related fatal accident that happened in 2017.

Number of fatalities | 403-9 | 403-10 |

	2019	2020	2021	2022	2023
Employees	0	0	0	0	0
Subcontractors	0	0	0	1 ⁽¹⁾	0
Total	0	0	0	1⁽¹⁾	0

⁽¹⁾ One subcontractor victim of a fatal accident trying to move a Mobile Elevated Working Platform, without authorization (India).

Protecting the environment



71%
renewable
energy



42%
of water recycled
and reused



96%
of waste reused,
recovered, or sent
for recycling



Aerofree cooling equipment, ST Rousset, France

Our approach to the environment

Photovoltaic carport, ST Grenoble, France

PROTECTING THE ENVIRONMENT

We are committed to managing our business operations in an environmentally responsible way.

1993

first environmental policy

ISO

14001 certification at 19 sites

0.73

eco-footprint score in 2023

At ST, we provide semiconductor solutions that play an important role in helping to solve environmental and social challenges. At the same time, our operations require natural resources and can have a negative impact on the environment if not managed properly. For 30 years, protecting the planet has been a priority. We have worked consistently to minimize our overall environmental footprint and are committed to reaching carbon neutrality by 2027.

Driving environmental efficiency

Policy and governance

We always strive to conduct our business in a responsible manner. In 1993, we established our first global environmental policy (see www.st.com ). Our sustainability charter (www.st.com/sustainabilitycharter ) supports this policy by outlining our commitments and goals for 2025 and 2027.

Our approach to the environment is incorporated into our Company strategy and is led by our executive management team. The corporate environmental team is responsible for developing programs and procedures that enable us to work towards our environmental objectives. These are implemented by local sustainability committees, each of which develops a roadmap according to the needs of their respective sites.

Our manufacturing sites each have an Environment, Health and Safety (EHS) steering committee responsible for implementing the environmental policy. The steering committee includes representatives from facilities, production, human resources, and



production support. It meets quarterly to review relevant topics, such as environmental performance or compliance with local and national environmental standards and requirements. The outcomes of these reviews are shared with site management and appropriate actions are implemented where necessary.



Pascal Roquet

Environment and Health Director,
Corporate Sustainability

“At ST, we continue to make good progress towards our environmental goals. However, we recognize that the challenges faced by the semiconductor industry are best addressed through collaboration. I’m a member of various industry organizations that facilitate the exchange of knowledge and best practices among experts globally. This broad perspective benefits ST, and shapes strategic decisions in the wider industry, helping us all move towards our environmental objectives.”

Managing our performance

ST’s environmental management system is aligned with international standards, including ISO14001, ISO50001, ISO14064, and EMAS⁽¹⁾. Our performance and management systems are evaluated annually through third-party surveillance audits, and our certifications are renewed every three years. Our major manufacturing sites are all certified (see ISO certificates available at www.st.com).

As part of our culture of continuous improvement, we conduct internal audits every three years. In 2023, we conducted internal audits at nine sites.

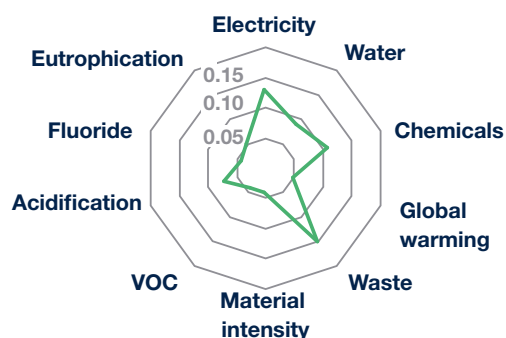
We also operate a program of third-party EHS legal compliance audits at 41 sites every three years. These assess the sites’ compliance status and limit risks related to our license to operate. The program covers all our manufacturing sites, all sites with more than 100 employees, and some smaller sites and warehouses.

Monitoring progress

We benchmark our progress in environmental performance against multiple indicators, including resource consumption, waste, and air emissions.

All our environmental data is collected centrally and reported regularly (monthly, quarterly, and yearly) on our environmental database. Tracking the progress of each indicator enables sites to continually adjust and improve their performance. The results and insights we gather are shared with all teams during quarterly environment steering committee meetings.

Since 2001, we have used our ‘eco-footprint radar’ tool to analyze data on the inputs and outputs of our manufacturing operations. The smaller the eco-footprint, the better the performance, with a score of 1.0 or below considered good. It allows us to compare the environmental impact of each manufacturing site, as well as our overall progress. We analyze the results to identify potential improvements and define the priorities we need to address. In 2023, our eco-footprint score was 0.73, better than our target of 0.75. | 3-3 |



⁽¹⁾ EMAS: Eco-Management and Audit Scheme.

USE OF SUSTAINABLE RAW MATERIALS

Semiconductor companies use various raw materials, including silicon, copper, aluminum, and rare earth elements, to manufacture high-tech products. These materials are essential for the performance of electronic devices. However, their availability is at risk due to resource scarcity, environmental impacts associated with mining, as well as geopolitical and economic challenges. To reduce reliance on certain materials and promote sustainable sourcing practices, they can sometimes be replaced with alternative, more sustainable raw materials. These are secondary raw materials, which are obtained through the recycling process.

ST recognizes the benefits of replacing critical and virgin raw materials with sustainable alternatives. To achieve this, we adopt a holistic circular economy approach to encourage innovation. Our Marcianise site (Italy) implemented an innovative process to use alternative materials in certain less complex products, such as smart cards. The 'eco-friendly cards' project uses recycled polyvinyl chloride (PVC), from PVC waste that would otherwise have to be disposed of. It also uses high density polyethylene reclaimed from oceans or beach environments.

In 2023, we established a workstream dedicated to responsible solutions, including circularity, within our 'accelerating sustainability together' program. We are currently building a roadmap to accelerate circularity and the use of sustainable raw materials in our products.



Energy and climate change

Wind turbines from PPA with ERG, Italy

PROTECTING THE ENVIRONMENT

We take action to mitigate the impact of our activities on climate change.

2027

carbon neutrality
commitment

-45%

scope 1 & 2
emissions
(vs 2018)

71%

renewable electricity
used

Climate change is one of the biggest threats facing society. At ST, we recognize we have a responsibility to help address this global challenge.

In 2020, we announced our commitment to becoming carbon neutral by 2027 on scope 1 and 2, and partially scope 3. Our carbon neutrality program includes:

- a comprehensive strategy covering the reduction of direct and indirect greenhouse gas (GHG) emissions, including product transportation, business travel, and employee commuting
- the sourcing of 100% renewable energy by 2027
- an intermediate milestone, to be achieved by 2025, with full compliance with the 1.5°C scenario defined in the Paris Agreement adopted at COP21, endorsed by the Science Based Targets initiative (SBTi)



by 2027

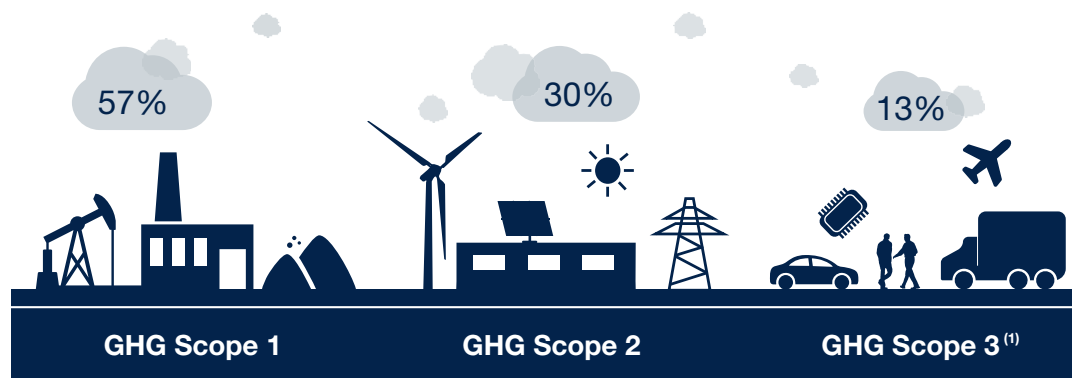
Moving towards carbon neutrality

Our carbon neutrality program comprises five main workstreams: | 3-3 |

- reducing our direct emissions
- investing in energy savings
- using renewable energies
- minimizing our indirect emissions
- offsetting remaining emissions

The programs in place at all our manufacturing sites address our direct and indirect emissions in accordance with scopes 1, 2, and partially 3 of the GHG Protocol. In 2023, we continued our progress towards carbon neutrality and, although there was an increase in our scope 1 and part of scope 3 emissions, we decreased our CO₂ equivalent emissions by 10.5% per unit of production compared to 2022.

Breakdown of GHG emissions | [305-1](#) | [305-2](#) | [305-3](#) |



⁽¹⁾ Includes product transportation, business travel and employee commuting.

Reducing our direct emissions

Our direct emissions, as defined by scope 1 of the GHG Protocol, represent more than 50% of our total GHG emissions.

The use of perfluorinated compounds (PFC) in the manufacture of semiconductors accounts for a significant share of our direct air emissions, as defined by scope 1 of the GHG protocol. It is therefore a central part of our environmental strategy to reduce their use and ensure they are treated appropriately before being released into the atmosphere. In 2023, we installed and activated 53 new PFC abatement systems in several of our sites. Our Ang Mo Kio site (Singapore) installed 18 additional abatement systems to reduce PFCs. Abatement systems were also installed across multiple other sites: 12 in Catania (Italy), 11 in Agrate (Italy), 10 in Crolles (France) and 2 in Tours (France).

In 2023, we updated our methodology to calculate GHG emissions from PFC use. We adopted the 2019 refinement to the IPCC Guidelines for National Greenhouse Gas Inventories to align with the World Semiconductor Council's recommendation of May 2023. The updated methodology along with an increase in our production, have resulted in a 2% increase in our scope 1 direct emissions reported in absolute values. Due to the change in methodology, our PFC emissions per unit of production remained stable, despite the installation of new PFC abatement systems.

FOCUS

CALCULATING OUR DIRECT EMISSIONS

In 2023, ST adopted the 2019 refinement to the IPCC Guidelines for National Greenhouse Gas Inventories in alignment with the World Semiconductor Council's recommendation. The refinement provides updated methodologies, taking into consideration more recent scientific data, to calculate greenhouse gas emissions from PFC usage in the semiconductor industry.



Among the methodologies proposed, ST decided to adopt the Tier 2c method based on over ten thousand data sets supplied to the IPCC working group by companies and suppliers. It was selected due to its precision and greater scope. It considers how gases are used in different processes and the by-products created. The new method also has rules for emissions reduction technologies which need to be tested and certified to meet certain standards and avoid the formation of other harmful gases.

The revised method is now used in all our front-end manufacturing sites and helps us to generate more robust data for our direct emissions. The system also provides enhanced transparency and increased comparability, which will allow us to improve our decision-making.

Investing in energy saving

In 2023, our absolute energy consumption increased by 7% compared to 2022. This was due to an increase in the use of advanced manufacturing technologies, some of which have a higher manufacturing footprint, but the devices produced consume less energy in the end application. Despite this, we decreased our energy consumption per unit of production by 17% compared to 2016, in line with our 2025 goal of a 20% reduction.

All our manufacturing sites develop initiatives to optimize their energy consumption. At the end of 2023, thanks to energy savings and projects to reduce CO₂ emissions, our annual energy saving was approximately 139GWh, comprising 115GWh of electricity and 24GWh of methane gas, compared to 112GWh in 2022. This is in line with our objective to save at least 150GWh per year by 2027. | 302-4 |

In 2023, our sites continued to implement a number of energy-saving initiatives. At our Ang Mo Kio site (Singapore), a program was initiated to replace older auxiliary vacuum pumps with more efficient models. The project saved 2.2GWh in 2023 and the same equipment has since been upgraded at the majority of front-end manufacturing sites. Additionally, our Rousset site (France) completed a project to retrofit 27 scrubbers, resulting in a saving of 3.0GWh and 600 metric tons of CO₂.

To explore ways to achieve further energy savings, ST collaborated with EDF DALKIA to conduct assessments across all French sites. As a result of this initiative, our Crolles site (France) implemented adiabatic cooling towers to cool air compressors. This method uses evaporation to cool water and is more efficient than traditional chillers. The initiative resulted in an energy saving of 0.9GWh in 2023.

In addition, we focused on implementing technical best practices for designing, constructing, and revamping our systems. This delivered immediate benefits with practically no additional costs, contributing significantly to our total energy savings.

We also worked with energy-saving experts to identify other potential actions that could be implemented in France and Italy between 2025 and 2027. These will help us reach our targets for 2027 and make further progress towards our sustainability goals.

Using renewable energies

Electricity counts for 92% of the energy we use. Renewable sources provided 71% of the electricity we purchased in 2023, compared to 62% in 2022. Green sourcing helped us avoid the equivalent of 636,000 metric tons of CO₂ emissions, largely by purchasing more green electricity certificates.



71%

renewable electricity

In 2023, ST signed a 15-year power purchase agreement (PPA) with ERG for the supply of renewable electricity to our sites in Italy. The agreement will cover our two high-volume manufacturing sites in Agrate and Catania, as well as multiple R&D, design, and sales and marketing sites. The PPA will provide approximately 250GWh of renewable energy per year from Sicilian wind farms, equivalent to a total volume of 3.75TWh over 15 years.



Geoff West

Executive Vice President and Chief
Procurement Officer

The Power Purchase Agreement with ERG marks yet another important step towards ST's goal of becoming carbon neutral in its operations (scope 1 and 2 emissions, and partially scope 3) by 2027, including the sourcing of 100% renewable energy by 2027. PPAs will play a major role in our transition. Starting in 2024, the PPA will provide a significant level of renewable energy for ST's operations in Italy, which include R&D, design, sales and marketing, and large-volume chip manufacturing.

As part of our move towards more renewable energy sourcing, our Bouskoura site (Morocco) has a PPA for the electricity produced by 12 wind turbines. In 2023, these turbines supplied 47% of the power used by the site, avoiding around 31,000 metric tons of CO₂ emissions.

In 2022, the site extended its 4,000m² photovoltaic carport with an additional 3,100m² of solar panels. The installation supplied more than 1.9GWh of electricity in 2023, which partially powers the site's cleanroom.

Similarly, solar power installations at our site in Catania (Italy) produced 1.8GWh of green electricity.

The photovoltaic carport installed at our Grenoble site (France) started to generate power in December 2022. The 10,900m² of solar panels will produce 2.7GWh of electricity annually, from 2024.

Solar and wind PPAs will play a major role in our transition to 100% renewable electricity by 2027. Cross-functional teams have continued to work on our energy procurement strategy. Our ambition is to identify new-build project opportunities which meet 'additionality' criteria. This means selecting projects that bring new capacity into the grids in locations where we operate. To achieve this, we will initiate strategic and long-term partnerships.

Minimizing our indirect emissions from transportation

From 15 material topics defined in scope 3 of the GHG Protocol, we have selected three areas to report where we can maximize our impact:

- goods transportation
- employee commuting
- business travel

Goods transportation accounts for 49% of our scope 3 emissions, with employee commuting representing 32%. In 2023, we noted a 8.4% increase in our total scope 3 emissions compared to 2022. Emissions due to goods transportation increased by 3.6%, partly due to higher production volumes. However, we achieved a reduction of 10.5% in emissions related to employee commuting, despite a headcount increase. To support this positive trajectory, our sites reinforced sustainable employee commuting concepts, promoting green transportation, including car sharing. Flexible working arrangements, such as working from home, also help to minimize our emissions and we prioritize remote meetings where possible.

In 2023, our Tours site (France) received Gold Pro-Bike Employer label, a certification in recognition of its efforts to encourage employees to commute to work responsibly. In addition, our Rennes site (France) received a 'Mobil Employeur 2023' gold level award for successfully promoting alternative modes of transport to work. Its responsible commuting initiative was launched 10 years ago and has led to a reduction from 81% to 38% in employees travelling to work individually in cars. This was achieved by promoting alternative methods such as carpooling, cycling, and public transport, and increased work from home options. | [305-3](#) |

Offset remaining emissions

Our current environmental programs and data do not include carbon offset projects, which are the final element of our carbon neutrality program.

We are developing a balanced portfolio of offset projects based on a long-term commitment to local projects and innovative solutions. In 2023, we investigated potential projects and partners that fit our offsetting criteria. We focus on the quality of carbon credit certificates generated and have selected an external advisor to identify the most suitable partners. Our aim is to combine nature-based solutions with technology solutions, for both carbon removal and avoidance. We will select and develop these projects in the coming years in collaboration with our stakeholders, according to local opportunities and needs.

Addressing climate-related risks

Addressing natural hazards risks

Since 2020, when we declared our support for the Task Force on Climate-related Financial Disclosures (TCFD), we have been working towards implementing TCFD recommendations (see also [Risk management](#) and [TCFD index](#)).

We adopt a double perspective when considering climate-related risks:

- impact of our activities on the environment and people
- impact of climate change on our activities

In 2023, we continued to work to address physical risks resulting from climate change that are either chronic (induced by longer-term shifts in climate patterns) or acute (event-driven) in a way that is consistent with the TCFD and the EU Green Deal classification, as illustrated in the following chart.

Addressing natural hazards risks

	Temperature-related	Wind-related	Water-related	Solid mass-related
Chronic	Changing temperature (air, freshwater, marine water)	Changing wind patterns	Changing precipitation patterns and types (rain, hail, snow/ice)	Coastal erosion
	Heat stress		Precipitation or hydrological variability	Soil degradation
	Temperature variability		Ocean acidification	Soil erosion
	Permafrost thawing		Saline intrusion	Solifluction
			Sea level rise	
Acute			Water stress	
	Heat wave	Cyclone, hurricane, typhoon	Drought	Avalanche
	Cold wave/frost	Storm (including blizzards, dust and sandstorms), including medicanes	Heavy precipitation (rain, hail, snow/ice)	Landslide (including rock fall)
	Wildfire	Tornado	Flood (coastal, fluvial, pluvial, groundwater)	Subsidence
			Glacial lake	
	Covered by climate change study		Covered by specific site studies when required	
	Covered by water scarcity study		Non-applicable to ST footprint	

Source: EU commission

In 2023, we commissioned an update of the science-based study from an expert third-party to assess the current and future climate risks on our 155 most critical locations (including all our main sites and those of our key manufacturing and logistics partners in our supply chain, located in

25 countries). To guide our adaptation efforts, the analysis was based on two climate change scenarios defined by the United Nations Intergovernmental Panel on Climate Change (IPCC):

- SSP2-4.5 (mid-century warming of 1.6 to 2.5°C, end of century warming of 2.1 to 3.5°C versus pre-industrial era)
- SSP5-8.5 (mid-century warming of 1.9 to 3°C, end of century warming of 3.3 to 5.7°C versus pre-industrial era)

For each scenario and for each of the 155 locations, climate projections on 2030 and 2050 time horizons show likely evolutions across a range of indicators based on the European Taxonomy classification of climate-related hazards, including:

- cyclonic and non cyclonic wind gusts
- coastal and riverine floods
- number of very heavy precipitation days
- freezing conditions such as cold wave duration, number of frost days, or percentage of very cold days
- extreme heat conditions, including heatwave duration and percentage of very warm days
- drought including dry wave duration and water stress
- landslides, mud flows, rock falls

A study commissioned in 2021, from an environmental consultancy, has been a valuable resource to help us better understand the characteristics and impact of water scarcity and our carbon footprint (see [Water](#)).

In addition to these global analyses, site-specific studies on natural hazards are also conducted where necessary due to local conditions.

Overall, the purpose of these different climate-related analyses is to feed our site-level business interruption risk assessments and business impact analyses, as well as our site resilience index. Ultimately, they feed into our regularly updated improvement, adaptation and mitigation plans addressing environmental and resilience issues in the medium- to long-term.

We are proactively addressing the transition to a lower-carbon economy. In this context, we are in the process of further identifying and assessing policy, legal, technology, and market transition risks, across the short-, medium- and long-term, as per the TCFD provisions. Simultaneously, we are actively investing in developing and launching new products to help our customers implement new energy-saving applications, transforming risk into opportunity (see [Sustainable technology and Innovation](#)).

Progress towards SBTi validated targets

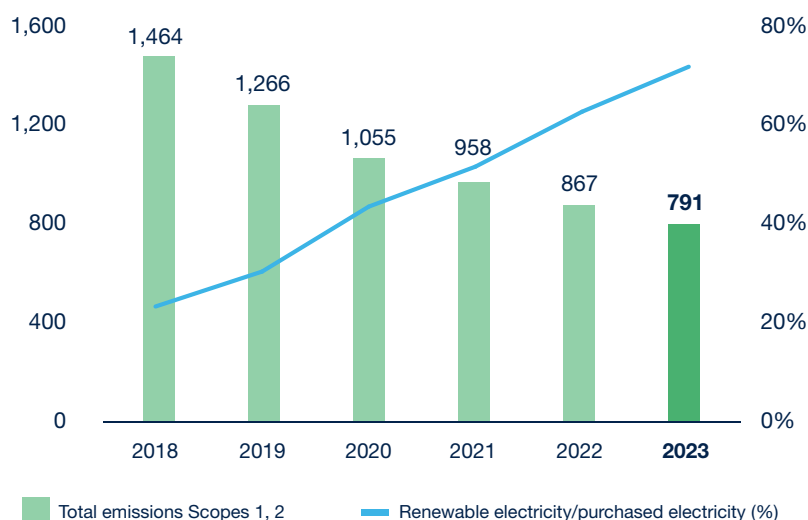
As part of our carbon neutrality program, ST joined SBTi at the end of 2020. This initiative provides a clearly defined pathway for companies to reduce their GHG emissions. We were the first semiconductor company with approved targets to limit warming to no more than 1.5°C.

Our SBTi approved targets related to 1.5°C compliance are intermediate targets within our carbon neutrality commitment:

- 50% reduction of direct (scope 1) and indirect (scope 2) emissions by 2025 compared to 2018
- 80% renewable electricity sourcing by 2025

By the end of 2023, we were on track towards these targets, achieving 45% and 71%, respectively.

Progress towards carbon neutrality^(1,2)



⁽¹⁾ 2006 IPCC Guidelines for National Greenhouse Gas inventories used for 2018 to 2022 data. 2019 refinement to the 2006 IPCC methodology used for 2023 data.

⁽²⁾ Covers our 11 main manufacturing sites, plus Rennes, Castelletto and Grenoble.

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 7.3 – By 2030, double the global rate of improvement in energy efficiency.



SDG target 8.4 – Improve progressively, through 2030, global resource efficiency in consumption and production.



SDG target 13.1 – Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

2027 sustainability goal	Status	Comments
SG9: Be carbon neutral by 2027 in all direct and indirect emissions from scope 1 and 2, and focusing on product transportation, business travel and employee commuting emissions for scope 3.		906KT net CO ₂ eq emissions
SG10: Adopt 100% renewable energy sources by 2027 through energy procurement and green energy installations.		71% of total electricity (65% of total energy)
SG11: Implement programs to reduce energy consumption by at least 150GWh per year by 2027.		27GWh saved in 2023 139GWh saved since 2018
2025 sustainability goal	Status	Comments
SG12: Reduce energy consumption per wafer by 20% in 2025 vs 2016.		-17%
80% of renewable electricity by 2025.		71%
-50% absolute Scope 1 and Scope 2 GHG emissions by 2025 (2018 baseline).		-45%

Water

PROTECTING THE ENVIRONMENT

We are committed to tackling the challenges of water scarcity and wastewater treatment across our operations.

A-

for CDP water security

42%

of water recycled and reused

10%

water efficiency improvement vs 2016

Water is essential to people, life, and business. Population growth and climate change make it increasingly important to protect this shared natural resource. We implement solutions to reduce water extraction and consumption and work closely with local stakeholders, institutions, and political representatives in the communities where we operate.

Tackling the numerous challenges of water supply has been part of our strategy since 1993 and becomes more important year after year. Our comprehensive management approach includes water stress assessments, conservation programs, water efficiency, and wastewater treatment.

[| 3-3 | 303-1 |](#)

Strengthening our efforts

We recognize our responsibility for water-related challenges wherever we operate and continue to strengthen our efforts to address them. We aim to minimize our water footprint through careful management, prioritizing water efficiency wherever possible. We carefully monitor water-related risks on a double materiality basis, examining both our external impacts and the impact of external factors on our Company. We collaborate externally to promote effective water management considering a broad range of stakeholders.

Our water strategy



Minimize footprint



Management: monitoring, recycling, ultra-pure water generation
Water efficiency
Water recycling rate

Manage end-to end risks



Double materiality risk management
Supply chain risk management
Product life cycle assessment

Enable solutions for the world



Water monitoring solutions
Innovation sharing
Water access development in our communities

Collaborate and promote effective water management:

suppliers, customers, local communities

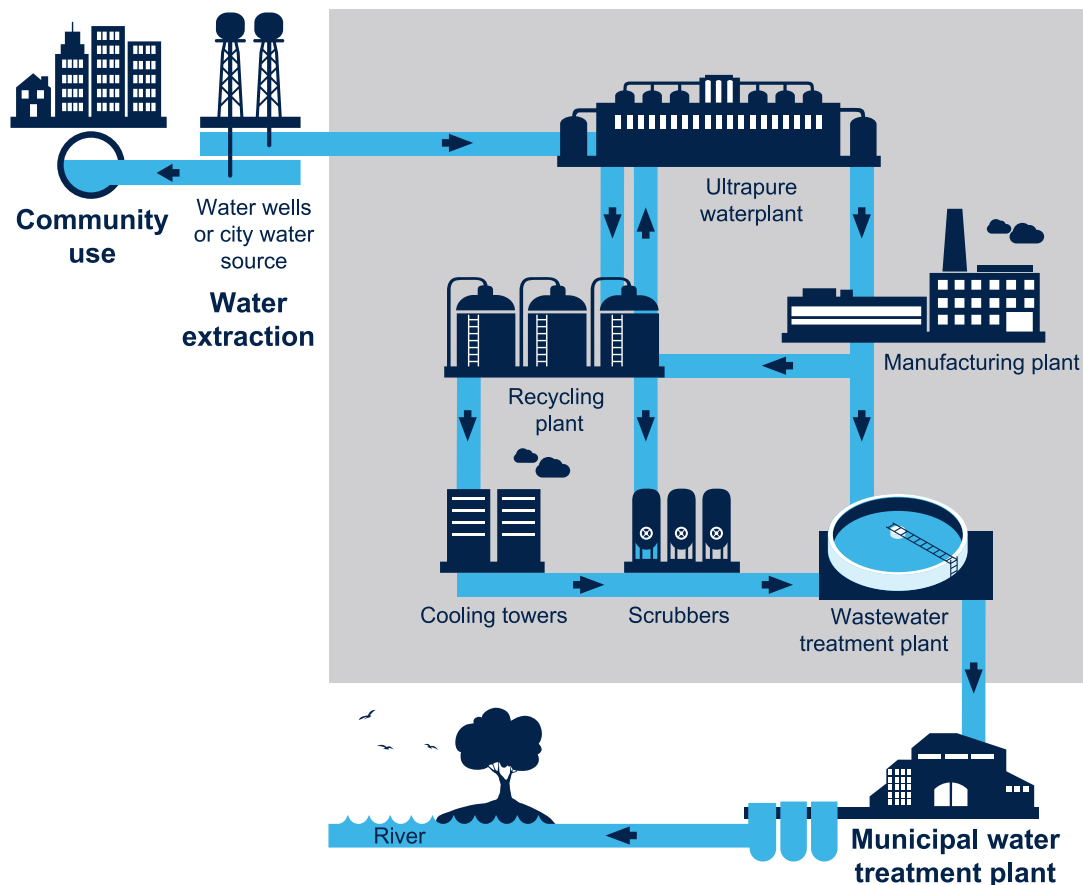
Our global water policy is available at www.st.com . It reflects our commitment and approach to managing water within our operations and supply chain. The policy is based on four key principles:

- demonstrating water conservation leadership
- managing water risks and opportunities
- enabling solutions for the world
- engaging with stakeholders

It is our ambition to increase the water resilience of our sites and implement mitigation strategies to minimize risks related to water availability and biodiversity. This process includes reviewing our energy supply to select the most water-efficient energy sources.

We aim to minimize any impact from our operations on local communities through careful management and committed partnerships; and create value by providing responsible products and technologies. Our long-term goal is to implement solutions that protect water resources and deliver long-term societal value, especially in water-stressed areas.

Our corporate water program is responsible for creating a water roadmap for our front- and back-end manufacturing sites, with dedicated water champions to help implement actions locally.



Collaborative approach

We recognize the importance of external partnerships and collaborations to grow and share knowledge. In 2023, ST joined the Alliance for Water Stewardship (AWS), which provides a globally recognized best practice framework to guide water management at sites using water. This partnership will help us identify common challenges and build knowledge to effectively drive our water management strategies. Going forward, we plan to work towards AWS certification of our sites to further demonstrate our commitment to water stewardship.

In October 2023, we attended the Ultrapure Micro Annual Conference in Texas, which focuses on water treatment in the semiconductor industry. The event provided an opportunity to discover emerging technologies for water treatment and participate in workshops related to water saving strategies. Our teams presented new studies and projects, such as the wastewater treatment project at our Crolles site (France), (see below).

In line with our proactive approach, we participate in several water-related industry working groups where we share best practices and techniques for water recycling. As part of the European Semiconductor Industry Association water working group, we also collaborate with our peers on topics such as standardizing calculation methodologies.

WATER SAVING COMMITTEE

Reducing water consumption is a priority across all ST operations. Recent droughts in France have led us to strengthen our efforts. In 2023, we set up a Water Saving committee in France to further oversee water management. The committee meets every two weeks and is chaired by Frédérique Le Grevès, ST's Executive Vice President Europe & France Public Affairs and President of STMicroelectronics France. It brings together all French sites and the cross-functional expertise needed to guide water saving actions in the short and medium term.



The main objectives of the committee are to drive and coordinate programs and initiatives for reducing water consumption and recycling. Seasonal risks, such as a lack of water in the summer, are also taken into consideration. The committee takes a proactive approach to responding to French government regulations, including the 'Action plan for concerted and resilient water management' policy introduced in March 2023.

With the support of the Water Saving committee, each front-end manufacturing site is responsible for creating its own roadmap according to the local context. Examples of actions taken so far include:

- a new six-step methodology for water saving
- increased monitoring
- recalibrating machinery for optimal performance
- appointing water champions at each site

Going forward, the committee will continue to support water management and work with local teams to identify innovative solutions to save water.

Recognized by CDP

We have been participating in CDP's annual water security survey since 2011. Preparing our submission helps us identify areas for improvement and provides a platform for our customers to assess our water performance. In 2023, we received an A- score for CDP water security, placing us in the 'leadership' band. This is higher than the Europe regional average of C, and higher than the electrical and electronic equipment sector average of C. We scored highly in areas such as governance, policy, and water risk assessment and response. Going forward, we will accelerate our efforts related to value chain engagement, in line with our corporate strategy.



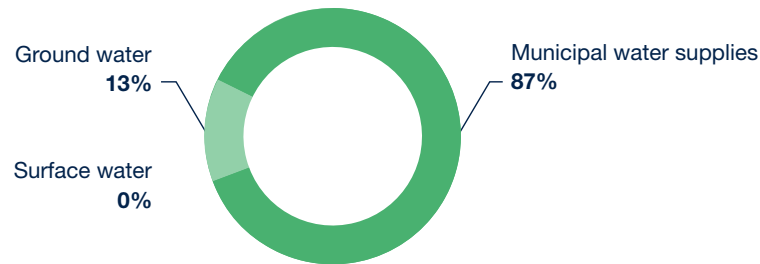
Assessing impact and water-related risks

Water withdrawal

A reliable water supply is essential to the semiconductor manufacturing process. All ST sites manage their water-related risks according to their needs and water availability. Each site monitors the volume of water it uses and complies with local permits. Only two of our manufacturing sites use groundwater for their operations.

In 2023, 87% of the water used throughout our operations came from municipal water supplies, with 13% coming from groundwater.

Water withdrawal⁽¹⁾ by source in 2023 (%) | 303-3 | SDG 6.4 |



⁽¹⁾ All water withdrawal is freshwater.

Addressing water-related risks

In 2021, we undertook a comprehensive water assessment to evaluate our global water footprint. Our primary goal was to identify areas of high-water stress and assess the water-related risks of our operations. Additionally, we aimed to evaluate our impact on local communities and ensure we were taking steps to mitigate any negative effects.

Our direct and indirect impacts were evaluated using the lifecycle assessment approach. We also identified that most of our manufacturing sites are at medium risk for operational and external risks, water quality, and water scarcity, using the Water Risk Filter 5.0 methodology.

In 2022, we went one step further, requesting our manufacturing sites to assess relevant risks and formalize water saving action plans. As a result, all sites successfully defined remedial actions. Action plans are reviewed quarterly at both manufacturing and corporate level. The results form part of each site's sustainability scorecard that is shared with the Corporate Executive Committee quarterly.

In the context of the EU taxonomy (see [EU taxonomy](#)), in 2023, we conducted a deep review of the environmental impact assessments of our manufacturing sites to verify compliance with current legislation and identify potential areas of improvement.

Reducing our water usage

Reducing water consumption while strengthening our recycling are major challenges for our Company. Manufacturing semiconductors requires a large volume of water, and we are continually striving to improve water efficiency across our operations.

Saving water

In 2023, our water consumption increased per unit of production compared to 2022. This was due to an increase in the use of advanced manufacturing technologies, some of which have a higher manufacturing footprint, but the devices produced have a more positive environmental impact in their use phase.

10%
water efficiency
improvement vs 2016

Despite this, in 2023, we reduced our water consumption by 10% per unit of production compared to 2016. Our 2025 goal is to improve our water efficiency by 20% vs 2016. We recognize that further efforts will be necessary to meet this target and we are working towards implementing the action plans identified for each site.

Water usage varies from site to site according to local conditions, such as raw water quality, treatment technologies, and local strategies. Usage is split across four main areas:

- ultrapure water production
- cooling
- heating, ventilation, and air conditioning
- drinking water

Identifying and measuring water usage is the first step in assessing areas for improvement, such as technical upgrades or optimizing processes and tools.

Our Ang Mo Kio site (Singapore) introduced several projects to improve its water efficiency. For example, the site implemented a smart water metering system to identify consumption inefficiencies and detect leaks and water wastage. This allows for improvements and corrective actions to be defined, while enhancing the reliability of data monitoring. In line with our aim to operate efficiently and minimize resource consumption, the site is also implementing a district cooling facility. This will reduce our emissions and positively affect our water use.



Wilson Chiew
Principal Engineer, SP Group

“ SP Group is a key partner in ST's carbon neutrality journey. We are deploying Singapore's largest industrial district cooling system at ST's Ang Mo Kio site, providing sustainable cooling to reduce energy consumption and carbon emissions. This also supports ST's water saving efforts. We will be recovering reverse osmosis reject water, a by-product from the reverse osmosis process in semiconductor production, as part of the makeup water for the cooling tower at our district cooling plant. ”

At our Rousset site (France), we held a worldwide water meeting, involving the heads of the water treatment plants at all front-end sites. Although each site faces different operational, legal, and technical constraints, the objective was to discuss common challenges, exchange technical know-how, and share best practices. As a result, our front-end manufacturing sites developed their 2024 water-saving roadmap and initiated a water-saving workgroup.

Our back-end sites also pursued their efforts to improve water efficiency in 2023, with the goal of reaching an overall water recycling rate of 60% by 2026.

Our Calamba site (the Philippines), implemented a range of maintenance and improvement actions to help with water conservation. This included drainpipe replacement, drain hose segregation, and the use of recycled water for the cooling tower instead of fresh water. All the actions implemented during the year resulted in a water saving of approximatively 20% of the site's water consumption.

Reuse and recycle

One of our main approaches to water conservation is to reuse and recycle. However, as the semiconductor production process relies on ultra-pure water, it is not always possible to reuse processed water. Although water can be treated and recycled into ultra-pure water, it is more often reused to cover facility needs, such as cooling towers, scrubbers, and thermal processing units.

At our Greater Noida site (India), rainwater harvesting pits are used to collect water from building roof tops, paved surfaces, roads and green landscaped areas. This increases the amount of water that enters the ground water reservoir, helping to maintain natural sources.

In 2023, our water recycling rate was 42%, the same level as in 2022. We recognize that further efforts are needed to reach our goal of 50% by 2025. We have identified the sites where we need to accelerate actions to achieve our goal.

42%

of water recycled and reused

Treating wastewater

Wastewater from our manufacturing processes contains pollutants, such as heavy metals and toxic solvents. It is our responsibility to ensure all used water is appropriately treated before discharging it back into the natural environment.

To mitigate any risk of pollution, our wastewater is treated on site or in municipal treatment plants before being discharged. Our manufacturing sites are continually improving their treatment of wastewater and the quality of water discharge, which is carefully controlled and monitored online.

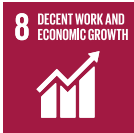
At our Crolles site (France), we started a pilot line to recycle part of the final aqueous discharges from the wastewater treatment plant. These can then be used in the manufacture of softened water and ultra-pure water, reducing the use of municipal water for industrial purposes. Recycling operations started in late 2023 and this process for ultra-pure water is expected to be fully qualified in the course of 2024. This first-of-a-kind project within the European semiconductor industry will allow us to recycle up to 40m³ of water per hour in 2024.

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 6.4 – Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity.



SDG target 8.4 – Improve progressively, through 2030, global resource efficiency in consumption and production.

2025 sustainability goal	Status	Comments
SG13: Improve our water efficiency by 20% by 2025 vs 2016.		-10%

Annual sustainability goal	Status	Comments
SG14: Recycle at least 50% of the water used each year.		42%



Waste

Manufacturing waste for recycling, ST Bouskoura, Morocco

PROTECTING THE ENVIRONMENT

We strive for zero waste by minimizing resource consumption, recycling, and implementing circular economy programs.

96%

of waste reused,
recovered, recycled

46%

reduction in waste
sent to landfill

Zero

waste concept
prioritized

Managing our waste

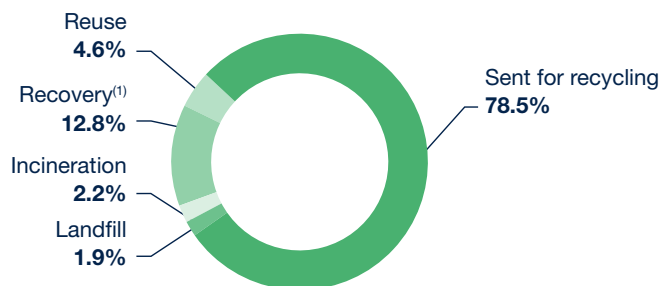
Generating waste is an inevitable part of our operations. Recognizing this, we have developed a comprehensive waste management strategy to limit our negative impacts. We focus on the classification, separation, and safe disposal of waste using an approach driven by local regulations and Company policy. Our priority is to reduce, reuse, and recycle and we consider landfill and incineration to be a last resort. | 3-3 |

Strengthening our performance

In 2023, 96% of the waste generated by our operations was either reused, recovered, or sent for recycling, one percentage point higher than 2022. We also reduced the quantity of waste sent to landfill from 3.7% in 2022 to 1.9% in 2023. This reduction achieved our target of an annual landfill rate below 3%.

96%

of waste reused,
recovered, or sent for
recycling



⁽¹⁾ Waste burnt with recovery of energy (combustion).

Zero waste to landfill program

Reducing landfill waste is an ongoing priority. Following the successful UL Zero Waste to Landfill validation of our Shenzhen site (China) and Calamba site (the Philippines), ST decided to extend the program to all manufacturing sites. The UL Zero Waste to Landfill program is based on the UL2799 standard. It focuses on monitoring and measuring material flows, detailing waste streams to optimize processes, and improving waste management with the aim of reducing waste generation. Recycling and recovery are prioritized to reduce landfill disposal. In 2023, ST waste management teams received training on the UL2799 standard and our sites reviewed their waste management targets. These are the first steps towards implementing the UL Zero Waste to Landfill program across our operations.

**Prioritizing
zero
waste**

Reducing waste generation

We believe the best waste is no waste. We apply this approach at all our manufacturing sites to minimize unnecessary resource consumption and waste generation. Our sites continually analyze processes as an important part of continuous improvement and strive to find innovative methods for waste reduction.

In 2023, several initiatives were implemented to reduce packaging waste. At our Shenzhen site (China), material packing processes were optimized, reducing carton waste by 30 tons and wooden waste by 25 tons. The total waste reduction of 55 tons represented approximately 8% of the total packaging waste generated on site in 2023. These results were achieved through improvements such as implementing interlaced stacking, reducing inner packaging for carton boxes, and standardizing and reducing the size of wooden packings to optimize space.

At our Marcianise site (Italy), single use pallets were replaced with a reusable variety known as Euro pallets. This was achieved by raising awareness of reusable materials across the supply chain and resulted in the reduction of 33 tons of wood waste.

At our Agrate site (Italy), we reduced the volume of ammonia sulfate waste. This was achieved by reducing the quantity of water in the waste composition, increasing its concentration from 5% to 25%. As a result, the volume of waste generated and transported was reduced. This had a positive impact on our transport emissions, which decreased by 50%, while also reducing costs.



Cinzia Quartini

Water and Ecofacilities Manager,
Agrate (Italy)

“Our efforts to achieve zero waste and promote a circular economy in Agrate started many years ago. From the pre-selection phase onwards, we choose suppliers and waste disposal methods to maximize the recovery and recycling of waste materials. We are driven by our passion and continually strive for ways to improve waste classification. In 2023, we were able to recycle 98.9% of waste, an achievement I am very proud of.”

At our Catania Site (Italy), chemical products used to treat concentrated acid wastewater in the wastewater treatment plant were replaced. As a result, sludge production was reduced by 257 tons, 14% less than in 2022.

Contributing to a circular economy

Thoughtful management of waste can conserve resources and contribute towards a circular economy. For several years, ST has implemented solutions to create value from waste generated by our activities. This is achieved by converting waste into secondary raw materials that can be used in other industries.

- Fluoride sludge is transformed into pellets for the metallurgy industry.
- Sulfuric acids are used for recycling batteries.
- Deflashing waste powder is sent for precious metal recovery.
- Electronic waste is dismantled; some parts are reused and precious metals are recovered.
- Solvents are sent for distillation and reused, or burnt for energy recovery.
- Ammonia in wastewater is treated and reused by other companies as a raw material.
- Silicon wafer scraps are used for aluminum production for the automotive, aviation, and photovoltaic industries.

Our sites actively search for solutions according to the type of waste generated and the local context.

Palladium is recovered from our manufacturing process and deposited on copper cathodes. This is achieved through electrolytic electrodeposition, a process that occurs when an electric current is applied to a solution containing metal ions, causing the movement of the positive ions towards the cathode. Our Agrate site (Italy), has optimized these processes to enable the recovery of 30kg of cathodes with palladium since 2017.

Sulfuric acid waste is diverted at our Crolles site (France) through a partnership with a biofuel producer, reducing the consumption of fossil fuels. Biofuels can be used by trucks, machinery, or generators.

Plastic packaging trays are sent for recycling into resin pellets by our Ang Mo Kio site (Singapore). These can be used to make everyday items, such as crates, clothes fibers, food containers, and bottle caps. The site will divert 5.5 tons of waste from incineration to recycling annually through this initiative.

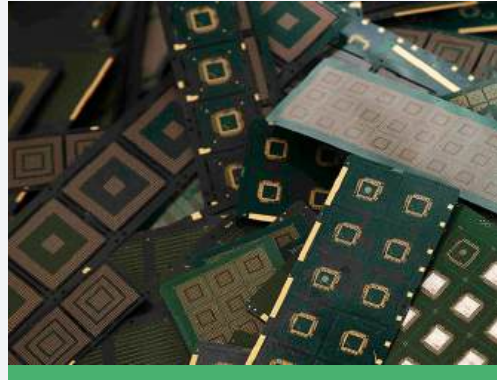
At our Calamba site (the Philippines), waste including spent resin and sludge is sent to manufacture cement bricks, reducing the use of virgin raw materials. The waste material is used to bind the structure of the cement. Around 29 tons of this waste was diverted in 2023.

CIRCULARITY FOR PRECIOUS METALS

The use of precious metals can pose several environmental and societal issues. These include human rights concerns related to mining, depletion of natural resources, and associated supply chain uncertainty.

Waste generated at ST's manufacturing sites can contain strategic metals, such as copper, palladium, silver, and gold. To minimize the risk of negative impacts, we partnered with WEEECycling, an organization dedicated to recovering precious metals and converting them into high quality recycled materials. Waste from our Tours site (France), Bouskoura site (Morocco), and Kirkop site (Malta), was treated using a recovery process consisting of several thermal, chemical, and electrochemical processes. This produces pure secondary materials with the same characteristics as primary/virgin materials. The recycled metals have a significantly lower impact than those from primary extraction and can be reused in the semiconductor, pharmaceutical, and energy industries. This innovative solution results in a very high recovery rate (99%) and a low carbon impact.

The partnership between ST and WEEECycling supports the principles of EECONE, a European project to reduce the impact of the semiconductor industry.



Managing waste beyond our operations

We aim to find innovative solutions for waste management beyond our operations, helping to raise awareness among our employees.

Proper disposal of waste from electrical and electronic equipment (WEEE) is critical for the environment and human health. At our Calamba site (the Philippines), 'Don't bin it! Bring it!' is a program which aims to help ST employees properly dispose of their household WEEE. The program received the good planet prize in 'Le Trophée Bleu' sustainability business awards, organized by CCI France Philippines.

At the end of 2023, our Toa Payoh site (Singapore) installed aerobic biodigester food waste composters. The new devices can digest up to 50kg of food waste daily. Due to the use of microbes, nutrient rich fertilizer can be produced for use in-house or in community farms.

Controlling hazardous substances

Our various manufacturing processes can generate hazardous or potentially hazardous waste, such as chemical substances and contaminated plastics. We focus on all types of hazardous waste (see [Chemicals](#)). We seek to identify the best solution among all available treatment technologies to minimize any adverse impact from our activities. In 2023, we identified 46% of our waste as hazardous, 96% of which was reused, recovered, or sent for recycling. The remaining waste was disposed of and treated locally by specially authorized companies.

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 3.9 – Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution, and contamination.



SDG target 6.3 – Improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.



SDG target 12.4 – Achieve the environmentally sound management of chemicals and all wastes throughout their lifecycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

2025 sustainability goal	Status	Comments
SG16: Reuse or recycle 95% of our waste* by 2025.	✓	96%

Annual sustainability goal	Status	Comments
SG15: Ensure an annual landfill waste* rate below 3%.	✓	1.9%

* Refers to hazardous and non-hazardous waste.



Chemicals

New production line, ST Muar, Malaysia

PROTECTING THE ENVIRONMENT

It is our priority to responsibly manage chemicals and replace hazardous substances wherever possible.

700+

new risk assessments conducted

100%

DEHP-free across our sites

19,000+

hours of chemical-related training

We carefully manage the chemical substances and materials we use throughout our operations. This allows us to monitor and address our impacts on people and the environment and to comply with legal and customer requirements.

Applying a rigorous approach

Our use and handling of chemicals is led by a precautionary approach, as set out in Principle 15 of the Rio Declaration and in the ST sustainability charter, available at www.st.com/sustainabilitycharter [🔗](#) | 2-23 |

At each of our manufacturing sites, a chemical committee meets regularly to review and evaluate best management practices for identified hazards. The committee uses a comprehensive approach to make decisions on chemical usage. This includes evaluating chemical compositions, hazards, use conditions, engineering controls, medical recommendations, and industrial hygiene requirements. Risk management measures, personal protective equipment (PPE), waste management, administrative controls, and training requirements are also considered. By rigorously applying this process, we can identify critical substances as soon as they are introduced or reclassified. Modifications to existing processes are also considered and implemented where necessary.

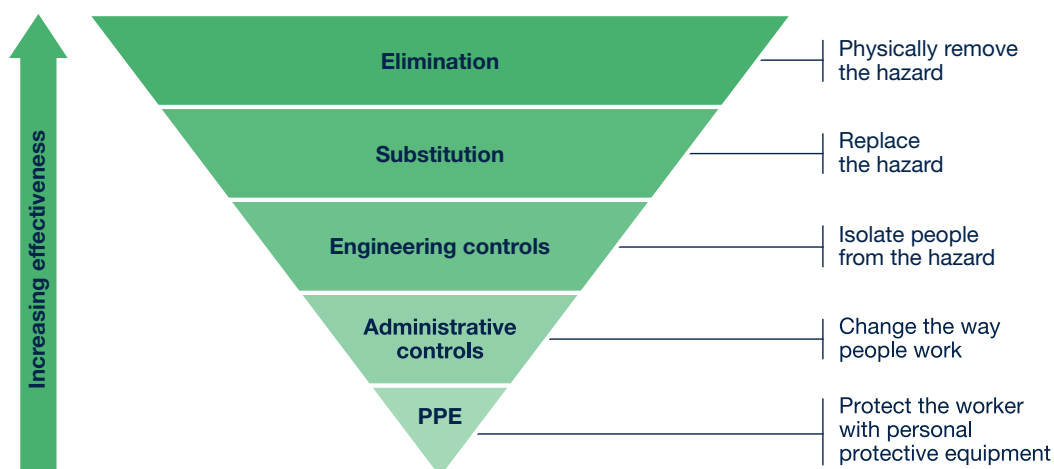
700+

new risk assessments

In 2023, we recorded approximately 6,500 chemicals in use across all sites, and conducted more than 700 new risk assessments, achieving nearly 23,000 validated risk assessments by the end of the year.

Since early 2000, we have applied the hierarchy of controls approach to our chemical management procedures. When specific chemicals or materials cannot be eliminated or substituted with less hazardous alternatives, we implement engineering measures and administrative controls to reduce workers' and environmental exposure. | 3-3 |

Hierarchy of controls



Safety of our people

Our goal is to prevent occupational injury and illnesses for all our workers, and to avoid causing health issues for the surrounding communities. The health of all employees working with chemical substances is monitored through a medical surveillance program. This includes biomonitoring, which assesses an individual's exposure to natural and synthetic chemicals based on analysis of human tissue and fluid samples.

As an additional precaution, we regularly analyze the air in work areas to verify that our risk management measures are effective. The results are compared to applicable threshold limit values (TLV), which are set by regulatory agencies to ensure safe exposure levels for workers. If the results indicate that the TLV has been exceeded, we take immediate action to identify and address the source of the problem and implement corrective measures to ensure a safe working environment.

In 2023, we conducted over 25,000 measurements, all of which were found to be below 50% of the applicable TLV, which has never been achieved before. This represents a significant improvement, with more measurements taken than any previous year and more than double the measurements taken in 2022. Additionally, less than 5% of the measurements exceeded detection limits (DL), the minimum amount of substance that can be detected, across all tests.

All workers receive specialist training before being assigned potentially hazardous tasks or implementing process changes. This includes instruction and preparation to:

- identify specific hazards
- recognize and understand chemical labels
- apply management methods
- only use equipment in good condition
- select and wear the required PPE
- be ready to react in case of contamination, contact, or an emergency
- ensure preventive maintenance
- properly dispose of spent chemicals according to waste management practices

19,000+
hours of training on
chemicals

In 2023, we provided more than 19,000 hours of training on chemical substance management across our manufacturing sites.

A MILESTONE FOR OUR BACK-END MANUFACTURING

In 2023, our Muar site (Malaysia) introduced a new production line using panel level packaging direct copper interconnect (PLP-DCI) technology. This breakthrough technology offers significant advantages in electrical and thermal performance, while maintaining high standards of performance and quality.



The design and construction phase involved several organizations, including site management, R&D, EHS, and industrial engineering. The teams collaborated to identify and evaluate materials while defining the best technical solutions to implement. During the project definition, there was a focus on employee safety, fire prevention, and emergency preparedness. The environmental impact of the installation was also considered, with evaluation of liquid and air emissions, as well as waste processing.

As a result, a new double piping system was installed to distribute and dispense all necessary chemicals, protecting the workers from any potential exposure. Furthermore, to ensure an adequate level of protection, the chemical storage area, which contains flammable liquid chemicals, was equipped with additional fire protection, a suppression system, and local exhaust ventilation.

The new PLP production line in Muar reflects ST's priority to support the development of advanced technology while maintaining the highest standards of safety and sustainability.

Protecting the environment

We recognize the importance of reducing environmental emissions, and we have made it a priority to do so in the domains of air, water, and waste. Our approach includes treating emissions where possible (see [Water](#) and [Waste](#)) and implementing replacement programs for hazardous substances throughout our value chain to minimize our environmental impact.

To further reduce our environmental impact, we have implemented an air emission abatement program that focuses on reducing our emissions of volatile organic compounds (VOCs).

Our air emission abatement program includes the use of advanced technologies and processes to capture and treat air emissions from our manufacturing processes, as well as ongoing online monitoring to ensure that our installations are working effectively.

By reducing our VOC emissions and reducing the use of solvents and other VOC-emitting materials, we are able to minimize our impact on the environment and protect the health and safety of our employees and local communities. Our commitment to reducing environmental emissions in air, water, and waste is an essential part of our overall mission to operate sustainably and responsibly.

Striving for better

Per- and polyfluoroalkyl substances (PFAS) are a large class of synthetic chemicals that possess unique physical and chemical properties. However, they are increasingly recognized as environmental pollutants and have been linked to negative effects on human health and the environment, including flora, fauna, and marine living organisms.

PFAS are used in various stages of the semiconductor manufacturing process, including in equipment and infrastructure. We recognize that our industry needs to reduce its dependence on these chemicals. In close coordination with industry players, we are working to identify and implement non-PFAS technical solutions, looking at the short-, mid- and long-term. This is in line with our longstanding commitment to minimize our environmental footprint at every stage of our products' lifecycle.

In 2023, we contacted all our direct suppliers and manufacturing subcontractors to assess the presence of PFAS in the products they provide to us or produce for us. We use this evaluation to identify the remaining PFAS in our products to comply with applicable regulatory requirements, such as the US EPA.

Using less

Reducing the use of hazardous substances, including substances of very high concern (SVHC), in our processes and final products helps safeguard the health and safety of our stakeholders, while reducing our environmental footprint. All our manufacturing sites implement specific actions to reduce chemical use.

As an example, our Catania site (Italy) decreased chemical consumption in 2023 to below 2018 levels, despite the introduction of new chemical-intensive processes. This was achieved by reducing the length and complexity of some processes.

Our Shenzhen site (China) initiated a project in 2021 to reduce ethanol consumption, the most used flammable substance. After surveys to understand and analyze the different usages of ethanol, the team defined a reduction plan and improved controls. As a result, the site reduced ethanol consumption by 78% in 2023 compared to 2021 and intends to totally eradicate its use by 2026.

Substituting hazardous substances

We search for the best solutions using technology and innovation to replace hazardous materials in our manufacturing processes. Following the phasing out of chemicals containing perfluorooctanoic acid (PFOA)-related substances in 2022, we finalized the eradication of di(2-ethylhexyl) phthalate (DEHP) in 2023.

Finalizing the DEHP replacement program

In 2012, DEHP used in plastic tapes was added to REACH⁽²⁾ Annex XIV, preventing its use in Europe. We immediately started a program to replace it, collaborating with our suppliers to identify alternative materials, and with our customers to evaluate and validate potential solutions. As a result, we ensured all products shipped to Europe were DEHP-free by 2013.

Subsequently, we decided to go beyond the regulations and replace DEHP across all our products worldwide. Due to the complexity of our supply chains, this process took time. In 2021, our sites at Kirkop (Malta) and Shenzhen (China) completed the substitution of DEHP, and in 2023, our Muar site (Malaysia) finalized its replacement.



100%
DEHP-free

Replacing DEHP in tapes is the result of a considerable collective effort from on-site teams, suppliers, and customers. It is a milestone that helps us reduce hazardous substances in waste, thereby increasing our ability to recycle the waste we generate.

⁽²⁾ REACH: Registration, Evaluation, Authorization and Restriction of Chemicals.



Ramona Marcelino

Material Compliance – Hazardous
Substance Process Management
Lead, ST Kirkop (Malta)

“As Hazardous Substance Process Management lead, I would like to thank all teams involved in driving the elimination of DEHP in our back-end sites. Their support and teamwork in qualifying DEHP-free material have been exceptional. We have collaborated closely with product groups and customers to expedite material qualification, enabling us to validate solutions quickly and efficiently. It is a great achievement to be DEHP free and contributes significantly to our sustainability goals and reducing the use of hazardous substances.”

Aligning with stakeholders' expectations

Compliance

We adhere to the highest standards to ensure compliance with all applicable regulations on chemicals for our manufacturing sites and our products. It is the responsibility of each site to ensure compliance, based on their specific operations.

When developing new products, their compliance is verified at fixed product development milestones. At the R&D phase, we only consider and select compliant materials to ensure we act in accordance with requirements such as RoHS⁽³⁾ and ELV⁽⁴⁾.

Furthermore, we strive to eliminate the use of restricted substances by design. Thanks to new designs, reduced dimensions, and the lower energy consumption of our chips, we have had ongoing success in decreasing the use of lead in the assembly process (see our **ECOPACK** results). We also continue to identify new materials with reduced antimony and halogen content.

ST products may be subject to declarations, based on the presence of SVHC. In 2023, we continued to declare new products on the European Chemicals Agency (ECHA) portal to ensure information is available for safe end-of-life disposal.

Across our sites, we continue to work on hazardous substance process management to identify, control, quantify, and report on any hazardous elements in our components, according to the IECQ080000 standard.

Customers

Chemical legislation is evolving globally to reduce environmental impacts during manufacturing. It remains a significant consideration for customers, who closely monitor developments in our products, processes, and compliance.

Information on materials contained in ST products can be found through the IPC 1752 material declaration, which is available at www.st.com . Queries relating to material declaration and substance use accounted for almost 60% of the environment, health and safety (EHS) enquiries we received in 2023.

As a member of the Responsible Business Alliance (RBA), we are working to align with the RBA Industry Focus Process Chemical (IFPC) policy. All chemicals listed in the policy have already been eradicated from our operations. Last year, we completed an IFPC assessment to locate these chemicals within our supply chain. This year, we are working on measures to replace them, prioritizing the recommendations of the Clean Electronics Production Network (CEPN).

⁽³⁾ RoHS: Restriction of Hazardous Substances.

⁽⁴⁾ ELV: End of Life of Vehicles.

Suppliers

We require our suppliers to respect our EHS-regulated substances list, which contains more than 7,700 substances and is regularly reviewed. We also require them to confirm their compliance through analytical certificates, safety data sheets, and commitments. In 2023, 83% of our suppliers committed to our substances' specification.

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 3.9 – Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.



SDG target 6.3 – Improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.



SDG target 12.4 – Achieve the environmentally sound management of chemicals and all wastes throughout their lifecycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

2025 sustainability goal	Status	Comments
In line with the WSC statement, remove PFOA and PFOA-related substances in all manufacturing chemicals by 2025.	✓	Achieved in 2022

Annual sustainability goal	Status	Comments
SG19: Follow highest standards for 100% of the materials we use: Hazardous Substances Process Management (IECQ080000) and responsible sourcing initiatives, such as RMI.	⦿	HSPM: 97% RMI: 100%



Biodiversity

Wild orchids, ST Crolles, France

PROTECTING THE ENVIRONMENT

We take a proactive approach to protecting biodiversity in the areas in which we operate.

2023

new evaluation methodology

10

biodiversity scoring criteria

16

ST sites assessed

Loss of biodiversity is a pressing global issue. Natural ecosystems are becoming increasingly disrupted, which poses a direct threat to humanity. This disruption can be attributed to several factors, including the impact of industrial activity. It is therefore critical for major organizations like ST to support the UN Sustainable Development Goals 14 (conserving and sustainably using the oceans, seas, and marine resources) and 15 (conserving life on land) and embed global biodiversity objectives into their strategies.

At ST, we maintain a vigilant and proactive approach to protecting the environment and we recognize the need for concrete actions to help preserve and restore biodiversity.

Understanding biodiversity impacts

During 2022 and 2023, we undertook several initiatives to gain insights into our actual and potential impacts on biodiversity. These included a biodiversity survey at 22 of our sites to help us understand our impacts and assess the actions we have already taken. We also commissioned a specialist study from an external partner on the biodiversity ecosystems close to our sites and operations to gain a better understanding of the local environment. These investigations informed the development of our corporate biodiversity strategy.

Our approach is centered on three key pillars that help to define our biodiversity roadmap:

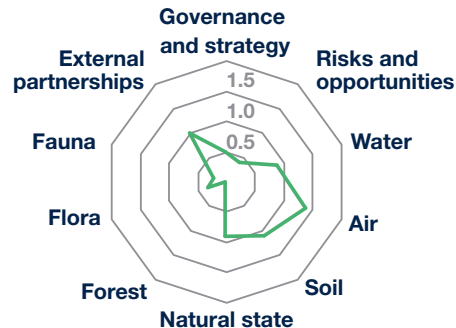
- minimizing our impact
- protecting and restoring
- engaging local stakeholders

From assessment to action

In 2023, we developed a new method to evaluate the status and progress of biodiversity issues at our sites based on the results of our assessments.

Each site has a biodiversity scorecard based on 10 criteria. These criteria have been selected to respond to SMART (specific, measurable, achievable, relevant, and time-bound) objectives and measure both quantitative and qualitative factors.

- governance and strategy
- risks and opportunities
- water
- air
- soil
- natural state
- forest
- flora
- fauna
- external partnerships



This broad range of criteria reflects the diverse locations of our sites and enables them to assess not only their maturity but also the impact of their initiatives so change can be implemented where necessary. Each criterion is scored on a scale of 0 to 2, with 2 being the highest score indicating the best performance. The final visual representation of the scores illustrates the interdependencies between the criteria. So far, 16 sites, including manufacturing and R&D facilities, have completed the scorecard. This has enabled them to produce and analyze their results, giving them a final score in our biodiversity index. This method enables tracking of progress at site level as well as evaluation of ST as a whole.

In future, sites will be evaluated bi-annually using both estimated and actual data, allowing them to keep track of their progress and improve their index score. This methodology will help sites identify areas for improvement and tailor their actions according to their needs and context. [| 3-3 |](#)

Adapting to the local environment

As an industry-leading manufacturer with operations across the globe, it is important we adapt to the local environments in which we operate.

To achieve this, our sites implement a range of local initiatives appropriate to their surroundings and their biodiversity scorecard. External partnerships with local associations and non-profit organizations are a critical element of these activities, enabling sites to increase their impact through collaboration.

In 2023, our Tours site (France) developed a biodiversity strategy in line with the criteria of its biodiversity scorecard. The strategy was tailored to the local environment and took into account issues such as climate change expectations, vegetation, and native species, as well as rainwater management. The site has also formed a partnership with the city of Tours to help restore biodiversity in the local area.



TOURS

Betsabée Haas

Deputy Mayor in charge of nature and biodiversity, Tours (France)

In 2023, we joined forces with STMicroelectronics to work towards rewilding a natural green space in northern Tours, France. Strong commitment and collaboration between our organizations made it possible to establish a hands-on program to plant species and restore local biodiversity. Employees had the opportunity to participate in the program, which helped to raise awareness and understanding of biodiversity matters related to the site and the local environment.

Our Greater Noida site (India) planted a forest using the 'Miyawaki method', following a flora and fauna assessment and taking into account biodiversity criteria, natural state. The project involved planting around 1,200 native species of trees.

The Miyawaki method is a tree planting model for creating forests quickly on land that has previously been used for other purposes, such as agriculture or construction. After two years, the forest becomes self-sufficient and provides an effective home for birds and insects, while reducing air pollution.

Our Grenoble site (France) collaborated with a number of local organizations to help improve natural habitats around the site. This included raising awareness through signage, improving the natural environment by removing wildlife hazards, installing nest boxes, and limiting light pollution. In 2023, the site was awarded LPO designation from the Ligue pour La Protection des Oiseaux, a French NGO dedicated to the protection of birds.

FOCUS

CONTRIBUTING TO LOCAL RESTORATION

Our Calamba site (the Philippines) is located close to a biodiversity hotspot and protected area. In 2023, the site launched a program called 'Adopt-a-creek' to help restore a 500-meter stretch of Baranca de Sipit Creek in Calamba city. The initiative aims to restore balance to the local ecosystem through a variety of studies and activities.

The project began with a comprehensive baseline water analysis, which examined specific parameters including oxygen demand, total suspended solids, and coliform bacteria levels. The program was then officially launched on Earth Day in April 2023. It was celebrated with a clean-up activity that involved 101 volunteers, including ST employees, contractors, local agency officials, and a consultant. The volunteers removed over 100 bags of rubbish that had been polluting the creek and harming local ecosystems.



The program team held quarterly meetings with the Department of Environment and Natural Resources to discuss compliance, project implementation, and strategy and achievements. The success of the program inspired another local organization to adopt a nearby 600-meter stretch of the creek, further expanding restoration efforts in the area.

The Adopt-a-creek program is ongoing, with ST planning a range of activities to continue improving the area until 2027. These include tree planting, educational campaigns, seasonal water analyses, and third-party clean-up activities.

Looking forward

As our corporate biodiversity program develops, we plan to adapt the biodiversity index to meet the specific requirements of our R&D sites. This will enable us to gain a comprehensive understanding of our operations. We will also conduct further flora and fauna assessments with specialists to better understand if there are protected species in the vicinity of our sites. By increasing internal and external collaboration, we aim to ensure that each site has its own customized plan to help protect and restore biodiversity.

Environmental indicators

This section includes indicators and GRI Standard disclosures.

Our environmental data covers our 11 largest manufacturing sites, representing more than 95% of the overall environmental impact of the Company.

The methodologies used to calculate data are detailed in internal Company procedures, which are regularly reviewed during third-party environmental audits (EMAS, ISO 14001, ISO 50001, ISO 14064).

See [ST site certifications table](#) in [business indicators](#).

ST follows the Greenhouse Gas (GHG) Protocol for managing its GHG emissions. The resulting CO₂ emissions are reported according to recognized international standards, (reference – World Resources Institute (2004) GHG Protocol – A Corporate Accounting and Reporting Standard).

Scope 1 – Direct emissions resulting from operations

- Combustion emissions: World Resources Institute (2008) – GHG Protocol calculation tool for stationary combustion v.4.1
- PFC emissions before 2023: 2006 IPCC Guidelines for National Greenhouse Gas Inventories. 2007 IPCC fourth Assessment Report Climate Change. Table 2.14. Lifetimes, radiative efficiencies and direct GWPs relative to CO₂ www.ipcc.ch [↗](#)
- PFC emissions from 2023: 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change- Appendix 8.A: Table 8.A.1 Lifetime, Radiative Efficiency and Metric Values

Scope 2 – Indirect emissions resulting from purchased electricity

- World Resources Institute (2014) – GHG Protocol calculation tool for stationary combustion. v.4.8, GHG Protocol Scope 2 guidance

Scope 3 – Emissions resulting from travel and transportation

- Mobile Combustion GHG Protocol tool v.2.6
- Supplement to the Corporate Value Chain (Scope 3) accounting and reporting standard

Environmental investments (%)

	2019	2020	2021	2022	2023
% of total Company investments	0.35	3.06	2.71	0.41	3.65

Environmental burden – net values | 305-6 |

 **SDG 3.9 - SDG 6.3**

	2019	2020	2021	2022	2023
Emissions to air					
Global warming ⁽¹⁾ (MTCE)	382,277	310,041	284,726	265,170	246,513 ⁽⁵⁾
Ozone depletion (kg R11 Eq)	0.00	0.00	0.00	0.00	0.00
VOCs (tons)	139	148	193	238	258
Atmospheric acidification (Kg SO ₂ Eq)	46,018	51,207	62,178	60,102	59,180
Photochemical oxidant creation (Kg ethylene Eq)	35,799	38,295	49,548	55,801	84,476
Air emission toxicity ⁽²⁾ (Kg PH ₃ Eq)	1,414	3,192	3,717	3,311	4,102
Emissions to water⁽³⁾					
Eutrophication (Kg (P+N))	169,575	126,286	184,147	176,858	175,047
Aquatic oxygen demand (Kg COD ⁽⁴⁾)	632,625	656,045	1,213,093	1,317,922	927,922
Heavy metals to water (Kg heavy metals)	9,233	6,880	9,162	9,351	8,525
Aquatic ecotoxicity (Kg Cu Eq)	5,211	4,290	5,033	5,446	5,186

⁽¹⁾ Includes direct Greenhouse gas (GHG) emissions from our manufacturing plants and indirect emissions from energy consumption and transport, reported in Metric Tons of Carbon Equivalent (MTCE). Does not include GHG emissions from subcontractors and foundries.

⁽²⁾ Emissions of substances are considered only if they exceed the minimum threshold of 3ppm, expressed in phosphine equivalent. For Volatile Organic Compounds, Atmospheric acidification, Photochemical Oxidant Creation and Air emission toxicity, the particulate matter is not covered.

⁽³⁾ Domestic wastewater is included.

⁽⁴⁾ Total Chemical Oxygen Demand (COD).

⁽⁵⁾ 2019 refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories used starting in 2023.

Summary of net CO₂ eq emissions (KTons)⁽¹⁾

| 305-1 | 305-2 | 305-3 | 305-5 |  SDG 13.1

	2019	2020	2021	2022	2023
Direct emissions Scope 1	557	486	481	504	514 ⁽⁴⁾
Indirect emissions (purchased electricity) Scope 2 market-based ⁽²⁾	702	564	473	358	272
Other indirect emissions (transportation ⁽³⁾) Scope 3	143	86	90	111	120
Total emissions	1,402	1,137	1,044	972	906

⁽¹⁾ The sums may not add up due to rounding of the figures.

⁽²⁾ Market-based calculation method according to GHG Protocol standard.

⁽³⁾ The transportation emissions value is a global estimate of employee transportation and transportation of goods.

⁽⁴⁾ 2019 refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories used starting in 2023.

Progress versus SBTi targets (KTons)^(1,2)

| 305-1 | 305-2 | 305-5 |

	2019	2020	2021	2022	2023
Direct emissions Scope 1 (KTons)	560	489	484	507	517 ⁽⁴⁾
Indirect emissions (purchased electricity) Scope 2 market-based ⁽³⁾ (KTons)	707	567	474	360	274
Total emissions Scopes 1, 2	1,266	1,055	958	867	791
Renewable electricity/purchased electricity (%)	30.0%	43.0%	50.9%	62.0%	71.0%

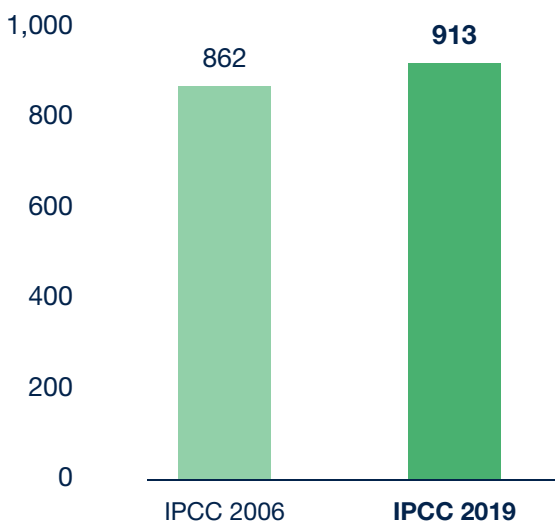
⁽¹⁾ The sums may not add up due to rounding of the figures.

⁽²⁾ Covers our 11 main manufacturing sites, plus Rennes, Castelletto and Grenoble.

⁽³⁾ Market-based method calculation according to GHG Protocol standard.

⁽⁴⁾ 2019 refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories used starting in 2023.

2023 absolute GHG emissions^(1,2) (KTons) – comparison IPCC 2006/2019



⁽¹⁾ Covers our 11 main manufacturing sites, plus Rennes, Castelletto and Grenoble.

⁽²⁾ Includes Scope 1, 2 and part of Scope 3 (product transportation, business travel and employee commuting)

CO₂ emissions equivalent | 305-4 | 305-5 | SDG 13.1

Per unit of production – normalized values

	2019	2020	2021	2022	2023
CO ₂ emissions	77	70	50	41	37 ⁽¹⁾

Baseline 100 in 2016.

⁽¹⁾ 2019 refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories used starting in 2023.

Market and location based⁽¹⁾ scope 2 net CO₂ eq emissions (KTons) | 305-2 | 305-5 | SDG 13.1

	2019	2020	2021	2022	2023
Indirect emissions (purchased electricity) Scope 2 market-based	702	564	473	358	272
Indirect emissions (purchased electricity) Scope 2 location-based	787	782	780	857	902

⁽¹⁾ Market- and location-based calculation method according to GHG Protocol standard.

Direct and indirect energy consumption by primary sources⁽¹⁾ (%) | 302-1 | 302-4 |

	2019	2020	2021	2022	2023
Green electricity purchased	26.4	39.6	46.5	56.6	65.0
Photovoltaic and thermal solar electricity produced by ST	0.1	0.1	0.1	0.1	0.1
Electricity purchased from nuclear (CO ₂ free)	6.9	6.1	6.2	5.7	5.1
Electricity purchased from fossil fuel sources	58.6	46.6	38.7	29.2	21.9
Natural gas	7.8	7.5	7.7	7.6	7.7
Other fuels	0.3	0.2	0.9	0.7	0.2

⁽¹⁾ The sums may not add up to 100% due to rounding of the figures.

PFC emissions | 305-4 |

Per unit of production – normalized values

	2019	2020	2021	2022	2023
PFC emissions	80	74	56	54	54 ⁽¹⁾

Baseline 100 in 2016.

⁽¹⁾ 2019 refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories used starting in 2023.

Energy consumption by source | 302-1 | 302-4 |

	2019	2020	2021	2022	2023
Electricity (TJ ⁽¹⁾)	8,208	8,716	8,995	9,495	10,198
Natural gas (TJ ⁽¹⁾)	696	706	754	782	858
Others (TJ ⁽¹⁾)	22	31	96	87	20
Total energy (TJ ⁽¹⁾)	8,926	9,453	9,845	10,364	11,076
Energy from electricity (%)	92.0%	92.2%	91.4%	91.6%	92.1%

⁽¹⁾ Terajoule.

Consumption of energy | 302-3 | SDG 7.3

Per unit of production – normalized values

	2019	2020	2021	2022	2023
Consumption of energy	86	99	81	80	83
Baseline 100 in 2016.					

Consumption of electricity | 302-3 |

Per unit of production – normalized values

	2019	2020	2021	2022	2023
Consumption of electricity	86	99	81	81	83
Baseline 100 in 2016.					

Consumption of natural gas | 302-3 |

Per unit of production – normalized values

	2019	2020	2021	2022	2023
Consumption of natural gas	80	88	74	73	77
Baseline 100 in 2016.					

Consumption of water

Per unit of production – normalized values

	2019	2020	2021	2022	2023
Consumption of water	91	106	89	88	90
Baseline 100 in 2016.					

Water withdrawal by source (1,000m³)⁽¹⁾ | 303-3 |



	2019	2020	2021	2022	2023
Groundwater	3,029	2,880	2,747	2,839	3,029
Surface water	0	0	0	0	0
Municipal water	15,814	17,342	18,698	19,668	20,969
Total withdrawal	18,843	20,223	21,445	22,507	23,999

⁽¹⁾ The sums may not add up due to rounding of the figures. All water withdrawal is freshwater.

Water withdrawal by source in water stress area (1,000m³)⁽¹⁾

| 303-3 |

	2019	2020	2021	2022	2023
Groundwater	0	0	0	0	0
Surface water	0	0	0	0	0
Municipal water	885	767	717	886	1,174
Total withdrawal	885	767	717	886	1,174

⁽¹⁾ All water withdrawal is freshwater. This table covers our Bouskoura site (Morocco) which is located in a water stress area.

Recycled and reused total water | 303-5 |



	2019	2020	2021	2022	2023
Ultrapure water used (1,000m ³)	11,243	12,331	13,194	13,500	14,196
Total water used in water stress area ⁽¹⁾ (1,000m ³)	1,316	1,392	1,512	1,971	2,598
Total water used in non-water stress area (1,000m ³)	30,392	32,663	34,375	36,667	38,519
Total water used	31,708	34,055	35,888	38,638	41,117
Total volume of water recycled and reused (1,000m ³)	12,870	13,833	14,445	16,131	17,117
Water recycled and reused (%)	40.6%	40.6%	40.3%	41.8%	41.6%

⁽¹⁾ Bouskoura site (Morocco) is located in a water stress area.

Total water discharge | 303-4 |

	2019	2020	2021	2022	2023
Water discharge (1,000m ³)	15,621	15,912	17,878	18,592	19,163
Treated in ST wastewater treatment plant (%)	68.8%	84.8%	85.9%	86.6%	88.1%
Treated in external wastewater treatment plant ⁽¹⁾ (%)	55.3%	55.7%	59.2%	59.3%	58.5%

⁽¹⁾ Part of this water has already been treated in ST wastewater treatment plants, meaning that 100% of water discharged is treated either internally, externally, or both.

Total water discharge by source (1,000m³)⁽¹⁾ | 303-4 |

	2019	2020	2021	2022	2023
Groundwater	0	0	0	0	0
Surface water	7,941	8,106	8,389	8,556	9,164
Municipal water	7,680	7,806	9,489	10,035	10,015
Total discharged	15,621	15,912	17,878	18,592	19,179

⁽¹⁾ The sums may not add up due to rounding of the figures.

Total water discharge by source in water-stress area

(1,000m³)⁽¹⁾ | 303-4 |

	2019	2020	2021	2022	2023
Groundwater	0	0	0	0	0
Surface water	568	456	259	305	423
Municipal water	0	0	0	0	0
Total discharged	568	456	259	305	423

⁽¹⁾ This table covers our Bouskoura site (Morocco) which is located in a water stress area.

Waste in tons⁽¹⁾ | 306-3 | SDG 12.4

	2019	2020	2021	2022	2023
Total hazardous waste	16,877	19,605	22,568	24,604	37,399
Total non-hazardous waste	26,716	29,406	33,104	34,330	44,017
Total waste	43,593	49,012	55,672	58,934	81,416

⁽¹⁾ The sums may not add up due to rounding of the figures.

Waste split in tons⁽¹⁾ | 306-4 | 306-5 |

	2019	2020	2021	2022	2023
Reuse	1,614	3,628	3,825	1,460	3,722
Sent for recycling	33,607	33,653	38,952	44,842	63,938
Recovery ⁽²⁾	5,224	5,944	7,559	9,653	10,438
Incineration	1,497	2,809	1,538	818	1,756
Landfill	1,651	2,977	3,798	2,161	1,562
Total waste	43,593	49,012	55,672	58,934	81,416

⁽¹⁾ All waste is diverted offsite. The sums may not add up due to rounding of the figures.

⁽²⁾ Waste burnt with recovery of energy (combustion).

Non-hazardous waste split⁽¹⁾ (%) | 306-4 | 306-5 |

	2019	2020	2021	2022	2023
Reuse	3.5	10.0	9.7	1.9	0.7
Sent for recycling	86.1	69.1	72.6	86.0	88.3
Recovery ⁽²⁾	3.6	4.4	4.1	7.2	7.0
Incineration	2.4	7.8	3.2	0.6	1.4
Landfill	4.4	8.8	10.3	4.3	2.6

⁽¹⁾ The sums may not add up to 100% due to rounding of the figures. All waste is diverted offsite.

⁽²⁾ Waste burnt with recovery of energy (combustion).

Hazardous waste split⁽¹⁾ (%) | 306-4 | 306-5 | SDG 12.4

	2019	2020	2021	2022	2023
Reuse	3.1	3.5	2.7	3.2	9.1
Sent for recycling	70.9	68.0	66.1	62.3	67.0
Recovery ⁽²⁾	20.0	23.8	27.5	29.2	19.7
Incineration	3.9	2.7	2.1	2.6	3.0
Landfill	2.1	2.0	1.7	2.7	1.1

⁽¹⁾ The sums may not add up to 100% due to rounding of the figures. All waste is diverted offsite.

⁽²⁾ Waste burnt with recovery of energy (combustion).

WEEE

As a supplier of components to the electronics industry (and not a manufacturer of electronic equipment), our silicon products are not directly affected by the European Directive 2012/19/ EU Waste of Electrical and Electronic Equipment (WEEE). However, since 2018, demonstration and evaluation boards supplied by ST are subject to the Directive.

Consumption of chemicals in tons

	2019	2020	2021	2022	2023
Chemicals	21,780	20,641	24,881	26,013	27,582

Consumption of chemicals SDG 12.4

Per unit of production – normalized values

	2019	2020	2021	2022	2023
Consumption of chemicals	98	101	96	95	97

Baseline 100 in 2016.

Elimination of substances of very high concern (SVHC)

SDG 12.4

	2019	2020	2021	2022	2023
Total number of action plans ⁽¹⁾ completed since 2008	23	23	24	25	26

⁽¹⁾ One substance can be subject to several action plans to be eliminated from different ST processes.

ST exposure to substances of very high concern (SVHC)

	2019	2020	2021	2022	2023
SVHC total list	201	209	219	224	235
SVHC used in ST	27	30	34	41	45
SVHC Annex XIV used in ST	3	4	4	4	3
Total SVHC used in ST replaced since 2008	7	7	7	7	8

Deployment of ST substances specification to key suppliers and subcontractors (%)

	2019	2020	2021	2022	2023
Response rate from key partners	97	100	99	100	95
Commitment from key partners to ST substances specification	72	91	91	95	87

Spills in 2023

None

Environmental fines and non-monetary sanctions in 2023 | 2-27 |

Ang Mo Kio site (Singapore):

- \$SGP6,000 paid for exceeding limits of chloride discharged in wastewater
- \$SGP200 paid for mosquito breeding offence according to the Control of Vectors and Pesticides Act, 1998

Acting together



610
supplier
responsibility
audits since
2015



100%
of our products
are conflict-
minerals free



100,000+
beneficiaries
of STEM
your way



STEM event, ST Catania, Italy



Supplier training, ST Catania, Italy

ACTING TOGETHER

We aim to systematically assess, mitigate, or eliminate sustainability risks in our operations and extended supply chain.

97%
of suppliers at risk agree to comply with RBA code of conduct

610
supplier responsibility audits since 2015

1,600+
supplier employees trained

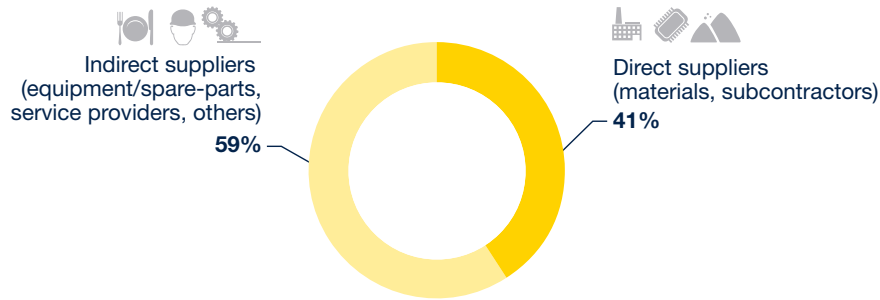
With over 6,000 direct suppliers worldwide, our supply chain has a significant potential impact on people and the environment. Our ambition is to source responsibly to create state-of-the-art technologies that contribute to a more sustainable world.

Our program runs across all our operations and throughout the lifecycle of our supplier relationships. We monitor our suppliers using social, environmental, and governance criteria, auditing those that are classified as high-risk. This enables us to mitigate major risks and impacts, with a focus on carbon neutrality and human rights, including forced labor of vulnerable workers, unfair working conditions, and health and safety. | [3-3](#) |

Our supply chain

Our suppliers range from large-scale manufacturing subcontractors, material suppliers, and equipment and spare-parts suppliers, to smaller scale onsite service providers and labor agencies. Our procurement spend is split mainly between Europe (46%) and Asia (35%), and we manage 40% of our procurement volume locally, at a national level. | [2-6](#) | [204-1](#) |

46%
of our procurement spend in Europe



Integrated responsible supply chain management

We continually reinforce our management systems to make them more proactive, strategy-embedded, risk-oriented, and impact-driven. Decisions and actions are steered through robust sustainability governance. Our Sustainability Committee conducts dedicated, expert-led sessions on responsible supply chain at least annually to advise the Supervisory Board (see [Governance](#)).

In 2023:

- We launched several new working groups involving key internal stakeholders, including Procurement, Sustainability, Risk, and Finance, to address recently adopted and upcoming regulations in Europe regarding social and environmental due diligence in the supply chain.
- We continued to integrate sustainability in procurement by adopting a new vision: 'Strategically-led best-in-class procurement enabling ST's competitive advantage for sustainable growth and profitability'; and mission: 'Drive strategic, operational, and transactional excellence by selecting, developing, and leveraging suppliers that are highly-integrated into our company strategy, in a sustainable manner'.
- We reinforced sustainability roles in procurement management. We hired additional staff to monitor suppliers and provided training in human rights and environmental topics. We also launched an ambitious training program for our buyers as a first step in raising their awareness of environmental challenges.
- We reinforced our supply chain environmental strategy around renewable energy procurement (see [Energy and climate change](#)), water (see [Water](#)), and climate change (scope 3). Within this framework, we launched a comprehensive carbon footprint assessment of our most emissive suppliers through our 'Carbon neutrality in the supply chain' program (see focus).
- We created a supply chain mapping committee to reinforce our responsible sourcing program, extending the scope beyond conflict minerals to other critical materials, and adopted a forced labor statement detailing our actions in our upstream supply chain.

CARBON NEUTRAL SUPPLY CHAIN PROJECT

ST is committed to decarbonization and aims to work with its partners to reduce carbon emissions. In 2023, we launched a carbon neutral supply chain program to reduce our scope 3 emissions related to the purchase of goods and services. The objectives are to:

- build the carbon footprint calculation methodology
- identify and prioritize decarbonization levers
- integrate carbon reduction criteria into procurement processes
- train buyers through a dedicated learning plan

In 2023, one of the program's main achievements was collecting the carbon footprint of 95 suppliers, representing more than 60% of our purchasing spend, including those suppliers and subcontractors with the highest emissions. The figures showed that our top 50 suppliers represent 60% of our scope 3 greenhouse gas emissions related to the purchase of goods and services.

An additional achievement was identifying emission reduction levers for pilot commodities and developing guidance to engage suppliers.

We also built a roadmap for a three-stage training course for buyers, launching the first stage to raise awareness of environmental challenges.

Our next steps will be to upskill our buyer community with advanced training, set reduction objectives with suppliers, and monitor their performance.



Risk management

Our approach to managing our supply chain starts with identifying risks. This enables us to take targeted actions to control these risks and remediate any negative impacts.

Sustainability risks

To identify, prevent and mitigate sustainability risks, we conduct regular risk assessments of our supply chain.

100%

of new material suppliers assessed on sustainability risks

We assess risks before onboarding suppliers. In 2023, 100% of our new material suppliers were assessed for sustainability risks, including risks related to forced labor, occupational health and safety, and the environment, including management of hazardous substances. When critical risks such as forced labor are identified, we take further action, ranging from individual support to full onsite audits. Failure to mitigate risks may result in banning suppliers.

Each year we conduct a risk assessment of all our tier one suppliers based on supplier activity risks and supplier location risks. Risk identification is based on external data obtained through an intelligence platform and industry audit results, as well as internal audit data. We refine the process according to purchasing spend and the presence of suppliers on site. In 2023, we identified 373 suppliers across 541 facilities as being at risk in terms of sustainability.

In 2023 we launched a company-wide program dedicated to carbon footprint assessment. The assessment covers 95 suppliers representing more than 60% of our annual spend in 2022.

We also detect risk on health and safety of construction projects through an enhanced safety tracking system (see [Health and safety](#)).

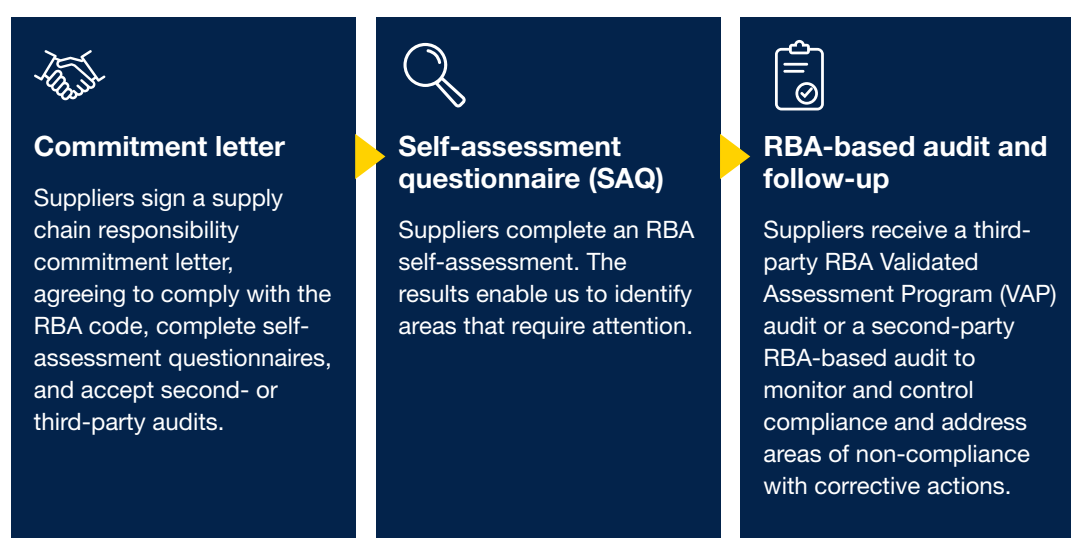
Addressing and monitoring our risks

Engage, prevent, mitigate, and remediate

As a full member of the Responsible Business Alliance (RBA), we are committed to complying with the RBA code of conduct, which we have adopted as our supplier standard. The RBA supplier engagement model (see below) is an important pillar of our supply chain due diligence.

When entering into a business relationship with ST, suppliers must declare they have read and understood ST's business ethics and corporate responsibility statement, and that they agree to comply with the latest version of the RBA code of conduct and apply it in their own supply chain.

In addition, we require our high-risk suppliers to undertake the three steps of the RBA engagement model:



In 2023:

- 97% of our high-risk suppliers signed the RBA commitment letter to contractually engage on RBA standards and audit
- 444 suppliers' facilities completed a self-assessment questionnaire, 13% up on 2022
- 150 corporate social responsibility audits were conducted, 29% up on 2022

+29%

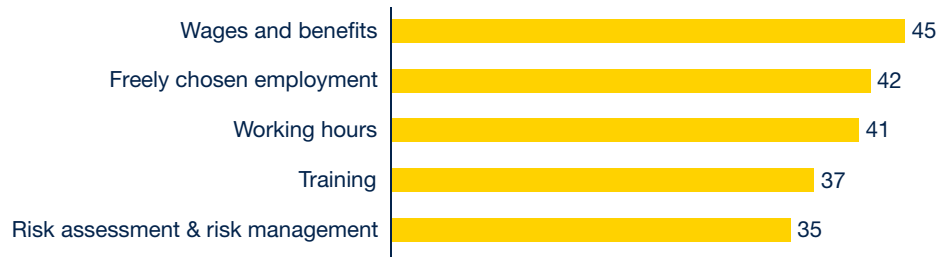
suppliers audits in 2023

Top audit findings of material, equipment/spare-parts suppliers and subcontractors ⁽¹⁾
| 308-2 | 414-2 | 409-1 |



⁽¹⁾ Number of findings based on results of 60 third-party RBA audits. ⁽²⁾ It refers to the control of policies related to labor topics.

Top audit findings of service providers ⁽¹⁾ | 308-2 | 414-2 | 409-1 |



⁽¹⁾ Number of findings based on results of 90 local service providers' 2nd party RBA-based audits.

We regularly follow-up with our suppliers to encourage them to sign the RBA commitment letter. Our aim is to secure 100% compliance. All audited suppliers with non-conformances must implement corrective actions. These are verified in a follow-up closure audit. Our closure rate is reported in [Key data](#).

Sustainability performance is fully integrated into our supplier performance management model. If the supplier is unable or unwilling to meet these requirements, we may impose sanctions. These could include decreasing the supplier's market share or terminating the contract.

Our actions also cover remediation if harm is detected. The amount of recruitment fees reimbursed to workers as remediation measures decreased significantly in 2023 to US\$6,000, compared to US\$248,000 in 2022. This was due to delays in some supplier reimbursements. Some reimbursements also included fees related to medical expenses, which are usually much lower than other recruitment fees, leading to a lower average reimbursement amount per worker.

Capacity building on sustainability

Engaging buyers

In 2023, more than 150 buyers were engaged in our carbon neutrality training program. The first of the three stages aims to raise buyers' awareness of environmental challenges and create a common culture of environmental engagement. Subsequent stages aim to develop advanced and expert competencies to targeted managers and buyers.

Training procurement managers

We regularly train procurement managers engaged in responsible supply chain programs to develop their expertise in social and environmental domains.

In addition, we invite our procurement community to participate in responsible supply chain quarterly calls, where we present the most recent updates on regulations, risk identification, and monitoring processes.

Developing suppliers

We support our suppliers in raising their awareness of sustainable practices. We provide e-learning on risk areas such as labor (including working hours and forced labor), ethics, health and safety, and the environment, and through dedicated awareness sessions where necessary.

In 2023, more than 170 companies participated in our customized learning paths in the RBA e-learning platform or were trained by our site Sustainability Champions. In addition, our site Sustainability Champions, together with ST's suppliers, organized awareness and training sessions for workers. Overall, more than 1,600 supplier employees took part in e-learning sessions, meetings, webinars, and workers' voice channels in 2023.

We also engage locally with suppliers by organizing local stakeholder events at ST sites. These included a safety week at ST Crolles (France), supplier days at ST Bouskoura (Morocco), ST Catania (Italy), and ST Kirkop (Malta), and sustainability commitment trophies at ST Rousset (France), where we created a sustainability award for local suppliers. The 2023 award went to Sodexo for its 'Waste Watch' program to reduce catering waste.



Dai Niizuma
General Affairs and Personnel
Department, TESEC Corporation

The standards of the RBA are often more stringent than domestic laws. It is challenging to understand complex requirements and align company rules, including those for suppliers. Amid these challenges, we greatly appreciate ST's support, providing advice on RBA, introducing RBA-hosted events and educational programs, and addressing our specific queries.

Grievance reporting

Like our own employees, our suppliers and their workers have the right to use our independent multilingual ethics hotline to share any concerns. The hotline is accessible online (see www.st.com ) or by phone in several languages and allows reports to be made anonymously if desired. If grievances are raised, ST and the supplier must ensure complainants are protected against any retaliation. | 3-3 |

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 8.7 – Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking, and secure the prohibition and elimination of the worst forms of child labor.

SDG target 8.8 – Protect labor rights and promote safe and secure working environments for all workers.



SDG target 17.16 – Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.

2025 sustainability goal	Status	Comments
SG20: Conduct an annual risk assessment of our supply chain and audit 100% of our high-risk suppliers by 2025.		Risk assessment conducted Audit: 49% with valid audit (2 year cycle - 263 out of 537 facilities at risk)
Annual sustainability goal	Status	Comments
≥90% of suppliers at risk for sustainability signed an agreement to comply with the RBA code of conduct.		97%



Responsible mineral sourcing

ACTING TOGETHER

We use a holistic approach to identify, manage, and monitor responsible mineral sourcing.

RMI

member since 2011

600+

customer requests on mineral sourcing

100%

of products are conflict-mineral free

A diverse range of minerals and metals are needed to manufacture semiconductors. Sourcing these components is complex and requires robust processes to manage the risks. The multitier nature of the supply chain adds further difficulties, as does its global scale, which may include areas affected by conflict.

At ST, we have developed a holistic approach to identify, manage, and monitor responsible mineral sourcing. We are closely engaged with our suppliers and conduct due diligence in our sub-tier supply chain. We acknowledge the critical role of minerals in the green transition. It is therefore our priority to ensure we do not procure raw materials that have a negative impact on people, and we actively seek solutions to limit our impact on the environment. Further details of our approach to this topic can be found on our dedicated webpage at www.st.com .

Our policy statement is fully aligned with OECD due diligence guidelines. It is available at www.st.com  . | 3-3 |

Conflict-free minerals

Acting on 3TGs

Tantalum, tin, tungsten, and gold, collectively known as the 3TGs, are used in electronic components such as semiconductors. They are also potential 'conflict minerals'. This refers to minerals (and the associated refined metals) that are mined, traded, controlled, supported, or financed by illegal armed groups, causing serious human rights violations and environmental damage in conflict-affected and high-risk areas (CAHRAs).

As part of our strategy to address this risk, we joined the Responsible Minerals Initiative (RMI) in 2011 and started to implement a conflict minerals process focused on the Democratic Republic of Congo (DRC) and neighboring countries. In 2012, we released our first Conflict Minerals Reporting Template (CMRT). By implementing new processes and reporting templates within our supply chain, we achieved 100% compliance with the Responsible Minerals Assurance Process (RMAP). From 2017 to 2020 and again in 2022 and 2023, all our products were conflict-mineral free.



Conflict minerals – suppliers/subcontractors and smelters

	2019	2020	2021	2022	2023
Number of suppliers and subcontractors associated with at least one 3TG metal	124	124	137	154	141
3TG suppliers and subcontractors that have completed the RBA-RMI ⁽¹⁾ due diligence survey (%)	100%	100%	100%	100%	100%
Number of smelters identified in ST's raw materials supply chain	167	168	163	222	205
Number of smelters identified in ST subcontractors' supply chain	253	238	183	217	209
Total number of smelters identified in ST supply chains	253	239	189	229	210

⁽¹⁾ Responsible Minerals Initiative.



Karine Maurinaux

Responsible Minerals Sourcing,
Product Quality and Reliability

“I'm proud to have been involved in our conflict minerals program since it began 12 years ago. We have made significant progress thanks to the engagement of the whole responsible mineral community. Our successful reassessment in the RMI Downstream Assessment Program is a testament to this dedication. It is our goal to set an example and inspire further progress throughout our supply chain.”

Extending to cobalt

In 2016, we extended our efforts to monitor cobalt, another potential conflict mineral found in our products and technologies. Two years later, cobalt became part of our standard process, and we published our first Cobalt Reporting Template (CRT), issued by the RMI. At the end of 2021, we started using the Extended Minerals Reporting Template (EMRT), which is a combination of the CRT and Mica Reporting Template (MRT).

Our 2023 EMRT demonstrates significant progress, 82% of the smelters in our supply chain are now RMAP compliant, compared to 60% in 2022.

As a member of the RMI, we benefit from access to valuable resources and data to monitor our impacts and progress, and ensure we comply with new or evolving regulations. We contribute to RMI working groups and plan to address further unregulated minerals in the future.

Risk assessment and mitigation

We require our suppliers to use minerals originating from smelters that conform to the RMAP standard. Each new supplier is screened, and every new raw material is systematically pre-assessed to determine whether it falls within the scope of our responsible minerals sourcing program.

We are committed to removing all non-compliant smelters from our supply chain. Every year, suppliers complete a questionnaire on our requirements, enabling us to evaluate their maturity and their willingness to commit to due diligence. Additionally, suppliers are required to provide us with their updated CMRT. In case of changes in the supply chain, suppliers are expected to notify us within two weeks and provide a compliant reporting template within 90 days.

We ensure we remain vigilant by sharing any risks we identify with ST management every quarter.

We encourage any stakeholders concerned about non-compliance or risk of non-compliance to raise a grievance either on our independent multilingual ethics hotline, accessible on our website (see www.st.com ) , or through the [RMI grievance portal](#)  .

2023 overview

As part of our ongoing due diligence efforts, in 2023 we declared 210 smelters from 141 suppliers and subcontractors in our 3TGs supply chain. At the end of the year, 100% of these smelters were validated as RMAP compliant, the same as 2022. During the year, we removed 26 smelters from our supply chain and introduced seven new smelters.

External environment

In 2023, the global geopolitical environment remained challenging. Despite this, we managed to complete our annual supplier questionnaire in four months, compared to five months the previous year. This was achieved through better collaboration with suppliers, a proactive approach to previously identified issues, and a drive for greater transparency from all involved parties.

We continue to face challenges related to supplier CMRT publication. These setbacks are difficult to anticipate and cause delays in our own reporting process. We continue to take into consideration external conflicts and new laws to ensure we remain compliant with all relevant regulations.

Internal processes

The CMRT is an essential tool for us to share our supply chain evolution with our customers. In 2023, we released five CMRT updates.

600+

**requests on
responsible mineral
sourcing**

In recent years we have had a steady increase in customer requests on responsible mineral sourcing, reaching more than 600. In view of this heightened demand, we implemented a new communication process to make relevant information and updates more accessible. Updates to the CMRT are now automatically communicated to customers who have already raised a request. A total of 165 customers benefited from this new process in 2023.

In 2023, a supply chain mapping committee was established within ST as part of our responsible sourcing program. The committee considers conflict minerals among other materials (see [Responsible supply chain](#)). We also worked towards further digitalization of our processes. This included a review of our global process data management, which will allow for greater accuracy in the future and reduce CMRT cycle time going forward.

We have worked to increase internal knowledge and awareness of responsible minerals through cross-functional collaboration, training, and communication. In 2023, we hosted our first ever supplier and material quality day. This was a collaborative event which brought together experts from diverse departments within ST to raise awareness of minerals and metals.

EU regulation

In 2021, the EU Conflict Minerals Regulation (EU Regulation 2017/821) came into force. We decided to voluntarily engage in the RMI Downstream Assessment Program (DAP). This provides validation for customer requirements across mineral and metal value chains and meets the requirements of the EU regulation. In 2022, ST was confirmed as fully compliant – the first semiconductor company to pass this audit.

As an early adopter of the program, we were among the first companies to be reassessed and pass the audit in 2023. This process gave us the opportunity to monitor the evolution of our responsible minerals sourcing program and reevaluate internal procedures and practices. This included:

- ensuring alignment with OECD due diligence guidance for responsible supply chains of minerals from CAHRAs
- defining risks and formalized response strategies
- communicating ST and RMI grievance processes internally, on our portal and in supplier communications
- reinforcing internal and external stakeholder training using RMI materials
- implementing formal reporting to ST management

We also published a combined conflict mineral report in accordance with the US Security and Exchange Commission (SEC) and EU reporting framework, available at www.st.com .

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 8.7 – Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking, and secure the prohibition and elimination of the worst forms of child labor.

SDG target 8.8 – Protect labor rights and promote safe and secure working environments for all workers.



SDG target 17.16 – Enhance the global partnership for sustainable development, complemented by multistakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.

2025 sustainability goal	Status	Comments
SG19: Follow highest standards for 100% of the materials we use: Hazardous Substances Process Management (IECQ080000) and responsible sourcing initiatives, such as RMI.		HSPM: 97% RMI: 100%



STEM event, ST Ang Mo Kio, Singapore

ACTING TOGETHER

We encourage our employees to organize and participate in community initiatives to support social and economic development.

810+
community events

156,000+
hours of volunteering

610+
STEM your way
events

We support the communities where we operate by contributing to local ecosystems which enrich and create value. Our activities include industry and academic partnerships, and community development initiatives. We are passionate about sharing science and engineering with young people. We encourage our employees to engage in our programs, which support our sustainability strategy and are adapted to the local context.

Since 2012, we have measured our community involvement through the Business for Societal Impact (formerly London Benchmarking Group) methodology, a global standard to measure and manage corporate community investment. | 3-3 |



Global involvement

In recent years our community program has grown significantly. In 2023, we implemented more than 810 community and education initiatives worldwide, at 42 sites in 23 different countries. These included:

- US\$3.5 million in cash donations
- US\$2.6 million in in-kind donations
- 156,000+ hours of Company time (50% of the total contribution)

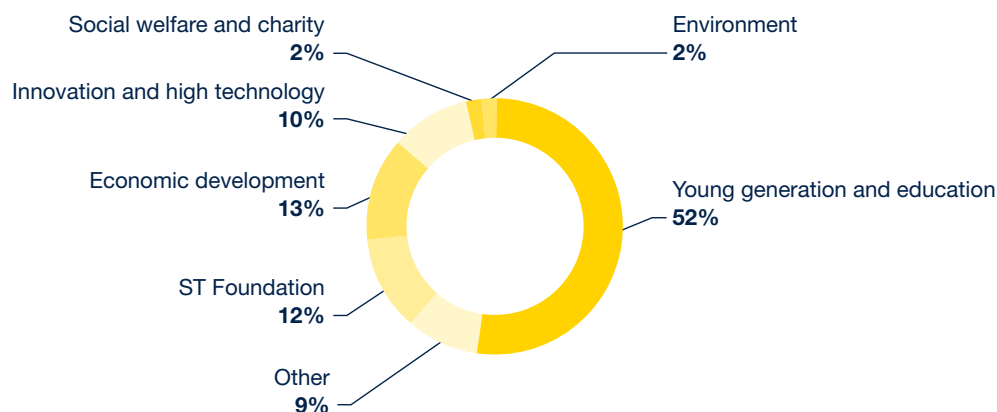
The significant rise in community initiatives is largely due to the continued expansion of our 'STEM your way' program. Other areas we supported include the ST Foundation, innovation, economic development, health, the environment, and social welfare.

810+
community initiatives

In 2023, we launched two company-wide fundraising campaigns in collaboration with the Red Cross. ST employees donated over US\$110,000 to support earthquake victims in Turkey, Syria, and Morocco. This amount was matched by ST and was used to support and protect the lives of those affected.

ST Italy showed support for people in the region of Emilia-Romagna, which was devastated by severe floods in May 2023, through a one-off donation of over US\$1 million. A further US\$75,000 was raised by employees, which was matched by ST.

Domains of involvement⁽¹⁾



⁽¹⁾ Among initiatives classified as young generation and education, some are also related to economic development, innovation, and high technology.

ST4Good

In 2023, we began the roll out of our employee engagement tool, ST4Good. The digital platform provides access to volunteering activities and makes it easier for employees to contribute to community initiatives. The program was launched with dedicated events and initiatives at four ST sites: Catania (Italy), Crolles (France), Geneva (Switzerland), and Muar (Malaysia). This led to an increase in employee awareness about their potential contributions to local communities and beyond. At our Muar site, nearly 500 people donated blood, while at our Catania site, a festive lunch was organized at the end of the year for 100 elderly people. As a result of donations, the sites were able to collect and distribute nearly 2,000 books to children in their respective communities. In 2024, the tool will be rolled out to all ST sites and employees.



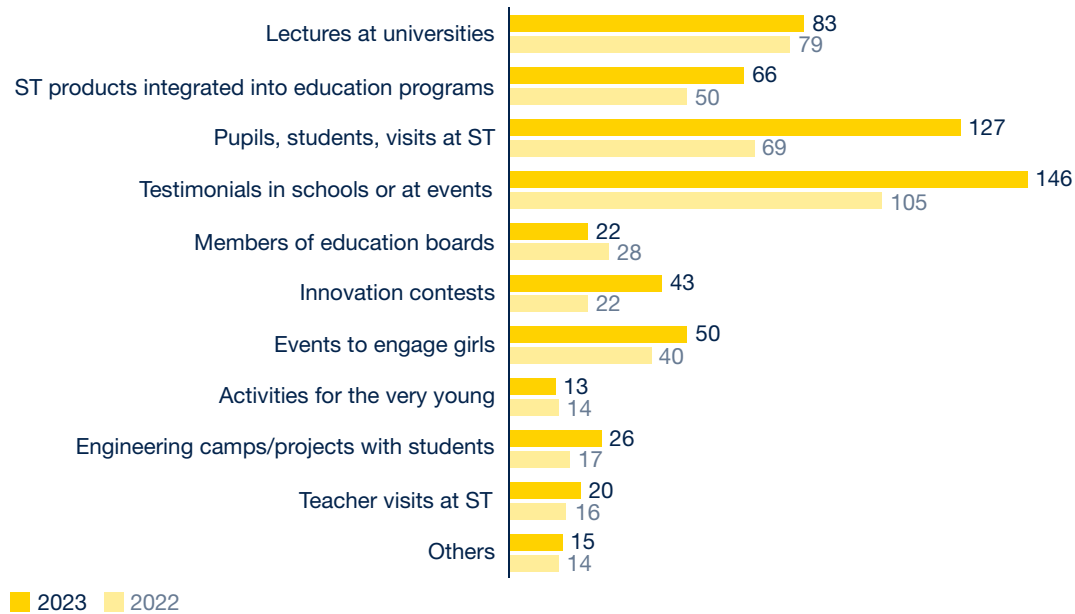
STEM your way program

Science, technology, engineering, and mathematics (STEM) education prepares students with the knowledge and skills to succeed in a technology-driven world. It can provide the tools needed to develop solutions to complex global problems and boost curiosity in young people. Our 'STEM your way' program raises awareness among young people about the importance of STEM subjects and inspires them to explore STEM-related careers.

100,000+
beneficiaries of STEM
initiatives

In 2023, we organized over 610 STEM events and initiatives, a 35% increase on the previous year. As a result of this effort, there were more than 100,000 beneficiaries including students and teachers. Our worldwide network of STEM champions and ambassadors has helped us accelerate our efforts and effectively develop and launch engaging initiatives.

Number of STEM initiatives



Starting young

We recognize the benefits of encouraging curiosity and creativity in children before they choose their academic path. Throughout the year, we significantly increased the number of events to reach more children, including webinars, tours of our sites, and visits to schools, with dedicated hands-on activities.

Building partnerships is an important step in this commitment. Our Beijing site (China), signed a three-year memorandum of understanding with the local government in Pengshui to cooperate on sustainable development. The partnership provides assistance and support to address digital and educational gaps in the region. In 2023, student scholarships were provided, and equipment such as computers was donated to local schools.

Under the framework of our STEM your way program, ST supports ‘Adopt a float’, a multidisciplinary educational initiative to promote ocean literacy (see [ST blog](#)). The program helps people understand the impact of climate disruption on aquatic life, with teaching materials designed to make the topic especially accessible to primary, middle, and high school children. Our STEM ambassadors plan to use this partnership to inform students about the use of robots to promote ocean sustainability.

Higher education

At university level, we help to equip students with skills for their future careers. Our technical experts are involved in developing new curricula, building content, delivering courses, and training teachers to prepare students for the world of work. In 2023, we expanded our reach to new countries, including Egypt and Mexico, where we were able to identify and support various initiatives.

In 2023, our Rousset site (France) continued to develop our I-NOVMICRO innovation program to develop and promote microelectronics in the south of France. Several successful initiatives were launched in schools, universities, and laboratories. These included I-NOVGAMES, which gave local engineering students the opportunity to innovate for the Olympics by developing connected objects using ST components. Several of these projects were presented at ‘Fabriquons France 2030’, an event in Paris which was attended by the Minister of National Education and the Minister of Higher Education and Research.

STEM for girls

We believe our industry needs more diverse talent to create a better future. Combating gender stereotypes in science and technology is a key focus of our initiatives. We expanded our programs in this area, with 50 initiatives in 2023 reaching 7,390 students.

In 2023, we held our second edition of 'Break the Bias', with global events reaching around 1,800 teenagers. In Singapore, we continued to develop our approach, with a focus on attracting diverse talent to STEM subjects (see focus). Our Muar site (Malaysia) launched a STEM lab at a local primary school. The lab aims to encourage primary and secondary school girls to explore STEM by providing them with an inspiring learning environment and appropriate equipment and resources.

FOCUS

STEM IN SINGAPORE

Inspiring and engaging young people in STEM is an important way to attract a new generation of engineers. At our Ang Mo Kio site (Singapore), the STEM program has expanded significantly, growing from six activities in 2021 to 33 in 2023. A strategic partnership with 'GirlsPioneers', a flagship program by United Women Singapore, has led to improved gender diversity, with many girls participating in the events and activities.



The growth and success of the program can be attributed to our STEM ambassadors, who increased from 25 to nearly 100 by the end of 2023, thanks to the work of a dedicated core team. ST's STEM ambassadors are volunteers who share their skills and expertise as speakers, mentors, and robotics coaches. The team is driven by passion and an ambition to raise engagement with STEM in the local community.

To develop the program, Vittascience kits were used as a key tool throughout 2023. The kits made it easier to engage primary and secondary school students and those in tertiary institutions, regardless of gender. Exciting robotics workshop were a great way to explain the semiconductor industry and introduce ST to a new audience.

Thanks to the commitment of those involved, the program now reaches around 2,000 people each year.

In Italy, our female-focused STEM events reached approximately 1,800 participants. An example from our Catania site (Italy) is Women in Science (WiS), an initiative launched by the Institute for Microelectronics (CNR-IMM). It aims to share scientific culture and STEM related activities with girls and boys from 15 to 18 years old. Seminars are held throughout the year, hosted by female researchers from the institute, speakers from national and international universities, and female technical experts from ST. There is a strong emphasis on breaking down gender stereotypes and biases to encourage girls to embrace careers in STEM.



IMM
Istituto Nazionale
Consiglio Nazionale delle Ricerche

Rosaria Puglisi

Researcher at CNR-IMM, Coordinator
of STEM Women in Science

“I have been managing the collaboration between the Institute for Microelectronics (CNR-IMM) and ST Catania (Italy) since 2019. The Women in Science project hosts seminars which present academic research from our institute, alongside industry expertise and knowledge from ST. Through this relationship, we are able to break down silos, find a common vision, and provide young women with a unique perspective of the possibilities offered by the scientific world.”

ST Foundation: two decades of impact

The mission of the ST Foundation (see www.stfoundation.org) is to develop, coordinate, and sponsor projects that use modern science to promote progress and sustainable development in less privileged communities worldwide. In 2023, the foundation's flagship Digital Unify (DU) program reached a significant milestone, having impacted over one million individuals since its inception 20 years ago.

The work of the foundation has always been centered on education to empower people individually and as a community. In the last two decades, educational activities like the DU program have expanded from reaching 900 individuals to over 100,000 annually, a testament to the commitment and success of its campaigns. In 2023, a new strategic partnership with the International Telecommunication Union (ITU) was established.

1 million +
people trained since
2003

To achieve its aims, the ST Foundation receives a wide range of support from ST. In 2023, this included:

- a cash donation of US\$1 million
- two full-time people to manage the foundation's activities in France and Italy
- electronic and IT equipment, including 1,000 computers donated within France
- significant support with coding courses from volunteers at ST Italy
- support from the Corporate External Communication team to maintain the foundation's website and produce its activity report for external stakeholders

In 2023, the foundation added additional resources in its efforts to strengthen digital literacy. These included new tools and courses such as [Vittascience starter kits](#), coding courses made by a French startup specializing in educational tools. A key development was the global roll out of the coding course in countries including Italy, France, Morocco, India, Malaysia, the Philippines, and Senegal. ST employees were essential to the initiative's growth and success, in particular a 'Train the trainer' initiative led by volunteers from our Tunis site (Tunisia).

The support of ST employees also made it possible to launch a new initiative in Senegal. Launched in November 2023, the project is sponsored by ITU and aims to teach 80 young girls to code in its first phase.

Contributing to the SDGs

Our commitments and programs described above contribute to UN Sustainable Development Goals (SDGs):



SDG target 4.3 – Ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.



SDG target 10.2 – Empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

2025 sustainability goal	Status	Comments
SG6: Engage employees in deploying STEM partnerships in 20 countries by 2025.		18 out of 20 countries*
* China, Czech Republic, Egypt, France, Germany, India, Italy, Israel, Malta, Malaysia, Mexico, Morocco, Philippines, Singapore, Switzerland, Tunisia, UK, USA		

Community indicators

This section includes indicators and GRI Standard disclosures.

Supplier agreement to comply with ST business ethics and corporate responsibility standards⁽¹⁾ (%)

	2019	2020	2021	2022	2023 ⁽²⁾
Supplier agreement	79	89	93	91	71

⁽¹⁾ Percentage of total number of suppliers with business relationship during the year.

⁽²⁾ Calculation methodology changed starting 2023. Until 2022, signature was at supplier level, from 2023 onwards it is signed for each facility.

Number of suppliers and facilities at risk for sustainability^(1,2) | 308-2 | 414-2 |

		2019	2020	2021	2022	2023
Direct procurement						
Material suppliers	Suppliers	87	89	103	84	92
	Facilities	237	240	277	227	196
Back-end subcontractors	Suppliers	26	28	26	29	30
	Facilities	39	40	54	55	59
Front-end subcontractors	Suppliers	7	6	11	12	11
	Facilities	18	14	23	24	22
Indirect procurement						
Equipment/spare-parts suppliers	Suppliers	80	58	59	38	43
	Facilities	94	75	85	52	54
Service providers & labor agencies	Suppliers	252	154	177	177	197
	Facilities	252	154	177	177	210 ⁽³⁾
Total suppliers		452	335	376	340	373
Total facilities		640	523	616	535	541

⁽¹⁾ According to social, ethics and EHS criteria.

⁽²⁾ Supplier refers to a holding. A facility is the factory/location that produces the goods/services, or a supplier entity based on a ST site. Suppliers may have several facilities.

⁽³⁾ From 2023, service providers are counted for each site they serve. NA = not applicable

Suppliers' and subcontractors' Environmental, Health & Safety certification⁽¹⁾ (%)

	2019	2020	2021	2022	2023
ISO 14001 certified/EMAS validated					
Material suppliers	97	97	88	96	75
Equipment/spare-parts suppliers	44	50	52	50	41
Back-end subcontractors	96	96	96	97	75
Front-end subcontractors	100	100	100	91	100
Overall	76	82	79	85	71
ISO 45001 certified					
Material suppliers	56	58	55	58	39
Equipment/spare-parts suppliers	14	10	14	11	9
Back-end subcontractors	75	61	66	78	61
Front-end subcontractors	78	80	80	73	100
Overall	43	45	46	53	42

⁽¹⁾ For the number of facilities in the scope see the table 'Number of suppliers and facilities at risk for sustainability'. It does not include service providers & labor agencies.

Step 1 – supplier contractual agreement to comply with RBA code of conduct^(1,2) (%)

	2019	2020	2021	2022	2023
Direct suppliers					
Material suppliers	91	92	99	98	95
Back-end subcontractors	100	96	88	100	100
Front-end subcontractors	100	100	91	100	100
Indirect suppliers					
Equipment/spare-parts suppliers	85	93	93	97	86
Service providers & labor agencies	95	98	84	99	100
Total	93	96	90	99	97

⁽¹⁾ Contractual agreement is signed at supplier level. For the number of eligible suppliers see the table 'Number of suppliers and facilities at risk for sustainability'.

⁽²⁾ Number of suppliers who have signed a commitment to the current version of the RBA code of conduct or equivalent, and accept to complete assessments and audits.

Step 2 – CSR self-assessment questionnaires of supplier facilities^(1,2) (%) (SAQ) | 308-2 | 414-2 |

	2019	2020	2021	2022	2023
Direct suppliers					
Material suppliers	83	89	93	90	88
Back-end subcontractors	87	85	81	64	68
Front-end subcontractors	89	100	87	83	86
Indirect suppliers					
Equipment/spare-parts suppliers	87	93	96	92	85
Service providers & labor agencies	33	64	18	49	79
Total	64	82	70	74	82

⁽¹⁾ SAQ is completed at facility level. For the number of eligible facilities see the table 'Number of suppliers and facilities at risk for sustainability'.

Step 3 – CSR audits of supplier facilities^(1,2) (%) | 308-2 | 414-2 |

	2019	2020	2021	2022	2023
Direct suppliers					
Material suppliers	2	5	8	10	16
Back-end subcontractors	23	10	26	16	29
Front-end subcontractors	17	43	13	33	9
Indirect suppliers					
Equipment/spare-parts suppliers	0	7	6	12	19
Service providers & labor agencies	13	43	20	40	43
Total facilities audited during the year	8	18	13	22	28
Total facilities with valid audits⁽³⁾	18	17	28	36	49

⁽¹⁾ Audits are conducted at facility level. For the number of eligible facilities see the table 'Number of suppliers and facilities at risk for sustainability'.

⁽²⁾ Either initial third-party RBA audit or ST verification based on RBA audit protocol. Closure audits are also conducted to verify the closure of findings but are not included here.

⁽³⁾ Audits are valid for 2 years.

Supplier facilities average RBA SAQ score⁽¹⁾ (%)

	2019	2020	2021	2022	2023
Health and safety section	90.3	89.6	89.4	90.1	91.3
Environment section	88.6	85.8	84.4	87.2	88.8
Labor section	91.7	91.7	90.9	91.3	92.3
Ethics section	94.0	93.4	91.3	93.1	94.5
Overall average	91.0	90.1	89.1	89.7	90.8

⁽¹⁾ At-risk suppliers' facilities (material, equipment/spare-parts suppliers, subcontractors).

Average number of findings per supplier audit

	2020	2021	2022	2023
Priority non-conformances	0.06	0.22	0.17	0.21
Major non-conformances	1.56	3.54	1.89	3.83
Minor non-conformances	-	-	-	1.59

Closure rate⁽¹⁾ for suppliers' facilities audit (%)

	2023
Priority non-conformances	42
Major non-conformances	52
Minor non-conformances	63

⁽¹⁾ Percentage of findings closed within 12 months after discovery.

Recruitment fees⁽¹⁾ reimbursed to workers | 409-1 |



	2020	2021	2022	2023
Total amount of fees paid back (US\$)	29,852	137,651	248,153	6,302
Number of impacted workers	22	42	220	84
Number of suppliers involved	3	4	2	7

⁽¹⁾ Fees may be reimbursed by ST or by suppliers.

Supplier RBA training and awareness

	2021	2022	2023
Number of supplier companies	201	222	175⁽¹⁾
Number of supplier employees	452	1,733	1,692

⁽¹⁾ Methodology changed in 2023. Up until 2022, suppliers companies were counted for each training they attended. From 2023 onwards, suppliers companies are counted only once, regardless of the number of trainings completed.

Suppliers terminated as a result of a negative social or environmental impact | 308-2 | 414-2 | SDG 8.7

	2019	2020	2021	2022	2023
Number of suppliers	1 ⁽¹⁾	1 ⁽²⁾	1 ⁽³⁾	2 ⁽⁴⁾	0

⁽¹⁾ Legal requirement concerning social contributions not respected by a cleaning services company in Tunis site (Tunisia).

⁽²⁾ Contract not renewed with a security service supplier in Bouskoura (Morocco) due to excessive working hours.

⁽³⁾ Non-payment of social security contributions for its employees in Marcianise site (Italy).

⁽⁴⁾ Material supplier with risk of forced labor in subtiers (Japan); canteen service provider failing to comply with laws and regulation in Muar site (Malaysia).

Conflict minerals inquiry results in 2023 SDG 8.7

	Gold	Tantalum	Tin	Tungsten
Number of smelters	86	32	60	32
Smelters which are RMAP ⁽¹⁾ validated (%)	100%	100%	100%	100%
Smelters which are active in the RMAP ⁽¹⁾ but were not RMAP validated as of December 31, 2023 (active smelters) (%)	0%	0%	0%	0%
Active smelters which have declared sourcing from L1/L2 ⁽²⁾ countries or recycled or scrap sources ⁽³⁾ (%)	0%	0%	0%	0%
Active smelters which have not provided a declaration regarding country or origin of recycled or scrap sources (%)	0%	0%	0%	0%

⁽¹⁾ Responsible Minerals Assurance Process.

⁽²⁾ Level 1 countries are not identified as conflict regions or plausible areas of smuggling or export from the Democratic Republic of the Congo and its nine adjoining countries.
Level 2 countries are known or plausible countries for smuggling, export out of region or transit of materials containing tantalum, tin, tungsten or gold.

⁽³⁾ Based on information presented by suppliers and subcontractors.

Community involvement – inputs | 201-1 |

	2019	2020	2021	2022	2023
Number of community involvement initiatives ⁽¹⁾	389	340	520	661	814
Total contribution (evaluated in US\$m)	7.9	10.4	8.9	11.1	13.4

⁽¹⁾ Multiple activities linked to the same program count as one initiative.

Geographical spread of community contributions⁽¹⁾ (%)

	2019	2020	2021	2022	2023
Africa	2	1	2	2	2
Americas	0	0	3	3	4
Asia	11	11	11	7	7
Europe	73	76	69	69	72
Worldwide	14	12	16	19	16

⁽¹⁾ The sums may not add up to 100% due to rounding of the figures.

Community contribution

	2019	2020	2021	2022	2023
Cash donations (%)	23	21	15	20	26
Staff time volunteering (%)	66	43	68	55	50
In-kind (%)	9	34	15	20	20
Management costs (%)	2	2	2	5	4
Number of employees engaged in volunteering ⁽¹⁾	6,065	4,231	4,620	6,648	7,221
Number of hours contributed inside Company time	145,498	114,324	138,305	148,300	156,083

⁽¹⁾ Employees are counted for each initiative, so the same employee may be counted several times.

Reason for community contribution⁽¹⁾ (%)

	2019	2020	2021	2022	2023
Community investment	97	64	96	96	87
Charitable donation (gift)	3	36	4	4	13
Commercial initiative	1	0	0	1	0

⁽¹⁾ The sums may not add up to 100% due to rounding of the figures.

Community involvement – outcomes

	2019	2020	2021	2022	2023
Number of beneficiary organizations	1,856	2,938	3,111	3,849	3,349
Number of direct beneficiaries	117,136	163,497	132,004	228,563	255,299

Direct beneficiary groups⁽¹⁾ (%)

	2019	2020	2021	2022	2023
Children/Teenagers	9	3	6	7	8
Students/Scientific communities	77	53	82	75	66
Affected by natural/man-made disaster ⁽²⁾	–	32	3	0	9
Local population	8	7	7	16	14
Senior/Elderly people	1	4	0	0	0
Others ⁽³⁾	3	2	2	2	2

⁽¹⁾ The sums may not add up to 100% due to rounding of the figures.

⁽²⁾ Mainly linked to COVID-19 pandemic for 2020. Linked to donation following floodings in Emilia-Romagna region (Italy) in 2023.

⁽³⁾ Includes people on low incomes/unemployed, people with poor health, migrants and disabled people.

Key data



TCFD | TASK FORCE ON CLIMATE-RELATED
FINANCIAL DISCLOSURES



EU Taxonomy

The EU Taxonomy Regulation

On July 12, 2020, EU Regulation 2020/852 of the European Parliament and of the Council of June 18, 2020 (the “EU Taxonomy Regulation”) entered into force. The EU Taxonomy Regulation establishes the basis for a classification system to determine which economic activities can be considered environmentally sustainable. The EU Taxonomy Regulation is part of the EU’s overall efforts to reach the objectives of the European Green Deal, Europe’s strategy towards climate neutrality in 2050. The EU Taxonomy Regulation is designed as a transparency tool to help companies and investors make sustainable investment decisions, with the overall purpose to steer financing towards more sustainable economic activities. Pursuant to the EU Taxonomy Regulation, we are required to disclose information on how and to what extent our activities qualify as environmentally sustainable. The EU Taxonomy Regulation is implemented in phases and will further develop over the coming years. Consequently, disclosure obligations under the EU Taxonomy Regulation will enter into force in multiple phases. The EU Taxonomy Regulation effective as per reporting year 2021 is recent legislation and includes additional reporting obligations for financial year 2023 as a result of changes to the EU Taxonomy Delegated Acts (as defined below) and presentation formats.

Environmental objectives

The EU Taxonomy Regulation defines overarching conditions which an economic activity must meet to be considered environmentally sustainable and focuses on six environmental objectives, being (i) climate change mitigation, (ii) climate change adaptation, (iii) the sustainable use and protection of water and marine resources, (iv) the transition to a circular economy, (v) pollution prevention and control and (vi) the protection and restoration of biodiversity and ecosystems. For these environmental objectives, several delegated acts have been issued containing technical screening criteria (“Taxonomy technical screening criteria”), which specify environmental performance requirements for the economic activities to be classified as environmentally sustainable (“EU Taxonomy Delegated Acts”).

On January 1, 2022, the EU Taxonomy Delegated Act on climate change mitigation and climate change adaptation entered into force. The EU Taxonomy Delegated Acts on the other four environmental objectives entered into force on January 1 2024, as well as the amended EU Taxonomy Delegated Acts on climate change mitigation and climate change adaptation (the “Climate Delegated Act”).

Eligibility and alignment

For financial year 2023, as a non-financial undertaking, we have to disclose information on our economic activities which are eligible (“Taxonomy-eligible”), non-eligible (“Taxonomy non-eligible”) and aligned (“Taxonomy-aligned”) under the EU Taxonomy Regulation.

An economic activity can be considered Taxonomy-eligible when the economic activity is described as such in the relevant EU Taxonomy Delegated Act. To assess whether the relevant economic activity can also be considered Taxonomy-aligned, an additional evaluation must be made to identify if the overarching Taxonomy technical screening criteria are met. Economic activities that are not described in the EU Taxonomy Delegated Acts are considered Taxonomy non-eligible.

Applicability of the EU Taxonomy Regulation to ST

As a listed company the EU Taxonomy Regulation is applicable to us, and subsequently, we must disclose information on how and to what extent our economic activities are associated with economic activities that qualify as environmentally sustainable under the EU Taxonomy Regulation.

We have taken note of the developments of the EU Taxonomy Delegated Acts relating to the six environmental objectives. We notably screened all the economic activities listed in the EU Taxonomy

Delegated Acts for each environmental objective. Our activities are not described in the EU Taxonomy Delegated Act on the other four environmental objectives and are not included in the additional activities added to the Climate Delegated Act. This assessment did not result in additional disclosures on economic activities included herein compared to our reporting over financial year 2022.

For financial year 2023 in relation to climate change mitigation and climate change adaptation, we hereinafter include disclosure of: (i) Taxonomy-eligible and Taxonomy-aligned economic activities, (ii) Taxonomy-eligible and Taxonomy-non-aligned economic activities, and (iii) Taxonomy non-eligible economic activities within our turnover, capital expenditure and operating expenditure. In addition for financial year 2023, in relation to the four other environmental objectives, we hereinafter include disclosure of Taxonomy non-eligible economic activities within our turnover, capital expenditure and operating expenditure.

The following disclosures pursuant to the EU Taxonomy Regulation are based on the most recent interpretations of the EU Taxonomy Regulation as published by the European Commission. Acknowledging that the EU Taxonomy Regulation is still under development and its interpretation and application is evolving, our disclosure approach under the EU Taxonomy Regulation might consequently evolve accordingly.

Environmentally sustainable activities

Under the EU Taxonomy Regulation an economic activity is considered environmentally sustainable (“EU Taxonomy-aligned”) if it meets the following conditions:

1. provides a substantial contribution to one of the six above-mentioned environmental objectives by complying with Taxonomy technical screening criteria;
2. does not significantly harm any of the other environmental objectives (i.e. does not support one environmental objective at the expense of progress on another environmental objective) (“DNSH”); and
3. complies with internationally recognized minimum safeguards (e.g. OECD Guidelines for Multinational Enterprises, UN Guiding Principles on Business and Human Rights) (“MSS”).

We assessed our economic activities against the EU Taxonomy Regulation classification system in various steps, amongst others: (i) identifying the economic activities relevant for the EU Taxonomy Regulation disclosure, (ii) performing a Taxonomy-eligibility assessment based on the relevant EU Taxonomy Delegated Act, and (iii) assessing Taxonomy-alignment of the economic activities. For the disclosure of Taxonomy-eligibility and Taxonomy-alignment we assessed the proportion of our turnover, capital expenditure and operating expenditure, related to environmentally sustainable activities.

Enabling economic activity

We believe that the semiconductor industry plays a key role as a strategic enabler of a low carbon society as well as to manage the transition towards carbon neutrality. As part of our value proposition, we aim at designing and manufacturing products that are power efficient and support our customers in developing technologies that have low carbon footprint. Low carbon applications such as electric mobility, renewable energies, smart cities, or smart building have been and remain strategic markets for us. We are a market leader in the design and manufacturing of power solutions and motor control enabling products, in which there are ample opportunities for short-term impact on greenhouse gas emissions. We are also a market leader in terms of ultra-low power ICs such as sensors or microcontrollers.

While some sectors contribute directly to climate change mitigation and climate change adaptation, we, as an intermediate product manufacturer, enable “the manufacturing of low-carbon technologies”, which activity is also covered by the EU Taxonomy Regulation classification system. Our activities which aim at contributing to climate change mitigation and climate change adaptation, are the manufacturing of electronic components that enable other sustainable economic activities and applications. The relevant EU Taxonomy Delegated Act lists economic activities that may be considered Taxonomy-eligible based on associated so-called NACE codes. For our Taxonomy-eligibility we report on NACE code 26: “Manufacture of computer, electronic and optical products”; and NACE code 26.11: “Manufacture of electronic components”. NACE code 26.11 is considered relevant for the semiconductor market as confirmed in the guidance published on the interpretation of the EU Taxonomy Regulation by the European Commission in October 2022. For financial year

2023, we therefore continue reporting under section 3.6 of the EU Taxonomy Delegated Act on Manufacture of low carbon technologies.

Our EU Taxonomy-eligibility assessment

In our Taxonomy-eligibility assessment we identified all our products, which aim at contributing substantially to climate change mitigation. These products are divided into the following four product categories: (i) products that have a low carbon manufacturing footprint compared to similar products of a previous generation, (ii) products that have low power consumption or low power loss characteristics compared to similar products manufactured by us or others, (iii) products that bring an advantage to run a low greenhouse gas emission end application or (iv) products that bring an advantage to improve efficiency of high greenhouse gas emitting end applications.

With regard to climate change adaptation, we constantly assess how our products could contribute to climate change adaptation and potentially qualify under the relevant EU Taxonomy criteria. Capital expenditure related to the implementation of climate change adaptation solutions is less than 1 % of our total capital expenditure as reported in Notes 7.6.10, 7.6.11 and 7.6.12 of our consolidated financial statements for the year ended December 31, 2023 (see Annual and semi-annual reports – STMicroelectronics NV on www.st.com ).

EU Taxonomy reporting – Taxonomy-eligible economic activities related to climate change mitigation

Our approach towards application of the EU Taxonomy Regulation for the relevant KPIs: turnover, capital expenditure and operating expenditure for EU Taxonomy reporting purposes is reflected below.

Turnover of Taxonomy-eligible economic activities

In our Taxonomy-eligibility assessment all our product lines have been reviewed. Products falling into one of the four product categories referenced above are considered Taxonomy-eligible and we have included the relevant turnover generated from those products in the Taxonomy turnover calculation.

This assessment resulted in a turnover of Taxonomy-eligible economic activities amounting to 40% of our total revenues reported for the financial year 2023, whereby the denominator is based on our total revenues as reported on the consolidated income statement for the year ended December 31, 2023, while the numerator is based on the total net turnover of our products considered as Taxonomy-eligible. This is to compare to 38% for the financial year 2022, following product portfolio evolution.

Capital expenditure of Taxonomy-eligible economic activities

To determine the Taxonomy-eligible portion of our capital expenditure the following has been taken into account:

- investments in our technologies, which have been directly associated with Taxonomy-eligible product lines based on our capital expenditure plan for each technology;
- individual measures, such as investments for our carbon neutrality program or investments related to energy efficiency of our processes;
- investments related to IP or licenses or capitalized development costs, which have been classified as Taxonomy-eligible based on the relevant product line; and
- lease of buildings and equipment which have been considered as fully or partially Taxonomy-eligible.

For determining the Taxonomy-eligible portion of the capital expenditure, the denominator is determined based on the 2023 additions to property, plants and equipment (including rights of use for leased assets), intangible assets (including capitalized development costs), as reported in Notes 7.6.10, 7.6.11 and 7.6.12 of our consolidated financial statements for the year ended December 31, 2023 (see Annual and semi-annual reports – STMicroelectronics NV on www.st.com ).

Furthermore, the numerator equals the part of the capital expenditure (including IFRS 16 leases) related to assets or processes that (i) are associated with Taxonomy-eligible economic activities, (ii) are part of a capital expenditure plan to expand Taxonomy-eligible economic activity, and (iii) are individual measures enabling economic activities to become low-carbon or to lead to greenhouse gas reduction.

This results in a capital expenditure of Taxonomy-eligible economic activities amounting to 48% of our total capital expenditure for the financial year 2023, higher than the ratio published for the financial year 2022 (46%). This growth is primarily driven by a more granular and wider coverage of our investments review.

Operating expenditure of Taxonomy-eligible economic activities

For determining the operating expenditure of Taxonomy-eligible economic activities, the denominator is determined based on R&D expenses, as reported in our consolidated income statement for the year ended December 31, 2023, after deducting depreciation and amortization, certain expenses and overheads, which are not directly associated with the development of new products or technologies.

Furthermore, the numerator equals to the part of the operating expenditure included in the denominator that is any of the following: (a) related to assets or processes associated with Taxonomy-eligible economic activities, (b) part of the capital expenditure plan to expand Taxonomy-eligible economic activities. For the numerator, we reviewed each R&D project with the following approach:

- each R&D project linked to a product line classified as Taxonomy-eligible resulted in Taxonomy-eligible operating expenditure; and
- for the remaining R&D projects serving multiple product lines or technologies, we applied relevant allocation keys taking into account, amongst others, the above mentioned Taxonomy-eligible portion of our turnover.

This assessment results in operating expenditure of Taxonomy-eligible economic activities amounting to 47% of our total operating expenditure for the financial year 2023, compared to 35% in 2022. This growth is primarily driven by a more granular and wider coverage of our R&D projects review.

EU Taxonomy Regulation reporting – Taxonomy-aligned activities related to climate change mitigation

As mentioned above, Taxonomy-alignment implies that the economic activities comply with the following three conditions:

1. providing a substantial contribution to one of the six environmental objectives by complying with the Taxonomy technical screening criteria;
2. complying with the DNSH criteria; and
3. complying with the minimum safeguards criteria.

Substantial contribution

Turnover of environmentally sustainable (Taxonomy-aligned) economic activities

To verify to what extent the turnover is aligned according to the Taxonomy technical screening criteria of the “Substantial contribution to climate change mitigation” from EU Taxonomy Regulation, we apply the principles of the described activity as reflected under 3.6 “Manufacture of other low carbon technologies”: “the economic activity manufactures technologies that are aimed at and demonstrate substantial life-cycle greenhouse gas emission savings compared to the best performing alternative technology/product/solution available on the market”.

In the case of semiconductors, the greenhouse gas reduction can come from both products (supply, manufacturing, end-of life) as from contributions to application impact (usage). Therefore, we have adopted a combined approach to reflect this duality. Firstly, for all our product lines classified as

Taxonomy-eligible on the basis of their low power consumption characteristics or the low manufacturing footprint criteria, life-cycle greenhouse gas emissions have been calculated and compared to a previous generation of products made by us. As a result, the sales of certain products have been excluded from our turnover calculation. For the product lines classified as Taxonomy-eligible on the basis of their contribution in a low or high greenhouse gas emitting end applications, a second assessment has been performed at application level, aiming at qualifying our substantial contribution. We have considered an internal application classification to reflect the overall impact of the semi-conductor on the electricity consumption of the application, hence its implied greenhouse gas emissions. We selected the turnover of our product lines ending in applications considered, as either low greenhouse gas emitting applications (e.g. electric vehicle) or high greenhouse gas emitting but transitional applications (e.g. data center servers), on the basis of the high impact of the semiconductor in the reduction of greenhouse gas emissions during the operating lifetime of the applications.

Capital expenditure of environmentally sustainable (Taxonomy-aligned) economic activities

A similar approach as for Taxonomy-eligibility has been adopted to determine the Taxonomy-alignment of our capital expenditure and consistent with the approach defined for the Taxonomy-alignment of the turnover. Notably for the main category related to the investment in our technologies, where the investment supporting product lines aligned as per the turnover approach were included i.e. the ones bringing a key advantage to low or transitional greenhouse gas emitting end applications.

An allocation key derived from the proportion of our aligned investment was applied to building and equipment, and other capital expenditure not directly linked to a product line.

Operating expenditure of environmentally sustainable (Taxonomy-aligned) economic activities

A similar approach as for Taxonomy-eligibility has been adopted to determine the Taxonomy-alignment of operating expenditure, and consistent with the approach defined for the Taxonomy-alignment of the capital expenditure. Substantial contribution was determined by either associating the R&D project with a product line, or by applying a relevant ratio of aligned turnover.

Do No Significant Harm (DNSH)

The second pillar of our approach to Taxonomy-alignment relates to the demonstration that our economic activity does no significant harm to the other five environmental objectives included in the EU Taxonomy Regulation:

- climate change adaptation;
- sustainable use and protection of water and marine resources;
- pollution prevention and control regarding use and presence of chemicals;
- protection and restoration of biodiversity and ecosystems; and
- circular economy.

For each environmental objective, we have designed templates to approach the various sub-criteria in a consistent manner across our activities. Only the pollution prevention and control regarding use and presence of chemicals' objective resulted in the identification of product lines which were not compliant and had a direct negative impact on the Taxonomy-aligned turnover, capital expenditure and operating expenditure KPIs.

Climate change adaptation

As mentioned in [Energy and climate change](#) part, we performed a climate risk and vulnerability assessment together with an external provider to ensure that climate projections are based on state-of-the-art science compared to two scenarios set out by the United Nations Intergovernmental Panel on Climate Change, as required under this DNSH criterion. This assessment covers all relevant ST and partner sites and features a risk analysis (projected evolution of physical risks (natural hazards) as well as an overall vulnerability assessment (aggregated peril-score compiling the overall multi-natural-hazard exposure to future climate). Once finalized, the detailed results (with site specific areas of focus) were communicated to all relevant internal stakeholders at corporate levels. Priority sites were identified based on these results. These sites provided a preliminary view on existing climate change adaptation efforts based on their exposure and will continue working on a more detailed roadmap in terms of climate change adaptation.

The outcome of this analysis confirmed our compliance with the DNSH criterion in connection with climate change adaptation.

Sustainable use and protection of water and marine resources

We have completed an environmental assessment for all our manufacturing sites and main R&D centers and have a view at site and corporate levels on the risks associated with the preservation of the water quality and the prevention of water stress. As part of our environmental processes, we have actions plan in place to address the risks identified to ensure that deterioration is avoided.

All our manufacturing sites and several of our key sites of R&D are ISO 14001 certified for our environmental management system. Most manufacturing and R&D sites are EMAS validated.

The outcome of this analysis confirmed our compliance with the DNSH criterion in connection with sustainable use and protection of water and marine resources.

Pollution prevention and control regarding use and presence of chemicals

Managing chemical substances and materials used in our manufacturing sites is critical for protecting people, preserving the environment, and complying with legal and customer requirements. Accordingly, for all materials including chemicals and gases entering at any of our sites, a site chemical committee authorizes the use and evaluates the best management solutions, both for new processes and modification of existing processes. In addition, since 1996 we have defined our environment, health and safety regulated substances list detailing the substances, which use is prohibited and those which use is restricted to selected applications only and/or is subject to strict measures (see [Chemicals](#)).

The review performed for the DNSH assessment was done at substance level in order to evaluate if our activities do not lead to the manufacture, placing on the market or use of the listed substances as reflected in the relevant DNSH – criteria following from the EU Taxonomy Delegated Act. For each of the requirements following from the DNSH-criteria a detailed evaluation was carried out comparing the requirements to the current situation in our manufacturing sites and subcontracted manufacturing activities. This analysis included an assessment of the manufacturing-related raw materials delivered to all our sites. For the financial year 2023, we have considered the updated Appendix of the DNSH pollution leading to an adjustment of our approach compared to the financial year 2022.

A detailed assessment was performed at product line level in order to exclude associated revenues not compliant with the Appendix C paragraphs and to enable consistency with the approach taken for turnover. Notably, exclusions were performed when substances of very high concern were above the threshold as included in Appendix C or when not in compliance with the regulations and directives mentioned in Appendix C. We used the possibility to consider compliance in case there is no technical alternative available on the market and that those substances are used under controlled conditions, only for one substance – Lead – used in our manufacturing process. ST is a member of the Die Attach5 consortium which seeks to standardize solutions for lead-free solders for attaching dies to packages during manufacturing, however at this stage Lead used in the semiconductor industry does not have currently a suitable alternative available on the market.

The outcome of this analysis confirmed that most of our product lines are compliant with the EU Taxonomy Regulation. However, part of our turnover was excluded notably due to the use of substances of very high concern above the mentioned threshold. Alternatives are constantly being further investigated in our manufacturing processes or products. This may result in adjustment of this assessment and related reporting in the future.

Consistent with the approach defined for the turnover, the investment supporting product lines not compliant with DNSH on pollution prevention were excluded from the Taxonomy-alignment of the capital expenditure and any R&D project linked to a product line not compliant as per the DNSH on pollution prevention was excluded from the Taxonomy-alignment of the operating expenditure.

Protection and restoration of biodiversity and ecosystems

We have completed an environmental assessment for all our manufacturing sites and main R&D centers. All the sites have put in place policies on the impact of their activities on the environment and maintain a system to monitor and manage such impact. In addition, we commissioned a specific study from an external provider to provide an assessment on the biodiversity and ecosystems in the areas close to our sites and operations. Our sites were assessed from our front-

end and back-end activities, along with three R&D and design centers. To date, several initiatives have been carried out to protect biodiversity of the areas around our sites (e.g. low mowing or insect hotels). Certain sites have defined biodiversity targets and started the evaluation of the diversity of species in their vicinity.

Based on the outcome of the specific biodiversity and ecosystems study, ongoing efforts are taken at our sites to assess enhanced potential mitigation measures to further protect the environment (see [Biodiversity](#)).

The outcome of this analysis confirmed our compliance with the DNSH criterion in connection with protection and restoration of biodiversity and ecosystems.

Circular economy

We have deployed several actions to promote the reuse and use of secondary raw materials and reused components in manufactured products. Our recycling solution for silicon for example allows avoiding extraction and transportation of silicon. Furthermore, our scrap of silicon is valorized in a foundry where when added to aluminum it is then used in automotive, aeronautics and solar panel manufacturing (see [Waste](#)).

Our waste management process prioritizes recycling over disposal, in the manufacturing process. Action plans have been defined at site level to increase the recycling rate. These actions are verified during RBA, ISO 14001 or EMAS audits. First actions have been implemented to reduce the packaging, then the remaining waste is compressed and recycled. Several initiatives are in place, for example, some of our wafers and frame packing are returned to suppliers and reused by them, or our carton waste resulting from material packaging is sent for recycling.

Information on and traceability of substances of concern throughout the life cycle of the manufactured products are notably performed through material declaration forms. Our analysis as part of the DNSH pollution prevention also demonstrates our ability to identify the substance present in our processes or in products.

The outcome of this analysis confirmed our compliance with the DNSH criterion in connection with circular economy.

Minimum Safeguards

The last pillar of the Taxonomy-alignment assessment relates to the compliance with minimum safeguards. We have performed a detailed analysis of the following regulations: the OECD Guidelines for Multinational Enterprises, the United Nations Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organization on Fundamental Principles and Rights at Work and the International Bill of Human Rights. Our review also included the EU Charter of Fundamental Rights and the European Pillar of Social Rights. Our financial year 2022 analysis was reviewed and updated for financial year 2023, considering the FAQ published by the European Commission in October 2022 with additional analysis performed on Corruption, Taxation and Fair competition criteria. Our 2023 assessment also took into account the updated version of the OECD guidelines published in 2023.

Our analysis was performed on our own operations based on internal audit (e.g. for taxation), procedures (e.g. corporate labor and human rights), programs (e.g. ST anticorruption program), policies (e.g. speak up policy) and our code of conduct in place. We also assessed our supply chain with a focus on subcontractors and high risk/strategic suppliers (according to the spend level, the nature of the activity, and the geographical location of the supplier) and other business relationships with a focus on our main customers which are RBA members. The analysis was performed and discussed with the relevant experts and senior level stakeholders within ST.

The outcome of this analysis confirmed our compliance with the minimum safeguards.

Turnover

The proportion of turnover from products associated with Taxonomy-aligned economic activities reached 12% for the financial year 2023, compared to 9% in 2022. The increase is driven by the combined effects of the introduction of a threshold in the Annex C of the DNSH pollution and the wider coverage of life-cycle assessments as described in section 3.4.6.4 of our 2023 Statutory Annual Report, including IFRS Financial Statements, available on investors.st.com .

Economic activities		Substantial contribution criteria										DNSH criteria (Do no significant harm)										Taxo- nomy- aligned propor- tion of turnover, 2023	Taxo- nomy- aligned propor- tion of turn- over, 2022	Cate- gory (ena- bling activity)	Cate- gory (transi- tional activity)
		Code	Absolute turnover	Propor- tion of turnover	Climate change miti- gation	Climate change adap- tation	Water	Pollution	Circular economy	Biodiversity and ecosystems	Climate change miti- gation	Climate change adap- tation	Water	Pollution	Circular economy	Biodiversity and ecosystems	Minimum Safe- guards								
		USDm	%	%	%	%	%	%	%	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)																									
Manufacture of other low carbon technologies		2,095	12%	100%	-%	N/EL	N/EL	N/EL	N/EL	n.a	Y	Y	Y	Y	Y	Y	12%	9%	E						
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		2,095	12%	100%	-%	N/EL	N/EL	N/EL	N/EL	n.a	Y	Y	Y	Y	Y	Y	12%	9%	E						
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																									
Manufacture of other low carbon technologies		4,800	28%							n.a	Y	Y	Y	N	Y	Y									
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		4,800	28%							n.a	Y	Y	Y	N	Y	Y	28%	29%							
Total (A.1+A.2)		6,895	40%														40%	38%							
B. Taxonomy-non-eligible activities																									
Turnover of Taxonomy-non-eligible activities		10,391	60%																						
Total (A+B)		17,286	100%																						

n.a = not applicable

Capital expenditure

The proportion of capital expenditure (CapEx) associated with Taxonomy-aligned economic activities reached 17% for the financial year 2023, compared to 12% in 2022. This increase is primarily attributable to our strategic investments in technologies directly linked to Taxonomy-aligned product lines, as outlined in our individual technology CapEx plans.

Economic activities	Code	Substantial contribution criteria								DNSH criteria (Do no significant harm)								Taxo- nomy- aligned propor- tion of CapEx, 2023	Taxo- nomy- aligned propor- tion of CapEx, 2022	Cate- gory (ena- bling activity)	Cate- gory (transi- tional activity)
		Absolute CapEx	Propor- tion of CapEx	Climate change miti- gation	Climate change adap- tation*	Water	Pollution	Circular economy	Biodiversity and ecosystems	Climate change miti- gation	Climate change adap- tation	Water	Pollution	Circular economy	Biodiversity and ecosystems	Minimum Safe- guards					
		USDm	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%				
A. Taxonomy-eligible activities																					
A.1. Environmentally sustainable activities (Taxonomy-aligned)																					
Manufacture of other low carbon technologies	733	17%	100%	0*%	N/EL	N/EL	N/EL	N/EL	n.a	Y	Y	Y	Y	Y	Y	17%	12%	E			
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)	733	17%	100%	0%	N/EL	N/EL	N/EL	N/EL	n.a	Y	Y	Y	Y	Y	Y	17%	12%	E			
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned)																					
Manufacture of other low carbon technologies	1,332	31%							n.a	Y	Y	Y	N	Y	Y						
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)	1,332	31%							n.a	Y	Y	Y	N	Y	Y	31%	34%				
Total (A.1+A.2)	2,065	48%														48%	46%				
B. Taxonomy-non-eligible activities																					
Capex of Taxonomy-non-eligible activities	2,195	52%																			
Total (A+B)	4,260	100%																			

(*) due to rounding

Operating expenditure

The proportion of operating expenditure (OpEx) associated with Taxonomy-aligned economic activities reached 14% for the financial year 2023, compared to 10% in 2022. As per the eligibility ratio, this growth is primarily driven by a more granular and wider coverage of our R&D projects review.

Economic activities	Code	Substantial contribution criteria								DNSH criteria (Do no significant harm)								Taxo- nomy- aligned propor- tion of OpEx, 2023	Taxo- nomy- aligned propor- tion of OpEx, 2022	Cate- gory (ena- bling activity)	Cate- gory (transi- tional activity)
		Absolute OpEx	Propor- tion of OpEx	Climate change miti- gation	Climate change adap- tation*	Water	Pollution	Circular economy	Biodiversity and ecosystems	Climate change miti- gation	Climate change adap- tation	Water	Pollution	Circular economy	Biodiversity and ecosystems	Minimum Safe- guards					
		USDm	%	%	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N				
A. Taxonomy-eligible activities																					
A.1. Environmentally sustainable activities (Taxonomy-aligned)																					
Manufacture of other low carbon technologies	212	14%	100%	-%	N/EL	N/EL	N/EL	N/EL	n.a	Y	Y	Y	Y	Y	Y	14%	10%	E			
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)	212	14%	100%	-%	N/EL	N/EL	N/EL	N/EL	n.a	Y	Y	Y	Y	Y	Y	14%	10%	E			
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																					
Manufacture of other low carbon technologies	519	33%							n.a	Y	Y	N	Y	Y	Y						
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)	519	33%							n.a	Y	Y	N	Y	Y	Y	33%	25%				
Total (A.1+A.2)	732	47%														47%	35%				
B. Taxonomy-non-eligible activities																					
OpEx of Taxonomy-non-eligible activities	840	53%																			
Total (A+B)	1,572	100%																			

n.a = not applicable

GRI content index

STMicroelectronics has reported in accordance with the GRI Standards for the period from January 1 to December 31, 2023.

GRI 1: Foundation 2021

GRI 2: General Disclosures 2021

Indicator	Description	Links
2-1	Organizational details	About this report ST at a glance Governance
2-2	Entities included in the organization's sustainability reporting	About this report
2-3	Reporting period, frequency, and contact point	About this report
2-4	Restatements of information	About this report
2-5	External assurance	About this report External assurance statement
2-6	Activities, value chain, and other business relationships	Our business model ST process and packaging technologies ST products and solutions Sustainable financial performance Responsible supply chain
2-7	Employees	People indicators
2-8	Workers who are not employees	People indicators
2-9	Governance structure and composition	Governance Supervisory Board on investors.st.com 
2-10	Nomination and selection of the highest governance body	Supervisory Board on investors.st.com  Nominating and Corporate Governance Committee Charter, annex D on investors.st.com 
2-11	Chair of the highest governance body	Governance on investors.st.com 
2-12	Role of the highest governance body in overseeing the management of impacts	Governance Supervisory Board on investors.st.com  Strategic Committee Charter, annex E on investors.st.com  Managing Board and Executive Committee Charter on investors.st.com 
2-13	Delegation of responsibility for managing impacts	Governance Strategic Committee Charter, annex E on investors.st.com  Managing Board and Executive Committee Charter on investors.st.com 
2-14	Role of the highest governance body in sustainability reporting	Governance Sustainability Committee Charter, annex F on investors.st.com 
2-15	Conflicts of interest	Supervisory Board Charter on investors.st.com  2023 Annual report (Form 20-F) on investors.st.com  (page 80)
2-16	Communication of critical concerns	Ethics and compliance
2-17	Collective knowledge of the highest governance body	Supervisory Board Charter on investors.st.com 
2-18	Evaluation of the performance of the highest governance body	Supervisory Board Charter on investors.st.com 

Indicator	Description	Links
2-19	Remuneration policies	Compensation policy for the Supervisory Board on investors.st.com Remuneration policy for the Managing Board on investors.st.com
2-20	Process to determine remuneration	Compensation policy for the Supervisory Board on investors.st.com Remuneration policy for the Managing Board on investors.st.com General meeting of shareholders on investors.st.com
2-21	Annual total compensation ratio	2023 Statutory Annual Report including IFRS Financial Statements on investors.st.com (page 90)
2-22	Statement on sustainable development strategy	Foreword by our President and CEO
2-23	Policy commitments	Ethics and compliance ST Code of Conduct on www.st.com/code_of_conduct Labor and human rights Corporate labor and human rights policy on www.st.com Chemicals
2-24	Embedding policy commitments	Ethics and compliance
2-25	Processes to remediate negative impacts	Ethics and compliance ST Code of Conduct on www.st.com/code_of_conduct Misconduct reporting online on www.speakupfeedback.eu/web/stmicroelectronics
2-26	Mechanisms for seeking advice and raising concerns	Ethics and compliance ST Code of Conduct on www.st.com/code_of_conduct Misconduct reporting online on www.speakupfeedback.eu/web/stmicroelectronics
2-27	Compliance with laws and regulations	Ethics and compliance People indicators Environmental indicators 2023 Annual report (Form 20-F) on investors.st.com (page 140)
2-28	Membership associations	Stakeholder engagement Involvement in Industrial and International Organizations on www.st.com
2-29	Approach to stakeholder engagement	About this report Sustainability strategy Stakeholder engagement
2-30	Collective bargaining agreements	People indicators

GRI 3: Material Topics 2021

Indicator	Description	Links
3-1	Process to determine material topics	Sustainability strategy
3-2	List of material topics	Sustainability strategy

Topic Standards

Sustainable financial performance

Indicator	Description	Links
3-3	Management of material topics	Sustainable financial performance

GRI 201: Economic Performance 2016

Indicator	Description	Links
201-1	Direct economic value generated and distributed	Our business model Business indicators People indicators Community indicators 2023 Annual report (Form 20-F) at investors.st.com ↗ (page 8)

Energy and climate change

Indicator	Description	Links
3-3	Management of material topics	Our approach to the environment Energy and climate change

GRI 302: Energy 2016

Indicator	Description	Links
302-1	Energy consumption within the organization	Energy and climate change
302-3	Energy intensity	Environmental indicators
302-4	Reduction of energy consumption	Energy and climate change Environmental indicators

GRI 305: Emissions 2016

Indicator	Description	Links
305-1	Direct (Scope 1) GHG emissions	Energy and climate change Environmental indicators
305-2	Energy indirect (Scope 2) GHG emissions	Energy and climate change Environmental indicators
305-3	Other indirect (Scope 3) GHG emissions	Energy and climate change Environmental indicators
305-4	GHG emissions intensity	Environmental indicators
305-5	Reduction of GHG emissions	Energy and climate change Environmental indicators
305-6	Emissions of ozone-depleting substances (ODS)	Environmental indicators

Water

Indicator	Description	Links
3-3	Management of material topics	Our approach to the environment Water

GRI 303: Water and Effluents 2018

Indicator	Description	Links
303-1	Interactions with water as a shared resource	Water
303-3	Water withdrawal	Water Environmental indicators
303-4	Water discharge	Environmental indicators
303-5	Water consumption	Environmental indicators

Waste

Indicator	Description	Links
3-3	Management of material topics	Our approach to the environment Waste

GRI 306: Waste 2020

Indicator	Description	Links
306-3	Waste generated	Waste Environmental indicators
306-4	Waste diverted from disposal	Environmental indicators
306-5	Waste directed to disposal	Environmental indicators

Responsible supply chain

Indicator	Description	Links
3-3	Management of material topics	Responsible supply chain Responsible mineral sourcing

GRI 204: Procurement Practices 2016

Indicator	Description	Links
204-1	Proportion of spending on local suppliers	Responsible supply chain

GRI 308: Supplier Environmental Assessment 2016

Indicator	Description	Links
308-2	Negative environmental impacts in the supply chain and actions taken	Responsible supply chain Community indicators

GRI 414: Supplier Social Assessment 2016

Indicator	Description	Links
414-2	Negative social impacts in the supply chain and actions taken	Responsible supply chain Community indicators

Talent attraction and engagement

Indicator	Description	Links
3-3	Management of material topics	Talent attraction and engagement

GRI 401: Employment 2016

Indicator	Description	Links
401-1	New employee hires and employee turnover	People indicators

GRI 404: Training and Education 2016

Indicator	Description	Links
404-1	Average hours of training per year per employee	People indicators
404-3	Percentage of employees receiving regular performance and career development reviews	People indicators

Health and safety

Indicator	Description	Links
3-3	Management of material topics	Health and safety

GRI 403: Occupational Health and Safety 2018

Indicator	Description	Links
403-9	Work-related injuries	Health and safety People indicators
403-10	Work-related ill health	Health and safety People indicators

Diversity, equity and inclusion

Indicator	Description	Links
3-3	Management of material topics	Diversity, equity and inclusion

GRI 405: Diversity and Equal Opportunity 2016

Indicator	Description	Links
405-1	Diversity of governance bodies and employees	Diversity, equity and inclusion People indicators

Labor and human rights

Indicator	Description	Links
3-3	Management of material topics	Labor and human rights

GRI 409: Forced or Compulsory Labor 2016

Indicator	Description	Links
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Labor and human rights People indicators Responsible supply chain Community indicators

Sustainable technology

Indicator	Description	Links
3-3	Management of material topics	Sustainable technology

GRI 417: Marketing and Labeling 2016

Indicator	Description	Links
417-1	Requirements for product and service information and labeling	Sustainable technology Business indicators

Innovation

Indicator	Description	Links
3-3	Management of material topics	Innovation Innovation & Technology on www.st.com 

Customer satisfaction

Indicator	Description	Links
3-3	Management of material topics	Customer satisfaction

Chemicals

Indicator	Description	Links
3-3	Management of material topics	Our approach to the environment Chemicals

Biodiversity

Indicator	Description	Links
3-3	Management of material topics	Biodiversity

Community and education

Indicator	Description	Links
3-3	Management of material topics	Community and education

SASB index

SASB disclosure indicators – Semiconductors

GHG emissions

Code	Accounting metric	ST 2023 data and/or disclosure location
TC-SC-110a.1	(1) Gross global Scope 1 emissions and (2) amount of total emissions from perfluorinated compounds	(1) 513,721 Metric tons (2) 435,806 Metric tons CO ₂ eq
TC-SC-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Energy and climate change

Energy management in manufacturing

Code	Accounting metric	ST 2023 data and/or disclosure location
TC-SC-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	(1) 11,076,718 GJ (2) 92.1% (3) 65.0%

Water management

Code	Accounting metric	ST 2023 data and/or disclosure location
TC-SC-140a.1	(1) Total water withdrawn, (2) total water consumed, (3) percentage of each in regions with high or extremely high baseline water stress	(1) 23,999 thousand m ³ (2) 41,117 thousand m ³ (3) 5% of water withdrawn in water stress region

Waste management

Code	Accounting metric	ST 2023 data and/or disclosure location
TC-SC-150a.1	(1) Amount of hazardous waste from manufacturing, (2) percentage recycled	(1) 37,399 tons of hazardous waste from manufacturing (2) 95.8% of hazardous waste recycled

Employee health and safety

Code	Accounting metric	ST 2023 data and/or disclosure location
TC-SC-320a.1	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards	Health and safety Chemicals
TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	As of December 31, 2023 and 2022, respectively, provisions for estimated probable losses with respect to claims and legal proceedings were not considered material. 2023 Annual Report (Form-20F) on www.stm.com (page F-55)

Recruiting and managing a global and skilled workforce

Code	Accounting metric	ST 2023 data and/or disclosure location
TC-SC-330a.1	Percentage of employees that are: (1) foreign nationals and (2) located offshore	ST's sustainability report includes headcount by region, by gender, by category (People indicators). Percentage of foreign nationals is not disclosed.

Product lifecycle management

Code	Accounting metric	ST 2023 data and/or disclosure location
TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	We do not disclose this information. Our approach to product hazardous substances is available in Sustainable technology and Chemicals .
TC-SC-410a.2	Processor energy efficiency at a system-level for: (1) servers, (2) desktops and (3) laptops	We do not track this information. Our approach to product efficiency is available in Sustainable technology and energy efficiency by product category and lifecycle on www.st.com 

Materials sourcing

Code	Accounting metric	ST 2023 data and/or disclosure location
TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	Responsible mineral sourcing Conflict minerals reports on www.st.com 

Intellectual property protection and competitive behavior

Code	Accounting metric	ST 2023 data and/or disclosure location
TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	As of December 31, 2023 and 2022, respectively, provisions for estimated probable losses with respect to claims and legal proceedings were not considered material. 2023 Annual Report (Form-20F) on www.st.com  (page F-55)

TCFD index

The following index provides information and links to ST's disclosures on climate-related risks and opportunities, as recommended by the TCFD framework.

Governance

TCFD recommended disclosure and location	ST description
Recommended disclosure Disclose the organization's governance around climate-related risks and opportunities. Disclosure location Governance Our approach to the environment Supervisory Board on investors.st.com  Sustainability Committee Charter on investors.st.com 	The Managing Board is responsible for directing our sustainability roadmap, and the Supervisory Board is responsible for overseeing it, considering both risk and opportunity. The Executive Committee holds quarterly meetings attended by our President and CEO, Presidents, and Executive Vice Presidents to review sustainability performance and targets. Our dedicated Sustainability Committee supports and advises the Supervisory Board with sustainability strategy, goals, and performance including climate-related risks and opportunities. Our executive Sustainability Council validate our sustainability strategy and maintain business alignment as well as ensuring the adequate means are in place to deploy the relevant corporate programs, including our carbon neutrality program. Our Corporate Sustainability function is responsible for developing our sustainability strategy and programs. Organization and site Sustainability Champions implement programs at operational levels.

Strategy

TCFD recommended disclosure and location	ST description
Recommended disclosure Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material. Disclosure location Risk management Sustainability strategy Sustainable technology Energy and climate change EU Taxonomy 2023 Annual report (Form 20-F) at investors.st.com  (page 23)	We are proactively addressing the transition to a lower-carbon economy in our corporate strategy. Based on the risk management process described below, we act on the most material risks and opportunities such as climate change mitigation and adaptation, water challenges and positive impact opportunities both in communities where we operate and markets we serve. Simultaneously, we are actively investing in developing and launching new products to help our customers implement new energy-saving and substantial GHG reduction applications.

Risk Management

TCFD recommended disclosure and location	ST description
Recommended disclosure Disclose how the organization identifies, assesses, and manages climate-related risks. Disclosure location Risk management Sustainability strategy Energy and climate change	Company-level sustainability risks are addressed by our Enterprise Risk Management program, which is aligned with ISO 31000. We have deployed a process to continuously identify and assess policy, legal, technology, and market transition risks, across the short-, medium- and long-terms. In 2023, we commissioned an update of the science-based study from AXA Climate to assess the current and future climate risks on our 155 most critical locations (ST and partner sites in 25 countries). In addition to these global analyses, we also carry out site-specific studies on natural hazards, according to local conditions. Our various climate-related analyses inform our site-level business interruption risk assessments and business impact analyses, as well as our site resilience index. Ultimately, they feed into our regularly updated improvement, mitigation, and adaptation plans, helping us address environmental and resilience issues in the medium to long term.

Metrics and targets

TCFD recommended disclosure and location	ST description
Recommended disclosure Disclosure of the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material. Disclosure location Energy and climate change Environmental indicators Sustainable technology EU Taxonomy	ST follows the GHG Protocol for managing and reporting its GHG emissions on which we are fully certified ISO 14064. Our roadmap to carbon neutrality by 2027 includes two 2025 specific targets validated by the Science Based Targets initiative: 50% reduction of direct and indirect emissions compared to 2018, and the sourcing of 80% renewable energy. As an intermediate product manufacturer, we enable the manufacturing of low-carbon technologies. Our activities which aim at contributing to climate change mitigation and climate change adaptation, are the manufacturing of electronic components that enable other sustainable economic activities and applications. For the financial year 2023, the proportion of turnover from products associated with Taxonomy-aligned economic activities reached 12% compared to 9% in 2022.

International standards

ST has been a signatory to the United Nations Global Compact (UNGC) since 2000 and a member of the Responsible Business Alliance since 2005. We adhere to the following international guidelines and standards: International Labor Organization; UNGC Principles; UN Guiding Principles on Business and Human Rights; Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises; International Organization for Standardization (ISO); Eco-Management and Audit Scheme (EMAS); IECQ 080000 and Hazardous Substance Process Management.

Alignment of ST sustainability programs with the UNGC 10 principles

United Nations Global Compact 10 principles			ST Sustainability programs
Human rights	Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and	- Labor and human rights - Responsible supply chain - Community and education
	Principle 2	make sure that they are not complicit in human rights abuses.	- Labor and human rights - Responsible supply chain
Labor	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	- Labor and human rights - Responsible supply chain
	Principle 4	the elimination of all forms of forced and compulsory labor;	Labor and human rights
	Principle 5	the effective abolition of child labor; and	Labor and human rights
	Principle 6	the elimination of discrimination in respect of employment and occupation.	- Labor and human rights - Talent attraction and engagement - Diversity and inclusion
Environ- ment	Principle 7	Businesses should support a precautionary approach to environmental challenges;	Sustainable technology
	Principle 8	undertake initiatives to promote greater environmental responsibility; and	- Energy and climate change - Water - Waste - Chemicals - Sustainable technology
	Principle 9	encourage the development and diffusion of environmentally friendly technologies.	- Innovation - Sustainable technology
Anti-corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	Ethics and compliance

Alignment of ST Sustainability programs with the ISO 26000 guidelines

ISO 26000: 2010 standards	ST Sustainability programs
6.2 Organizational governance	Governance
6.3 Human rights	- Labor and human rights - Responsible supply chain - Diversity and inclusion - Community and education
6.4 Labor practices	- Talent attraction and engagement - Health and safety
6.5 The environment	- Energy and climate change - Water - Waste - Chemicals - Sustainable technology - Responsible supply chain
6.6 Fair operating practices	- Ethics and compliance - Responsible supply chain
6.7 Consumer issues	- Customer satisfaction - Sustainable technology
6.8 Community involvement and development	- Community and education - Innovation - Sustainable financial performance

External assurance statement



STMicroelectronics NV – 2024 Sustainability Report – 2023 Performance Independent Assurance Statement

Introduction

DNV Business Assurance France Sarl ('DNV') was commissioned by the Management of STMicroelectronics NV ('ST') to undertake an independent assurance of the Company's 2024 Sustainability Report - 2023 Performance ('Report') including the Global Reporting Initiative (GRI) - Sustainability Reporting Standards.

ST is responsible for the collection, analysis, aggregation and presentation of information contained in the Report. The assurance engagement assumes that the data and information provided in good faith by ST are complete, sufficient and authentic. Our responsibility in performing the work commissioned, in accordance with the terms of reference agreed on with ST, is solely towards ST's Management. This Independent Assurance Statement is intended solely for the information and use of ST's stakeholders and is not intended to be and should not be used by anyone other than these specified parties.

Scope of Assurance

The scope of work agreed on with ST includes the following aspects:

- Analysis, in accordance with a *Limited* level of Assurance, of data and activities related to sustainability between January and December 2023, as contained in the Report.
- Analysis, in accordance with a *Reasonable* level of Assurance, of the following indicators: "Recordable cases", "CO₂ emissions (scope 1 and 2, and for scope 3 "employee commuting", "business travel" and "goods transportation)", "Percentage of women in management level job grade 15 to 18", "Employee engagement index", between January and December 2023, as contained in the Report.
- Evaluation of GRI Sustainability Reporting Standards principles and requirements.
- Evaluation of specific sustainability performance with regards to indicators defined by the GRI Sustainability Reporting Standards.
- Evaluation of TCFD and SASB information and data.

We understand that the financial data and information reported, are based on data from the 2023 Statutory Annual Report including IFRS Financial Statements, available on ST's website (<http://investors.st.com>). The review of the following aspects was not part of DNV's external verification exercise: financial data from the Annual Report and Accounts, information and data relating to the ST Foundation.

Verification methodology

Our engagement is conducted in accordance with the Verisustain Protocol, which is based on our professional experience and international assurance best practice, and the International Standard on Assurance Engagements ISAE 3000 Assurance Engagements other than Audits or Reviews of Historical Financial Information. These documents require, inter alia, that the assurance team possesses the specific knowledge, skills and professional competencies needed for an assurance engagement regarding sustainability information, and that the team complies with ethical requirements to ensure its independence.

DNV applies its own management standards and compliance policies for quality control, which are based on the principles enclosed within ISO IEC 17029:2019 – Conformity Assessment – General principles and requirements for validation and verification bodies, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

Our verification was carried out from 8th December 2023 to 12th April 2024. As part of this engagement, we audited selected sites based on their contribution:

- For the *Limited* level of Assurance we audited the Corporate Functions, the Back-end manufacturing of Bouskoura (Morocco) and Calamba (The Philippines), and the Front-end manufacturing in Crolles (France). This contribution represented 27,7% of the Group's consolidated environmental data and 20,7% of the Group's consolidated social data.
- For indicators with a *Reasonable* level of Assurance we audited, in addition to the Corporate Functions and the sites mentioned above, the Back-end manufacturing in Kirkop (Malta) and the Front-end manufacturing in Agrate (Italy), Ang Mo Kio (Singapore) and Rousset (France). This contribution represented 73,4% of the Group's consolidated environmental data and 50,1% of the Group's consolidated social data.
- Site audits were conducted on-site for the lead verifier and part-remotely by the second auditor.

We reviewed the sustainability-related statements and claims as part of the verification made in the Report as well as assessing the strength of the underlying data management system, information flows and controls.

We performed sample-based audits of the following:

- Mechanisms for the implementation of its sustainability policies, as described in the Report.
- Processes for determining the materiality of the contents to be included in the Report.
- Processes for generating, gathering and managing the quantitative and qualitative data included in the Report.

We interviewed the Corporate Sustainability Team and more than 50 company representatives (including data owners and decision-makers from various divisions and functions) who were involved in the operational management of matters covered in the 2024 Report. We also interviewed external stakeholders on their relations with the Company.

We evaluated the performance data using the materiality, stakeholder inclusiveness, responsiveness, completeness, accuracy, reliability, neutrality & balance and sustainability context principles, together with ST protocols for how the data is measured, recorded and reported. The performance data within the scope was in the form of Key Performance Indicators.

DNV-2024-ASR-685463

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Page 1 of 2

DNV's assurance engagements are based on the assumption that the data and information provided by the Company to us as part of our review have been provided in good faith, are true, and is free from material misstatements. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. The engagement excludes the sustainability management, performance, and reporting practices of the Company's suppliers, contractors, and any third parties mentioned in the Report. We did not interview external stakeholders as part of this assurance engagement. We understand that the reported financial data, governance and related information are based on statutory disclosures and Audited Financial Statements, which are subject to a separate independent statutory audit process. We did not review financial disclosures and data as they are not within the scope of our assurance engagement. The procedures performed in a limited assurance engagement vary in nature and are shorter 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 if a reasonable assurance engagement had been performed. During the assurance process, we did not come across limitations to the scope of the agreed assurance engagement.

Conclusions

Based on our limited assurance procedures, nothing has come to our attention that causes us to believe that the 2024 ST Sustainability Report is not a fair and balanced representation of the Company's sustainability-related strategies, management systems and performance. DNV believes that the report is in line with the GRI Sustainability Reporting Standards. Further conclusions and observations on the adoption of reporting principles and specified performance information are made below, without affecting our assurance opinion.

Stakeholder Inclusiveness: The stakeholder engagement activities are well structured and shared within the Organization, with concrete commitments at local level with the CSR strategy. Stakeholder interviews undertaken as part of the Assurance process have confirmed the balance and variety of ST's stakeholders, as well as the strength of their partnership.

Sustainability Context: The information and data shown in the Report adequately reflect the strategy, the commitments and the activities carried out by ST in relation to the sustainability context within which the Organization operates at global and local level. The four indicators selected for Reasonable Assurance in the 2023-2024 verification are metrics for which eligible employees' performance on sustainability topics is formally valued.

Materiality: The Report includes the major material aspects concerning the Company's performance and stakeholders' concerns and adheres to the principle. The contents of the Report are the result of a consolidated mapping of stakeholders and a structured process for identifying the topics they considered relevant.

Responsiveness: ST provides timely and relevant information to support the understanding of the context of its operations, its structure and its performance and is able to provide information and data aligned to leading international management practices, reporting standards and stakeholder expectations. The report is transparent in coverage of relevant data and the broad scope of its selected assurance process suggests good openness and responsiveness.

Completeness: The Report covers material impacts satisfactorily to enable stakeholders to assess ST's sustainability performance in 2023. The information contained in the report refers to the structure defined in the boundary.

Accuracy: Based on our data analysis and on the business processes that generate them, the data reported in the Report appears to be the result of stable and repeatable activities. The information contained in the Report is therefore accurate and detailed. We confirm a high level of maturity within the different sites, in collecting and elaborating indicators, following well-established procedures and practices to ensure data accuracy.

Balance: The Report is an impartial description of ST's sustainability impacts. The document reflects the Organization's will to represent the activities and results for the reporting year in a way that is balanced and consistent with business strategies.

Clarity: The information presented in the report is understandable, accessible and usable by ST's stakeholders.

Comparability: The information reported enables stakeholders to analyse changes in the organization's current economic, environmental, and social performance against the organization's past performance. ST has adequately adjusted its disclosures to meet the requirements of the updated GRI Standards. We however encourage ST to improve TCFD reporting and enhance disclosures and readability in coming years.

Reliability: ST has developed an effective methodology for collecting information to be used in the Report. The data subjected to our verification was found to be identifiable and traceable.

Timeliness: ST reports regularly once a year making information available in a timely manner, to allow stakeholders to make informed decisions. No restatements were needed for previous disclosures.

DNV's Competence and Independence

DNV is a leading provider of sustainability services, including the verification of sustainability reports. Our environmental and social assurance specialists operate in over 100 countries.

DNV was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. DNV maintains complete impartiality toward stakeholders interviewed during the verification process.

DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

For and on behalf of DNV Business Assurance France, 15th April 2024

Marc-Antoine Horenfeld
Lead Verifier

HORENFELD,
Marc-Antoine

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Reviewer

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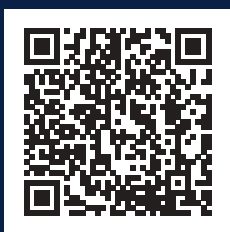
DNV-2024-ASR-685463

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Page 2 of 2



ACCELERATING SUSTAINABILITY TOGETHER



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