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**).

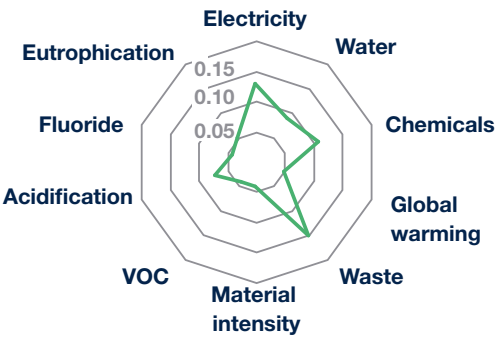
As part of our culture of continuous improvement, we conduct internal audits every three years. In 2023, we conducted internal audits at nine sites.

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.

FOCUS

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:

CARBON NEUTRAL

by 2027

- 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)

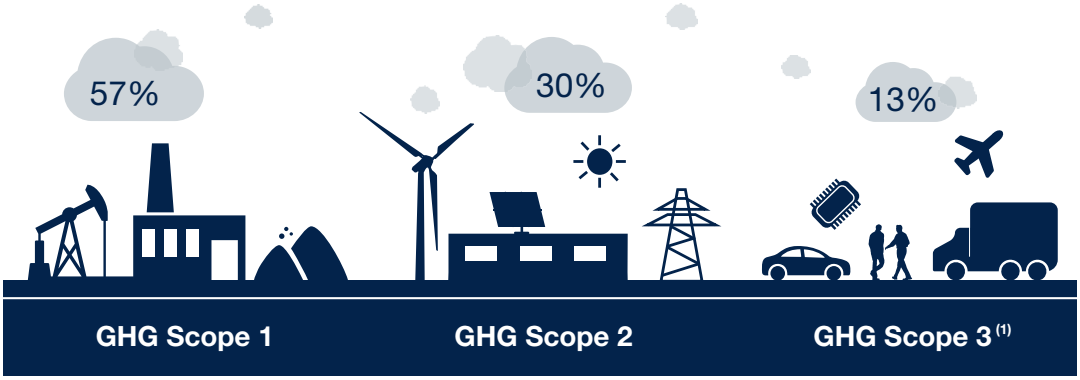
Moving towards carbon neutrality

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

- 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 CO_2 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.

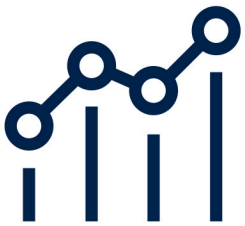
The use of perfluorinated compounds (PFC) in the manufacture of semiconductors accounts for a significant share of our direct air emissions, as defined by scope 1 of the GHG protocol. It is therefore a central part of our environmental strategy to reduce their use and ensure they are treated appropriately 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 theTier 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 CO_2 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 CO_2.

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 CO_2 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 CO_2 emissions.

In 2022, the site extended its 4,000m^2 photovoltaic carport with an additional 3,100m^2 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 10,900m^2 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	
			Water stress	
Acute	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

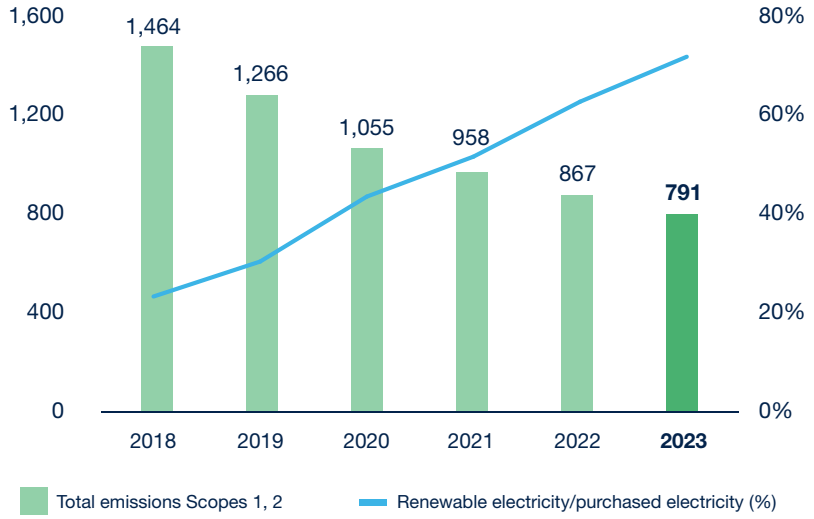
As part of our carbon neutrality program, ST joined SBTi at the end of 2020. This initiative provides a clearly defined pathway for companies to reduce their GHG emissions. We were the first semiconductor company with approved targets to limit warming to no more than 1.5°C.

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

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

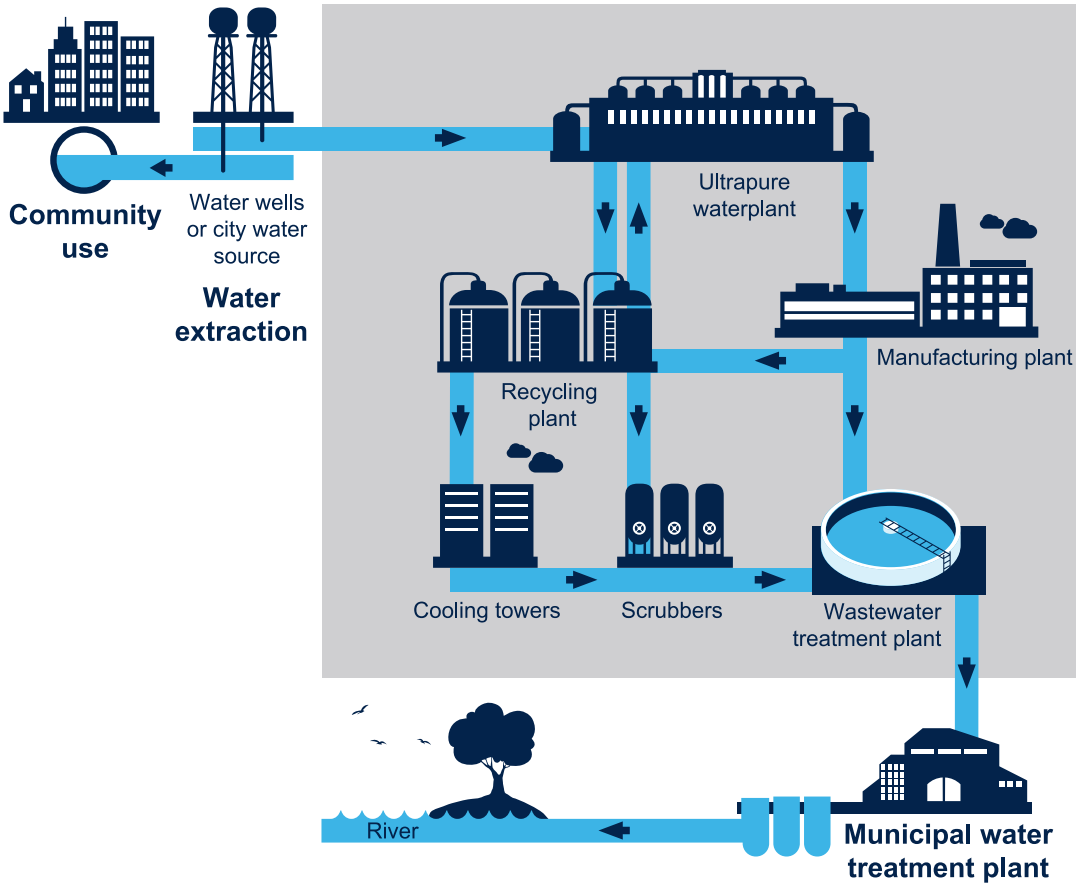
Our global water policy is available at **www.st.com** . It reflects our commitment and approach to managing water within our operations and supply chain. The policy is based on four key principles:

- 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

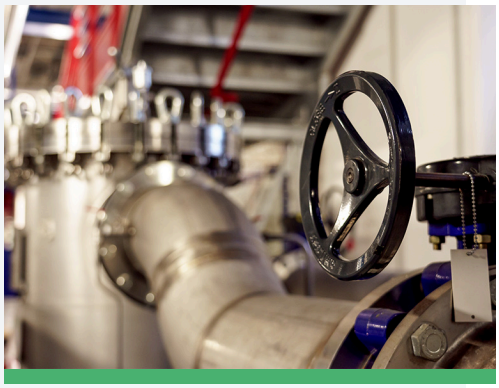
We recognize the importance of external partnerships and collaborations to grow and share knowledge. In 2023, ST joined the Alliance for Water Stewardship (AWS), which provides a globally recognized best practice framework to guide water management at sites using water. This partnership will help us 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.

FOCUS

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.

CDP DISCLOSER 2023

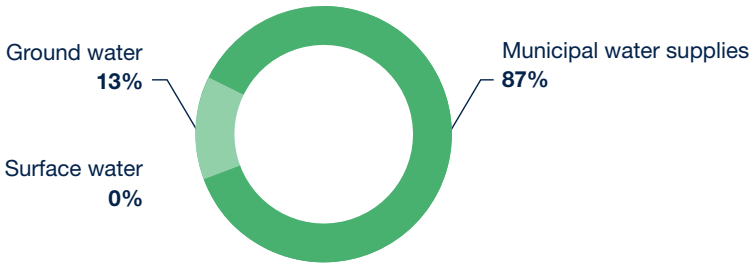
Assessing impact and water-related risks

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.

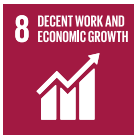
To mitigate any risk of pollution, our wastewater is treated on site or in municipal treatment plants before being discharged. Our manufacturing sites are continually improving their treatment of wastewater and the quality of water discharge, which is carefully controlled and monitored online.

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 40m^3 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 |

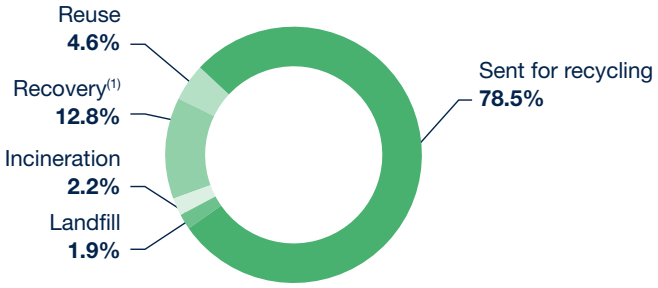
Strengthening our performance

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

Waste split in 2023 (%) | 306-3 |



(1) Waste burnt with recovery of energy (combustion).

Zero waste to landfill program

Prioritizing

zero

waste

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.

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.

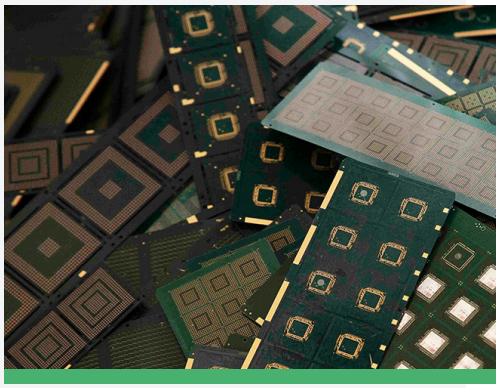
Sulfuric acid waste is diverted at our Crolles site (France) through a partnership with a biofuel producer, reducing the consumption of fossil fuels. Biofuels can be used by trucks, machinery, or generators.

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.

FOCUS

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.

New production line, ST Muar, Malaysia

Chemicals

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 |

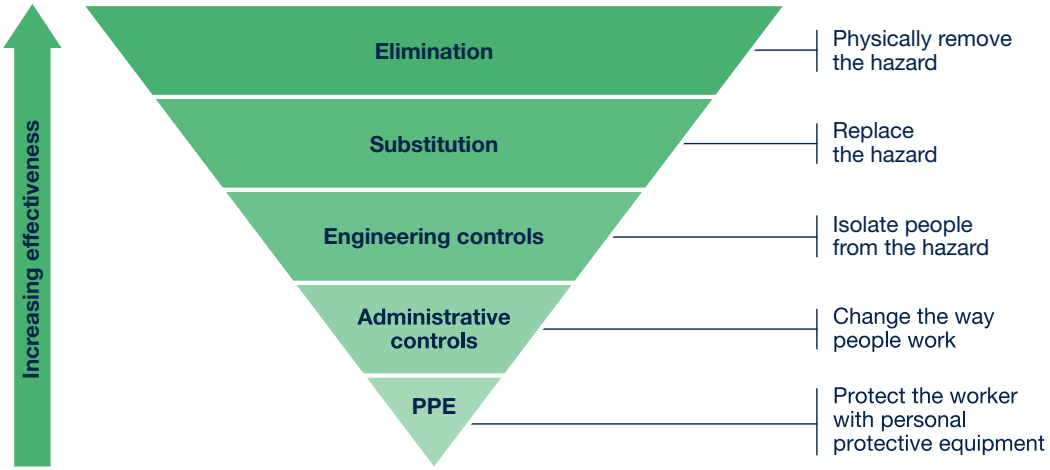
700+
new risk assessments

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.

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:

19,000+

hours of training on chemicals

- 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

In 2023, we provided more than 19,000 hours of training on chemical substance management across our manufacturing sites.

FOCUS

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 Compliancy – 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

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:

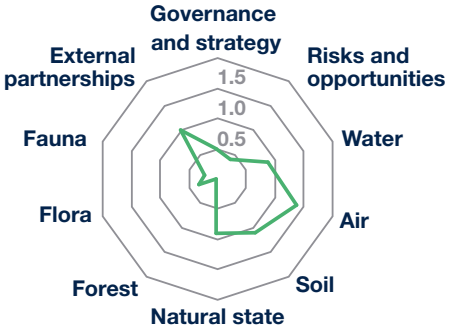
- minimizing our impact
- protecting and restoring
- engaging local stakeholders

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.

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 CO_2 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 CO_2 **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 CO_2 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**

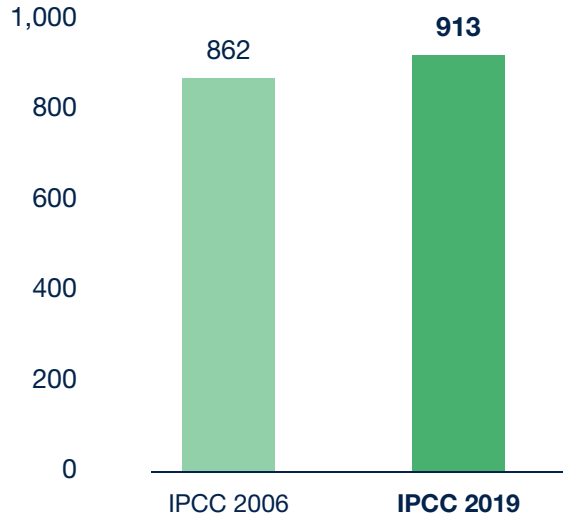
(1) The sums may not add up due to rounding of the figures.
(2) Market-based calculation method according to GHG Protocol standard.
(3) The transportation emissions value is a global estimate of employee transportation and transportation of goods.
(4) 2019 refinement to the 2006 IPCC Guidelines for National 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)

CO_2 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 CO_2 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 (1,000m^3)(1) | 303-3 | SDG 6.4

	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 (1,000m^3)(1) | 303-3 | SDG 6.4

	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 | SDG 6.3 - SDG 6.4

	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 (1,000m^3)(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 (1,000m^3)(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