

2018 Sustainability Report

2017 Performance



About this report

Scope

This annual report describes STMicroelectronics' sustainability strategy, programs and performance during the calendar year 2017. Unless otherwise stated, the information and data disclosed in this report cover all of ST's activities and sites. This report is dedicated to all of our stakeholders who want to learn more about our commitment and position towards sustainability. [I 102-1 I 102-50 I 102-52 I](#)

Report content and stakeholder inclusiveness

In 2017, ST conducted a materiality exercise (described on [page 20](#)). This exercise considered the sustainability context and involved a review of stakeholders' concerns to fully align the sustainability strategy with business priorities and sustainability issues. The report focuses on the 14 material topics (see [page 21](#)) which have been identified and for these topics we defined ambitions, goals, and programs. In response to our stakeholders' expectations, for completeness and a better understanding of our performance, we disclose data and information from previous years. In addition, we provide examples of the concrete actions carried out at ST sites. We also include quotes from our stakeholders, enabling them to express their own views on our sustainability issues and programs. [I 102-46 I](#)

There is no significant organizational change to report for 2017, and no restatement of information provided in previous reports. [I 102-10 I 102-48 I 102-49 I](#)

Use of symbols

The symbols used to report our progress on objectives should be interpreted as follows:

- Target achieved
- In progress
- No progress/not achieved

Global Reporting Initiative (GRI)

This report has been prepared in accordance with the GRI Standards: Core option. Throughout the report we use disclosure labels, where applicable, to denote which GRI indicators are relevant to the text and data. We list all references to GRI Standards and the corresponding page numbers in the GRI Content Index on [pages 83 and 84](#). This report was submitted for the GRI Content Index Service, and GRI confirmed the accuracy of the GRI Content Index on [page 83](#). [I 102-54 I](#)

Adherence to the UN Global Compact

We have been a signatory of the United Nations Global Compact (UNGC) since 2000, which commits us to following its 10 principles. This report describes the actions we have taken during 2017 to implement these principles. It therefore serves as our 2017 Communication on Progress (COP) (see [page 85](#)).

ST supports the United Nations Sustainable Development Goals (SDGs).

Our contribution to nine of the 17 SDGs is reported throughout the report, where applicable.

The table on [page 86](#) shows the correlation between ST's sustainability programs, and the SDGs. [I 102-12 I](#)

External verification

ST's Sustainability Group Vice President has appointed DNV GL Business Assurance France ('DNV GL') to provide us with assurance services. DNV GL has verified the content and data presented in this report, and has confirmed that it has been prepared in accordance with the GRI Standards Core option. DNV GL interviewed all relevant corporate departments and four categories of stakeholders. In addition, DNV GL visited three sites – Kirkop (Malta), Rousset (France), and Shenzhen (China) – to review and validate our data reporting process and provide assurance for this year's report. Information and data relating to the ST Foundation were not part of DNV GL's external verification exercise. DNV GL's assurance statement can be found on [pages 88 and 89](#). [I 102-56 I](#)

Availability

This sustainability report is accessible in PDF format at www.st.com/company-reports, along with last year's report (May 24, 2017) and those from previous years.

Printed copies are available on request. [I 102-51 I](#)

Feedback

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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Corporate Sustainable Development
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This report has been prepared according to the GRI standards and 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.

Carlo Bozotti
President and CEO

Although reasonable efforts have been made to ensure the consistency of the summary financial information for the year 2017 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, 2017, as filed with the SEC on March 1, 2018, 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) based on management's current views and assumptions and 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, 2017. 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.

Content

2018 Edition

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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, sustainability champions and EHS teams who support our activity all year round
- site directors and human resources managers
- the teams audited in Kirkop, Rousset and Shenzhen for their availability

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Foreword by our President and CEO

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Technology is a driver for continuous improvement, and we believe that semiconductors can help tackle many of the world's challenges, when combined with an embedded sustainability approach. ST is committed to continue to deliver sustainable profitable growth, leveraging its long-standing commitment to corporate social responsibility.

Moving forward with a sustainability strategy aligned with ST long-term goals

In 2017, we engaged in a deep review of our sustainability strategy, involving a broad spectrum of internal and external stakeholders. This resulted in a revised strategy, with new long-term sustainable objectives, showing how we contribute to the United Nations Sustainable Development Goals.

During 2017, we made significant progress in each area of our strategy.

Powering electronics at the heart of everyday life and delivering results today, while investing for tomorrow

Driving sustainable, profitable growth

2017 was one of our best years ever in terms of business and financial performance. We achieved our goal of placing ST on a sustainable profitable growth trajectory, serving more than 100,000 customers with a unique product portfolio that addresses a broad range of applications in Smart Driving and the Internet of Things.

We delivered year-over-year revenue growth of 19.7% with significant improvements in gross margin, operating income, net income, and ended the year with a solid net financial position of \$489 million.

Sustainable Technology and Investments to fuel growth and innovation

To bring the highest level of innovation to our customers and to fuel significant revenue growth, we **invested \$1.3 Billion** to support a combination of new products, high customer demand and on ongoing strategic initiatives. We continued to focus our efforts in R&D to develop Responsible Products, which have grown from 34% of new products in 2016 **to 43% in 2017, contributing to 12.5% of our revenues.**

We pursued our active collaboration on innovation with universities, companies, start-ups and public bodies in 2017, jointly working with over 100 start-ups and 234 universities and research laboratories globally.

Quality

In our efforts to continuously improve the quality of our products and customer service, we launched a targeted **“Quality Booster Program”**, which covers both the product lifecycle and cross-functional areas. This is a key focus across the company.

We put people first

Safety comes first

In 2017, we remained among the best-in-class companies in our industry, with **a recordable injury case rate of 0.14** - the best result since 2014 - and a much-improved severity rate of -25% compared to 2016. We also **extended the scope of our Safety First program to all subcontractors**, resulting in an accident rate that was 31% lower than in 2016.



Development and Engagement

We believe in developing knowledge and leadership at every level of the Company to ensure a consistent global culture. In 2017, about 10,000 employees attended leadership trainings and we trained 8,700 additional employees on Lean methodology.

We pursued our blended approach to learning, maximizing business alignment, time to competency, people empowerment and change effectiveness.

Diversity and Inclusion

We are committed to cultivating a more diverse and inclusive workplace, with a focus on gender equity, integrating disabled employees and attracting young talents. Our efforts on gender equity intensified in 2017 with programs such as "Women in Leadership", which targets to have more than 20% of women across management level positions by 2025.

We protect the environment

Our market success in 2017 was accompanied by a significant increase in production volumes. Our absolute energy consumption increased by 3%, but decreased by 12% versus 2016 in normalized terms, thanks to concerted efforts across our manufacturing sites. Likewise, our absolute consumption of water increased by 4%, mitigated by an 11% efficiency improvement thanks to our conservation programs. This long-term work contributed to the water "A" list award ST received from CDP.

We are also progressively increasing the share of **renewable energy in our energy mix, reaching 26% in 2017**. In addition, more than **91% of ST's waste was re-used, recovered or sent for recycling** in 2017.

Together, we shape the future

Supply Chain Responsibility

We systematically assess and mitigate the risks associated with our extended supply chain, and in 2017, we implemented more stringent processes with a particular focus on new suppliers. As a result, **77% of our active suppliers in terms of spending and 100% of new suppliers in 2017** have signed a commitment to our standards.

Education and Volunteering

In 2017, we continued to support education and local communities, with **335 initiatives taken from 30 ST sites in 17 different countries** during the year, and more than **6,700 employees** volunteering. These initiatives represented **81% of our social investment, and 58% of them were linked to innovation**. We are also proud of the results achieved by the ST Foundation, which reached the milestone of 500,000 trainees in 26 countries during the year. In 2017 alone more than 100,000 students took part in the Foundation's Informatics and Computer Basics classes.

Looking ahead

ST's objective is to continue to drive sustainable and profitable growth thanks to our employees, technologies, products and manufacturing capabilities and with a sustainability approach that is fully embedded into our strategy and operations.

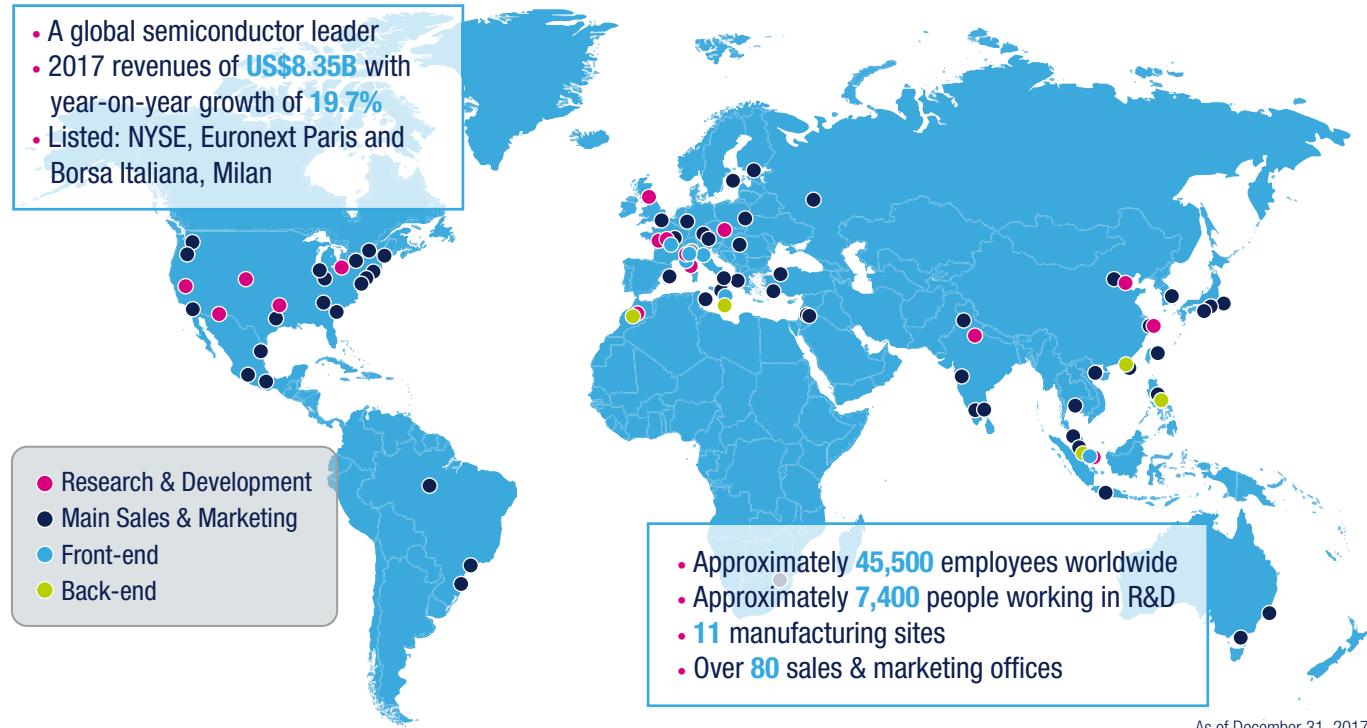
This objective is strongly supported by ST's designated President & CEO Jean-Marc Chery, who has been deeply involved over this past year in the definition of our revised sustainability strategy. ST has been a leader in sustainability since the late 1990s, and this remains the company's firm commitment - today and for the future.

Carlo Bozotti
President and CEO




ST at a glance

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Focus on a site

Catania (Italy)

Established in 1961, ST Catania hosts Front-end Manufacturing, Electrical Wafer Sorting, Research and Development, Product Design, Sales and Marketing, as well as support, central and corporate functions.

The site is firmly integrated in the local community and actively supports the ecosystem. This includes partnerships with universities and technical high schools, initiatives to foster innovation and inspire young people, social initiatives, and also cooperation with the authorities to develop local infrastructures and facilities.

MANUFACTURING ACTIVITIES

- Front-end 6 and 8-inch manufacturing facilities
- A total of 20,000 wafers/week
- 22,141m² of clean room
- Qualified as 'automotive grade'



PRODUCT GROUPS

- Automotive and Discrete Group (ADG)
- Analog, MEMS and Sensors Group (AMS)

MARKETS SERVED



OUR EMPLOYEES

- Headcount: **3,949**

- Split by gender:

33% women

67% men

- Average age: **42** years

- Split by job category:

exempts

66%



non-exempts

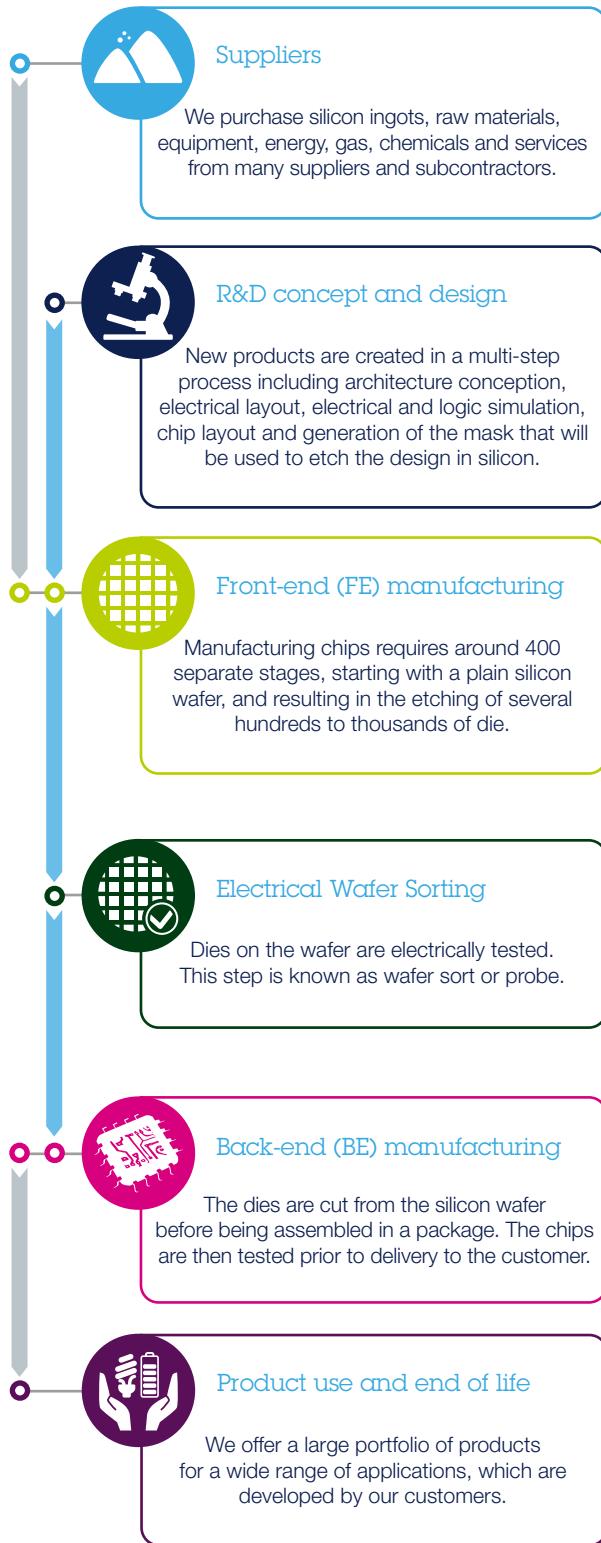
34%

- More than **1,000** people employed in R&D

Value Chain

| 102-9 |

MAIN STEPS IN OUR VALUE CHAIN

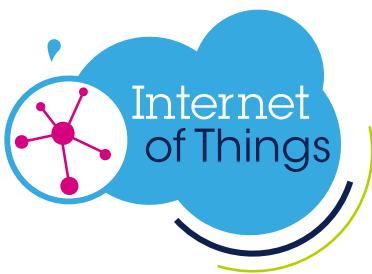


MANAGEMENT OF OUR IMPACTS

- We implement the RBA (formerly EICC) standards in our supply chain and encourage ISO and OHSAS certifications to address ethics, social, environmental, health and safety risks.
We participate in the conflict-free initiative.
- Through our Sustainable Technology program we design products systematically taking into consideration the environmental impact of the device during its whole life cycle, including raw materials, transportation, manufacturing, usage and end of life.
- FE manufacturing requires large quantities of water and some ST sites are located in water-scarce regions. Through our water management programs we are continually reducing our water footprint through reuse and recycling.
- We implement our Code of Conduct and the RBA (formerly EICC) standards in all our sites to mitigate our ethics and labor and human rights risks. Although most of our FE production is based in Europe, we also have FE and BE manufacturing located in Asia where risks can be higher. We carry out regular assessments of our production sites.
We ensure the health and safety of our employees through advanced management systems and certification.
We manage 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. Consequently, even if our consumption of PFCs is relatively low, their impact is significant and requires actions to reduce the CO₂-equivalent emissions that they produce.
- 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.
- Our products are designed to minimize the carbon footprint and consume as little energy as possible in the end-application.
We also create innovative products to help our customers develop new energy-saving applications.
ST products are not subject to WEEE but our management of hazardous substances minimizes the impact of disposal and facilitates recycling.

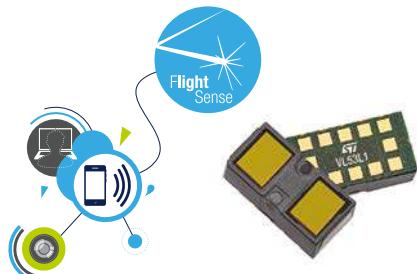
ST Products and Solutions

We are a global semiconductor leader delivering intelligent and energy-efficient products and solutions that power the electronics at the heart of everyday life. Our products and solutions are found everywhere today, and together with our customers, we are enabling smarter driving, smarter factories, cities and homes, along with the next generation of mobile and Internet of Things (IoT) devices. [I102-2](#) [I102-6](#)



The Internet of Things has opened the potential for billions of "Smart Things" to communicate with each other and improve daily life. ST provides the simplest way to develop Smart Things for the IoT with a broad portfolio of products and solutions that enable rapid and easy design and prototyping for developers.

New FlightSense™ range sensor multi-zone, multi-target detection



Our sensing solutions include specialized image sensors, such as ranging sensors using Time-of-Flight technology, to enable faster and more accurate autofocus in smartphones. The latest generation of this technology enables multi-target detection and programmable multi-zone scanning in mobile devices. We also develop Time-of-Flight products and specialized image sensors addressing 3D sensing applications.

Smart Things sense their environment using various types of sensors such as motion or environmental sensors adapted to the needs of the application. Such sensors can be used in smart homes to measure ambient conditions and optimize heating and cooling systems and ultimately the environment for comfort and energy saving. They can also be used in factories to monitor the condition of equipment to schedule maintenance activities at the right moment.

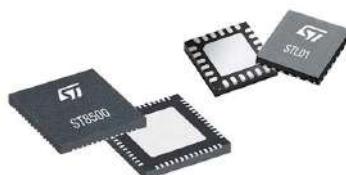
The same Micro-Electro-Mechanical-Systems (MEMS) that sense can also be used to generate actions – the so-called microactuators.

Sub-1GHz transceiver connects Smart Things to the Cloud



Every object in the IoT needs to connect. There are many different types of wireless connectivity that can be used, covering distances ranging from centimeters to tens of kilometers and with high or low data rates. ST has a broad solution offering including Near Field Communication and RFID, Bluetooth Low Energy and long-range low-power solutions based on Sub-1GHz RF supporting standards such as LoRa® and Sigfox. For example, Sigfox can be used to connect the low-power smart sensors systems that enable smart cities and smart agriculture.

Turnkey PLC chipset for smart-energy infrastructure



Smart motion sensors for always-on activity tracking



For example, electric signals can move tiny mirrors to project light or cause small membranes to vibrate to generate sound in earphones or ultrasound to detect objects.

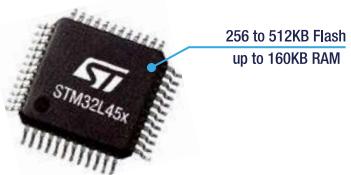
STM32™ IoT secure solution with STSAFE™ and ProvenCore-M™



The need to secure data is an increasingly important topic for objects connected to the IoT. Every connected thing needs to embed advanced security features to ensure the integrity and privacy of the information exchanged and of the data stored in its memory. ST offers solutions that cover the range of needs for security, ranging from software solutions embedded in general-purpose microcontrollers to dedicated hardware meeting the highest security standards requirements.

Power and energy management is at the core of every electronic system. ST addresses the needs of all kinds of systems, from the smallest wearable devices to smart home and city smart grid systems and solutions, to smart factories. We provide wireless charging for smart watches, we power smart meters that help consumers and utilities track and balance consumption.

New STM32L4 ultra-low-power MCUs advanced audio and energy efficiency



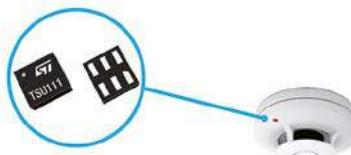
Every IoT object needs the capability to process data, analyzing what it receives and turning it into information which can be acted on. ST offers a range of microcontroller solutions to meet the needs of all kinds of objects, from ultra-low power to very high performance. Our STM32 family of 32-bit microcontrollers offers over 800 different options for developers to choose from, with a wide range of performance, memory sizes, peripherals and packaging to meet individual application needs. We also offer an ever-expanding development ecosystem to make prototyping and application development easy for our customers.



Tiny 2.6A brushed DC motor driver for portable, battery-powered devices

To move things on a larger scale, motor control solutions are needed. Highly intelligent and ultra-precise motor controls enable the creation of the robotic systems that play a critical role in the modern factory. These motors can power a range of machines from those using large and powerful motors to those requiring ultra-precise micro-motors. ST offers a complete suite of motor control products, including microcontrollers, power supply and management systems, sensing devices, and connectivity modules. These smart motors provide the intelligence necessary to make the sort of minute spin-rate adjustments necessary to optimize performance and minimize wear.

Tiny nano-power op amp
Enables longer battery life



We also offer a wide range of analog products for signal conditioning and protection as well as general-purpose analog. These analog components complement products such as sensors, microcontroller and connectivity solutions and provide the essential functionality to complete any design.

We also provide solutions for key parts of the infrastructure of the Internet of Things to make the cloud a reality. For example, our power conversion technology helps data centers and server farms to be more efficient, our silicon photonics solutions deliver data at high speed over optical connections and our mixed signal and FD-SOI ASICs are key parts of leading-edge communication infrastructure systems.



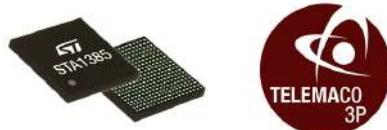
The majority of all innovations in the automotive industry today are directly or indirectly enabled by electronics. ST's Smart Driving products and solutions are making driving safer, greener and more connected through the fusion of several of our technologies.

High-res thermal camera for autonomous vehicles



We make driving safer thanks to our Advanced Driver Assistance System (ADAS) products which act faster than the human driver to avoid accidents or dangerous road behavior, protecting both drivers and pedestrians. Our products include vision processing solutions, RADAR, imaging and sensors, as well as our adaptive lighting systems, user display technologies and driver wellness sensors. We also supply chips for passive safety elements such as automotive airbags and anti-lock braking systems - key components of the most widely used automotive safety electronics systems today.

Advanced secure microprocessors protect connected cars



And we make the driving experience more connected for the driver, passengers and the vehicle itself using our vehicle-to-vehicle and vehicle-to-infrastructure (V2X) connectivity solutions. ST's Global Navigation Satellite System (GNSS) components enable precise positioning of the vehicle for navigation on any continent. However, additional connectivity requires robust security and our automotive grade secure telematics and car network products provide advanced security features. The connected car is also more entertaining with our infotainment solutions providing smartphone mirroring, advanced radio tuners, full-digital audio and noise-reduced telephone conversations.

Automotive Power MOSFET's in PowerFLATTM 5x6 dual-side cooling



We make driving greener by supplying engine management ICs and sensors that continuously work to make vehicle engines run more efficiently,

using less fuel and lowering emissions. We are also enabling the increased use of alternative energy sources with our Silicon Carbide technology for electric cars and charging stations. As the number of electronic components per car increases, it is important that all the components used to power, control and monitor the different car subsystems consume less energy. ST's high-efficiency Smart Power solutions and low-power processors do just that.

2017 Highlights

-12%
energy consumption*



Normalized value vs 2016

91%
of waste is reused,
recovered or recycled

26%
of energy purchased
comes from
renewable sources

+19.7%
net revenues vs 2016

234
active R&D partnerships



43%
of new products
are Responsible Products

Back in the
CAC 40

86%
of our employees are
covered by human rights
risk assessments



48
average training hours
per employee

Recordable injury
case rate
0.14
among the best in class



77%
of suppliers* commit to
our CSR standards
*by spend

100%
of our products are
conflict-mineral free



335
voluntary initiatives from
30 sites worldwide

Our ambitions and goals

WE LIVE OUR VALUES: People, Integrity, Excellence



WE PUT PEOPLE FIRST

OUR AMBITIONS

Health & Safety

Be a safe workplace with zero injuries, zero occupational diseases and ensure healthy lives and well-being for all.

Labor & Human Rights

Be recognized as a leader in labor and human rights and accept zero tolerance on forced labor.

Development & Engagement

Offer the best employee experience in all the locations where we operate.

Diversity & Inclusion

Achieve full gender equality and be a leader in cultural and disability inclusion.

2025 GOALS

<0.15%

recordable cases*
for employees and contractors

* injuries and illnesses

100%

of ST manufacturing sites
recognized by external
international bodies

Employee engagement rate

+10 points
above country norms

>20%

women in all
management levels

WE IMPROVE EVERYBODY'S LIFE

OUR AMBITIONS

Innovation & Profits

Sustain profitable growth, being the world leader in Industrial, Internet of Things and Automotive applications and markets.

Quality

Lead our market in terms of product quality, with no severe quality incidents, while meeting the most stringent customer expectations.

Sustainable Technology

Design and manufacture products that have the greatest positive impact on the planet and society.

2025 GOALS

>20%

of revenues generated by new
product lines

-75%

severe quality incidents*

*2016 baseline

x3

% revenues generated by
responsible products*

* vs 2016

WE PROTECT THE ENVIRONMENT

OUR AMBITIONS

Energy & Climate Change

Continuously reduce our carbon footprint and our impact on climate change by decreasing our GHG emissions and improving energy efficiency.

Water

Maintain our leadership in water efficiency by reducing consumption, recycling more, and reinforcing our efforts in water scarcity areas.

Waste & Chemicals

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

2025 GOALS

-20%

energy consumption and GHG
emissions*

* Normalized values vs 2016

-20%

water consumption*

* Normalized values vs 2016

95%

of our waste reused and
recycled



TOGETHER, WE SHAPE THE FUTURE

OUR AMBITIONS

Supply Chain Responsibility

Systematically assess and mitigate social, environmental, health & safety, and ethical risks in our extended supply chain.

Education & Volunteering

Prepare the future by supporting education in schools in all the countries where we operate.

2025 GOALS

100%

suppliers at risk audited

STEM* education partnerships in

20
countries

* Science, Technology, Engineering, Mathematics



ST 30th anniversary

2017 was an important year for ST. In addition to significant revenue growth and investments placing ST on a trajectory of sustainable growth, we also celebrated our 30th anniversary.

STMicroelectronics was formed and incorporated in 1987 following the merger of the semiconductor business of SGS Microelettronica, an Italian corporation, and the non-military business of Thomson Semiconducteurs, a French corporation.

To celebrate this landmark anniversary our sites held various events throughout the year.



Ang Mo Kio



Calamba



Sao Paulo



Catania



Agrate



Aosta



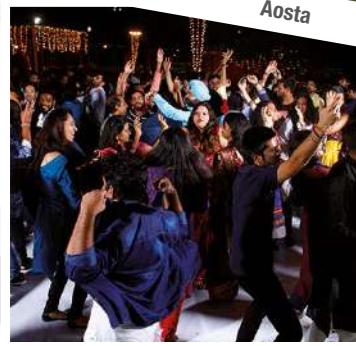
Budapest



Catania



Agrate



Greater Noida



Geneva



Grenoble



Muar

Prague

Shenzhen



Moscow

Rousset

13



Tours



Tunis



Burlington

Marcianise



Loyang



Zaventem

Governance



STMicroelectronics NV, our parent company, is registered in the Netherlands and is listed on the New York Stock Exchange (NYSE), Euronext Paris, and Borsa Italiana. Our headquarters and operational offices are managed through our wholly-owned subsidiary, STMicroelectronics International NV, and are located in Plan-les-Ouates, Geneva, Switzerland. Our operations are also conducted through our various subsidiaries, which are organized and operated according to the laws of their countries of incorporation and consolidated by STMicroelectronics NV. [I 102-5](#) [I 102-45](#) In accordance with Dutch law, we have a two-tier governance structure where 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 and Supervisory Board Charter. These are available in the corporate governance section of our website, at <http://investors.st.com>.

Supervisory Board

Our Supervisory Board supervises the policies pursued by our Managing Board and the general course of our affairs and business, and supports the Managing Board with its advice. [I 102-18](#)

Our Supervisory Board is composed of nine members who are each appointed for a three-year term at our Annual General Meeting of Shareholders (AGM). The members of our Supervisory Board are carefully selected in accordance with the Profile defined, and the Supervisory Board Charter adopted, by our Supervisory Board, which are available in the corporate governance section of our website at <http://investors.st.com>.

In performing its duties, our Supervisory Board is assisted by four standing committees, which are independent of the Managing Board and senior management, the:

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

94.3% average attendance rate at our Supervisory Board meetings

Independent audit function

Sustainability Council comprises 12 Vice Presidents

Signatory to the Global Compact since 2000

Our Supervisory Board met 12 times in 2017, with an average attendance of 94.3%. Full details of the attendance rate at meetings of our Supervisory Board and its Committees can be found in our annual report on form '20-F', and in our statutory annual report, both of which are available on our website at <http://investors.st.com>.

Managing Board

In accordance with Dutch law, our management is entrusted to our Managing Board under the supervision of our Supervisory Board. Carlo Bozotti, President and CEO, was reappointed as sole member of the Managing Board in 2017, for a one-year term that will expire at the end of our 2018 AGM, on 31 May 2018. Mr. Bozotti has held this position since March 2005.

In January 2018, we announced that our Supervisory Board will propose the appointment of Jean-Marc Chery as sole member of our Managing Board, at our 2018 AGM and Mr. Chery will also hold the position of President and CEO of STMicroelectronics.

Corporate Audit

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

In his capacity as head of Corporate Audit, our Chief Audit and Risk Executive, Franck Freymond, reports directly to the Audit Committee of our Supervisory Board. He attends quarterly meetings with the Audit Committee and executive management. The current functional reporting line and practices in place ensure he has the appropriate level of organizational independence and unrestricted access to executive 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 an effective risk coverage. Corporate Audit performs its activities in accordance with the International Standards for the Professional Practice of Internal Auditing released by the Institute of Internal Auditors.

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Sustainability governance

Our Corporate Vice-President, Human Resources and Sustainable Development, Philippe Brun, has overall responsibility for sustainability. He chairs the Sustainability Council and updates our senior management, including our President and CEO, at quarterly corporate staff meetings.

Our Sustainability Council validates our sustainability strategy and ensures that the means are in place for each department and site to deploy all the related corporate programs. Our Sustainability Council comprises 12 Vice Presidents, representing Human Resources, Compliance and Ethics, Sales and Marketing, Purchasing, Investor Relations, Manufacturing, Product Groups, Communications, and Quality.

The Corporate Sustainability organization, which is responsible for developing our sustainability strategy and programs, is supported by a network of over 100 local Sustainability Champions who deploy the programs and monitor our performance across all sites and organizations. [I 102-18 I](#)

ST has been a signatory to the Global Compact since 2000 and a member of the Responsible Business Alliance (formerly the EICC) since 2005. In addition to adhering to these standards, we also adhere to the following international guidelines and standards: International Labor Organization Conventions; United Nations Global Compact Principles; United Nations Guiding Principles on Business and Human Rights; Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises; International Organization for Standardization (ISO) 26000; Occupational Health and Safety Assessment Series (OHSAS) 18001; ISO 14001; Eco-Management and Audit Scheme (EMAS); ISO 50001; ISO 31000; ISO 22301 and International Electrotechnical Commission Quality Assessment System for Electronic Systems (IECQ) QC 080000 Hazardous Substance Process Management (HSPM). [I 102-12 I 102-13 I](#)

Ethics and Compliance

Conducting our business with the highest standards of integrity is the foundation of our Company's culture and we believe it is essential for our long-term success. At ST compliance and ethics are everyone's job and responsibility. | 102-16 |

Code of Conduct



Our Code of Conduct and underlying principles are endorsed by our President and CEO.

The values and principles contained in our Code of Conduct are the top-level reference for guiding our behavior, decision making and activities.

- **Integrity:** we conduct our business with the highest ethical standards, honor our commitments, deliver on our promises, 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; each 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 competences, seek responsibility and are accountable for our actions; we act with discipline, base our decisions on facts, and focus on the priorities.

In 2017 we continued our Compliance & Ethics awareness and communication campaign (branded 'Building trust together'), focusing on the importance of integrity and ethical conduct. This initiative establishes clear expectations and invites all employees to speak up without fear of retaliation. Over a period of 18 months (2016-2017), our Chief Compliance Officer, Philippe Dereeper, held 27 town-hall meetings, gathering more than 1,700 employees on 23 sites, and conducted one-to-one interviews with more than 100 employees and managers in 14 different countries.

In addition to face-to-face meetings, a variety of tools have been used by our Compliance & Ethics team to engage with employees, managers and third parties. These tools include e-learning modules, dedicated intranet, articles, posters, targeted emails, and short videos which are now available in 10 languages.

In Q4 2017, the first ST Integrity Application (available on the Apple Store and Google Play) was launched to provide our employees with easy access to important and useful information, push notifications, fun quizzes, and training materials, as well as a link to our misconduct reporting hotline and other useful contact information.

E-signature of Code of Conduct⁽¹⁾ (%)

2013	2014	2015	2016	2017
93	91	95	94	97

⁽¹⁾ Percentage of eligible exempts. Scope was extended to more job grades in 2016.
From 2015 onwards the Business Conduct and Ethics Policy was replaced by our Code of Conduct.

Bribery and corruption

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

Our Code of Conduct and Anti-Bribery and Corruption policy, which are available in the corporate governance section of our website at <http://investors.st.com>, provide clear definitions regarding instances of bribery and corruption, and include detailed descriptions of the Company's rules for engaging with third-parties. They also explain how to report actual or suspected violations and outline the potential disciplinary actions and legal consequences of non-compliance.

In 2017 we deployed a new tool to perform third-party due diligence to enhance our ability to manage the inherent risks of doing business with external parties, including corruption, bribery, and reputation-related risks.





2017 OBJECTIVES

Modernize whistleblowing channels by creating an online misconduct reporting platform.

Status **Comments**



A new misconduct reporting hotline was deployed in April 2017.

'Speak up' culture

Speak up and misconduct reporting

We encourage everyone, including external business partners, to express, in good faith, any concerns they might have regarding possible violations of our Code of Conduct, the Company's policies, or the law. Managers are accountable for maintaining a working atmosphere where employees are comfortable about speaking up and expressing their concerns freely.

Our misconduct reporting process is communicated to all employees through our Code of Conduct, and a dedicated intranet web page. In addition to internal local and corporate reporting channels, we have an independent multilingual misconduct reporting hotline. In 2017 we deployed a new online reporting tool, operated by an independent third-party provider, which can be reached 24 hours a day/7 days a week either online or by phone.

Misconduct reporting

	2017
Number of incidents under review as of January 1st	0
Number of incidents reported or identified during the year⁽¹⁾	15
Actual misconduct cases identified through audit or management review	0
Incidents closed by a formal investigation report	5
Number of confirmed external misconduct cases	0
Number of confirmed internal misconduct cases	5
which led to employees being dismissed or disciplined	5
which led to terminating or not renewing contracts with business partners	0
Incidents closed after preliminary assessment	8
Incidents still open at year end	2
Number of public legal cases regarding corruption brought against ST or its employees	0

⁽¹⁾ Relates to cases managed at corporate level.

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Speak up!



Ethics committees

Our Corporate Ethics Committee provides support to the Company's management in its efforts to foster a business ethics culture that is consistent across regions, functions, and organizations. This committee meets at least on a quarterly basis and currently consists of nine senior managers appointed for a three-year mandate by our President and Chief Executive Officer.

The committee's role and responsibilities include:

- discussing and evaluating desired amendments to our Code of Conduct, as well as ethical breaches, allegations, and related investigations
- issuing guidance or recommendations on ethical dilemmas
- coordinating a network of four Local Ethics Committees in France, Italy, Asia Pacific and the Americas

These Local Ethics Committees, covering individual countries or regions, meet on a regular basis. Their roles, responsibilities, and organizations are defined locally, based on guidelines issued by the Corporate Ethics Committee.

Risk Management



18

ERM process aligned with ISO 31000



Franck
Freymond

Group Vice President,
Chief Audit & Risk Executive

"As an embedded process supporting strategy setting and driving performance, ERM allows us to seize opportunities to achieve the Company's objectives. It also ensures a systemic identification, evaluation and treatment of risks. In a dynamic and ever-changing risk environment, it protects our business and drives value creation."

ST takes risks and is exposed to risks in the pursuit of our objectives as a listed industrial semiconductor company operating in several regions of the globe. We therefore take appropriate steps to identify, manage and monitor these risks.

Enterprise Risk Management

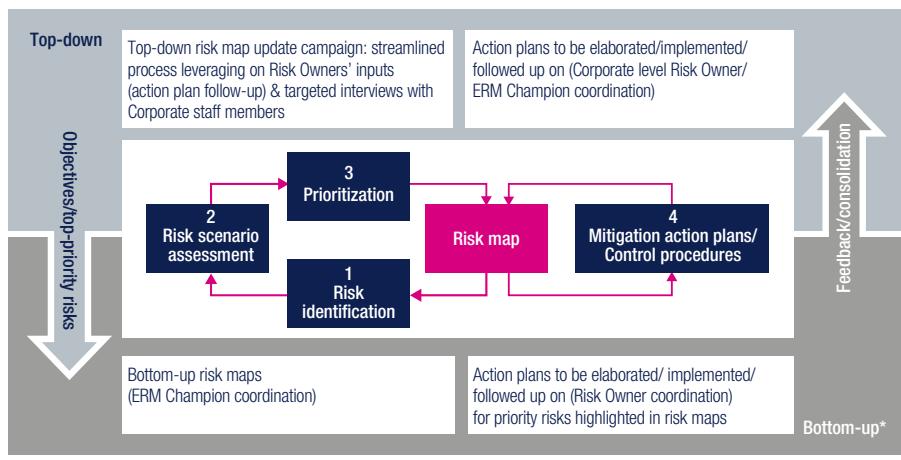
Our Enterprise Risk Management (ERM) process allows us to systematically identify, analyze, assess, prioritize, mitigate and monitor our risks within a five-year horizon. This ERM process has two key purposes:

- maintain a holistic management system for systematically identifying, evaluating, and treating risks
- seize opportunities to achieve the Company's objectives and enable continuous sustainable growth

ST's risk appetite depends on the nature of the risks. On a regular basis we determine the amount of risk that we are willing to eliminate, mitigate, pursue or retain, depending on the expected rewards, opportunities and cost of risk optimization associated with these risks.

The ERM process is formalized in a specific procedural framework and is enabled by a risk management tool. It is aligned with the ISO 31000 standard and is fully-embedded in all organizations and Company key processes. It applies a holistic approach, combining both top-down and bottom-up perspectives, to ensure that risk identification, evaluation, and management activities are embedded at the most effective level.

In 2017 we carried out the annual review of our top-down risk assessment with executive management. The output from this exercise was a risk map, including nine priority risk areas. Risk owners (members of Senior Management) were appointed for each of these risk areas to develop risk-mitigation action plans and/or develop enhanced monitoring and reporting capabilities. These plans are reviewed by Senior Management on a regular basis and periodically discussed with the Supervisory Board and Audit Committee.



* ST organizations

We also completed the bottom-up risk assessment in organizations throughout the Company, including Marketing & Sales, Product Groups, Manufacturing & Technology, R&D operations, as well as corporate functions, such as Human Resources and Sustainability.

The ERM process was audited by an independent audit firm in 2017. The recommendations are being used to bring improvements to the process in 2018. Specific risks and related mitigation activities can be found in the relevant sections of this report.

Business Continuity

We run a specific program to minimize business continuity risks and impacts in our operational processes and supply chain.

16 of our sites (see ST site certifications table on [page 36](#)) are certified ISO 22301. Deploying this management system has enabled us to identify hazards, prevent and minimize possible risks of business interruption, and ensure our customer service, while preserving the environment in which the Company operates.

In terms of business continuity, the types of risks we face include disasters due to natural hazards (such as earthquakes, floods, snowstorms, volcanic eruptions, tsunamis), industrial accidents (fire, explosion, pollution), and major impacts related to human activities (terrorism, strikes, pandemics).

Our sites are re-certified every three years, with a third-party surveillance audit conducted in the interim to ensure that we are on track. We also run internal audits between sites, to cross-fertilize and share best practices.

Each site runs an annual crisis simulation exercise covering multiple scenarios.

In 2017 we expanded the program to include key business functions, starting with our Front-end and Back-end manufacturing outsourcing organizations. Preparation work and pre-audits were conducted in 2017 while the final audit and certification will be conducted in 2018. In the next step we will broaden the scope to include our Information and Communication Technology group and the Global Logistics and Warehousing organization.

Sustainability risks

We identify our overall sustainability risks (and opportunities) through a regular materiality exercise; for more information, see [page 20](#). For each topic covered by our sustainability strategy we identify the risks and then define and deploy the relevant programs to manage these risks. This includes defining policies, deploying certified management systems such as OHSAS 18001 and ISO 14001, and deploying industry standards such as the Responsible Business Alliance (RBA) code of conduct and supporting evaluation and auditing tools.

In addition to assessing our risks at a corporate level, it is necessary to manage local risks considering the geographical locations of all our operations. In 2017 our major sites reinforced their risk management by assessing their specific local social and ethical risks and developing a mitigation plan.

We also conduct risk assessments for our supply chain. We started using the RBA Verisk Maplecroft tool in 2017 to map the global risks of our entire supply chain, to identify any risks that have not been detected in our previous supply chain risk assessments. For more information, see [page 73](#).

16 sites ISO 22301
certified

Sustainability Strategy



Our approach

All aspects of sustainability have been anchored in the values of our Company for more than two decades. Our vision, being everywhere microelectronics makes a positive contribution to people's lives, reflects this approach. Fundamental to our business, sustainability brings new opportunities, secures long-term profitability, reduces risks and improves environmental efficiency. It also brings benefits to our employees and our external stakeholders, and helps us to shape the future.

Materiality exercise

Sustainability challenges and opportunities are constantly evolving and it is essential to ensure that we remain aligned. In 2017 we performed our third materiality exercise to identify, refine and assess potential environmental, economic and social issues that could affect ST's business and stakeholders, or be impacted by our activities.

STEP 1 | IDENTIFICATION

97 potential topics identified in a review of industry standards, new regulations, CSR trends, benchmarks, and stakeholder requests.

31 topics selected based on a preliminary analysis of pertinence and importance in terms of risk, impact and opportunity for ST.

9 categories of stakeholders identified to participate in prioritization step.

STEP 2 | PRIORITIZATION

40 ST executives contacted to estimate the potential negative or positive impact of each topic on ST's business (35% participation rate).

694 internal and external stakeholders contacted to complete an online survey to rate the importance of each topic for them (30% participation rate).

1 materiality matrix derived from executive and survey inputs, aggregated with input from ST sustainable development experts based on mega trends, external factors, and alignment with Company values.

Materiality, a
three-step
process

STEP 3 | STRATEGY VALIDATION

14 material topics approved by ST Sustainability Council.

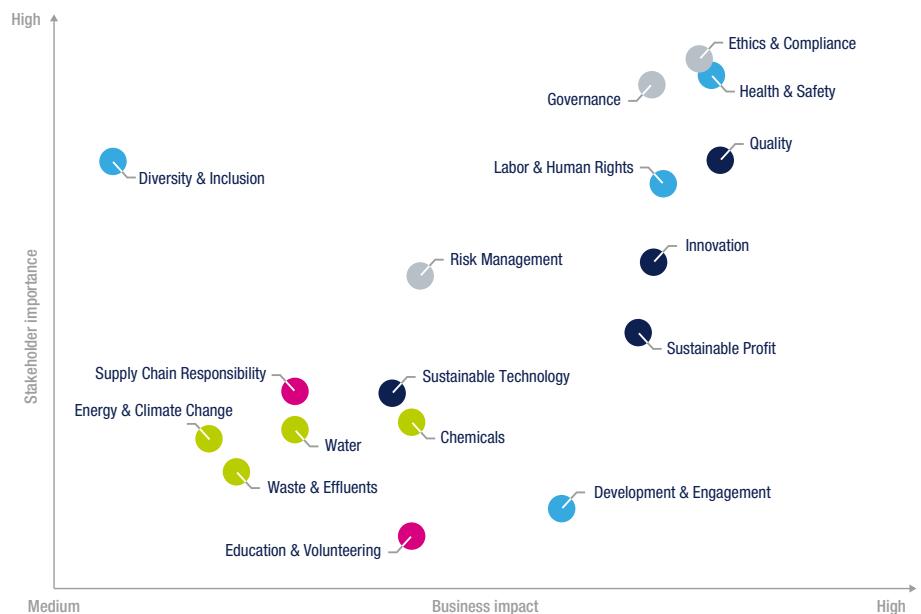
1 sustainability strategy defined for the Company.

12 long-term goals set for 2025.

Ambitions and Goals

The 2017 materiality exercise reaffirmed many findings from the previous assessment conducted in 2014, while at the same time offering new insights for some issues. The matrix shows the top material topics identified, on which we will focus in the coming years. [I 102-47 I 103-1 I](#)

Materiality matrix



Our sustainability strategy is aligned with the findings of our materiality exercise. For the material topics identified, we defined precise ambitions and long-term goals. The related programs and performance indicators are presented throughout this report. [I 102-46 I](#)



Philippe Brun

Corporate Vice President,
Human Resources and Sustainable
Development



"As the world evolves stakeholders have greater expectations from businesses. ST chose to embed sustainability into our corporate culture more than 20 years ago. This approach continues with our revised sustainability strategy, which is fully aligned with both the interests of our stakeholders and our business priorities. Sustainability makes good business sense and contributes to the overall effectiveness of the Company. It gives us a strong competitive advantage, drives innovation, helps to attract and retain talented employees, and contributes to a safer workplace. It also significantly reduces our long-term operating costs and improves our overall risk management, making us more attractive to investors."

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SUSTAINABLE DEVELOPMENT GOALS

Contributing to the Sustainable Development Goals (SDGs)

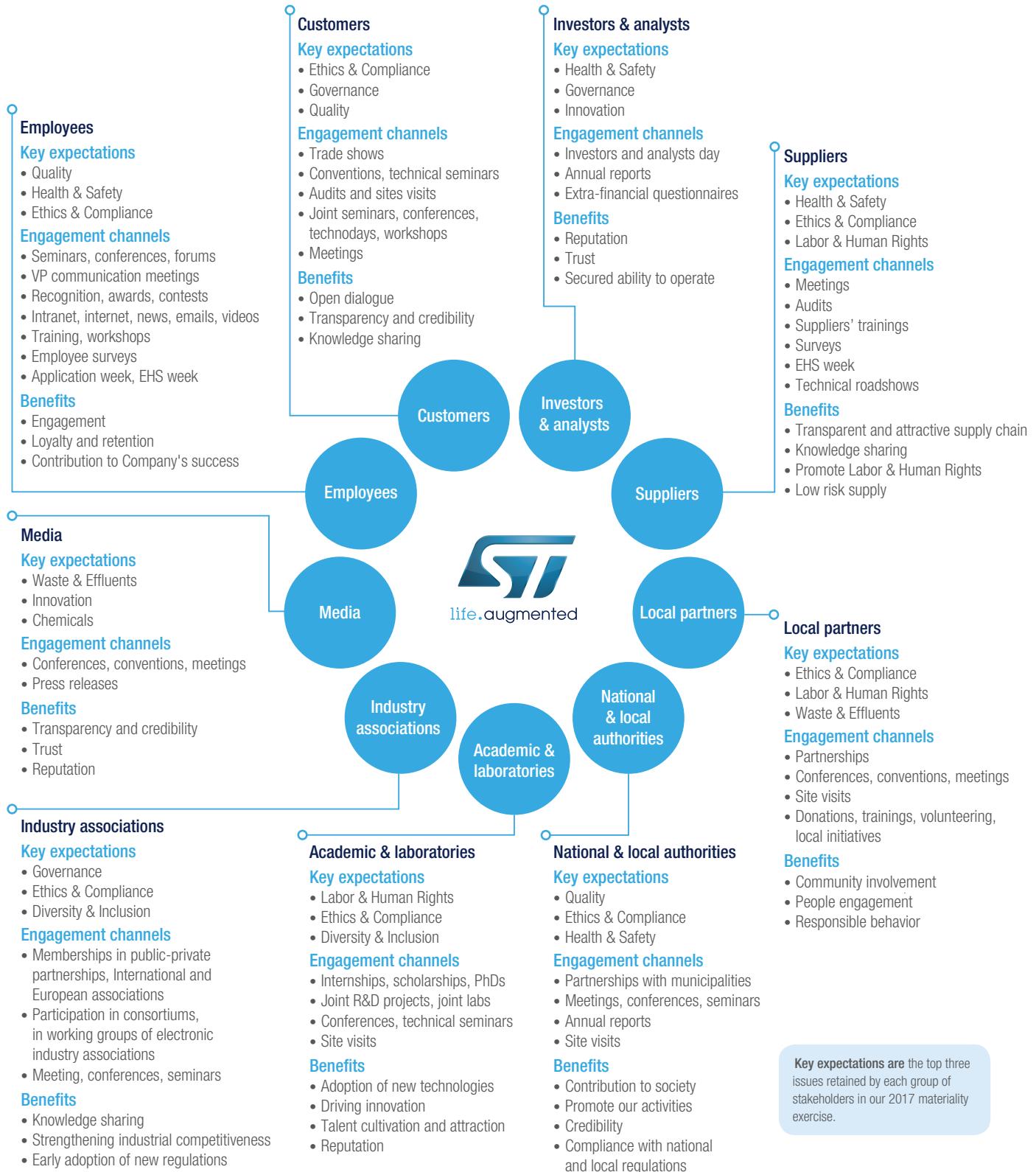
The SDGs set by the United Nations define global sustainable development priorities and aspirations for 2030, highlighting the world's biggest social and environmental issues. As a multinational company, we believe that we have a responsibility and role to play in achieving these goals. We mapped the 17 SDGs to our material topics and business strategy to identify the goals we can act on. In the years ahead, we will focus on nine SDGs that relate directly to our sustainability priorities. They are disclosed in this report and detailed on [page 86](#).

Working with industry associations

ST actively represents and promotes the common interest of the semiconductor sector. We participate in several initiatives such as the World Semiconductor Council (WSC), the European Semiconductor Industry Association (ESIA) for which we are members of the Environmental, Health and Safety committee; the NanoStreeM European project to better understand and manage the occupational hazards related to the use of nanomaterials; and the Responsible Business Alliance (formerly EICC). In 2017 our packaging and test (Back-end) site of Kirkop (Malta) demonstrated its commitment by hosting an ESIA EHS working group meeting, a NanoStreeM consortium meeting and the EMAS forum. [I 102-12 I 102-13 I](#)

Stakeholder engagement

The success of our sustainability strategy relies on co-operation with our main stakeholders. ST interacts on a daily basis with many different groups of stakeholders and engages with them in a variety of different ways. [I 102-40 I](#) [I 102-42 I](#) [I 102-43 I](#) [I 102-44 I](#)





Inauguration of ST Geneva showroom, Switzerland

We improve everybody's life



Net revenues
+19.7%
vs 2016

- US \$1.3 billion invested in R&D
- 234 active R&D partnerships
- Quality strategy based on customer focus, built-in quality and Lean leadership
- 43% of new products are Responsible Products



More than
100,000
customers
worldwide



ST included in
CAC 40

Sustainable Profit



Mobile World Congress, Barcelona, Spain

24

Innovation & Profits

OUR AMBITION
Sustain profitable growth, being the world leader in Industrial, Internet of Things and automotive applications and markets.

>20%
of revenues generated by new product lines

During 2017 we made significant progress, quarter after quarter, and we achieved our goal of placing ST on a trajectory of sustainable profitable growth. Our end-market focus is on Industrial, Automotive, Personal Electronics and Communications Equipment, Computers & Peripherals; and our application focus is on Smart Driving and the Internet of Things. This enables us to cover about 40% of the total semiconductor market and it brought us significant revenue growth and margin expansion, thanks to strong gains across all product groups and geographies. | 102-21



Net income was US\$802 million in 2017, or US\$0.89 diluted earnings per share, compared to a net income of US\$165 million, or US\$0.19 diluted earnings per share for 2016.

ST key figures | 102-7 | 201-1 |

	2013	2014	2015	2016	2017
Net revenues (US\$m)	8,082	7,404	6,897	6,973	8,347
Gross profit (US\$m)	2,614	2,498	2,332	2,455	3,268
Gross profit as a percentage of sales (%)	32.3%	33.7%	33.8%	35.2%	39.2%
Net earnings (US\$m)	(500)	128	104	165	802
Earnings per share (diluted) in (US\$)	(0.56)	0.14	0.12	0.19	0.89
Market share versus TAM (%) (Total Available Market)	2.60%	2.20%	2.06%	2.06%	2.02%

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

	2013	2014	2015	2016	2017
Operating income	(465)	168	109	214	993
Net operating cash flow	(179)	197	327	312	338

ST included in
CAC 40

1 billion STM32
microcontrollers shipped
in 2017



We expanded our customer base in 2017, maintaining a good balance of revenues between OEMs (66%) and Distribution (34%), thus combining new product ramps for OEMs with a diversified business that includes tens of thousands of small and medium-size companies. Today we have more than 100,000 customers worldwide. Recognizing our progress, effective September 18, 2017 our common shares were selected by the independent 'Conseil Scientifique' to be included in the CAC 40. This is a free float market capitalization weighted index that reflects the performance of the 40 largest and most actively traded shares listed on Euronext Paris. It is the most widely used indicator of the Paris stock market. ST is also listed on the New York Stock Exchange (NYSE) and Borsa Italiana. | 103-2 | 103-3 |

Product group performance

Automotive and Discrete Group (ADG)

Automotive and Discrete Group (ADG) revenues increased 8.8% in 2017 compared to 2016, with growth in both Automotive and Discrete businesses. In 2017, the average ST content in a car continued to increase and our Company now provides up to 1000 semiconductor components in a premium model such as the Audi A8.

In the area of safer driving, we started production of our partner Mobileye's EyeQ4 chip for semi-autonomous vehicles, based on our 28nm FD-SOI technology. Development of the next generation Mobileye EyeQ5 is ongoing, with the first silicon planned during 2018, and we have started joint work on the next generation EyeQ6.

In the area of greener driving, we won new designs in car electrification, growing our market share in power components. These wins include our Silicon Carbide products.

Microcontrollers and Digital ICs Group (MDG)

Microcontrollers and Digital ICs Group (MDG) revenues increased 15.8% compared to 2016, with strong growth in general-purpose microcontrollers partially offset by lower revenues for products being phased out.

Our microcontroller business grew throughout the year to deliver year-on-year growth of about 25%. This strong expansion of our business was driven by our STM32 general-purpose microcontroller family, where we shipped more than one billion products during 2017. This achievement is impressive, as one year prior to this our cumulative shipments since 2007 had been two billion units.

Our secure microcontroller solutions and Near Field Communications (NFC) connectivity both benefited from the acquisition we made in 2016 of assets related to the NFC and RFID reader business. We announced two key products, the ST54 and ST53, targeting mobile and wearable for NFC and secure applications.

In the digital area, we were recognized by many OEMs for our technology leadership and service excellence. We achieved several design wins for digital ASICs in advanced technologies for optical and satellite communication.



Carlo Ferro

President, Finance, Legal, Infrastructure Services and Chief Financial Officer

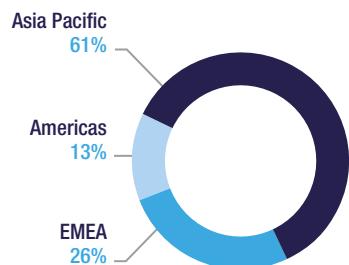
"ST's fundamentals have markedly improved in 2017 after a deep transformation over the recent years, with accelerated growth and a sustainable expansion of profit and return on investment. Amid accelerated revenues growth and expanded profitability, our Return on Invested Capital reached 36% in Q4 2017.

Our solid 2017 financial performance and capital structure have enabled us to re-invest about 31% of our total revenues in research & development and capital expenditure, an investment in innovation and future growth. Capex totaled US\$1.3 billion in 2017 and R&D expenses another US\$1.3 billion.

We also strengthened the overall capital structure in the year with the issuance of US\$1.5 billion convertible notes and expanded credit facilities. All of these reflecting a stronger equity story which also translated into the inclusion of ST's stock in the index CAC 40 of Euronext Paris."

Net revenues by location of order shipment (%)

| 102-6 | 102-7 | 201-1 |



Analog, MEMS and Sensors Group (AMS)

In the fourth quarter of 2017 we reorganized the activities related to our sensors into one group, transferring the Imaging Product Division, previously reported in Others, into the Analog and MEMS Group to create the new organization Analog, MEMS and Sensors Group.

In our MEMS sensor and actuator business, revenues in 2017 grew over 20% compared to 2016. We further developed the business with our high-volume consumer and mobile customer base, thanks to multiple sensor design wins with leading smartphone, wearable and game console makers.

We also saw strong growth with our industrial and automotive customers, shipping over 60% more sensors to them in 2017 compared to 2016.

Our Analog business also performed well in 2017, achieving growth of over 20% year-over-year. This growth was broad-based across our wide analog and power product portfolio.

In Imaging, 2017 was a year of continued success with triple-digit revenue growth year-over-year. Our proprietary Time-of-Flight technology gained traction as we released our third-generation laser-ranging sensor. In addition, our specialized 3D sensing technology ramped in volume for a major customer and we won a design for a depth-sensing Time-of-Flight solution to support assisted driving with a Tier1 automotive supplier, a priority for ST.

Investments

We invested approximately US\$1.3 billion in 2017 to support ST's innovative product portfolio and to fuel significant revenue growth, particularly from new specialized technologies and products. Specifically, the Company invested in 300 mm Front-end manufacturing and in Back-end assembly and test facilities to support new products. To support our anticipated product portfolio mix and sustain strong revenue growth in the second half of 2018, we expect to invest approximately US\$1.2 to 1.3 billion in 2018.

Extra-financial reporting

Socially Responsible Investment (SRI) rating agencies, analysts, and investors regularly evaluate our corporate behavior and performance. This sustainability report, combined with our Company website, is designed to give stakeholders a transparent view of our programs and performance, and to provide the relevant information that analysts and investors need to evaluate us.

In 2017 we maintained a strong presence in sustainability indices such as the Financial Times Stock Exchange's index FTSE4Good, Ethibel, and Euronext Vigeo. In 2018 we received a Bronze Class Sustainability award for our excellent performance and we were included in RobecoSAM's Sustainability Yearbook as one of the top scoring companies in our industry.

Participating in these evaluations gives us an opportunity to assess our performance within a wider context, benchmark ST against our peers, measure our progress, and identify areas for further improvement. It also enables us to monitor investment trends and identify new risks and opportunities.

ST inclusion in the main sustainability indices in 2017



Aris Prepoudis

CEO, RobecoSAM

"I congratulate STMicroelectronics whole heartedly for being awarded a Bronze Class medal in The Sustainability Yearbook 2018. The companies included in the Yearbook are the world's most sustainable companies in their industry and are moving the ESG needle in ways that will help us realize the UN's Sustainable Development Goals by 2030."

Innovation



Technoday and Innovation Night, Paris, France

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Innovation & Profits

OUR AMBITION
2025 GOAL

Sustain profitable growth, being the world leader in Industrial, Internet of Things and Automotive applications and markets.

>20%
of revenues generated by new product lines

While innovation and R&D are essential to all semiconductor companies, ST's unwavering commitment in this area has been a key success factor for the Company in 2017. Our customers depend on us to provide innovative products which help them create new solutions. This paves the way for them to open new markets and to provide an augmented experience to their end-users. [I 103-1](#)

Our innovation culture, combined with our long-term investments in R&D, played an important role in achieving a net revenue growth of 19.7% in 2017 versus 2016 (see Sustainable Profit on [page 24](#) for more details).

We also saw an improvement in all our metrics in 2017, with the median age of new product development projects reduced to 15 months compared to 20 months in 2016, and an increase in the number of new projects and the number of projects maturing within the year (see table on [page 28](#)).

Our R&D investments, which totaled US\$1.3 billion, representing 16% of our net revenues, will help us ensure that our growth continues throughout 2018 and beyond. These investments, along with our commitment to R&D, contribute to the UN Sustainable Development Goal SDG target 9.5.

Technology innovation

Our investments in technology development are market-driven, with the goal of turning state-of-the-art chip fabrication technologies into cutting-edge commercial products, which lead to innovative applications for the end-user.

Thanks to a wide portfolio of patents and strong pipeline of innovation, today ST is one of the few semiconductor companies mastering many different chip fabrication technologies. These include advanced FD-SOI (Fully Depleted Silicon-on-Insulator), CMOS (Complementary Metal Oxide Semiconductor), differentiated Imaging technologies, RF-SOI (RF Silicon-On-Insulator), Bi-CMOS, BCD (Bipolar, CMOS, DMOS), VIPower (Vertical Intelligent Power), Silicon Carbide (see Focus), MEMS and specialized imaging technologies.

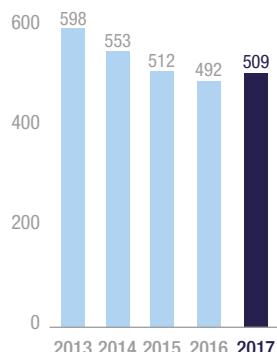
234 active R&D partnerships

~7,400 employees dedicated to R&D and product design

627 technical staff

Partnerships with over 100 startups

ST new patents filed



Open innovation

We frequently leverage external knowledge and technologies from private, public, and academic worlds to enhance the efficiency of our innovation processes. We also participate in the most prominent international standardization organizations. These cover communication protocols, advanced security and other fields.

We have established a worldwide network of strategic alliances. These include developing solutions with partners such as our collaboration with Amazon Web Services on a complete STM32-based IoT Node-to-Cloud solution for Amazon FreeRTOS (see press release on www.st.com), technology development with other semiconductor manufacturers, and development alliances with suppliers of major equipment and software design tools.

These industrial partnerships are complemented by a wide range of research programs conducted with leading universities and research institutes around the world. These range from providing scholarships to PhD students to strategic alliances with national agencies such as CEA-LETI, a French public research authority dedicated to electronics, with which we jointly developed the FD-SOI technology. In total, we had 234 active research partnerships with universities and research laboratories during 2017. [I 103-2 I](#)

Technical expertise

Our technical workforce is a fundamental asset for staying at the leading-edge of technology development in our industry. Around 30% of our employees are engineers, with around 7,400 people dedicated to R&D or product design.

Our Company's Technical Staff gathers the employees with the most advanced expertise, bringing these experts together in a community to collaborate, share and develop collective knowledge, and work on incubating new projects. This worldwide community currently includes 627 recognized experts from all of the technical and specific core business functions.

Developing our ecosystem

ST takes the lead or participates in many events to foster innovation in our ecosystems and inspire new innovative applications for our products. These include design contests, hackathons, technology and innovation days and Maker Faires.

An increasingly important part of our support comes from partnering with startups that use our products. So far we have established partnerships with over 100 startups, where we help them structure their projects and make sure that they are part of the most appropriate ecosystem. We also host some of them in our French sites, with a total of 16 startups hosted in 2017. One of these startups, Lancey Energy Storage, was present at the Consumer Electronics Show (CES®) in the US at the beginning of 2018 and won a 'Best of Innovation Award' for its intelligent radiator (see quote on [page 34](#)). We also sponsor competitions for startups, such as the Innovation World Cup for IoT/Wearable Technology, where ST has been title sponsor for the last 3 years.

Our innovation labs (F@ST labs) initiated in 2016 at our Crolles (France) site, continued in 2017 with the opening of new labs on our Rousset (France), Naples (Italy) and Greater Noida (India) sites. These labs favor brainstorming, ideation, prototyping and testing, and also encourage competence sharing and reinforce the entrepreneurial spirit.

Innovation activity

	2013	2014	2015	2016	2017
Median age of immature projects (months)	15	15	20	20	15
Immature projects ⁽¹⁾ younger than 1 year (%)	39	37	27	23	38
Projects ⁽¹⁾ maturing within year (%)	41	25	17	21	30

⁽¹⁾ Projects: product development projects, defined in accordance with IFRS criteria, measured in asset value, not yet at Maturity 30 at the end of the year.



Davide Pandini

Senior member of Technical Staff,
Chairman of Italy Technical Staff
Steering Committee Agrate (Italy)

"At ST we believe that Open Innovation is the winning strategy to build a virtuous ecosystem and to foster a creative interaction between new technologies, products and business development. We have created an innovation environment where the leading-edge technologies and systems developed by ST, outstanding universities, world-class companies, innovative startups, and public authorities work together in a win-win collaboration framework. At the heart of this innovation process there is the creative contribution of the talents. The ST Technical Staff, a community of recognized technical experts and scientists, is a key enabler to the Open Innovation strategy of the Company."



2017 OBJECTIVES

Increase efficiency of product development:

- Reduce median age of development projects to 18 months.
- Increase proportion of projects less than 1 year old to 30%.

Status

Comments



- 15 months



- 38%

| 103-3 |

Key innovations



FOCUS

Key product and ecosystem innovations in 2017

29

Tiny single-chip balun for sub 1GHz radio



Read the press release on www.st.com

STM32H7 MCUs boost protection for smart connected devices



Read the press release on www.st.com

Advanced image-stabilizing gyroscope enables shake-free photography with next-generation smartphones



Read the press release on www.st.com

High-density power SiP with full bridge & gate drivers



Read the press release on www.st.com

Programmable motor driver for battery-powered applications



Read the press release on www.st.com

STM32 Power Shield accurate power measurement



Read the press release on www.st.com



Contributing to the Sustainable Development Goals

Our approach to innovation contributes to SDG target 9.5 - Enhance scientific research, upgrade the technological capabilities of industrial sectors and increase private research and development spending.

Quality



ST employees, Rousset, France

30

Quality

OUR AMBITION
Lead our market in terms of product quality, with no severe quality incidents, while meeting the most stringent customer expectations.

2025 GOAL
-75%
severe quality incidents*
*2016 baseline

Strategy based on
three drivers

Our management approach

Our ambition is to provide our customers with the highest level of quality excellence in the industry. We are committed to making our solutions the best, safest and most reliable in the industry.

Our quality strategy sets the direction for reaching our goal. It defines state-of-the-art programs and processes for improving quality, combining innovative approaches and continuous improvement. [I 103-1](#) [I 103-2](#)

Our strategy is built around three drivers.



Customer focus

Customers are at the center of everything we do. We ensure that we have the right channels, support and mechanisms in place to listen, communicate, and provide the level of service expected.



Patrick Peubez

Executive Vice President,
Product Quality Excellence

"At ST we strive to provide the highest quality products to the markets we serve. Our quality culture is based around people, processes and methodologies, these are indeed ST's biggest assets. We are dedicated to continually improving our quality to create the highest level of customer satisfaction."

Built-in quality

At ST we strive to embed quality at the earliest stages of product development and ensure an integrated prevention approach throughout the complete product development process. ST implements the programs necessary to move to volume production whilst ensuring the highest level of quality for our customers.

Lean leadership

Quality and Lean are inseparable. Lean practices are part of ST's day-to-day manufacturing operations, ensuring faultless execution and enabling continuous improvement. We use Lean practices to enhance our quality approach at all levels of our organizations.

Our quality leadership team consists of representatives from each organization and is accountable, functionally, to the Executive Vice President of the Product Quality Excellence organization.

This team defines the quality strategy, priorities and initiatives and drives their execution company-wide. Monthly meetings are held to review results, monitor plans and define improvement actions.

Quality is embedded inside each organization, to keep it close to where it is needed and keep it focused on daily operations within the global quality framework.

Business system model

Our quality processes are supported by a dedicated set of tools, methods and systems used throughout the Company to:

- ensure a robust and consistent approach
- prioritize through risk-based thinking
- measure performance data to drive improvement
- provide a platform for sharing knowledge, lessons learned and best practices

Today, International Automotive Task Force - IATF16949 certification provides the highest standards for the industries we serve.

Certifications are mandatory to maintain business with our key customers.

Since 2016, a company-wide program is in place to ensure a successful transition to the new ISO 9001:2015 and IATF 16949 certifications in 2018.

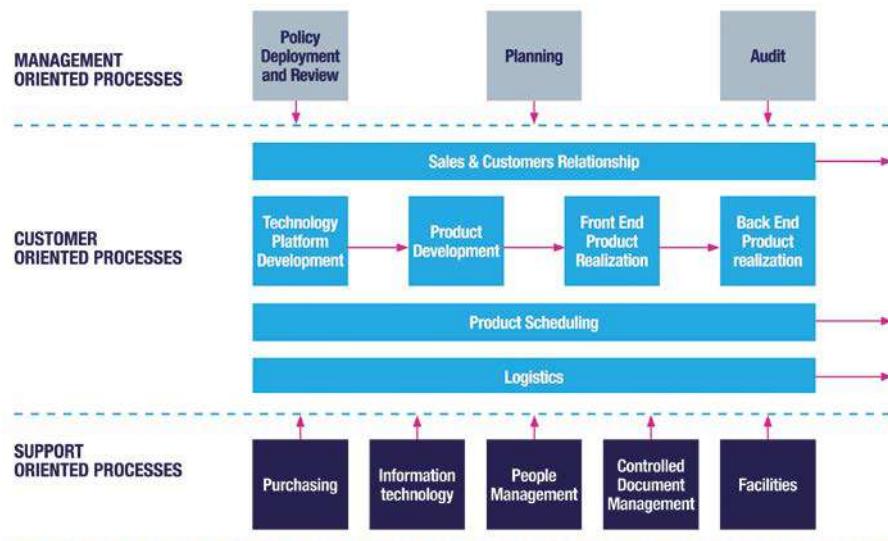
These standard revisions have a new set of requirements including risk management, lessons learned, embedded software, and safety components. In addition, they reinforce existing standard clauses and criteria such as leadership roles and responsibilities at top management level, including process owners' accountabilities.

The new standards cover our Company's 15 key processes.

Since 2015 we have mandated DEKRA as the external accredited auditing body for industry certifications. They establish the yearly audit planning to ensure our alignment and compliance with standards across the entire Company.

Transition to IATF

The ST quality framework



Excursion Eradication programs

Quality

	2013	2014	2015	2016	2017
Customer complaints	100	98	103	85	71
Cycle time to process failure analyses	100	99	91	99	96
Customer Quality returns	100	68	71	71	29

Baseline 100 in 2013.

Internal audits play an essential role in alerting the organization's board and senior management when risks are not, or inadequately mitigated. They also provide added value to business operations, growth, and innovation as a reliable way to ensure alignment and compliance with standards and norms.

Yearly internal audit programs are established by the Quality Management Teams and are deployed by ST qualified auditors. | 103-3 |

Quality leadership for our customers

Customers are at the center of everything we do and we strive to reduce excursions and severe quality incidents. In 2016, we launched Excursion Eradication programs in Front-end, Back-end and with product groups in a collective drive to address specific quality issues. Management meetings with our President and CEO and members of staff address this topic at the Company level on a regular basis. Thanks to these efforts the number of excursions in 2017 was divided by two compared to 2016.

Our focus in 2018

At the end of 2017 we launched the Quality Booster Program. The objective of this program is to accelerate the execution of our key quality initiatives to achieve the highest level of customer satisfaction.

The program is running throughout 2018 and focuses on five areas.

- Four are related to product lifecycle: R&D and product development, manufacturing capabilities and excellence, control plan and testing, front-end and back-end interaction.
- One is related to cross-functional areas: learnings from excursions and External Customer Complaints.

32



2017 OBJECTIVES

	Status	Comments
Delinquency on requested date to be at 0.35 week of sales.	✗	Not applicable. In 2017 we changed the method of calculating this KPI. Objective discontinued.
Reduce customer complaints per million units by 6% by Q4 2017 compared with Q4 2016 (2011 baseline).	✓	8% decrease in customer complaints in 2017, 68 vs. 74 in 2016.

Quality week



FOCUS

Committed to quality

In 2017, we launched a worldwide Quality Week to put a spotlight on our ongoing efforts to deliver the best quality results to our customers in line with their requirements, and to show that we all play an important role in achieving these quality results.

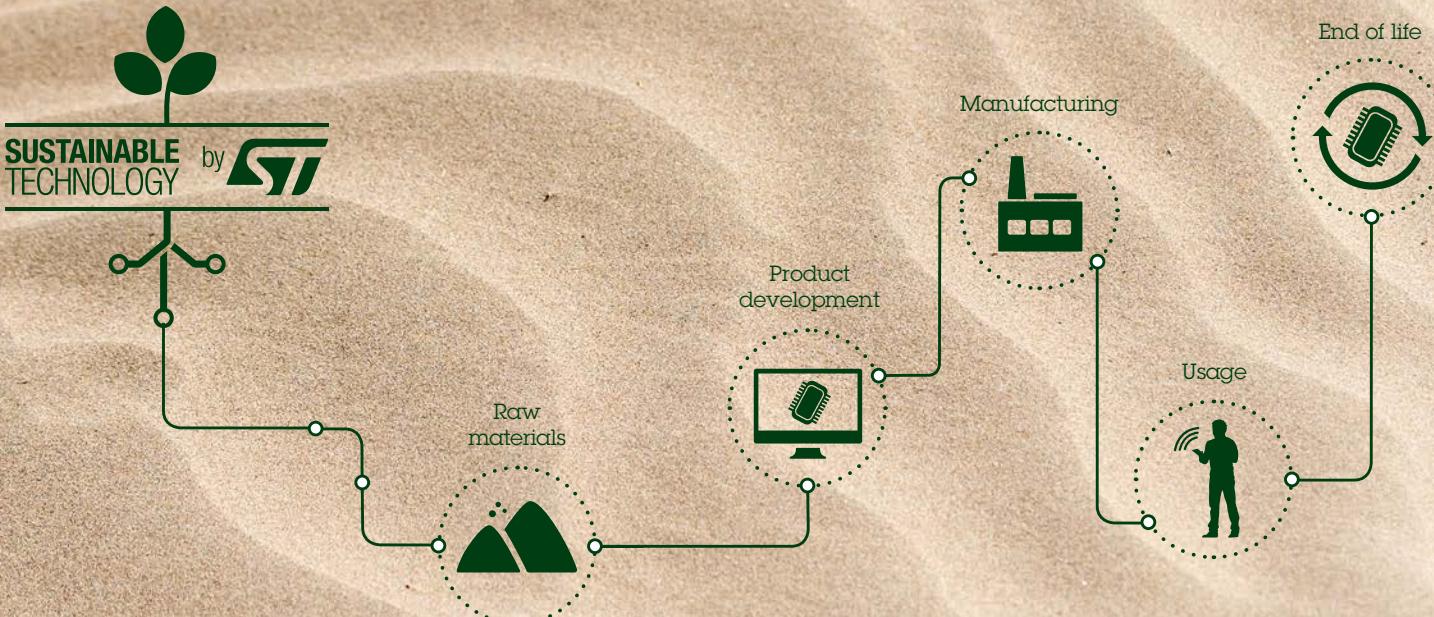
Between November 6th and 12th, all our sites combined their enthusiasm and creativity to engage employees in activities such as conferences, failure analysis and reliability lab visits, customer talks, videos, round tables, quality achievement recognitions, workshops and competitions.

Feedback provided from the sites was very positive; it was the first time this type of event had taken place on many of our sites and it was warmly welcomed, raising awareness of quality topics, stakes and expectations.

We will repeat this type of event in the future to continue to highlight our quality initiatives and their importance to our business and our customers.



Sustainable Technology



Sustainable Technology life cycle

33



ST is committed to reducing the impact of its products on the environment, while at the same time continually striving to improve their performance so that they enhance the quality of life of end-users. To anticipate the needs of the market and gain a competitive advantage, we started implementing a Sustainable Technology framework in 2011. The goal of this program is to obtain a deeper understanding of the impact of our products on the environment and society, so that we can enrich our product portfolio and explore new sustainable solutions. | 103-1 |

Sustainable Technology program

Our Sustainable Technology program consists of three main components.

- **Product Compliance** which covers legislation and customer requirements regarding environmental and responsible sourcing regulations.
- **Eco-design** which involves a systematic assessment during the design process of the environmental impact of our products across their entire life cycle.
- **Responsible Products** which enables the Company to identify the percentage of innovative products that provide clear 'responsible characteristics' such as environmental and social benefits, together with the associated revenues. | 103-2 |

Our long-term goal is to triple our Responsible Product revenues, going from 10% of total revenues in 2016 to 30% in 2025.

Product Compliance

We ensure compliance with environmental legislation and alignment with the requirements of our stakeholders through four individual programs: Material Declaration, ECOPACK® (an ST trademark), HSPM (Hazardous Substances Process Management), and responsible minerals sourcing (see Chemicals on page 69 and Supply Chain Responsibility on page 75).

Nearly all of our products are branded ECOPACK®. The table on page 36 shows that in 2017 more than 86% of our products were labelled ECOPACK® 2, a classification which goes beyond the applicable environmental requirements such as REACH and RoHS.

86% of our products
are ECOPACK® 2

Life Cycle Assessment methodology



Raphaël Meyer
CEO, Lancey, France

"ST is a partner of choice to help hardware startups such as Lancey to develop and grow. Our revolutionary smart electric space heaters, which are augmented by the latest ST components, drastically reduce power consumption thanks to remote control and charging during off peak hours. Together with ST, we are shaping the future, ensuring the responsible use of electronic products."

Eco-design

The purpose of the Eco-design activity is to:

- integrate a systematic eco-design assessment during new product development
- increase awareness about the link between product characteristics and the environmental impact and engage product developers to create greener designs
- increase the long-term positive environmental impact of our products

We have identified key parameters which influence the environmental performance of our devices. Product designers and developers use these parameters to assess the outcome of the various design options and analyze the improvements compared to the previous generation of the product, or to competitors' devices.

Eco-design evaluation is part of the Project Management System (PMS), the tool used throughout the Company to develop new products. The Eco-design assessment was integrated into the PMS tool in 2015, and is performed across the entire product-development process.

Since 2009 we have been using a Life Cycle Assessments (LCA) methodology on flagship products to identify the breakdown of materials and processes contributing to their ecological footprint. This helps inform designers about the key parameters that influence this footprint and gives greater visibility to our stakeholders of the real impact of our products (see more on www.st.com).

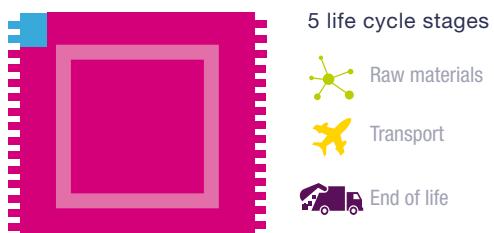
Footprint of an ADAS

Environmental indicator



Results

Total impact 5.7kg CO₂-eq. or 23.7 km by car



Representing more than 95% of overall impact, the use phase is the main contributor to all the considered impact categories.

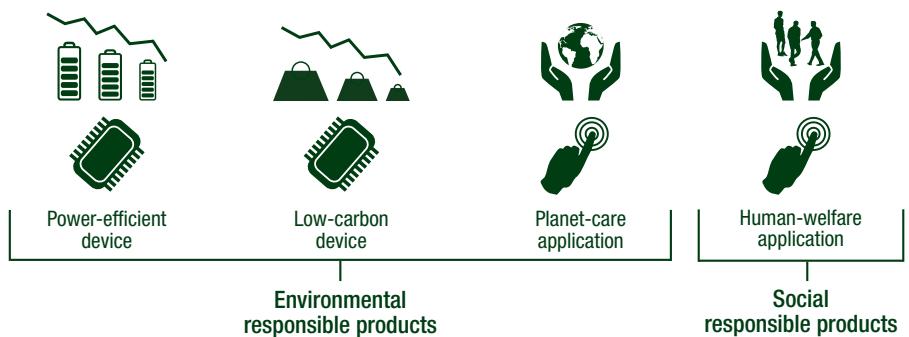
In 2017 the Life Cycle Inventory (LCI) database, the tool we use for LCA methodology, was upgraded to Ecoinvent version 3. This version is widely recognized as one of the best LCI databases available on the market.

Deployment of our training program started in 2015 and continued in 2017 with refresher training and awareness sessions for our major product development teams, reaching more than 80 attendees this year.

As a result of these activities 53% of our new products underwent an eco-assessment in the PMS tool in 2017.

Responsible Products

We classify new products depending on their performance (the result of the Eco-design assessment) or by the type of end-application which comes from the market segment analysis. The responsible characteristics of a product may be linked to the environmental or social domain.



43% of new products
are **Responsible Products**

Raphaël Meyer, CEO of Lancey, illustrates a case where an environmentally Responsible Product saves energy in its end-application.

In the Responsible Products program, we evaluate our products and then award stars to indicate their value to society, assigning one, two, or three stars according to the level of innovation embodied in the product. The awards are managed in our PMS. The proportion of Responsible Products has grown from 34% of new products registered in the PMS in 2016 to 43% at the end of 2017. | 103-3 |

To promote our Sustainable Technology program as a competitive advantage, our next step is to establish indicators that measure the revenues derived from our responsible products. We estimate that they contributed to 12% of our revenues in 2017.

ST new products in 2017 | 417-1 |



STAR classification for new products in 2017 (%) | 417-1 |

	Social products ⁽¹⁾	Environmental products ⁽²⁾
★ Incremental improvement to existing offer	55	67
★★ Significant improvement to existing offer	41	28
★★★ New or dramatic improvement to existing offer	4	5

⁽¹⁾ Provides new social solutions that improve end-user quality of life (education, medical, health, safety, security of personal information or social solution for developing countries).

⁽²⁾ Power-efficient or low-carbon products (resulting from Eco-design assessment) or products included in end-user applications that contribute to saving energy or resources, environmental preservation (water, chemicals, emissions) or generating renewable energy.

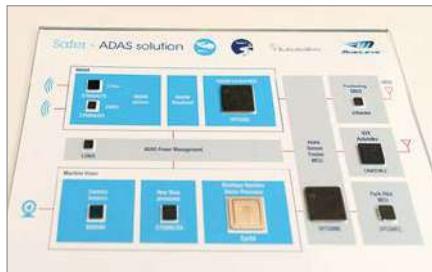
35

Contributing to the Sustainable Development Goals

Our Eco-design and Responsible Products programs contribute to SDG target 7.3 to double the global rate of improvement in energy efficiency by 2030.



3 STAR Responsible Product



FOCUS

Advanced automotive Radar technology makes driving safer

It is estimated that 1.3* million people die in road accidents per year with an additional 20+ million injured. With human error being the cause of 94% of accidents it is clear that the assisted driving technologies of today and the autonomous vehicles of tomorrow will play a major role in making driving safer. These vehicles rely upon a number of sensor inputs, one of which is Radar, a technology where we are world leaders with over 60 million of our products already reducing accidents. Our STRADA product family are single-chip radars designed for automotive applications. The STRADA431 is a short-range radar (24 GHz) - tens of meters - used for blind-spot detection, collision avoidance, and lane-departure warning applications. The STRADA770 is a long-range radar (77 GHz) - up to 250 meters - and is used for high-speed applications such as adaptive cruise control.

^(*) Source: Association for Safe International Road Travel

Indicators

This section includes indicators and GRI Standards disclosures.

Net revenues by location of order shipment⁽¹⁾ (%)

| 102-6 | 102-7 | 201-1 |

	2013	2014	2015	2016	2017
Americas	15	15	16	15	13
Asia Pacific	61	59	58	58	61
EMEA	24	26	26	27	26

⁽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 U.S.-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.

ST sales by market channel⁽¹⁾ (%) | 102-6 |

	2013	2014	2015	2016	2017
OEM	74	69	68	67	66
Distribution	26	31	32	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 distribute our products around the world.

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

	2013	2014	2015	2016	2017
Dividends	346	354	350	251	214

36

Taxes (US\$m) | 201-1 |

	2013	2014	2015	2016	2017
Tax expense for the year	72	67	75	74	86

ECOPACK® products (%) | 417-1 |

	2013	2014	2015	2016	2017
Non ECOPACK®	0.3	-	0.3	0.3	0.2
ECOPACK® 1: Compliant with the RoHS/ELV directives, second level interconnect lead-free⁽¹⁾	12.2	-	8.7	7.8	6.7
ECOPACK® 2: as ECOPACK® 1, plus free of brominated, chlorinated and antimony oxide flame retardants	87.5	-	83.0	84.0	86.0
ECOPACK® 3: as ECOPACK® 2, plus free of halogens with no RoHS exemptions	NA	-	8.0	7.9	7.1

⁽¹⁾ With adapted reliability for soldering at higher temperature, as some exemptions are necessary mainly for the automotive market regarding the RoHS Directive.

On-time delivery

	2013	2014	2015	2016	2017
Delivery date in line with customer request	101	97	103	84	71
Delivery date in line with ST commitment	97	95	98	89	79

Baseline 100 in 2011.

ST site certifications

ST is ISO 9001 certified company-wide

	OHSAS 18001 Health & Safety	ISO 14001 Environment	EMAS Environment performance disclosure	ISO 50001 Energy	ISO 22301 Business Continuity
Main manufacturing sites					
Agrate	✓	✓	✓	✓	✓
Ang Mo Kio	✓	✓	✓	✓	✓
Bouskoura	✓	✓	✓	✗	✓
Calamba	✓	✓	✓	✗	✓
Catania	✓	✓	✓	✓	✓
Crolles	✓	✓	✓	✓	✓
Kirkop	✓	✓	✓	✗	✓
Muar	✓	✓	✓	✗	✓
Rousset	✓	✓	✓	✓	✓
Shenzhen	✓	✓	✗	✓	✓
Tours	✓	✓	✓	✓	✓
Other sites					
Castelletto	✓	✓	✓	✗	✗
Geneva	✗	✗	✗	✗	✓
Greater Noida	✓	✗	✗	✗	✓
Grenoble	✓	✓	✓	✗	✓
Le Mans	✗	✗	✗	✓	✗
Loyang	✓	✓	✗	✗	✓
Marcianise	✓	✓	✗	✗	✗
Napoli	✓	✗	✗	✗	✗
Rennes⁽¹⁾	✗	✗	✗	✗	✓
Toa Payoh	✓	✓	✓	✓	✗
Total	18	16	13	9	16

⁽¹⁾ Rennes Space & High-Reliability Products.



Employees celebrating ST's 30th anniversary, Ang Mo Kio, Singapore

We put people first



ST recordable
injury case
rate improved
0.14



Average of
48 hours
of training per
person



97
different
nationalities

- 86% of our employees are covered by human rights risk assessments
- Responsible Business Alliance (formerly EICC) average audit score of 181.2/200
- More than 76,000 medical acts conducted worldwide

Health and Safety



Health Plan participants, Greater Noida, India

38

OUR AMBITION

2025 GOAL

Health & Safety

Be a safe workplace with zero injuries, zero occupational diseases and ensure healthy lives and well-being for all.

<0.15%

recordable cases*

for employees and contractors

* injuries and illnesses



Enhancing well-being and contributing to a healthier future begins with safeguarding the safety and health of our people and partners. In ST culture, safety and health are leading principles, and our aim is to achieve zero work-related injuries and illnesses. We also want to help our employees to make more informed decisions about their own health, take personal responsibility, and choose to live and work in a safe and healthy way. | 103-1 |

Health

2017 highlights

As health legislation differs significantly from one country to another, our approach is to offer sites the opportunity to design programs that are adapted to their local needs and requirements. We also encourage them to exceed these local/national requirements when they are too moderate. At our Calamba site (the Philippines), the ST Corporate Health Plan II sponsored two important programs in 2017:

- a prostate cancer screening test for all voluntary male employees aged 40 years and above
- a digital mammogram and breast ultrasound for all voluntary female employees aged 35 years and above

We also targeted prevention by encouraging employees to take part in local campaigns to quit smoking.

- In our Shenzhen site (China), a major program was launched that includes training and videos about the hazards of smoking. A group was also created on the social media app 'WeChat' for employees to share their experience and to encourage each other.
- In our major French sites, we encouraged volunteers to try the Allen Carr method, which corrects the misconceptions that keep smokers trapped. This method takes into account behavioral aspects and not just the physical addiction.

| 103-2 |

More than **76,000**
medical acts conducted
worldwide

Engaging in well-being

All our sites have increased their commitment to health and their engagement in wellness campaigns, as well as improving their data reporting. Answering to SDG target 3.8, we always try to identify high risk factors, adapt our health programs to the different needs and provide support to all our sites to enhance our employees' well-being. | 103-3 |

Health Plan - Medical acts⁽¹⁾

Exam type	2013	2014	2015	2016	2017
Medical examinations	43,411	49,310	47,278	57,871	62,008
Screening tests	12,438	13,564	13,693	15,209	12,348
Immunizations	2,153	1,721	1,606	1,428	1,861
Total services provided⁽²⁾	58,002	64,595	62,577	74,508	76,217

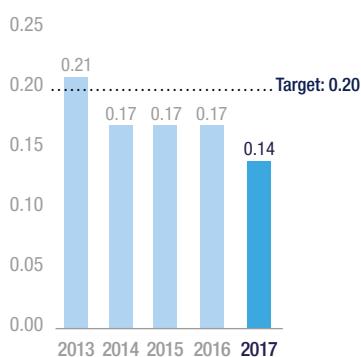
⁽¹⁾ All sites represented, except USA. Tours site (France) data missing for H2 2016.

⁽²⁾ Employees may undergo multiple examinations in the year.

Safety

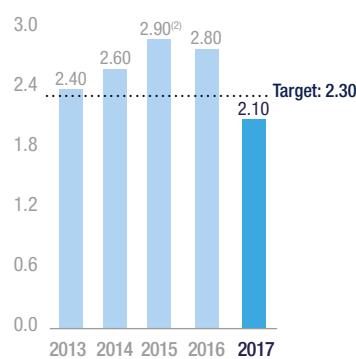
0.14
recordable injury case
rate

Recordable cases rate⁽¹⁾ | 403-2 |



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

Severity rate⁽¹⁾ | 403-2 |



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

⁽²⁾ The 2015 rate was restated due to sick leave prolongation after the closure of the previous reporting period.

Leah Cruz

Human Resources,
Calamba (the Philippines)

"ST is one of the very few companies in the Philippines that offer free cancer screening tests for interested employees, regardless of position. As the organizer and one of the 645 ST Calamba employees who took advantage of the free cancer screening tests, I am very proud to be part of a Company that truly cares for the health and well-being of its employees".



We are now moving safety to the next level and are reinforcing our safety culture by adopting a more proactive approach.

- We continue to reinforce our safety training programs and awareness initiatives, delivering an average of 7.4 hours of training and awareness per employee per year, exceeding our target of four hours.
- We promote vigilance and we insist on driving further improvements in employee behavior and working conditions, in line with SDG target 8.8.
- We practice early detection of hazards and unsafe acts, with adequate actions to address weak points and avoid future incidents.
- We manage and control our risks to prevent potential exposure of employees. This includes chemicals (see page 69, Chemicals), fire, ergonomics, mechanical, handling, radiation, movements, work at heights and nanomaterials.
- We organize monthly meetings to share incident data and adapt our prevention and practices to the different situations.

However, despite all our efforts, we regret that two tragic events occurred in 2017. The first was the death of an ST employee at our Ang Mo Kio site (Singapore). We are waiting for the results of the Singapore Ministry of Manpower (MOM) investigation to conclude if the death is work-related.

The second tragedy happened at our Bouskoura site (Morocco), where a subcontractor was the victim of a fatal accident in an electrical area.

More than ever, safety must be embedded in our way of working and we maintain this focus in 2018. Our audit program includes regular internal corporate EHS audits and site certifications. This program is a key factor to guarantee safe working conditions for our people (see page 36, ST site certifications table). | 103-2 | 103-3 |

Safety above everything else



FOCUS

ST worldwide safety meeting in Singapore



An ST worldwide safety meeting took place in November at our Front-end manufacturing site in Singapore. In line with ST's longstanding commitment to safety, this event continued to raise awareness of the importance of safety around the world and in every part of our business. More than 30 safety delegates attended from around the globe, representing various locations, including sites in Asia, Africa, Europe and America.

ST's safety strategy is based on three pillars: we care for people, we prevent risks, and we control and act. We support these by being prepared for all types of emergencies. During the meeting we concluded that the human factor is the key element and that leadership, communication and mindset will position us for a sustainable approach to achieving a safe workplace.

**31% decrease in
subcontractors'
LWDC rate**
vs. 2016

Subcontractors

Previously limited to long-term subcontractors, we extended the scope of our Safety First program at the end of 2016 to all subcontractors at all sites. A new reporting process was implemented in our online recording tool in 2017.

Thanks to the awareness actions taken in 2017, our subcontractors' accident rate (Lost Workday Case Incidence rate – LWDC rate) fell by 31% compared to 2016, reaching 0.24, which is an excellent result since it now includes all subcontractors at all sites.

Lost Workday Case Incidence rate (LWDC rate) - Subcontractors | 403-2 |

	2014 ⁽¹⁾	2015 ⁽¹⁾	2016 ⁽¹⁾	2017 ⁽²⁾
Lost workdays cases per 100 subcontractors employees	0.54	0.40	0.35	0.24

⁽¹⁾ Up until end 2016, we covered only independent subcontractors working on-site for more than 3 months.

⁽²⁾ From 2017 onwards, we are covering all independent subcontractors.



Contributing to the Sustainable Development Goals

Our commitments and programs as described above contribute to:
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 labour rights and promote safe and secure working environments for all workers.



2017 OBJECTIVES

	Status	Comments
Update the new Company-wide standard for medical visits and preventive measures.	✓	Healthplan II charter published.
Deploy the new Company-wide standard for medical care and preventive health initiatives.	✓	- Prostate cancer screening tests and digital mammograms in Calamba site (the Philippines). - Quit smoking campaign in Shenzhen site (China) and in major French sites. See article.
Reduce the main on-site subcontractors Lost Workday Case rate to 0.38 or less.	✓	0.24 (-31% vs 2016), see article.
Maintain our Recordable Case rate to 0.2 or less.	✓	0.14 (-18% vs 2016).
Reduce our severity rate to 2.3 or less.	✓	2.1 (-25% vs 2016).
Ensure ST employees have an average of 4 hours of training and awareness per year on environment, health and safety (EHS) topics.	✓	7.4 hours, see article.

Labor and Human Rights



Training on ST Code of Conduct, Ang Mo Kio, Singapore

41

Labor & Human Rights

Be recognized as a leader in labor and human rights and accept zero tolerance on forced labor.

OUR AMBITION

2025 GOAL

100%

of ST manufacturing sites recognized by external international bodies

Member of the RBA since 2005



Advancing labor and human rights

Human rights are deeply rooted in our history and culture. With the adoption of the Responsible Business Alliance (RBA, formerly the EICC⁽¹⁾) code of conduct in 2005, it became a core topic for the industry. More recently new regulations inspired by the United Nations Guiding Principles have emerged, such as the French due diligence law, confirming the importance of our practices and its prioritization in our sustainability strategy. | 103-1 |

To ensure that all of our employees are treated with respect and dignity we regularly upgrade our policies and procedures. ST's Code of Conduct and related 'speak up' culture ensures employees are aware of how to raise grievances. At the same time, we present our human rights approach to employees. This year we have also adopted a corporate procedure describing our framework for deploying ST's labor and human rights practices throughout the Company.

We are committed to identifying and mitigating any potential and actual human rights risks in our activities. In addition to covering our direct operations, we are progressively extending our approach across our supply chain (see page 73 Supply Chain Responsibility). We continually monitor both our own operations and supply chain using assessments and audits. Our programs take into account two main risk criteria: location and type of activity. A corporate taskforce and a widespread community of qualified local coordinators support our objective to reach full compliance.

| 103-2 | 103-3 | 102-16 |

86% of employees
covered by human rights risk assessments

Local labor and ethics **risk assessments**

Workplace of Choice program



92.2% RBA self-assessment score

Programs to support our strategy

We firmly compel all ST employees and organizations to respect our standards and any applicable law. Our programs are established to ensure that we make regular progress on nine core principles: freely-chosen employment, prevention of underage labor and protection of young workers, fair organization of working time, fair wages and benefits, fair treatment and anti-harassment, non-discrimination, freedom of association, fair working conditions and employee well-being, and privacy of personal information.

To ensure their effective implementation and our contribution to SDG targets 8.7 and 8.8, we have created a progressive approach based on the inherent risks of each of our sites. All major production and design sites, representing 86% of employees, are required to answer the RBA self-assessment on a yearly basis. Additionally, for the first time in 2017, we conducted local risk assessments covering labor and ethics. There are six sites which we consider to be the most at risk because of their location and the nature of their activity (see table on [page 52](#)). For these sites we have a rolling third-party audit program in place. This includes initial audit, corrective action plan and closure audit on a two-year basis. We transparently share self-assessment and audit results with customers on request.

To improve our overall performance, we regularly train our community and we encourage best practice sharing between the sites, including small sites represented essentially by sales and administrative activities.

FOCUS

Raising foreign workers' voices in Malaysia

This initiative was launched by the RBA to improve workers' awareness of their labor rights and to amplify workers' voices to improve working conditions and mitigate issues that contribute to forced labor. In 2017 our Muar site (Malaysia) joined the pilot and participated in a worker survey.

A total of 168 workers, both foreign and local, were interviewed anonymously on recruitment and working conditions. The survey results have been very useful to assess the real impact of our measures and see where we still need to make improvements. ST Muar was ranked first out of 22 factories in Malaysia regarding the elimination of recruitment fees paid by workers.

Seeing that one of our major efforts over the last few years has been successful encourages us to develop greater leadership in this field. The detailed analysis of this survey will help the site to design solutions to further improve overall employee satisfaction and protection.

Steadily improving our results

In 2017 our RBA self-assessment campaign was again a key driver for improving our labor and human rights performance. Our overall scoring has now reached 92.2%. Changes in the questionnaire and calculation method resulted in an overall industry decrease of 2%, though ST has been able to mitigate this decrease to only 1.6%. This has been possible thanks to the positive actions conducted in 2017 on labor-standard risk assessments and the communication of our standards to workers. By the end of the year, 60% of our major sites had conducted a full risk assessment exercise on labor and human rights and ethics, enabling a clearer identification of the areas of progress at site level.



2017 OBJECTIVES

	Status	Comments
Ensure that 100% of major and minor non-conformities are closed during the closure audit.		11/14 findings closed during closure audits in 2017 (78%). Open findings on working hours in China.
Ensure 100% of ST Asian and Back-end sites are audited every two years versus the RBA (formerly EICC) code of conduct.		83% of the sites have received 3rd party audits in 2017. 1 audit postponed until 2018.

Average RBA audit score
of **181.2/200**



Sharhom Tumin
Human Resources,
Muar (Malaysia)

"Good collaboration between the Corporate Social Responsibility and Muar management teams provided the multi-level support which made this program a success. Employee satisfaction, constructive worker-management communication, suitable facilities and continuous learning are the critical aspects that have allowed us to go beyond legal compliance in the domain of human rights. Thanks to the results of this survey we are ready for the more challenging tasks ahead."

Our level of non-conformance identified during RBA third-party audits on labor, ethics and management systems has been maintained at the very low level of one major non-conformance per audit. Our average score is 181.2/200, which is 28.7% higher than the industry average for similar types of audit (source: RBA report 2016). It highlights the proactive level of engagement and performance of our sites. Although we still have open findings in China due to difficulties in complying with local overtime limits, our main achievements of 2017 have been to significantly increase the percentage of workers having one day of rest after each six consecutive days, and to enhance our protection of young workers in this country.

In 2017, we also worked on the potential negative human rights impact that certain types of our products can have due to improper use by our customers. In addition to the potential illegal use in chemical, biological or nuclear weapons, which we have been controlling as per applicable export control regulations, we aim to better control cyber-surveillance and the violation of freedom of expression. We do this through a reinforced due diligence, based on the type of product and related technology, category of customer and country of destination, which can potentially lead to a refusal of the sale.

RBA (EICC) audit program results - Major/priority non-conformances

	2013	2014	2015	2016	2017
Number of audits	5	4	7	4	4
Priority non-conformances					
Child labor avoidance (young workers)	0	0	0	1 ^(t)	0
Major non-conformances					
Working hours	4	2	2	2	1
Wages and benefits	1	2	0	1	2
Freely chosen employment	0	1	0	0	1
Child labor avoidance (young workers)	0	1	0	0	0
Freedom of association	0	0	1	0	0
Supplier responsibility	0	0	0	1	0
Total of major/priority non-conformances	5	6	3	5	4
Average major/priority NC/audit	1.0	1.5	0.4	1.3	1.0
Major non-conformances					
Hazardous substances	1	0	0	0	2
Occupational injury and illness	1	1	0	0	0
Emergency preparedness	0	0	1	0	1
Storm water management	0	0	0	1	1
Occupational safety	0	1	0	0	0
Wastewater and solid waste	0	1	0	0	0
Total of major non-conformances	2	3	1	1	4
Average major NC/audit	0.4	0.8	0.1	0.3	1.0

^(t) 17 years-old workers working overtime in Shenzhen site (China).

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Contributing to the Sustainable Development Goals

Our commitments and programs related to Labor and Human Rights as described above contribute to:

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

SDG target 8.8 - Protect labour rights and promote safe and secure working environments for all workers.

^(t) In October 2017 the Electronic Industry Citizenship Coalition (EICC) adopted a new name - the Responsible Business Alliance (RBA).

Development and Engagement



Lean hiring process, China

OUR AMBITION
2025 GOAL

Development & Engagement

Offer the best employee experience in all the locations where we operate.

Employee engagement rate

+10 points
above country norms

Providing timely answers to business needs by developing shared knowledge, competencies and knowhow, is one of the key factors to ensure sustainable growth and profitability.

Our learning and development strategy focuses on Lean methodologies, change management, leadership, and engagement.

Our objective is to establish ST as a leading, innovative company where feedback, co-operation and leadership behaviors are the norm throughout the Company. [I 103-2](#)

Learning@ST, a blended approach

We develop the competence of ST employees and performance of our organizations through a blended approach, which offers multiple ways to learn that are adapted to a wide range of learning or development needs.

To ensure that learning activities address current and future business needs, we monitor their adherence to strategic business goals through our Learning Needs Analysis (LNA) process. We also systematically measure the impact of strategic training courses by evaluating new behaviors in the workplace, several months after delivery and during individual annual performance reviews. [I 103-3](#)

Feedback culture

Feedback is a fundamental pillar of our culture. It aims to maximize our ability to change and to sustain growth.

In 2017 we continued to promote 'Coaching at ST' programs and mentoring. Our intent is to develop a culture where each manager acts as Manager-Coach with effective empowerment, coaching and facilitating skills.

Co-development sessions were launched in 2015 to develop professional and managerial efficiency by sharing best practices. This program has also fostered a managerial culture of open feedback and co-coaching.

>1200 managers
trained on coaching skills

Performance and talent management

Our annual Individual Performance Management (IPM) process also contributes to reinforcing a culture of continuous and individual qualitative feedback.

Employee yearly Individual Performance Management (%) | 404-3 |

	2013	2014	2015	2016	2017
Total	92	93	90	86	90
Female	-	93	87	79	88
Male	-	93	91	89	91

In 2017 we simplified our People Review process to focus more effectively on qualitative feedback, and to help identify high potentials and prepare the succession for key positions. By identifying these talents sooner, we can enroll them earlier in our long-established talent development booster program.



Pascal Coquard

RF Product & Test Engineering Manager
MDG-ADL,
Grenoble (France)

"At the end of 2016 I left the set-top box central planning department and as part of the internal mobility program I moved to a challenging new technical job. Preparing for this new role I joined the engineering school program and was trained for almost a year, both at the University of Grenoble and on the job in ST. This has been a great opportunity for me to develop new skills and to move effectively into my new role."

73.5% employees assessed on ST's Leadership model in the IPM

8,700 employees trained on Lean

Workforce re-alignment

The decision announced in 2016 to cease set-top-box related activities implied a workforce re-deployment, re-assessment and re-training of around 1,400 employees worldwide, mainly in India and France.

In India, so far 93% of the employees affected have found work in other companies thanks to the effective support provided by the local Human Resources department. In France, this re-alignment has been managed through a voluntary departure and internal mobility plan. We have also deployed dedicated programs together with local universities to mitigate potential future talent shortages, such as analog design and test engineers (see quote).

Leadership, Lean and engagement

We develop leadership at every level of the Company to ensure a consistent global culture. In 2017, 9,500 employees participated in trainings related to leadership and more than 500 people were enrolled in the Leadership Augmented program which addresses four domains: strategy and innovation, change, leadership and Lean.

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The Lean Leadership workshops, which are part of this path, aim to engage ST Leaders in their role of leading Lean organizations, instilling a set of new behaviors and process flow thinking to drive Lean transformations.

In 2017, we continued to deploy Lean practices in Product Divisions to increase efficiency and collaboration throughout the product development cycle.

Our Lean approach helped us to efficiently manage challenging ramp up projects in some of our manufacturing sites during 2017. However, Lean at ST is far from being just about improvement tools and methods. The approach also empowers and engages people to meet customer requirements, as the experience in the Singapore Front-end manufacturing organization shows (see Focus on page 46).

MAJU, Lean program in Singapore



FOCUS

Developing management practices to sustain Lean

Maju, which means ‘progress’ in Malay, is the name of the Lean program deployed since 2016 in our Front-end manufacturing site in Singapore. One of the strengths of this program is the focus on management practices, the key to sustaining the Lean culture and reaching industrial excellence.

To effectively support our customers, workshops focused on behaviors were held for the management teams, inviting them to question their current practices and experiment with new ones. The three practices, which are ‘how to better empower people’, ‘take a step back’ and ‘ensure the sustainability of projects’ have been cascaded to the rest of the organization by the managers themselves through an innovative kit proposing follow-up activities and commitment.

At the end of 2017 more than 80 site managers had been trained and they will measure their progress through three Key Behavior Indicators (KBI) in 2018.

The results of the 2016 employee survey showed an improvement of employee perception regarding their manager’s accountability in their development. For example, ‘provide feedback that helps improve performance’ was six points higher than in the 2014 results and ‘communicate clear performance expectations’ was four points higher.

The next employee survey is scheduled for the end of 2018. It will provide an opportunity to measure the impact of our ongoing programs and hopefully confirm the trend.

Business and innovation

In 2017 we continued to develop our employees through our school of sales and marketing, business acumen and strategy programs.

In addition, we continue to develop collaborative, open, diverse and value-added people practices to boost innovation. These practices leverage the knowhow of our technical staff members, who provide expertise, guidance and active facilitation.

Looking forward

In 2018 we are progressing towards our ambition to offer the best employee experience. We are pursuing further leadership development and Lean proliferation, supporting customers and employees through change management, coaching and advanced innovation practices. We continue to strengthen our people management key process with assessments at the appropriate career steps.



2017 OBJECTIVES

	Status	Comments
Ensure that > 90% eligible ⁽¹⁾ employees have qualitative performance feedback, and > 50% have a development plan related to their annual performance.	✓	96.2% with performance feedback. 50% with development plan.
Increase the percentage of open positions for exempts filled by internal candidates to exceed 35% in 2016.	✗	No progress. 33% of jobs filled internally for exempts. Still a high level of turnover in Asia that requires external hiring.
Continuously increase the engagement level, and keep voluntary turnover at or below 10% worldwide (excluding operators).	✓	Voluntary turnover rate maintained below 7%. No employee survey conducted in 2017.
Ensure a worldwide average of 35 hours of learning per employee.	✓	48 hours per employee.

⁽¹⁾ Exempts and non-exempts.

Diversity and Inclusion



ST Sustainable Development Community

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OUR AMBITION
2025 GOAL

Diversity & Inclusion

Achieve full gender equality and be a leader in cultural and disability inclusion.

>20%
women in all
management levels

As a global company present in more than 30 countries and employing people with 97 different nationalities (none of them representing more than 23% of the total), diversity has been part of our corporate DNA for 30 years and plays a prominent role in our culture.

We are convinced that diversity is a strategic priority in this era of complex changes and increased competition. Diversity fuels sustainable growth, innovation and performance.

Our policy is to diversify our workforce to create additional value, attract diverse talent and ensure equal opportunities for career development and advancement, regardless of gender, ethnicity, age and culture. In this way, we contribute to SDG target 10.2.

To achieve our ambition we have integrated diversity and inclusion into our sustainability strategy, which has been reviewed taking into account external and internal stakeholder feedback provided during a materiality exercise (see [page 20](#)).

[I 103-1](#) | [I 103-2](#)

Diversity awareness

To support the necessary mindset change, we need to fight against stereotypes and widely promote the added value of a diverse and inclusive workforce.

To this end the following actions were taken at a corporate level in 2017.

- Creation of an e-learning course to raise awareness of unconscious bias.
- Publication of a short video on the ST intranet to show examples of how to prevent discrimination and harassment in the workplace. It also explains our 'speak up' policy as described in the ST Code of Conduct.
- Design of a workshop targeted at middle managers, which presents the benefits of mixed teams and the actions needed to ensure a fair and inclusive workplace. First piloted at our Grenoble site (France) with 18 participants from 12 different organizations, this initiative received positive feedback, and will be deployed worldwide in 2018.



Women in leadership

17% of women in STEM functions

In 2017 25% of exempt hires were women

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Gender diversity and equity

Our goal is to increase the percentage of women in management positions. For this reason in 2017 we continued to deploy our flagship 'Women in Leadership' program that was launched in 2015. This program prepares the next generation of women leaders (see quote). By the end of the year, 136 women middle managers from 14 countries, 24 sites and 19 organizations had participated in the program. **I 103-3 I**

In parallel, to promote diversity in STEM (Science, Technology, Engineering and Mathematics) functions we continued long-established local initiatives to encourage girls to choose technical studies at an early stage in their education. For example, five women engineers from our Tours site (France) participated in conferences involving 150 female pupils from local high schools. Our aim is to recruit at least 20% of women in these domains even though the percentage of women graduating in STEM subjects is lower in nearly all the countries where we operate.

Building a workplace that promotes gender diversity requires the involvement and accountability of management. For this reason it is important to raise their awareness through dedicated workshops as has been done in our Greater Noida site (India) (see Focus on [page 49](#)).

Companywide data shows that there is no difference in performance management evaluations (rating and competencies), nor in total compensation, between women and men in ST.

To ensure equity and fair wages, since 2011 ST France has been using a tool jointly created with unions in the framework of a collective agreement. This tool allows employees to compare their salary to a reference profile based on ST seniority, job position seniority and performance, for a given job responsibility level.

Women in management | 405-1 |

	2013	2014	2015	2016	2017
Women in experienced management (% JG15 and above)	14	15	15	16	16
Women in senior management (% JG17 and above)	10	11	11	11	12
Women in executive management (% JG19 and above)	10	9	8	9	9
Women on the Board (number)	2	3	3	3	3



Siham Firouchane

EHS Manager,
Bouskoura (Morocco)



"The Women in Leadership workshop was just an amazing learning experience for me to meet, network and share experiences. I realized that the challenges faced by women are the same regardless of our differences. It was a great opportunity to learn how to balance our personal and professional lives, and learn about the enablers and actions to develop women as leaders in the Company."

Disabilities

In 2017 we continued to work on the inclusion of disabled people by making our workplaces more accessible. We are overcoming prejudices about handicaps and engaging management to integrate employees with disabilities.

For example, in our Agrate site (Italy), a seminar on disability management was held in 2017 by the Human Resources department and ASPHI Foundation, a non-profit organization promoting the inclusion of disabled people through digital technologies. Participants from local staff belonging to different functions were invited to discuss actions and tools to facilitate the integration of people with disabilities in ST's workplace.

48% of non-manufacturing hires have less than five years' experience

Next generation talents

Today we have a wealth of experienced talents. However, the average age of our exempt employees is 44, so we need to diversify our workforce in terms of age to ensure our future success. Our aim is to attract young talents by promoting ST as an innovative, high-tech company. We integrate these talents by using effective onboarding programs and through knowledge-sharing initiatives with more senior employees. Many local initiatives are being launched to ensure that our workplace culture and practices are adapted to this new generation of employees.

Looking forward

In 2018 we pursue our efforts to cultivate a more diverse and inclusive workplace. We continue to increase awareness of unconscious bias and expand our programs that focus on women, people with disabilities and the integration of young talents.



Gender diversity in India



FOCUS

ST India fosters a caring and women-friendly work environment

Following the new amendment acts published in India in 2017, ST triggered actions to create a more favorable workplace for women. These actions include the extension of maternity leave from 14 weeks to 26 weeks, in line with the amendment, and the creation of a policy to prevent sexual harassment. To increase awareness and sustain cultural change, a workshop on 'Gender sensitivity' was held in our Greater Noida site (India) by an external consultant, involving managers from nine different organizations, including human resources. It aimed to overcome assumptions and stereotypes about gender, and challenge participants about their role in promoting and leveraging diversity. More workshops are planned for 2018.

"This program made us reflect deeply about 'micro-inequities', and how we can consciously empower ourselves to build a more diverse organizational mindset" said Ashish Kumar Chawla, Human Resources Director, ST India.

Indicators

This section includes indicators and GRI Standards disclosures.

LEGEND

-	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.

Headcount evolution by region | 102-8 |

	2013	2014	2015	2016	2017
Americas	967	870	839	741	743
Female	-	202	190	185	190
Male	-	668	649	556	553
Asia Pacific	18,910	17,699	17,115	17,329	18,629
Female	-	7,129	7,132	7,428	7,903
Male	-	10,570	9,983	9,901	10,726
Europe	20,789	20,308	20,327	20,497	21,266
Female	-	4,932	4,925	4,950	5,188
Male	-	15,376	15,402	15,547	16,078
Japan	202	204	205	189	191
Female	-	51	50	44	44
Male	-	153	155	145	147
Mediterranean	4,493	4,550	4,697	4,724	4,638
Female	-	2,478	2,563	2,614	2,491
Male	-	2,072	2,134	2,110	2,147
Total	45,361	43,631	43,183	43,480	45,467
Female	-	14,792	14,860	15,221	15,816
Male	-	28,839	28,323	28,259	29,651

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

	2014	2015	2016	2017
Operator				
Female	58	56	56	55
Male	42	44	44	45
Non-exempt				
Female	23	23	23	23
Male	77	77	77	77
Exempt				
Female	21	22	22	22
Male	79	78	78	78

External hires in manufacturing (%)

	2013	2014	2015	2016	2017
Jobs filled externally vs overall jobs filled	98	97	96	97	97

Hires by job type | 401-1 |

	2013	2014	2015	2016	2017
Operator	8,013	7,748	6,906	7,904	10,769
Female	-	2,723	3,073	3,463	3,984
Male	-	5,025	3,833	4,441	6,785
Non-exempt	1,586	2,094	2,297	2,192	2,503
Female	-	411	525	437	515
Male	-	1,683	1,772	1,755	1,988
Exempt	1,770	1,578	1,397	1,328	1,797
Female	-	356	374	388	445
Male	-	1,222	1,023	940	1,352
Total	11,369	11,420	10,600	11,424	15,069
Female	-	3,490	3,972	4,288	4,944
Male	-	7,930	6,628	7,136	10,125

Newcomers induction program (%)

	2013	2014	2015	2016	2017
Newcomers who participated in a formal induction session (e.g. newcomers seminar) during their first year of employment	72	93	78	85	78

Workforce by employment type (% of workers) | 102-8 |

	2013	2014	2015	2016	2017
Full-time contract	97	97	97	97	97
Female	-	93	93	94	94
Male	-	99	99	99	99
Part-time contract	3	3	3	3	3
Female	-	7	7	6	6
Male	-	1	1	1	1

Workforce by employment contract (% of workers) | 102-8 |

	2013	2014	2015	2016	2017
Permanent contract	96	95	96	96	95
Female	-	95	96	95	94
Male	-	95	97	97	96
Temporary contract⁽¹⁾	4	5	4	4	5
Female	-	5	4	5	6
Male	-	5	3	3	4

⁽¹⁾ Includes direct and indirect workers.

Workforce by employment contract by region (% of workers) | 102-8 |

	2013	2014	2015	2016	2017
Permanent contract					
Americas					99.2
Asia Pacific					99.6
Europe					93.8
Japan					99.5
Mediterranean					84.7
Temporary contract					
Americas					0.8
Asia Pacific					0.4
Europe					6.2
Japan					0.5
Mediterranean					15.3

Workforce by employment relation (% of workers) | 102-8 |

	2017
Direct relation ⁽¹⁾	98
Indirect relation ⁽²⁾	2

⁽¹⁾ Workers employed directly by ST.

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

Remuneration (%)

	2013	2014	2015	2016	2017
Employees below the ST minimum salary scale in their job grade (exempt)	19	15	14	17	14
Employees covered by annual individual salary increase	92	89	81	75	86

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

	2013	2014	2015	2016	2017
Eligible (exempt >JG11) employees receiving unvested stock awards (%)	22	26	26	27	29
Number of employees rewarded	3,920	4,620	4,730	4,750	5,050

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

	2013	2014	2015	2016	2017
Americas	25	23	19	21	20
Asia Pacific	36	37	38	35	34
Europe	76	74	76	80	83
Japan	5	5	4	4	4
Mediterranean	17	21	25	32	40

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

Number of nationalities in Corporate staff | 405-1 |

	2013	2014	2015	2016	2017
Different nationalities represented in the Corporate staff	7	8	8	6	6

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

	Male	2013	2014	2015	2016	2017
Americas	Female	22	23	23	25	26
	Male	78	77	77	75	74
Asia Pacific	Female	42	40	42	43	42
	Male	58	60	58	57	58
Europe	Female	25	24	24	24	24
	Male	75	76	76	76	76
Japan	Female	24	25	24	23	23
	Male	76	75	76	77	77
Mediterranean	Female	56	54	55	55	54
	Male	44	46	45	45	46

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

	2013	2014	2015	2016	2017
Under 30 years old	54	63	54	62	60
30-50 years old	6	6	6	7	8
Over 50 years old	10	8	6	6	9

⁽¹⁾ Resignations, retirements and dismissals.

Average turnover rate (%) | 401-1 |

	2013	2014	2015	2016	2017
Average voluntary turnover rate ⁽¹⁾	15.9	14.0	14.2	16.8	18.5
Average overall turnover rate ⁽²⁾	19.0	19.3	16.5	19.2	20.5

⁽¹⁾ Resignations.

⁽²⁾ Resignations, retirements and dismissals.

Average overall turnover rate⁽¹⁾ by gender, by category and by region in 2017 (%) | 401-1 |

	Operator		Non-exempt		Exempt	
	Female	Male	Female	Male	Female	Male
Americas ⁽²⁾	NA	NA	3.0	7.6	6.6	5.6
Asia-Pacific	33.2	119.6	12.6	33.5	8.4	9.8
Europe	4.5	2.3	3.3	2.2	3.4	3.2
Japan ⁽²⁾	NA	NA	NA	NA	6.7	8.9
Mediterranean	17.1	23.1	15.1	12.0	20.4	16.5

⁽¹⁾ Resignations, retirements and dismissals.

⁽²⁾ The Company has no manufacturing sites in these regions.

Average employee age by category

	2013	2014	2015	2016	2017
Operator	33	33	34	34	34
Non-exempt	37	38	38	38	38
Exempt	41	42	42	43	44
Average employee age (years)	37	38	38	39	39

Employees by category and by age group in 2017 (%) | 405-1 |

	Under 30 years old	30-50 years old	Over 50 years old
Operator	45	47	8
Non-exempt	24	65	11
Exempt	9	68	23

Promotion ratio female/male by category and by region in 2017 (%) | 405-1 |

	Operator		Non-exempt		Exempt	
	Female	Male	Female	Male	Female	Male
Americas ⁽¹⁾	NA	NA	3	NA	7	14
Asia-Pacific	1	0.3	5	2	14	14
Europe	11	7	14	13	15	12
Japan ⁽¹⁾	NA	NA	NA	NA	7	12
Mediterranean	10	4	24	21	32	23

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

Disabled employees | 405-1 |

	2013	2014	2015	2016	2017
Disabled people employed as % of total workforce	1.3	1.5	1.5	1.5	1.5

Career development (%)

	2013	2014	2015	2016	2017
Employees with a promotion in the year	15	11	10	8	9
Employees with a job function change in the year	20	6	4	4	3

Employee yearly Individual Performance Management (%) | 404-3 |

	2013	2014	2015	2016	2017
Operator	-	-	71	77	75
Female	-	-	76	73	70
Male	-	-	68	82	82
Non-exempt	91	91	83	84	81
Female	-	89	80	81	80
Male	-	91	84	85	82
Exempt	98	97	93	94	93
Female	-	97	91	92	91
Male	-	97	93	94	94
Total of employees	92	93	90	86	90
Female	-	93	87	79	88
Male	-	93	91	89	91

Employees with a formal individual development plan (%) | 404-3 |

	2013	2014	2015 ⁽¹⁾	2016	2017
Non-exempt	16	16	41	38	31
Female	-	20	44	40	35
Male	-	15	40	37	29
Exempt	22	23	55	53	50
Female	-	25	56	55	52
Male	-	22	54	52	49

⁽¹⁾ Figures increased in 2015 due to a new performance management system with an integrated development plan. Operators are managed through a different process.

ST population recognized through the technical ladder⁽¹⁾ (%) | 404-3 |

	2013	2014	2015	2016	2017
Asia Pacific	1.2	1.2	1.2	3.0	3.3
Europe & Mediterranean	3.2	3.8	4.1	6.4	6.8
Worldwide	2.4	2.8	3.0	5.2	5.8

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

Internal mobility for exempt positions (%) | 404-3 |

	2013	2014	2015	2016	2017
Jobs filled internally	40	25	29	33	33

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

	2013	2014	2015	2016	2017
Operator	70	79	65	66	66
Female	-	75	57	60	56
Male	-	84	75	73	75
Non-exempt	42	38	35	34	38
Female	-	45	27	30	29
Male	-	36	37	36	40
Exempt	30	22	22	27	28
Female	-	23	24	29	31
Male	-	22	22	26	27
Total	48	47	42	46	48
Female	-	57	45	50	48
Male	-	41	41	44	48

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

Employees enrolled in ST supported external education programs (%) | 404-3 |

	2013	2014	2015	2016	2017
Operator	2.4	0.8	0.9	1.1	0.8
Non-exempt	0.9	1.7	1.6	1.2	2.2
Exempt	1.8	2.2	1.5	1.6	1.8

Formal recognition and suggestion scheme | 404-3 |

	2013	2014	2015	2016	2017
Number of people recognized ⁽¹⁾	39,629	25,178	15,899	17,952	17,110
Accepted suggestions which were implemented (%)	50%	61%	60%	58%	54%

⁽¹⁾ Can include more than one recognition per employee over the year.

Unplanned absenteeism | 403-2 |

	2013	2014	2015	2016	2017
Unplanned absenteeism	2.93	2.45	2.95	3.14	2.59
% by region					
Americas	-	NA ⁽¹⁾	0.00	0.11	0.17
Asia-Pacific	-	1.27	2.96	3.07	2.01
Europe	-	3.45	3.53	3.16	2.90
Japan	-	0.21	0.00	0.05	0.01
Mediterranean	-	3.47	1.30	3.91	3.91
% by gender					
Female	-	3.28	2.74	2.75	3.40
Male	-	2.00	3.34	3.87	2.14

⁽¹⁾ Not tracked in 2014.

Collective bargaining | 102-41 |

	2013	2014	2015	2016	2017
Number of collective agreements signed in the year	38	39	39	52	49
People covered by collective bargaining agreements (%)	-	67%	75%	75%	74%
Number of people covered by representatives	34,225	32,694	31,049	30,783	32,145
People covered by representatives (%)	76%	75%	72%	71%	71%

Fair wages (%) | 404-3 |

	2013	2014	2015	2016	2017
Employees paid above 105% of the legal or conventional minimum wage	89.2	88.2	90.1	90.8	89.2

Employee survey - Engagement rate (%) | 404-3 |

	2013 ⁽¹⁾	2014	2015 ⁽¹⁾	2016	2017 ⁽¹⁾
Overall participation rate	NA	84	NA	82	NA
Individual engagement index	NA	66	NA	72	NA
Organizational agility index	NA	58	NA	63	NA
Goal alignment index	NA	68	NA	73	NA

⁽¹⁾ No survey conducted in 2013, 2015 and 2017.

Working time and overtime hours | 404-3 |

	2013	2014	2015	2016	2017
Employees with regular worktime less than 48 hours per week (%)	88% ⁽¹⁾	88% ⁽¹⁾	87% ⁽¹⁾	86%	84%
Average weekly overtime (hours per employee)	1.7	2.3	3.8	3.7	4.7

⁽¹⁾ Figures have been corrected due to an error concerning the standard working time in Calamba site, the Philippines (48 hours/week instead of 44 hours/week).

Average weekly working time in selected countries⁽¹⁾ (hours)

		2013	2014	2015	2016	2017
China	ST standard working time	40	40	40	40	40
	Overtime	5.7	3.7	5.5	6.3	8.2
France	ST standard working time ⁽²⁾	38.5	38.5	38.5	38.5	38.5
	Overtime	0.0	0.0	0.1	0.1	0.1
Italy	ST standard working time	40	40	40	40	40
	Overtime	0.2	0.2	0.3	0.3	0.4
Malaysia	ST standard working time	48	48	48	48	48
	Overtime	8.7	9.3	11.5	11.4	12.0 ⁽³⁾
Malta	ST standard working time	40	40	40	40	40
	Overtime	5.9	5.4	6.4	6.5	8.2
Morocco	ST standard working time	44	44	44	44	44
	Overtime	1.8	1.7	0.3	0.2	0.4
Singapore	ST standard working time	44	44	44	44	44
	Overtime	3.2	4.7	4.8	1.9	3.7
The Philippines	ST standard working time	48	48	48	48	48
	Overtime	4.3	4.0	6.3	5.1	7.9

⁽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.

⁽³⁾ 11.95 (below the RBA (EIIC) and legal limits).

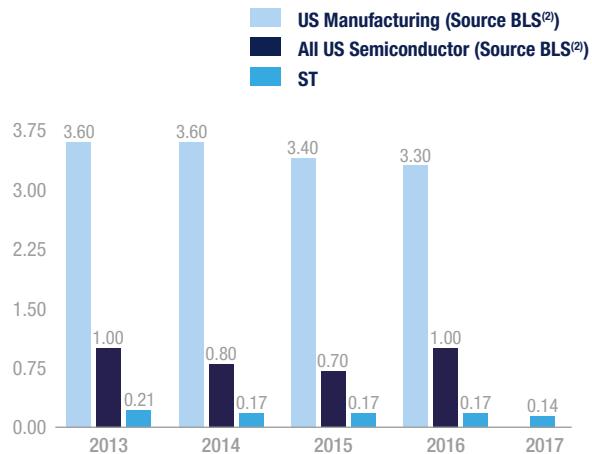
ST sites subject to regular human rights SAQ & audits | 412-1 |

Country	Major site ⁽¹⁾	Self-assessment	Audit	% Workforce
High Risk				
China	Shenzhen	✓	✓	11.0%
Malaysia	Muar	✓	✓	9.5%
Singapore	Ang Mo Kio	✓	✓	9.9%
The Philippines	Calamba	✓	✓	6.1%
Medium Risk				
Malta	Kirkop	✓	✓	3.7%
Morocco	Bouskoura	✓	✓	6.1%
Low Risk				
France	Crolles	✓	✗	3.8%
	Grenoble ⁽²⁾	✓	✗	3.8%
	Rousset	✓	✗	5.7%
	Tours	✓	✗	2.8%
India	Greater Noida ⁽²⁾	✓	✗	1.8%
Italy	Agrate	✓	✗	10.0%
	Castelletto ⁽²⁾	✓	✗	2.2%
	Catania	✓	✗	9.1%
	Marcianise	✓	✗	0.5%
Percentage coverage		100% major sites ⁽¹⁾	100% high and medium risk sites	86%
Number of sites that have been subject to human rights assessments and audits		15	6	

⁽¹⁾ Sites with >700 employees and all manufacturing sites.

⁽²⁾ Design centers. Other sites are manufacturing.

Recordable cases rate benchmarks⁽¹⁾ | 403-2 |



⁽¹⁾ Including injuries only. 2017 Benchmark data not available at time of publishing.

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

Recordable case rate⁽¹⁾ by gender and by region | 403-2 |

Gender	2013	2014	2015	2016	2017
Female	-	0.19	0.15	0.23	0.23
Male	-	0.16	0.18	0.14	0.10
Region					
Americas	0.00	0.00	0.00	0.00	0.00
Asia Pacific	0.12	0.10	0.12	0.14	0.15
Europe & Mediterranean	0.30	0.24	0.21	0.20	0.14

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

Recordable case rate⁽¹⁾ - On-site industrial/domestic | 403-2 |

	2013	2014	2015	2016	2017
Recordable case industrial rate	0.13	0.11	0.12	0.11	0.07
Recordable case domestic rate	0.07	0.06	0.05	0.06	0.08

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

Recordable cases by type of event, accident or exposure (%) | 403-2 |

	2013	2014	2015	2016	2017
Fall or slip	25	32	31	37	48
Struck by or against	40	36	30	38	27
Overexertion	11	5	6	4	4
Caught in, under or between	5	5	7	5	8
Contact with chemicals	8	8	9	8	2
Bodily reaction from slip or motion	3	7	7	4	2
Others	8	7	10	4	9

Severity rate⁽¹⁾ by gender and by region | 403-2 |

Gender	2013	2014	2015 ⁽²⁾	2016	2017
Female	-	3.2	3.3	4.2	2.4
Male	-	2.4	2.8 ⁽²⁾	2.1	1.9
Region					
Americas	0.0	0.0	0.0	0.0	0.0
Asia Pacific	0.9	0.6	0.7	0.9	0.9
Europe & Mediterranean	4.1	4.5	4.8 ⁽²⁾	4.6	3.1

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

⁽²⁾ The 2015 rate was restated due to sick leave prolongation after the closure of the previous reporting period.

Occupational diseases rate⁽¹⁾ by gender and by region | 403-2 |

	2016	2017
Occupational diseases rate, total workforce	0.05	0.01
Gender		
Female	0.10	0.03
Male	0.02	0.00
Region		
Americas	0.12	0.00
Asia Pacific	0.00	0.00
Europe & Mediterranean	0.09	0.03

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

Occupational diseases severity rate⁽¹⁾ by gender and by region | 403-2 |

	2016	2017
Occupational diseases severity rate	3.02	0.20
Gender		
Female	4.70	0.46
Male	2.10	0.06
Region		
Americas	0.84	0.00
Asia Pacific	0.00	0.00
Europe & Mediterranean	5.70	0.38

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

Lost Workday Incidence rate - Subcontractors | 403-2 |

	2014 ⁽¹⁾	2015 ⁽¹⁾	2016 ⁽¹⁾	2017 ⁽²⁾
Lost workdays per 100 subcontractor employees	8.50	6.80	6.60	5.10

⁽¹⁾ Up until end 2016, we covered only independent subcontractors working on-site for more than 3 months.

⁽²⁾ From 2017 onwards, we are covering all independent subcontractors.

Lost Workday Incidence rate⁽¹⁾ - Subcontractors by region | 403-2 |

	2014 ⁽²⁾	2015 ⁽²⁾	2016 ⁽²⁾	2017 ⁽³⁾
Americas	0.00	0.00	0.00	0.00
Asia Pacific	1.00	1.90	0.90	5.98
Europe & Mediterranean	12.60	10.40	9.60	4.50

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

⁽²⁾ Up until end 2016, we covered only independent subcontractors working on-site for more than 3 months.

⁽³⁾ From 2017 onwards, we are covering all independent subcontractors.

Lost Workday - Subcontractors by gender (%) | 403-2 |

	2014 ⁽¹⁾	2015 ⁽¹⁾	2016 ⁽¹⁾	2017 ⁽²⁾
Female	19	54	29	13
Male	81	46	71	87

⁽¹⁾ Up until end 2016, we covered only independent subcontractors working on-site for more than 3 months.

⁽²⁾ From 2017 onwards, we are covering all independent subcontractors.

Lost Workday Case⁽¹⁾ Incidence rate - Subcontractors by region | 403-2 |

	2014 ⁽²⁾	2015 ⁽²⁾	2016 ⁽²⁾	2017 ⁽³⁾
Americas	0.00	0.00	0.00	0.00
Asia Pacific	0.19	0.09	0.26	0.17
Europe & Mediterranean	0.73	0.64	0.40	0.30

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

⁽²⁾ Up until end 2016, we covered only independent subcontractors working on-site for more than 3 months.

⁽³⁾ From 2017 onwards, we are covering all independent subcontractors.

Lost Workday Cases - Subcontractors by gender (%) | 403-2 |

	2014 ⁽¹⁾	2015 ⁽¹⁾	2016 ⁽¹⁾	2017 ⁽²⁾
Female	21	30	25	24
Male	79	70	75	76

⁽¹⁾ Up until end 2016, we covered only independent subcontractors working on-site for more than 3 months.

⁽²⁾ From 2017 onwards, we are covering all independent subcontractors.

Health Plan - Medical acts⁽¹⁾

	2013	2014	2015	2016	2017
Medical examinations	43,411	49,310	47,278	57,871	62,008
Check-up with a physician	19,645	22,042	21,978	25,476	26,574
Blood analyses (including biomonitoring tests ⁽²⁾)	10,987	13,150	11,981	16,027	16,774
Chest X-rays	5,782	6,380	6,906	6,544	9,478
Colorectal cancer immuno cult tests	277	412	436	861	1,023
Electrocardiograms	4,427	5,489	4,194	6,644	5,592
Mammography	760	573	626	406	561
Pap smear tests	1,198	890	766	1,169	742
Prostate cancer screenings	335	374	391	744	1,264
Screening tests	12,438	13,564	13,693	15,209	12,348
Immunizations	2,153	1,721	1,606	1,428	1,861
Total services provided ⁽³⁾	58,002	64,595	62,577	74,508	76,217

⁽¹⁾ All sites represented, except USA. Tours site (France) data missing for H2 2016.

⁽²⁾ These tests are dedicated to employees working in manufacturing areas and on some specific maintenance operations.

⁽³⁾ Employees may undergo multiple examinations in the year.

Injuries costs and savings (US\$m)

	2013	2014	2015	2016	2017
Injuries costs	1.8	1.9	1.8	1.9	1.4
Results without action	9.6	9.2	8.2	8.4	8.9
Savings ⁽¹⁾	7.8	7.3	6.4	6.5	7.4

⁽¹⁾ Around US\$83m savings in 14 years.

Fines and total number of non-monetary sanctions in 2017

The Philippines (Calamba): Late renewal of PNP (Philippine National Police) license to possess explosives (nitric acid). Incurred fine: Php2,500 (~US\$50).

Number of fatalities

	2013	2014	2015	2016	2017
Employees	0	0	0	0	See ⁽²⁾
Subcontractors	0	0	1 ⁽¹⁾	0	1 ⁽³⁾
Total	0	0	1	0	1

⁽¹⁾ One subcontractor was fatally injured following the accidental explosion of a portable cryogenic liquid nitrogen container at our Muar site (Malaysia).

⁽²⁾ One ST employee in our Ang Mo Kio site (Singapore) but we are still waiting for the results of Singapore Ministry of Manpower Investigation (MOM) to conclude if it is work-related or not (see article on page 39).

⁽³⁾ One subcontractor victim of a fatal accident in an electrical area at our Bouskoura site (Morocco).



ST Crolles, France

We protect the environment



26% of energy purchased comes from renewable sources



91% of waste is reused, recovered or sent for recycling

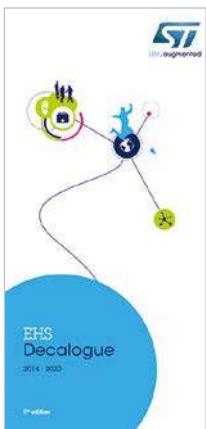


5,260 chemicals are evaluated for use

- All our manufacturing sites are ISO 14001 certified
- Recognized by CDP as a world leader in sustainable water management
- 12% decrease in energy consumption
(vs. 2016, normalized values)

We protect the environment - our approach

Being responsible



The semiconductor industry plays an ever-increasing role in society, improving people's lives by providing microelectronic devices, which are used in a wide variety of electronic applications. However, producing semiconductors requires resources and has an impact on both the environment and society.

At ST, caring for the environment is an integral part of our culture and we believe it contributes to the long-term success of our business. We aim to act responsibly to protect society against the environmental impacts associated with our industrial processes and products. Our ambition is to protect the environment using a life cycle approach, starting from our supply chain and product design, through to manufacturing, product use and end of life.

Driving environmental management

ST's Environmental Policy (available on www.st.com), endorsed by Carlo Bozotti, our President and CEO, is in line with international and national regulations as well as with the EMAS, ISO 14001 and ISO 50001 standards. It defines and guides our strategy to reduce our consumption of natural resources, prevent pollution, reduce waste and emissions, and mitigate environmental risks. Our [5th Environmental Health and Safety \(EHS\) Decalogue \(2014-2020\)](#) sets up operational targets and reflects our long-standing commitment to the environment.

ST's Corporate EHS team, facilities teams and site environmental champions are all dedicated to managing our environmental efficiency by implementing programs, defining procedures and monitoring performance, while pursuing environmental compliance with applicable laws and regulations.

Improving performance

Eco-footprint

Eco-footprint



We evaluate our environmental performance on a quarterly basis with an internal tool, called 'Eco-footprint'. Inputs and outputs related to our manufacturing operations such as electricity, water, waste, or global warming, are captured and reported⁽¹⁾ in radar charts. This tool helps us to analyze and compare the impact of each site and thus, to identify room for improvement and define priorities. The smaller the footprint, the better the performance, with a score of one or below considered as good. In 2017 we scored 0.80, below our target of 0.84, and a decrease on our 2016 score of 0.86. This improvement is due to an effective management of our increased production volumes, which led to an overall decrease in our normalized values.

Robust management systems

ST's environmental management system is based on the Company's environmental policy, corporate operating procedures and specifications from which local procedures are derived. All our manufacturing sites operate under the same EHS management system and are ISO 14001 certified (see ST site certifications table on [page 36](#)).

Evaluation of the environmental management system goes through several steps, such as self-assessments, alignment with customer specifications, internal audits, third-party audits, and certifications. | [103-1](#) | [103-2](#) | [103-3](#) |

⁽¹⁾ Internal calculation method



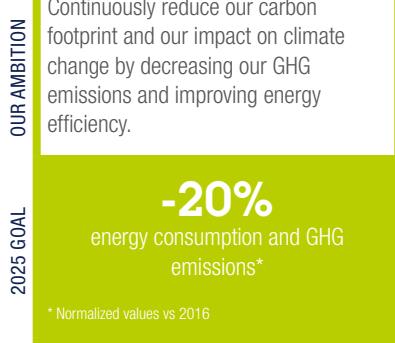
certification

Energy and Climate Change



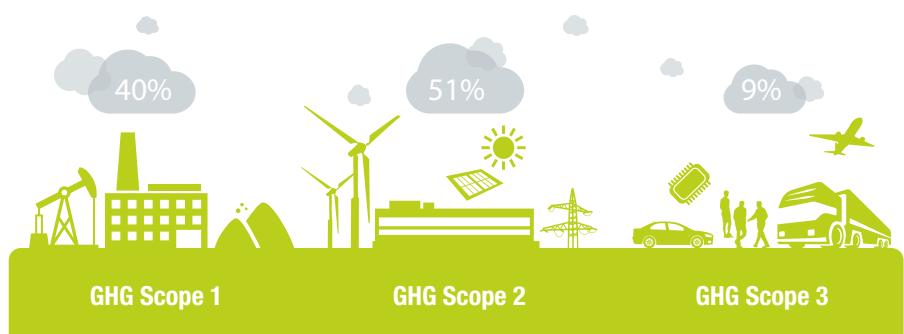
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Hydroelectric power station, France



Climate change

Climate change is a global issue that requires urgent action by everyone. ST is committed to decreasing Greenhouse Gas (GHG) emissions into the atmosphere and to reducing its carbon footprint. We assess hazards related to climate change and include them in our bottom-up corporate risk assessment. They are also assessed as part of our business continuity plans for our sites (see [page 19](#), Risk Management).





Scored A- by CDP

In 2017 we were recognized by CDP (formerly the Carbon Disclosure Project) for leadership on environmental actions and we obtained an A- score for our performance and programs related to climate change. This excellent result recognizes the advanced management of our environmental impact, as well as our leading role and long-standing commitment in the field.

Mitigating our direct emissions

Certain substances used to manufacture semiconductors contribute to global warming and ozone depletion.

Reducing PFC emissions – scope 1

ST's largest direct emissions (scope 1) come from the use of perfluorinated compounds (PFCs), a group of greenhouse gases that are essential to manufacture semiconductors and for which there is no substitute. Although PFCs are a minor contributor to overall emissions, they have long atmospheric lifetimes and so have a high global warming potential (GWP). Therefore, it is important that we reduce these emissions. We do this by:

- optimizing processes so that they require less PFCs
- replacing the gas with a lower or GWP-free gas
- installing abatement equipment to destroy PFCs, either by incinerating them in a burner system or by degrading them in a remote plasma system

In 2017, by adopting these approaches, we reduced our PFC emissions (measured in tons CO₂ per unit of production) by more than 6% compared to 2016 (see Focus). More actions are still required to achieve our target of reducing PFC emissions by 30% in 2020 compared to the 2010 baseline. This target is aligned with the 2020 goal of the World Semiconductor Council voluntary program in which ST participates.

PFC reduction



FOCUS

Lowering our direct emissions

PFCs are used in two semiconductor manufacturing process steps: chemical vapor deposition and etching. In view of their high global warming potential we put a special emphasis on initiatives to reduce these emissions. During 2017 we invested in PFC burner abatement systems, installed new equipment and upgraded existing ones, to mitigate the impact of our increase in production. At our Catania site (Italy) we prepared existing and newly built cleanrooms to receive PFC abatement systems, by installing the natural gas network required for the burners. Our Agrate site (Italy) installed four new PFC abatement systems.

Finally, an analysis of all our installations in 2017 has helped us to identify the equipment which requires abatement systems and define our priorities for the next three years. In 2018 we are starting by testing a prototype of a new generation plasma burner in Ang Mo Kio (Singapore), the site which currently has the highest PFC emissions.

Compensating with trees

To offset the remaining direct emissions, ST has developed CO₂ sequestration programs using reforestation. 9,000 hectares of forests were planted in Australia, Italy, Morocco and the United States between 2002 and 2005. These trees sequestered 268,300 tons of CO₂ in 2017, compensating⁽¹⁾ for 44% of ST's annual direct emissions. In 2017 we appointed a forestry consulting agency to conduct an inspection and analysis of the trees planted in this program. This agency found no significant issues related to forest health or biosecurity.

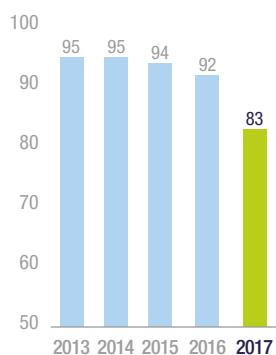
⁽¹⁾ Internal calculation method

44% of direct emissions compensated by our forests

Preserving air quality

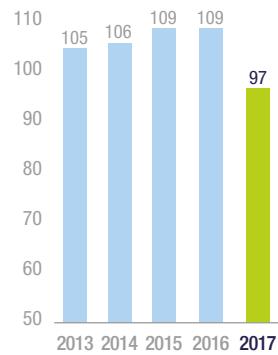
Solvents used in our manufacturing processes generate volatile organic compounds (VOC) that can be harmful to people and the environment. To reduce their adverse impact, most of our manufacturing sites treat them before their release into the atmosphere. To prepare for an increase in production and to control pollution-related risks, in 2017 the Agrate site (Italy) purchased a new VOC treatment installation.

CO₂ emissions | 305-4 |
Per unit of production - Normalized values



Baseline 100 in 2010.

Consumption of energy | 302-3 |
Per unit of production - Normalized values



Baseline 100 in 2010.

Reducing energy consumption – scope 2

12% decrease
of energy consumption
(vs. 2016, normalized
values)

Manufacturing semiconductors requires energy to run the manufacturing equipment but also to maintain the stringent environmental conditions (cleanroom temperature, humidity, and air quality). Considering the global warming impact of energy use, we are committed to reducing our consumption and the related carbon footprint. This has led us to implement energy-efficiency programs along with the purchase of renewable energies, contributing to SDG targets 7.3 and 8.4.

Due to a ramp-up of production, in 2017 our absolute energy consumption increased by 3% but we decreased our normalized energy consumption by 12% compared to 2016, demonstrating our responsible and effective management.

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2017 OBJECTIVES

	Status	Comments
Direct emissions (Scope 1): reduce PFCs emissions (tons CO₂ per production unit) by 30% in 2020 from 2010 baseline.		PFC emissions reduced by 6.3% compared to 2016. (-5.2% compared to 2010).
Indirect emissions (Scope 2): decrease CO₂ indirect emissions through our energy management programs.		Scope 2 emissions increased by 2% compared to 2016.
Transportation emissions (Scope 3): reduce CO₂ emissions (tons CO₂ per production unit) from transportation and logistics for our products, materials and employees.		Scope 3 emissions per production unit reduced by 1% compared to 2016.
Continually improve energy efficiency at equivalent production level (kWh per production unit) through process and facilities optimization, conservation and building design.		Energy efficiency improved by 12% compared to 2016.
Yearly increase by 10% the quantity of green energy used by the Company.		Green energy sourcing increased by 9.3% compared to 2016. (+46% from 2013 to 2017).
By 2017, ensure that 90% of call for tenders from US\$200k include criteria on energy efficiency and use of CO₂ emission-free and/or renewable energy regarding facilities and site services.		Energy efficiency is a key element in the decision making process for call for tenders for key corporate suppliers. Data is not consolidated for local suppliers.

More than **27GWh**
saved in 2017



Pascal Droulez

Energy & Real Estate Sourcing Director,
Global Procurement Organization

"For over 25 years, environmental conservation has been a key priority for ST, a Company which develops devices for energy management and manufactures these products using energy from renewable sources. The percentage of green energy that we use is increasing year after year and I really appreciate and feel proud of ST's caring attitude towards the environment."

Energy conservation

Energy conservation brings benefits that extend beyond the impact on climate change since it also reduces the operational costs of manufacturing. EHS experts analyze processes and search for solutions that increase energy efficiency. These solutions can include more precise equipment settings, retrofits or replacement. Sometimes they are also achieved through reducing the water and chemicals required in the process. By using these techniques, we estimate we saved 27GWh of electricity and gas in 2017.

Green sourcing

Our main source of energy is electricity. Part of our strategy to reduce our carbon footprint is to increase the share of renewable sources in our energy mix. About 26% of the electricity used in ST in 2017 was labeled green, produced by wind turbines, solar power plants, and hydroelectric dams on the Rhône river, in the Alps and in the Pyrenees mountains. In addition to using energy produced by nature, these sources of energy are located close to our Italian and French sites, reducing the energy losses during transportation through the national grid. French hydroelectric power contributes 70% of the electricity used by our sites in France.

Our sites equipped with their own solar power installations - Catania (Italy) and Grenoble (France) - also contributed to reducing our carbon footprint in 2017 by producing 2.22GWh of green energy.

ISO 50001

All our energy-intensive Front-end sites have been ISO 50001-certified since 2013, and the R&D site of Le Mans-Rennes (France) since 2015. This certification encourages improvements in energy management. In 2017 our Shenzhen site (China) initiated the same process and became the first ST Back-end site to be ISO 50001-certified (see ST site certifications table on [page 36](#)).

Considering emissions related to transport – scope 3

Reducing CO₂ emissions related to product transportation, business travel and employee commuting is part of our sustainability strategy because it represents the main contribution to ST's scope 3 emissions.

Our sites work with local stakeholders to develop greener commuting solutions and to promote mobility plans suitable for the local context. Thanks to these initiatives, for example, 20% of the employees of our Grenoble site (France) commuted using 'green' alternatives in 2017. These green options are all modes of transport with zero CO₂ emissions. Our Rousset site (France) also added 12 electric car charging stations in 2017, continuing an initiative in favor of green commuting already in place at our sites of Le Mans, Crolles and Grenoble (France) plus Catania and Agrate (Italy).

To reduce business travel and consequently CO₂ emissions, 36 of our sites are equipped with video-conference rooms. An online platform also informs employees 'who is where' so that they can easily share cars when on business trips. Thanks to efforts to optimize loading and routes, we have also decreased our CO₂ emissions related to goods transportation by 39% since 2011. However in 2017, a significant increase in production led to more products being transported and thus to an increase of 8% compared to 2016.

Contributing to the Sustainable Development Goals

Our commitments and programs related to Energy and Climate Change as described above contribute to:

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.



Water



Ultra-pure water, Rousset, France

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OUR AMBITION
2025 GOAL

Water

Maintain our leadership in water efficiency by reducing consumption, recycling more, and reinforcing our efforts in water scarcity areas.

-20%
water consumption*

* Normalized values vs 2016



Global demand for water is increasing significantly, while climate change is negatively affecting water supplies, leading to shortages. This scarcity of water can impact both our local communities and our ability to operate. ST's operations, especially Front-end sites, require large volumes of ultra-pure water to manufacture semiconductor devices. Therefore, responsibly managing our water footprint is of strategic importance for our sustainable growth.

Maintaining a leadership position

In 2017, ST was officially recognized as a global leader in sustainable water management. Among the 2,025 companies worldwide that were evaluated, and the 73 companies selected, ST was one of only three semiconductor companies recognized and included in the Water A List of the CDP. This excellent result is the outcome of our long-standing commitment and reflects the efforts of all our manufacturing sites.

Conserving water

Our water conservation strategy is based on the 3Rs - reduce, reuse and recycle.

Reducing water usage

Our first and primary strategy for water conservation is to reduce the amount that is withdrawn. We aim to continually improve our techniques and manufacturing processes to reach our 2025 target of reducing our water consumption per unit of production by 20% compared to 2016.

Each manufacturing site implements specific actions such as:

- proper monitoring to identify opportunities for improvement
- process optimization such as minimizing and standardizing water consumption in manufacturing equipment in idle mode
- recycling water issued from reverse osmosis and ultrafiltration systems

Water intensity improved

43% of water recycled and reused



Mattias Espanet

Facilities Technical Leader
for ultra-pure water,
Rousset (France)

"Saving water is a daily challenge. To be more efficient, water engineers are grouped into a team that I am proud to lead. For years, we have been sharing best practices and working together to maintain and optimize the hydraulic performance of our water treatment systems. This important and long-term work undoubtedly contributed to the water A List award ST received from CDP."

In 2017 our absolute consumption of water was up 4% due to a significant increase in production. Nevertheless, thanks to our conservation programs, overall water intensity was 11% better than in 2016. This improved efficiency in water-use contributes to achieving SDG targets 6.4 and 8.4.

Reusing and recycling water

Our second strategy to conserve water is to reuse and recycle. However, as our manufacturing processes demand ultra-pure water, it is not always possible to reuse processed water. Water can be treated and recycled into ultra-pure water but it is more often reused to cover facility needs (cooling towers, scrubbers).

In 2017 we reached a water reuse and recycling rate of 43%, one point lower than in 2016. This is mainly due to a decrease in the amount of water recycled in two of our sites because of filtration and water quality issues. Actions to solve these issues have been identified and require specific investments that are planned for 2018.

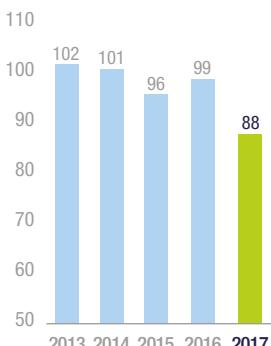
Considering our impacts

Fresh water resources

All our sites, even those located in areas where water is abundant, are asked to reduce their water consumption to avoid any potential future issue related to water scarcity. The availability and quality of water, as well as its related costs, risks and challenges are considered at site level. Ensuring the continuity of our water supply is part of our responsibility and thanks to our water risk assessment, we can identify ST's sites located in water-stressed areas. We collaborate with local stakeholders and work carefully to control and manage our impact on local water sources. The volume of water authorized for withdrawal is defined in the relevant permits delivered by local authorities and is monitored by our Company's water meters. With this approach, we contribute to SDG target 6.4.

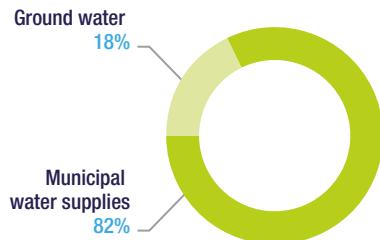
Consumption of water

Per unit of production - Normalized values



Baseline 100 in 2010.

Water withdrawal by source | 303-1 |



Ultra-pure water conference



FOCUS

Exploring the latest trends

75 to 80% of water consumed by our Front-end sites is used to produce ultra-pure water (UPW) and we are constantly looking for new solutions for optimizing the production of UPW while reducing our impact on the environment. At the end of May in Portland (USA), ST experts attended UPW MICRO 2017, a conference focusing on innovations in water management in the microelectronics industry. Over two days more than 100 attendees discussed the challenges and solutions in UPW production for semiconductors. This conference was a great opportunity to discover the latest innovations and to exchange views with experts from other semiconductor manufacturers. And as sharing best practices and receiving feedback is the way we work in ST, further to this event, we organized a workshop with ST engineers and companies specialized in water treatment to discuss trends and relay the valuable information gathered.

Involving our suppliers

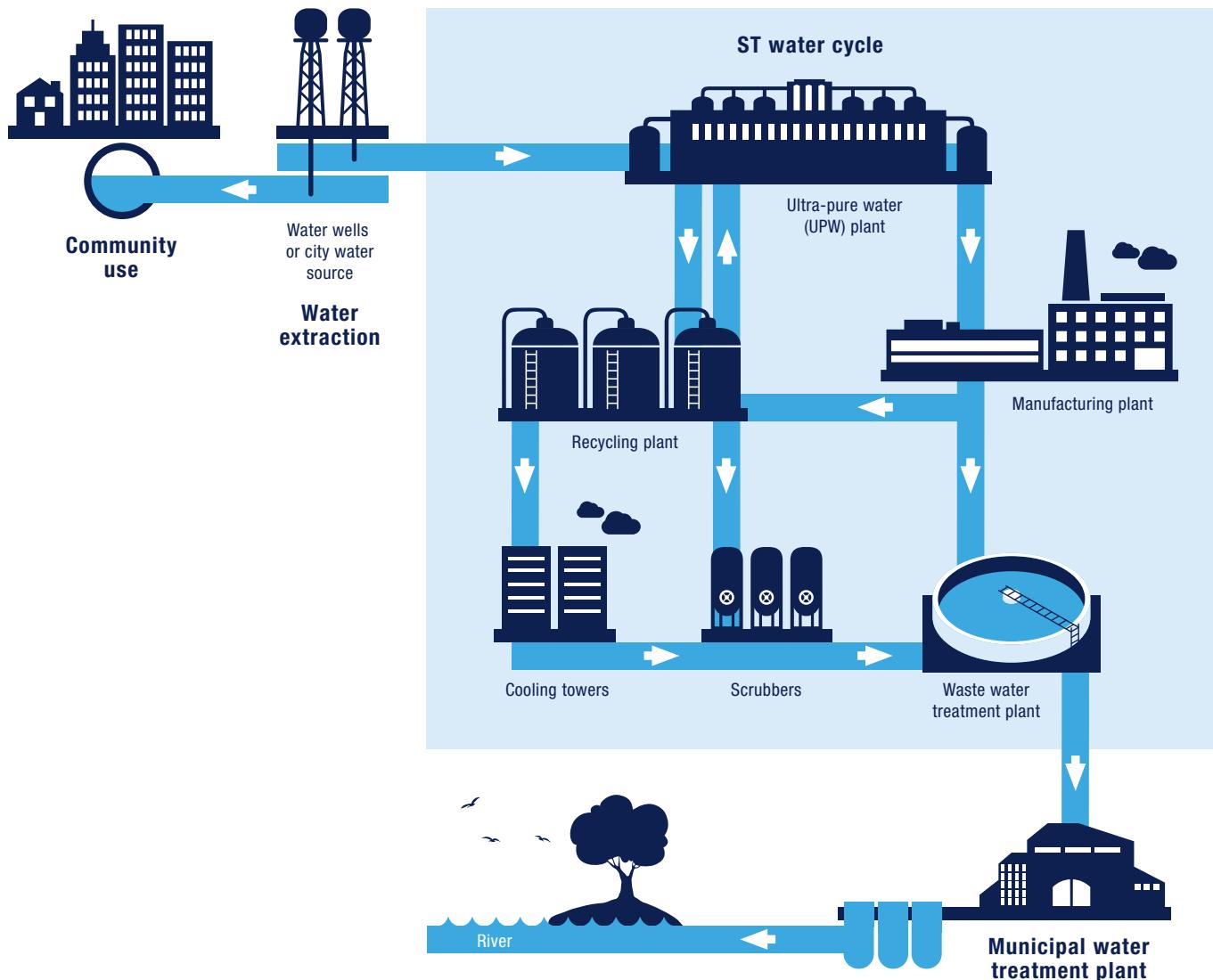
We also have a responsibility for our indirect water footprint, and so we likewise engage with our suppliers on water-related issues. We require them to report not just on water, but also on waste and GHG management, giving them an incentive to act in a responsible way (see Supply Chain Responsibility on page 73).



2017 OBJECTIVES

	Status	Comments
Continuously improve water efficiency at equivalent production level through water saving programs and water recycling projects (cubic meters per production unit).	✓	Water efficiency improved by 11% compared to 2016.
Remain among the best-in-class companies with a recycle rate at 45% or more.	✗	Water recycle rate 43%, below target.

Typical ST water cycle

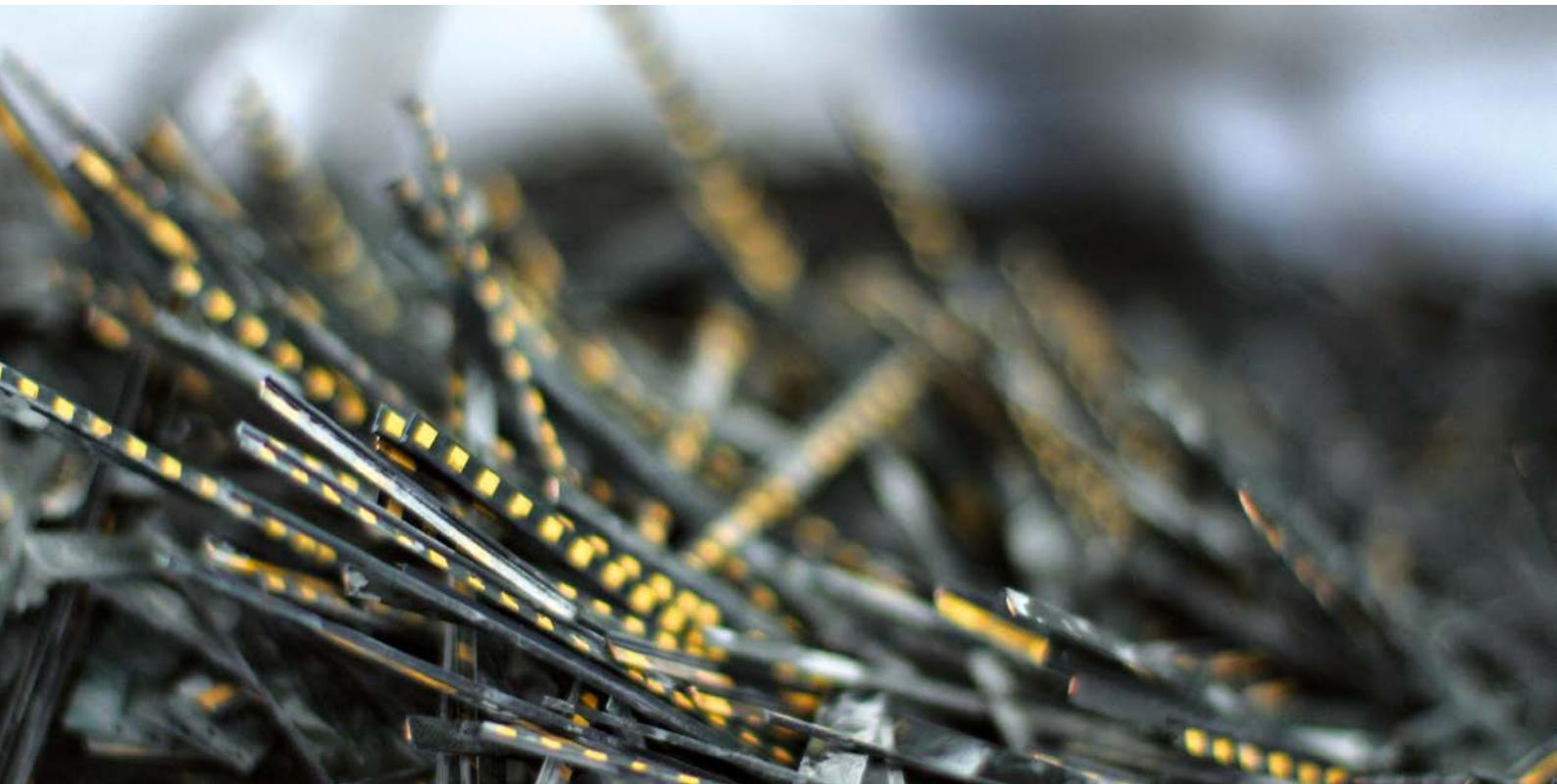


Contributing to the Sustainable Development Goals

Our commitments and programs related to Water as described above contribute to:

- 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.

Waste and Effluents



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Scrap waste containing metals sent for recovery

Waste & Chemicals

OUR AMBITION

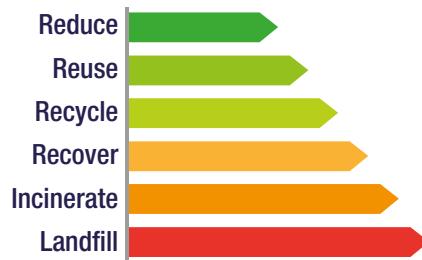
2025 GOAL

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

95%
of our waste reused and recycled

Our Company's waste management program covers all of the waste streams that are generated by our operations, plus all the related activities and products. This waste includes hazardous substances, metals, packing, plastics, effluents and other non-biodegradable materials. Our waste management strategy is based on reduction, reuse, recycling, elimination and treatment and is driven by both local regulations and Company policy. Our sites are required to respect the most stringent of these requirements.

Waste hierarchy



2017 OBJECTIVES

Remain among the best-in-class companies with a reuse and recycle rate at 90% or more.

Remain among the best-in-class companies with landfilled waste rate at 3% or less.

Status



Comments

91% of waste reused, recovered or sent for recycling in 2017.



3.8% of waste sent to landfill.

Waste in tons | 306-2 |

	2013	2014	2015	2016	2017
Total hazardous waste	11,031	10,644	10,406	11,291	14,361
Total waste	36,091	34,472	34,571	34,041	40,469

91% of waste reused, recovered or sent for recycling

Reducing our impact

2017 performance

In 2017 we reached our target of remaining among the best-in class companies for environmental impact since 91% of our waste was reused, recovered or sent for recycling.

Among our waste, the part with the most significant environmental footprint is the waste sent to landfill. In 2017 we achieved our best ever result in this area with just 3.8% of our waste sent to landfill. This brings us a step closer to our long-term target of less than 3%.

Our sites continuously monitor their operations, looking for opportunities to implement actions that are aligned with local needs. For example, at our Shenzhen site (China) a new program was introduced in 2017 that included improved labeling, training on waste classification rules for ST employees and cleaning contractors, and also visits to a local waste incineration plant.

Waste split⁽¹⁾ (%) | 306-2 |



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

⁽²⁾ Waste burnt with recovery of energy (combustion).

65

85% of hazardous waste reused, recovered or sent for recycling

Hazardous waste

Our Company pays particular attention to hazardous waste that is generated by our manufacturing process. In 2017 we identified 35% of our waste as hazardous but most of this (about 85%) was reused, recovered or sent for recycling. Wherever possible the remaining waste is treated locally by authorized companies. In the cases where no local solution is available, the waste is exported in accordance with the Basel convention.

Controlling our effluents

Treating wastewater

We take care to reduce all the risks related to pollution due to our activities, while working closely with local communities. Wastewater is either treated on-site or in municipal treatment plants to remove polluting substances before being discharged into the natural environment. Among the actions undertaken during 2017 were:

- upgraded installations for biological treatment in Catania (Italy)
- improved substance segregation in Ang Mo Kio (Singapore)
- awareness campaign with a visit to a wastewater treatment plant in Shenzhen (China)

**Bruno Verdenet**

Sales Manager, SARPI Veolia, France

"The solution developed with STMicroelectronics for recycling its waste acid is a real example of the 'waste as raw material' concept. Our partnership allows us to reuse ST's waste acid in our battery recycling process and to recycle metals, which will be used as raw materials in the non-ferrous industry. In this case the circular economy is already working."

An innovative solution to reduce ammonia in wastewater

Ammonia is known to contribute to the eutrophication of lakes and rivers. In 2017 our Croles site (France) implemented a new treatment to reduce the level of ammonia in wastewater. The aim of this project was to reduce our environmental impact and maintain compliance with local regulations despite an increase in production activity. This new process generates a new byproduct that could be used as an agricultural fertilizer. Our next step towards a circular economy is to exploit this new resource.

Developing the circular economy

Transforming waste into new resources brings environmental benefits, creates value and reduces costs.

A second life for sulfuric acid

Only a small quantity of sulfuric acid generated from ST's operations can be reused on site, leaving most of it to be eliminated. Our Tours site (France) worked in partnership with a company specialized in waste management (see quote) to treat the remaining sulfuric acid, and succeeded in finding a recycling solution. Previously destroyed, the sulfuric acid is now being reused by another company for recycling batteries. This reuse brings many benefits: a better recycle rate, lower treatment costs and a reduced environmental impact. In addition, we now have a fruitful partnership helping to recycle batteries used by electric vehicles, a market in expansion.

Recovering rare material

Palladium is a rare material and a minor ingredient of a plating solution used in our manufacturing process. After deposition on the wafer surface, the spent solution still contains some valuable palladium in a diluted concentration. New solutions were developed in 2017 to significantly enhance and simplify the recovery of this precious metal, making it available for reuse in the automotive industry (see Focus).

Recovering palladium



FOCUS

Palladium recovery

In 2017 we developed two different solutions to recover palladium in its metal form.

- In Agrate site (Italy), a small electroless deposition system was implemented to deposit the palladium onto a cathode.
- In Catania site (Italy), a conical precipitation decanter was installed to recover the palladium in powder form in a small container.

Thanks to these new processes, the quantity of recovered palladium has increased while the volume of transported waste has reduced since the cathodes and small containers have replaced large tanks of spent solution. Better still, this recovered palladium is reused in the automotive industry in catalytic converters. Building on the experience acquired in these projects, we expect that in future it will be possible to apply the same processes to recover other metals such as copper or gold.

Contributing to the Sustainable Development Goals

Our commitments and programs related to Waste and Effluents as described above contribute to:

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 life cycle, 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



Wet bench, Catania, Italy

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Waste & Chemicals

OUR AMBITION

2025 GOAL

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

95%

of our waste reused and recycled



Many of the substances that are used for manufacturing semiconductors, especially in Front-end activities, have a potential impact on air, water and soil, and can also be harmful for people's health and safety.

Applying an approach based on precautionary principles, ST is engaged in responsibly managing chemical substances and materials to protect people and the environment, as well as complying with customer and legal requirements. | [102-11](#) |

Managing chemicals

Assuring safe use

Each of our manufacturing sites has a chemical committee that is in charge of evaluating, defining and authorizing the use of new chemicals and processes. Internal audits are regularly conducted to ensure that conditions of use and safe processes are respected. These conditions and processes are defined by the site committee, ST procedures, and legal and customer requirements. | [103-2](#) | [103-3](#) |

2017 OBJECTIVES

	Status	Comments
Strive towards continuous control, reduction or elimination of risks and of substances of concern in our processes and activities for an environmentally friendlier, safer and healthier working place.	✓	Number of working areas assessed as high risk is progressively decreasing.
Adopt an approach based on precautionary principles when assessing the EHS impacts of new operational processes, chemicals and materials.	✓	New chemical products and new processes are systematically evaluated. See article.

Chemical committees at each manufacturing site

Eliminating, reducing and substituting

Eliminating, reducing or substituting hazardous substances without impacting our manufacturing activities is complex and challenging. We continually search for innovative solutions that allow us to reduce the amount of hazardous substances that are used, or to replace them entirely with less hazardous alternatives. With this approach, we contribute to SDG target 12.4.

In 2017 we continued to work on reducing the use of PFOA⁽¹⁾-related substances, achieving a reduction of 44% since the program was initiated in 2014. We also worked on replacing DEHP⁽²⁾, a Substance of Very High Concern (SVHC).

ST exposure to Substances of Very High Concern (SVHC)

	2013	2014	2015	2016	2017
SVHC total list	151	161	168	169	176
SVHC used in ST	20	21	22	22	23
SVHC Annex XIV used in ST	1	1	1	1	1
Total SVHC used in ST replaced since 2008	5	5	6	7	7

Applying precautionary measures

Where there is no alternative to using hazardous substances, we take precautionary measures to prevent any adverse impact on people and the environment.

Assessing and mitigating the risks

Chemicals are subject to rigorous risk assessments where products are evaluated and classified according to their potential hazards and legal requirements. In 2017 we recorded almost 26,000 risk assessments.

To minimize risks during use, storage and transfer, specific systems such as glove boxes, are installed to ensure safe, closed and automatic delivery of the chemicals. Air extraction, leakage detection and air monitoring systems are in place to detect any exposure. To avoid chemicals being leaked into the environment, air and wastewater are treated before release and solid waste is collected separately (see [page 65](#), Waste & Effluents). In this way we contribute to SDG targets 6.3 and 12.4.

25,973 chemical risk assessments

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Prevention and control



FOCUS

Minimizing risks to workers and the environment

We always try to replace substances of concern wherever possible, but when elimination is not possible and suitable substitutes cannot be found, we take special precautions.

For example, at our Muar site (Malaysia) a special resin is used to assemble semiconductor modules. This resin is managed in a controlled environment with adequate local air extraction and monitoring. Long screens are installed to isolate the local environment, ensuring that employees are not exposed to breathing resin vapor. The air extracted from the area where the resin is used, is routed to air treatment equipment. In addition, all empty containers are carefully collected separately and sent to external waste management, to avoid dispersal of the resin and uncontrolled pollution.



5,260 chemicals evaluated

Protecting the workers

Worker safety is our priority (see page 38, Health & Safety) and we take great care to avoid and manage the risks related to hazardous substances (SDG target 3.9).

- Employees exposed to chemical risks are trained regularly about safe working practices and how to properly protect themselves with personal protective equipment.
- Industrial hygiene measurements are regularly performed to control the exposure of workers. In 2017 the 7,454 measurements were all below applicable limits.
- In all our manufacturing sites emergency response teams are trained to coordinate operations and use firefighting equipment, breathing apparatus, chemical protective clothing and spill kits in case of chemical accidents.

Ensuring compliance

Adhering to the highest standards

We aim to ensure that all chemicals used in ST operations and products are legally authorized and meet customer requirements. We comply with applicable environmental regulations and requirements, including the European chemical policies and directives such as REACH⁽³⁾, RoHS⁽⁴⁾, and ELV⁽⁵⁾.

We regularly review our EHS-regulated substances list, which contains more than 2,700 substances. In 2017, 5,260 chemicals were used and evaluated in ST.

We also require our suppliers to respect our EHS-regulated substances list and to confirm their compliance through analytical certificates, safety datasheets and commitments.

To provide our customers with information on the chemical composition of all our products, we report and publish our material declarations (available on www.st.com) in accordance with the IPC1752⁽⁶⁾ standard. In 2017 we saw an increase of customer requests linked to the control of hazardous substances throughout the entire supply chain. We continue our efforts in implementing HSPM (Hazardous Substances Process Management) to strengthen our risk management approach and better meet customers' requirements.

Working with the industry and anticipating changes

As a member of the European Semiconductor Industry Association (ESIA), in co-operation with other semiconductor companies, we support the drafting and implementation of new regulations and restrictions. In 2017 we were part of a working group with other automotive suppliers to address the issues related to the use of lead, a substance used in automotive products and subject to exemption. Exemption for the use of this substance in electric and electronic equipment has been renewed until July 2021 (RoHS).

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Contributing to the Sustainable Development Goals

Our commitments and programs related to Chemicals as described above contribute to:

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 life cycle, 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.



⁽¹⁾ PFOA: perfluorooctanic acid
⁽²⁾ DEHP : Di-ethylhexyl phthalate
⁽³⁾ REACH: Registration, Evaluation, Authorization and Restriction of Chemicals
⁽⁴⁾ RoHS: Restriction of Hazardous Substances
⁽⁵⁾ ELV : End of Life of Vehicles
⁽⁶⁾ IPC1752: Association connecting electronics industries

Indicators

This section includes indicators and GRI Standard Disclosures.

Our environmental data covers our 11 main 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).

See ST site certifications table on [page 36](#).

ST follows the Green House 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: 2007 IPCC fourth Assessment Report Climate Change. Table 2.14. Lifetimes, radiative efficiencies and direct GWPs relative to CO₂ <https://www.ipcc.ch>

SCOPE 2 - Indirect emissions resulting from purchased electricity

- World Resources institute (2014). GHG Protocol tool for stationary combustion. Version 4.8, GHG Protocol Scope 2 Guidance

SCOPE 3 - Emissions resulting from travels and transportation

- Mobile Combustion GHG Protocol tool v.2.6
- Supplement to the Corporate Value Chain (scope 3) accounting and reporting standard

Environmental investments

	2013	2014	2015	2016	2017
% of total company investments	0.21	0.73	0.70	0.33	0.47

Consumption: absolute values⁽¹⁾ | 302-1 | 302-4 |

	2013	2014	2015	2016	2017
Electricity (TJ)	7,530	7,649	7,517	7,536	7,812
Water (1,000m ³)	17,484	17,386	15,940	16,406	17,064
Chemicals (tons)	19,713	19,170	19,125	17,615	20,118
Natural gas (TJ)	657	650	661	690	695

⁽¹⁾ Does not include electricity consumption of wastewater treatment plants and gas production.

Incidents in 2017 | 306-3 |

None

Summary of net CO₂ emissions (KTons) | 305-1 | 305-2 | 305-3 |

	2013	2014	2015	2016	2017
Direct emissions Scope 1	554	626	575	552	605
Indirect emissions (purchased electricity ⁽¹⁾) Scope 2	815	778	748	739	756
Other indirect emissions (transportation ⁽²⁾) Scope 3	108	121	135	113	132
Total emissions	1,477	1,525	1,459	1,404	1,493

⁽¹⁾ Green electricity is not included.

⁽²⁾ The transportation emissions value is a global estimate of employee transportation and transportation of goods.

Environmental burden: net values

	2013	2014	2015	2016	2017
Emissions to air					
Global warming ⁽¹⁾ (MTCE)	402,875	415,960	397,832	382,909	407,290
Ozone depletion (Kg R11 Eq)	0	0	0.25	0.14	0
VOCs (Tons)	153	221	224	231	287
Atmospheric acidification (Kg SO ₂ Eq)	42,181	45,610	34,170	32,283	36,084
Photochemical oxidant creation (Kg ethylene Eq)	29,501	16,946	31,498	46,186	49,166
Air emission toxicity ⁽²⁾ (Kg PH3 Eq)	2,680	2,598	2,063	2,529	1,497
Emissions to water⁽³⁾					
Eutrophication (Kg (P+N))	326,918	261,468	259,428	160,155	176,555
Aquatic oxygen demand (Kg COD ⁽⁴⁾)	565,693	452,943	474,486	508,468	595,257
Heavy metals to water (Kg Heavy metals)	6,446	5,710	6,022	8,217	11,560
Aquatic ecotoxicity (Kg Cu Eq)	4,437	4,795	4,097	5,114	6,208

⁽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 controlled manufacturing sites, 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).

Direct and indirect energy consumption by primary sources (%)

| 302-1 | 302-4 |

	2013	2014	2015	2016	2017
Green electricity purchased	17.6	19.7	22.4	23.6	25.8
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)	17.8	17.4	15.6	12.6	12.1
Electricity purchased from fossil fuel sources	56.3	54.7	53.6	55.1	53.7
Natural gas	8.0	7.8	8.1	8.4	8.1
Other fuels	0.2	0.2	0.2	0.2	0.3

Energy consumption by source | 302-1 | 302-4 |

	2013	2014	2015	2016	2017
Electricity (TJ)	7,530	7,649	7,517	7,536	7,812
Natural gas (TJ)	657	650	661	690	695
Others (TJ)	16	16	16	17	24
Total energy (TJ)	8,204	8,315	8,193	8,244	8,531
Energy from electricity (%)	91.8%	92.0%	91.7%	91.4%	91.6%

⁽¹⁾ Green electricity is not included.

⁽²⁾ The transportation emissions value is a global estimate of employee transportation and transportation of goods.

Consumption of electricity | 302-3 |

Per unit of production - Normalized values

	2013	2014	2015	2016	2017
Consumption of electricity	105	106	109	109	97

Baseline 100 in 2010.

Consumption of natural gas | 302-3 |

Per unit of production - Normalized values

	2013	2014	2015	2016	2017
Consumption of natural gas	108	106	113	118	101

Baseline 100 in 2010.

Carbon footprint of ST's products per mode of transportation (%)

	2013	2014	2015	2016	2017
Air <2,000km	11	12	14	16	19
Air >2,000km	89	86	85	82	79
Road	0	2	2	2	2
Ocean	0	0	0	0	0

Recycled and reused total water | 303-3 |

	2013	2014	2015	2016	2017
Total water used (1,000m³)	30,967	30,421	29,022	29,219	29,920
Total volume of water recycled and reused (1,000m³)	13,483	13,035	13,080	12,813	12,857
Water recycled and reused (%)	43.54	42.85	45.07	43.85	42.97

Water withdrawal by source (1,000m³) | 303-1 |

	2013	2014	2015	2016	2017
Ground water					3,055
Municipal water supplies					14,009
Total withdrawal					17,064

Total water discharge | 306-1 |

	2013	2014	2015	2016	2017
Water discharge (1,000m³)	13,422	13,457	13,053	13,794	14,406
Treated in ST wastewater treatment plant (%)	78	79	79	78	78
Treated in external wastewater treatment plant ⁽¹⁾ (%)	58	62	58	59	58

⁽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.

Waste split in tons | 306-2 |

	2013	2014	2015	2016	2017
Reuse	4,690	3,567	3,634	3,696	1,543
Sent for recycling	27,105	26,535	25,969	24,092	32,182
Recovery ⁽¹⁾	1,179	1,629	1,741	3,291	3,098
Incineration	1,352	1,371	1,757	1,336	2,128
Landfill	1,764	1,370	1,470	1,625	1,519
Total Waste	36,091	34,472	34,571	34,041	40,469

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

Hazardous waste split⁽¹⁾ (%) | 306-2 |

	2014	2015	2016	2017
Reuse	24.3	26.4	19.1	4.1
Sent for recycling	50.6	48.5	49.7	62.7
Recovery ⁽²⁾	14.9	15.0	24.6	18.5
Incineration	6.0	7.4	4.7	12.2
Landfill	4.2	2.7	1.8	2.5

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

⁽²⁾ Waste burnt with recovery of energy (combustion).

Non hazardous waste split⁽¹⁾ (%) | 306-2 |

	2014	2015	2016	2017
Reuse	4.1	3.7	6.7	3.7
Sent for recycling	88.8	86.6	81.2	88.9
Recovery ⁽²⁾	0.2	0.8	2.2	1.7
Incineration	3.1	4.1	3.5	1.4
Landfill	3.9	4.9	6.3	4.5

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

⁽²⁾ Waste burnt with recovery of energy (combustion).

Waste under Basel Convention | 306-4 |

	2013	2014	2015	2016	2017
Hazardous waste transported (as a % of total hazardous waste)	1.33	0.87	0.49	0.00 ⁽¹⁾	0.16

⁽¹⁾ Data corrected. One site declared all waste exported instead of only hazardous waste.

Fines and non-monetary sanction in 2017

Singapore (Ang Mo Kio): SDG\$1,000 (US\$750) paid to PUB (Singapore's National Water agency) for fluoride discharge outside specification in 2016.

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Italy (Marcianise): Non-compliance with environment Italian regulation related to wastewater discharge (nitrous nitrogen above the limit). Fine: €2,063.50 (US\$2,535)

WEEE

As a supplier of components to the electronics industry (and not manufacturers of electronic equipment), we are not directly affected by the European Directive 2012/19/ EU Waste of Electrical and Electronic Equipment (WEEE).

Consumption of chemicals

Per unit of production - Normalized values

	2013	2014	2015	2016	2017
Consumption of chemicals	116	113	117	108	105

Baseline 100 in 2010.

Elimination of Substances of Very High Concern (SVHC)

	2013	2014	2015	2016	2017
Total number of action plans ⁽¹⁾ completed since 2008	19	20	22	23	23

⁽¹⁾ One substance can be subject to several action plans to be eliminated from different ST processes.

Deployment of ST substances specification to key suppliers and subcontractors (%)

	2013	2014	2015	2016	2017
Response rate from key partners	100	100	99	100	100
Full commitment from key partners to ST substances specification	99	97	96	98	80 ⁽¹⁾

⁽¹⁾ Ongoing deployment – Deadline: H1 2018.



Maker Faire, Rome, Italy

Together, we shape the future



100%
of our products are
conflict-mineral
free

- 100% of new suppliers and 77% of existing suppliers, based on 2017 spend, signed a commitment to our CSR standards



335
education and
volunteering
initiatives from
30 sites worldwide

- 413 assessments and 103 active audits on RBA standards conducted in our supply chain
- 81% of volunteering initiatives are linked to young generation and education



139,003
hours of Company
time donated

Supply Chain Responsibility



Making our supply chain more responsible

Doing business with suppliers who share our Company's values has been part of our culture since the beginning of our journey in corporate social responsibility. For more than ten years, we have been gradually strengthening programs to engage ST's supply chain in labor and human rights, ethics, safety and the environment. Today we are turning our attention towards monitoring and verifying more effectively the practices of critical suppliers related to these priority areas.

Through increasing knowledge and understanding of potential and salient issues, we regularly adjust our risk approach based on three main criteria: category of suppliers, location and business volume. These criteria actively determine the level of due diligence we conduct in each of our procurement segments, from simple evaluation to conducting independent third-party audits with the closure of corrective action plans. In 2017 we created a corporate working group consisting of representatives from the Corporate Social Responsibility, Procurement, Quality, Environment, Health & Safety and Legal departments. Through this working group we made significant progress in formalizing our approach to supply chain responsibility and increasing the convergence of the different domains. The objective of this effort is to improve our risk management, performance and ability to report on this subject, while at the same time contributing to SDG targets 8.7 and 8.8. | [103-1](#) | [103-2](#) | [103-3](#) | [102-9](#) |

Managing a multi-faceted supply chain

For the purpose of corporate social responsibility risk management, we have divided our supply chain into three main high-level categories.

73

- **Direct manufacturing** segment, representing 78% of our spend. This consists of manufacturing subcontractors, material suppliers, and equipment and spare-parts suppliers. These are managed at the corporate level because of their importance for ST's business. These key suppliers have been closely monitored since 2005 on safety, environment, labor, and ethics.
- **Indirect services**, which consists of local suppliers, such as catering, security, labor agencies or facilities management. We have been managing local risks associated with these activities since 2015 with a specific focus on human rights.
- **Other support services**, such as: Information & Communication Technology or Research & Development consulting, which we consider at a lower risk because the average employee qualification level is high.

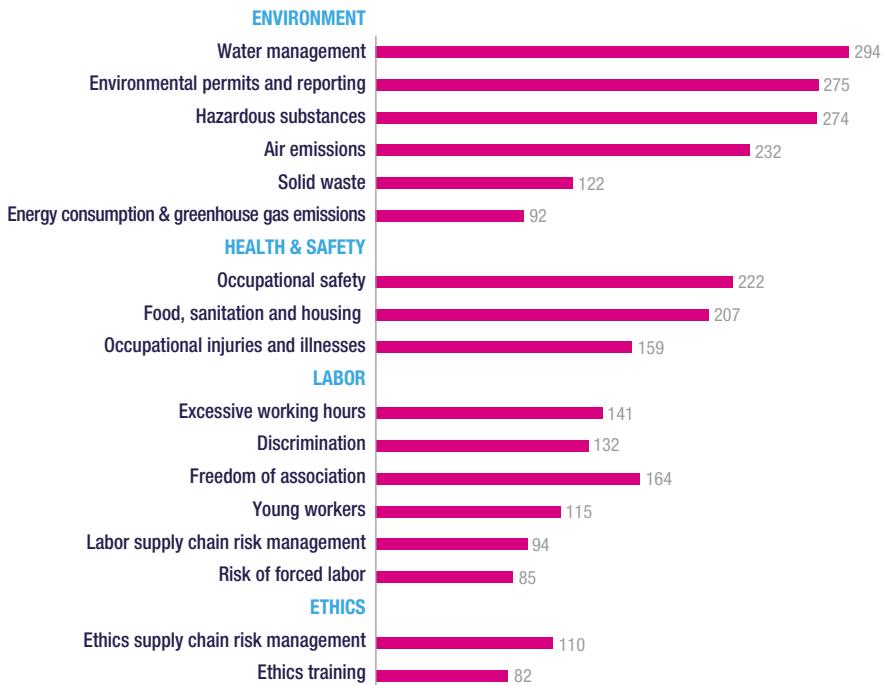


2017 OBJECTIVES

	Status	Comments
Deploy ST new hazardous substances specification to eligible suppliers and subcontractors.	✓	ST specifications released in September 2017 and deployed to all eligible suppliers and subcontractors.
Extend the scope of responsible raw materials to include cobalt and conduct a full risk analysis.	✓	Cobalt sourcing to eligible suppliers included in ST requirements and in link with RMI (Responsible Minerals Initiative) guidance. Cobalt sourcing traceability available.
Create and implement a process to engage local suppliers in Sustainability programs including audits.	✓	Program in place. See article.
Ensure 90% of all eligible local suppliers have signed an agreement to comply with the RBA (EICC) code of conduct.	✓	95% of eligible local suppliers signed the commitment.
Ensure 80% of all eligible local suppliers are audited by end of 2017.		73% of eligible local suppliers audited.
No high-risk key supplier in our supply chain based on RBA (EICC) SAQ results, and all key suppliers with corrective actions in place.	✓	95% low risk. 5% medium risk.

Number of top potential risks identified in our supply chain⁽¹⁾

| 308-2 | 414-2 |



⁽¹⁾ Based on analysis of 353 RBA (EICC) SAQs.

Engaging and verifying suppliers

A global sustainability approach

As an introduction to our approach and initial screening, we ask all new suppliers presenting potential risks to sign a declaration committing them to our standards. As a result, 77% of our active suppliers in terms of spend, and 100% of new suppliers in 2017, have signed a commitment. | 308-1 | 414-1 |

Since 2005, we have been using the Responsible Business Alliance (RBA) code of conduct as our supply chain responsibility standard. This standard covers social performance, ethics, safety, and the environment. We also assess and audit our most critical suppliers based on the RBA framework.

- 413 assessments were conducted in 2017. We asked 100% of our key suppliers to provide a corrective action plan enabling them to improve their assessment. See tables on [page 79](#).
- 103 audits took place over a two-year period (Q4 2015 to Q4 2017). 37 are RBA third-party audits in the direct manufacturing segment, and 66 are audits conducted directly by RBA trained ST employees on local suppliers in an important audit effort in 2017. These local audits cover primarily labor and human rights issues such as forced labor, child labor, freedom of association, fair working hours and wages, and benefits and non-discrimination. See tables on [page 79](#).

413
assessments
conducted in 2017



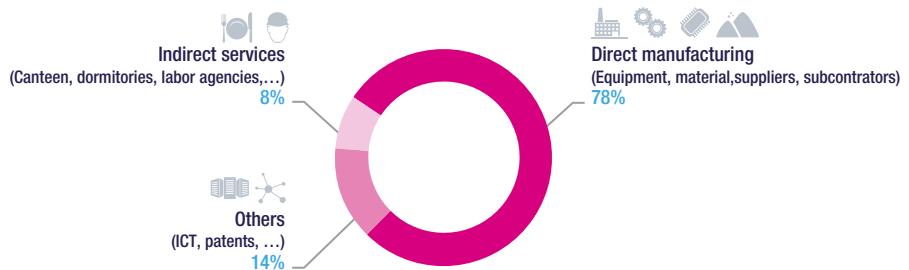
Giovanni
Rindone
Quality System Manager,
Employee transport company
Isea Viaggi, Italy



“Respect for people and the environment has become increasingly important for us as individuals, and a daily mission for our company. We were already aware of social responsibility principles, nevertheless becoming an ST partner has brought us new challenges, such as adhering to the RBA standard. Thanks to ST’s audit staff we have started a continuous improvement path in sustainability, creating tools and training for our employees and increasing awareness in our own supply chain.”

Our Suppliers | 102-9 |

By procurement volume



Addressing environmental and safety risks

We regularly monitor our suppliers through performance evaluation and more specific programs addressing environmental and safety topics.

- **Environment:** 89% of our eligible key suppliers are ISO 14001 certified or EMAS validated (see table on [page 79](#)) and we have an audit program in place to audit local waste contractors.
- **Safety:** Safety reporting was extended in 2017 to all local suppliers (including short-term suppliers) of services such as catering, cleaning and utilities. The average incident rate decreased by 31% over 2017 for on-site suppliers and deep root cause analyses are being conducted on incidents. 44% of our eligible key suppliers are OHSAS certified (see table on [page 79](#)).
- **Hazardous substances process management (HSPM)** (HSPM) (see [page 69](#), Chemicals): In 2017, 80% of our material suppliers and manufacturing subcontractors provided updated material declaration information. Our objective is to achieve a completion rate of 95% in 2018. This data is now directly entered into an HSPM system, improving the traceability of substances.

Finally, environmental and safety aspects, as well as labor and human rights issues are also addressed in our sub-tier supply chain through the responsible mineral sourcing program. See Focus below.

89% of eligible key suppliers are ISO 14001 certified

75

Responsible mineral sourcing



FOCUS

Going beyond due diligence on conflict minerals

With increased scrutiny of the smelters in our supply chain and the creation of an internal smelter blacklist, in 2017 for the first time, we were able to ensure that 100% of them were validated Conflict-Free Smelters. We are now able to demonstrate to our customers that our sourcing of gold, tin, tantalum and tungsten does not fuel armed conflict. This was confirmed in an important customer audit related to this validation. More detailed information on our progress is reported annually to the U.S. Securities and Exchange Commission and published at www.st.com/conflict-free_minerals.

This year, we also moved a step forward by extending our management of conflict minerals to other high risk areas and minerals. The extraction of these minerals involves severe risks in terms of human rights, safety or the environment. Our first action was to map the risks related to the supply of cobalt because there was a critical risk of child labor. We have joined the RBA's Responsible Minerals Initiative to participate in the industry efforts to address this issue.

Contributing to the Sustainable Development Goals

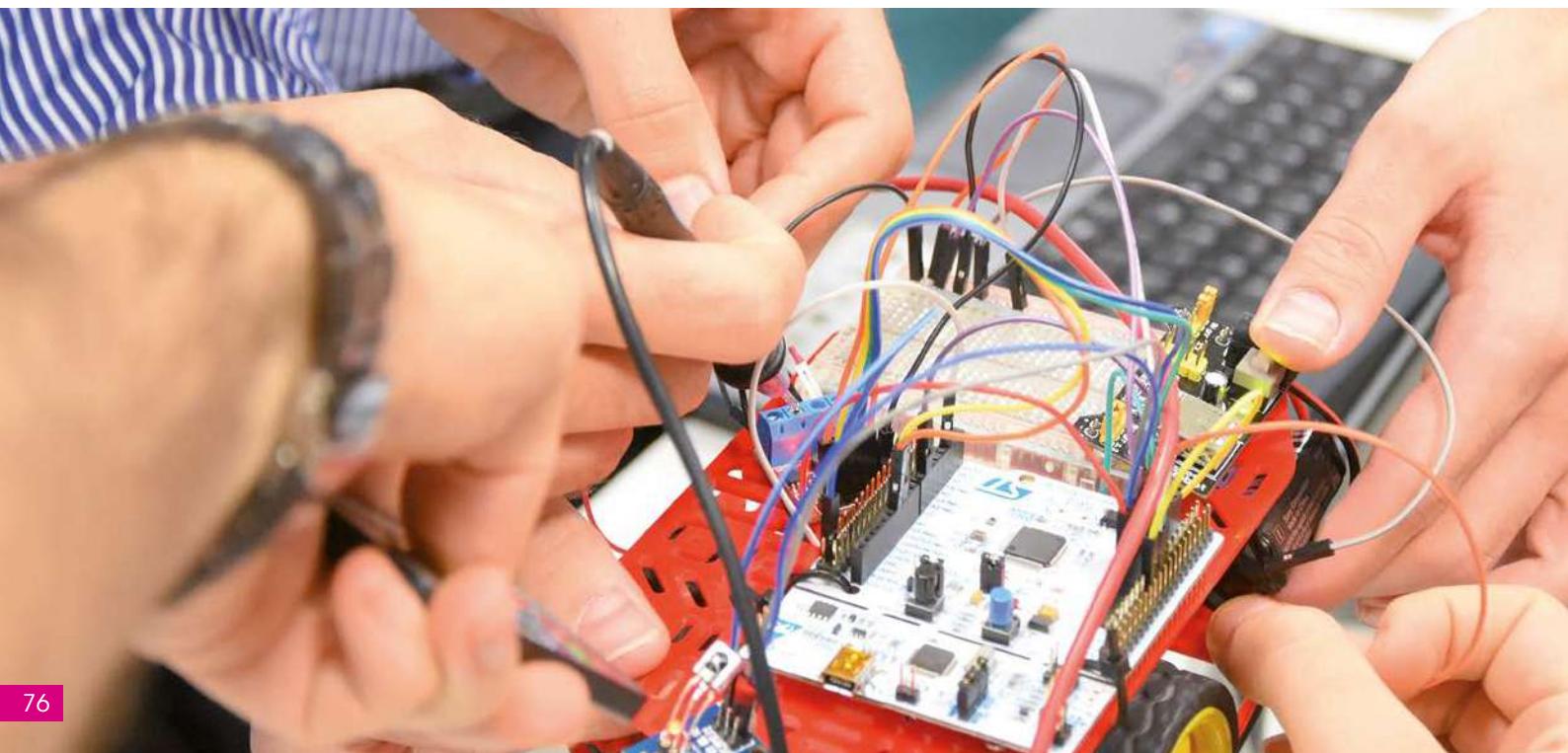
Our commitments and programs related to Supply Chain Responsibility as described above contribute to:

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

SDG target 8.8 - Protect labour rights and promote safe and secure working environments for all workers.



Education and Volunteering



Neapolis, Naples, Italy

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Education & Volunteering

Prepare the future by supporting education in schools in all the countries where we operate.

OUR AMBITION
2025 GOAL

STEM* education partnerships in
20
countries

* Science, Technology, Engineering and Mathematics



London
Benchmarking
Group

A cultural approach

Our approach is to leverage our strong local presence, taking every opportunity to create additional value and minimize risks for our stakeholders in the territories where we operate. This activity includes local economic development, industry and academic partnerships, and community development initiatives [I 103-1](#).

With these activities, we aim to engage employees through effective local programs which bring a lasting benefit to communities and contribute to mutual enrichment. Wherever possible, these programs promote the transfer of skills, experience and resources to partnering organizations.

The ST Community Involvement Charter enables the deployment of our strategy to each site, where the Sustainability Champion, in close collaboration with Human Resources and Site Management, drives and reports on their initiatives. These activities focus on one or more of the following areas [I 103-2](#):

- educating and supporting young people
- promoting technology and innovation
- supporting philanthropy and social welfare
- responsible environmental management
- supporting the ST Foundation

We have been using the London Benchmarking Group methodology since 2012 to measure our community involvement. This has helped us to structure our reporting and improve the relevance of our investments. Each initiative starting from 2015 is linked to our sustainability strategy priorities. [I 103-3](#).

6,712 employees
engaged in volunteering

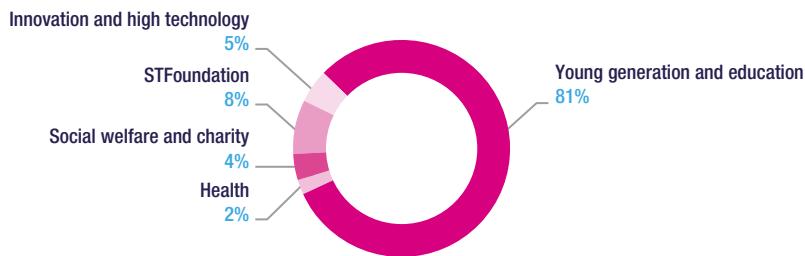
2017 achievements

Worldwide we organized 335 initiatives in 2017. These represent:

- 30 sites in 17 different countries
- 6,712 employees engaged as volunteers⁽¹⁾
- 139,003 hours of Company time dedicated to the community; representing 84% of the total contribution and an average of three hours per employee
- cash donations of US\$814,331

Most of our investment in these initiatives is related to education, innovation and technology. Support for young generation and education contributed to 81% of our social investment of which 58% was linked to innovation.

Domains of involvement^(*) (%)



^(*) Among initiatives classified as young generation and education, some are also related to economic development and innovation, and high technology.

STM32 digital academy



FOCUS

Creative technologies in the classroom

Our STM32 digital education program facilitates the use of electronic component-based programming boards in schools. This innovative regional initiative is the result of a win-win collaboration between engineers at the ST Rousset site (France) and teachers from various institutions and disciplines, such as mathematics, physics, technology and life sciences.

Over the period of a year, an ST 'development booster'^(*) team and the teachers worked together to define the main characteristics of the electronic boards and software interfaces needed for each level of secondary education. Teachers developed tutorial kits to use the boards in project-based classroom activities, while the ST team provided the electronic boards and easy-to-use software interfaces specifically developed to meet the agreed specifications. In June, a three-year partnership agreement was signed between the local education authority and STMicroelectronics. Thanks to this agreement the STM32 digital education program is now a major project that will be deployed throughout the region's education network.

^(*) Development booster is part of our talent-development program.

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Our programs focus on fostering innovation in education to give young people the skills they need to become the next generation of innovators.

We achieve this by:

- proactively engaging managers with local educational authorities or associations, and by participating in activities that promote technology knowhow (see Focus)
- organizing design contests and donating development kits and boards, which foster learning and lead to the development of innovative solutions using our technology
- organizing site visits for schools, universities, and associations
- tutoring interns
- employees giving lectures in higher education establishments



2017 OBJECTIVES

	Status	Comments
Local initiatives and communication 100% aligned with new strategy (main sites).	✓	Strategy link declared in site reports.
Support ST Foundation's activities.	✓	Significant support from ST volunteers.

More than
100,000
Digital Unify trainees
in 2017



Giovanna Bottani

Operations Senior Consultant,
ST Foundation

"I was invited to speak at the UN Infopoverty World conference in April 2017. In this context, the Foundation had the honor to share its experience about how the digital revolution could be a powerful tool to empower people's lives in disadvantaged countries throughout the world, and contribute to achieving the UN's SDGs as quickly as possible."

ST Foundation

The mission of the ST Foundation is to spread the benefits of digital technology to disadvantaged people through a worldwide program named Digital Unify (DU). 2017 represented a major milestone in ST Foundation's 14 years of activity. More than 500,000 people have been trained in 26 different countries since the inception of the program, and more than 100,000 students took part in the Informatics and Computer Basics and the Tablet for Kids classes in 2017 alone.

The ST Foundation reinforced the DU program in Africa, especially in Sierra Leone and Senegal. In parallel, the Foundation strengthened its presence in countries where ST operates, in particular in China, France, Germany and Italy, with a special focus on migrants in Europe.

ST supports the Foundation through corporate and local engagement including:

- cash donation of US\$ 500,000 in 2017
- electronic and IT equipment donations
- time contributed by employees engaged in the DU program as trainers or for technical support
- support from Corporate External Communications to produce the Foundation's activity report to external stakeholders and manage the Foundation's website

As an example of ST employee engagement, in Italy the second edition of 'Energy Run' was organized with the objective of increasing the visibility of the Foundation's activities while collecting extra funds. This second edition outperformed last year's event with over 600 participants and it collected more than US\$13,000.

In 2017 the ST Foundation was invited to the UN Infopoverty World Conference, an initiative which aims to promote the most innovative solutions developed by the United Nations, governments, and civil society to fight against poverty using ICT tools (see quote).

Please visit the ST Foundation website - www.stfoundation.org for more information.

Looking forward

Through our materiality exercise, stakeholders clearly expressed their interest in supporting education. Contributing to SDG target 4.3, our strategy is to develop local programs that foster STEM⁽²⁾ education. We also plan to share best practices between sites, with the goal of covering a minimum of 20 countries by 2025.



Contributing to the Sustainable Development Goals

Our commitments and programs related to Education and Volunteering as described above contribute to:

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

⁽¹⁾ Employees are counted for each initiative, so the same employee may be counted several times.

⁽²⁾ Science, Technology, Engineering and Mathematics.

Indicators

This section includes indicators and GRI Standard Disclosures.

Suppliers' and subcontractors' Environmental, Health & Safety performance

	2013	2014	2015	2016	2017
Number of eligible suppliers/subcontractors					
Material suppliers	92	73	89	81	95
Equipment/spare-parts suppliers	84	83	80	80	80
Back-end subcontractors	59	60	55	31 ⁽¹⁾	29 ⁽¹⁾
Front-end subcontractors	19	17	16	12	13
Total	254	233	240	204	217
ISO 14001 certified/EMAS validated (%)					
Material suppliers	90	76	79	78	93
Equipment/spare-parts suppliers	78	55	70	75	80
Back-end subcontractors	98	100	100	100	96
Front-end subcontractors	100	100	100	100	100
Overall %	89	76	82	81	89
OHSAS validated (%)					
Material suppliers	51	40	47	46	50
Equipment/spare-parts suppliers	18	26	26	35	23
Back-end subcontractors	64	66	67	70	67
Front-end subcontractors	73	77	75	75	70
Overall %	45	44	46	47	44

⁽¹⁾ In previous years we counted the number of plants for BE subcontractors but in 2016 we changed and only counted the number of companies.

New suppliers screened using social & environmental criteria in 2017 (%) | 308-1 | 414-1 |

	2017
New suppliers screened	100%

Step 1 - Supplier agreement to comply with RBA (formerly EICC) code in 2017

	Eligible suppliers ⁽¹⁾	% signed
Direct manufacturing		
Material suppliers	99	95%
Equipment/spare-parts suppliers	79	94%
Back-end subcontractors	29	97%
Front-end subcontractors	5	100%
Total	212	95%
Indirect services		
Local suppliers	188	94%
Local labor agencies	58	98%
Total	246	95%

⁽¹⁾ Suppliers identified at risk.

Step 2 - Supplier CSR self-assessment questionnaires⁽¹⁾ (SAQ) in 2017 | 308-2 | 414-2 |

Direct manufacturing	Eligible facilities ⁽²⁾	% completed ⁽³⁾
Material suppliers	244	84%
Equipment/spare-parts suppliers	63	81%
Back-end subcontractors	41	95%
Front-end subcontractors	14	100%
Total	362	85%
Indirect services		
Local suppliers	101	85%
Local labor agencies	19	95%
Total	120	87%

⁽¹⁾ Either official RBA (EICC) SAQ or ST SAQ based on RBA (EICC) SAQ.

⁽²⁾ For direct manufacturing suppliers SAQs are completed at facility level.

⁽³⁾ All suppliers who have completed an SAQ are required to have a corrective action plan.

Step 3 - Supplier CSR audits⁽¹⁾ in 2017 | 308-2 | 414-2 |

Direct manufacturing	Eligible facilities	% verified
Material suppliers	205	7%
Equipment/spare-parts suppliers	51	4%
Back-end subcontractors	39	26%
Front-end subcontractors	14	71%
Total	309	12%
Indirect services		
Local suppliers	78	74%
Local labor agencies	12	67%
Total	90	73%

⁽¹⁾ Either official 3rd party RBA (EICC) audit or ST verification based on RBA (EICC) audit protocol.

Suppliers' facilities average RBA SAQs scoring (%)

	2013	2014	2015	2016	2017
Health & Safety section	90.3	90.7	91.9	92.1	90.7
Environment section	90.7	89.8	90.4	90.6	88.4
Labor section	89.2	86.6	91.1	91.4	92.2
Ethics section	92.6	88.6	93.0	93.8	93.6
Overall average	90.0	89.0	91.6	92.0	91.2

Suppliers terminated as a result of a negative social or environmental impact | 308-2 | 414-2 |

	2015	2016	2017
Number of suppliers	0	1 ⁽¹⁾	1 ⁽²⁾

⁽¹⁾ Working conditions with a security service supplier in Calamba site (the Philippines).

⁽²⁾ Recruiting conditions in cleaning services in Kirkop site (Malta).

Number of suppliers engaged in reporting EHS and social KPIs

	2013	2014	2015	2016	2017
Number of Front-end material suppliers	34	44	37	42	41
Number of Back-end material suppliers	43	26	39	42	48

Conflict minerals - Number of suppliers/subcontractors and smelters

	2013	2014	2015	2016	2017
Number of materials suppliers and subcontractors involved in the RBA-GeSI (EICC-GeSI) ⁽¹⁾ Due Diligence survey	162	139	148	170	186
Number of involved suppliers and subcontractors associated with at least one 3TG metal	105	104	117	118	126
Involved 3TG suppliers and subcontractors that have completed the RBA-GeSI (EICC-GeSI) ⁽¹⁾ Due Diligence survey (%)	100%	100%	100%	100%	100%
Number of smelters identified in ST's raw materials supply chain	75	89	118	119	143
Number of smelters identified in ST subcontractors' supply chain	98	113	133	174	191
Total number of smelters identified in ST supply chains	-	119	139	177	197

⁽¹⁾ Global e-Sustainability Initiative.

Conflict minerals inquiry results 2017

	Gold	Tantalum	Tin	Tungsten
Number of smelters	86	17	62	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 31 December 2017 (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

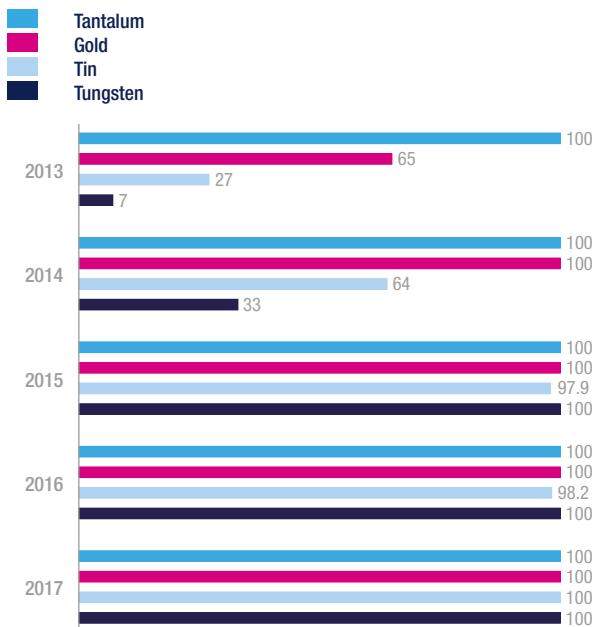
⁽¹⁾ Responsible Minerals Assurance Process (formally Conflict Free Smelter Program).

⁽²⁾ Level 1 countries are not identified as conflict regions or plausible areas of smuggling or export from the Democratic Republic of 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.

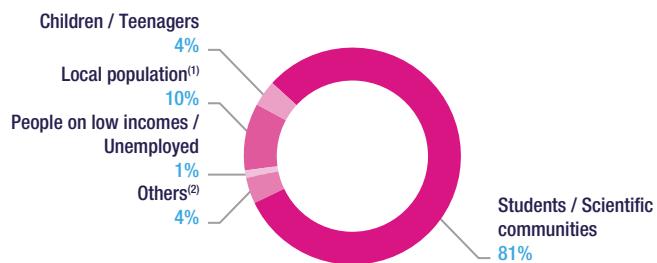
⁽³⁾ Based on information presented by suppliers and subcontractors.

Smelters which are RMAP⁽¹⁾ validated (%)



⁽¹⁾ Responsible Minerals Assurance Process (formally Conflict Free Smelter Program).

Direct beneficiary groups in 2017 (%)



⁽¹⁾ From 2017 onwards families and homeless are included in Local population. They were previously in Others.

⁽²⁾ Including mainly people with poor health and disabled people.

Community involvement - Inputs | 201-1 |

	2013	2014	2015	2016	2017
Number of community involvement initiatives	385	312	338	307 ⁽¹⁾	335 ⁽¹⁾
Total contribution (evaluated in US\$m)	11.0	6.0	6.9	6.6	8.2

⁽¹⁾ Multiple activities linked to the same program count as one initiative.

Type of contribution breakdown

	2013	2014	2015	2016	2017
Cash donations (%)	14	15	9	4	10
Staff time volunteering (%)	78	75	83	84	84
In-kind (%)	3	5	2	4	5
Management costs (%)	5	4	6	7	1 ⁽¹⁾
Number of employees engaged in volunteering	9,944	8,655	7,680	6,182	6,712
Number of hours contributed inside Company time	177,610	99,761	138,520	125,616	139,003

⁽¹⁾ Including time spent on awareness and reporting. From 2017 onwards, management costs related to the logistics of events are included in cash donations and staff time volunteering.

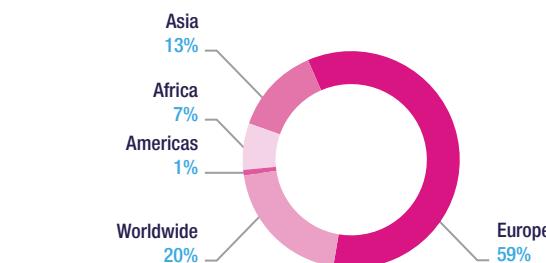
Motivation for contributions⁽¹⁾ (%)

	2013	2014	2015	2016	2017
Community investment	85	97	88	91 ⁽²⁾	95
Charitable donation (gift)	10	2	10	8	4
Commercial initiative	5	0	1	1 ⁽²⁾	1

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

⁽²⁾ Data corrected versus 2017 report: Students support in Grenoble initially declared in commercial initiative instead of community investment.

Geographical spread of contributions in 2017 (%)



Community involvement - Outcomes

	2013	2014	2015	2016	2017
Number of beneficiary organizations	826	1,204	1,832	1,487	1,722
Number of direct beneficiaries	34,495	121,166	157,281	57,702	105,117

Awards

Each year we receive external recognition for our sustainability practices. Here is an overview for 2017.

WE IMPROVE EVERYBODY'S LIFE

ITALIAN NATIONAL INNOVATION AWARD

ST received the National Innovation Award, from the Italian President, for the development of Silicon Carbide (SiC) electronic components, which support electric mobility.



PIONEER FOR MEMS

Benedetto Vigna was elected as one of the Semiconductor Industry Executives of the Year by Markt & Technik magazine. The award recognizes his exceptional achievements for ST's MEMS Sensors in consumer applications.



NATIONAL EXCELLENT ENTERPRISE WITH FOREIGN INVESTMENT EXCELLENT TAX PAYMENT AND TURNOVER

This award was given to STS Shenzhen in 2017 for the Company's contribution to economic development in China. It recognizes the 2015-2016 performance of the Company in terms of tax payment and financial turnover and was given by the Chinese and Shenzhen associations for foreign investment enterprises.

EXCELLENCE IN SERVICE AND RESPONSIVENESS

ST received Cisco's 2017 Excellence in Service and Responsiveness award for exemplary performance in teamwork, communication, and responsiveness to Cisco's business directives.



ELECTRON D'OR AWARD

Our FD-SOI technology, developed in partnership with CEA Leti and Soitec, received an Electron d'Or 2017 Award in the Innovation category, from the professional organization ASCIEL Alliance, in France. Franck Arnaud accepted this award on behalf of ST during the Electronics Technology Day (Journée Technique de l'Electronique) in Paris.



WE PUT PEOPLE FIRST

DIVERSITY & INCLUSION AWARD

During the Diversity Day, our Agrate site (Italy) was recognized for its work on the inclusion of disabled workers and its collaboration with external organizations specialized in placement of disabled people. The award was granted by the Sodalitas Foundation, UNAR, and the People and Adecco Foundation for Equal Opportunities in Milan.

EXCELLENCE IN HUMAN CAPITAL DEVELOPMENT

For driving best-in-class learning initiatives, our Muar site (Malaysia) was given an award for Excellence in Human Capital Development by the Malaysian Minister of Human Resources at the 2017 Human Resources Development Awards Dinner in Kuala Lumpur.

PRIZE FOR PREVENTION



Bouskoura site (Morocco) won the Prize for Prevention at the Wafa Assurance Group's prevention awards ceremony. This recognition confirms the efforts and programs deployed in EHS.

EUROPEAN NETWORK WORKPLACE HEALTH PROMOTION

Agrate & Castelletto sites (Italy) were awarded the ENWHP (European Network Workplace Health Promotion) certificate by Lombardia Region in 2017. This is a recognition of the combined efforts of the Company, employees, and society to improve the health and well-being of people at work.



Awards

WE PROTECT THE ENVIRONMENT



GOLD AWARD AT THE INTERNATIONAL CONVENTION FOR QUALITY CONTROL CIRCLES

Arnold Faalam, Cleford Balaoro, Jonathan Llamado and Cleovino Olivo (the D-CarBuoy team) from our Calamba site (the Philippines) won a gold award for creating a cart with a pump and inlet valve for automating chemical refills, which reduces the hazards related to transporting chemicals and minimizes the exposure of workers.

CARBON DISCLOSURE PROJECT AWARD

ST has been identified as a global leader for its actions and strategies to manage environmental issues. We have been ranked by CDP on this year's A List for water and scored A- for climate change. CDP (formerly, Carbon Disclosure Project) is a non-profit global environmental disclosure platform.



BEST CHEMICAL ELEMENT MANAGEMENT SYSTEM AWARD

Muar site (Malaysia) won the Best Chemical Element Management System practitioner distinction at the Malaysian Department of Occupational Safety and Health (DOSH) awards. The award is part of the Systematic Occupational Health Enhancement Level Program (SOHELP).

TOGETHER, WE SHAPE THE FUTURE

VALUED PARTNER OF CARE CORNER FAMILY SERVICE CENTRE

Tao Payoh site (Singapore) was recognized for its continued partnership and co-operation with Care Corner Family Service Centre in supporting the needs of underprivileged families and children through community involvement initiatives, including home aid projects and the ST 'Back-to-School' project.



THE RED CROSS AWARD

Calamba site (the Philippines) received an award for 18 years of service, for their support and contribution in promoting voluntary and unpaid blood donation. Blood Galloner awards were also given to 11 employees.



LOCAL DIGITAL COMPANY

The French metallurgy association gave an award to our Le Mans site (France) for its activities with the local ecosystem. It recognizes, among other initiatives, co-operation with the 'French Tech' and participation in projects related to new mobility and digital innovation.



DEPARTMENT OF EDUCATION AWARD

Calamba site (the Philippines) received a plaque from the national Department of Education in recognition of their continued commitment and support in developing the school curriculum to make it relevant for the electronic industry, and for their participation in the student immersion program that encourages students to follow a technical career path.



GRI Content Index



| 102-55 |

May 2018
Service

GRI 101 : Foundation 2016

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	102-2 Activities, brands, products, and services	ST at a glance (page 6) / ST Products and Solutions (page 8) / Sustainable Profit (page 24) / 2017 Annual Report (Form-20F) at http://investors.st.com (page 17)
	102-3 Location of headquarters	About this report (page 2)
	102-4 Location of operations	ST at a glance (page 6)
	102-5 Ownership and legal form	Governance (page 14)
	102-6 Markets served	ST Products and Solutions (page 8) / Sustainable Profit (page 26) / Indicators (page 36) / 2017 Annual Report (Form-20F) at http://investors.st.com (page 16)
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	102-8 Information on employees and other workers	Indicators (pages 50 and 51)
	102-9 Supply chain	Value Chain (page 7) / Supply Chain Responsibility (pages 73 and 75)
	102-10 Significant changes to the organization and its supply chain	About this report (page 2)
	102-11 Precautionary Principle and approach	Chemicals (page 67) / EHS decalogue at www.st.com/ehs-decalogue
	102-12 External initiatives	About this report (page 2) / Governance (page 15) / Sustainability Strategy (page 21) / International Standards (page 85)
	102-13 Membership of associations	Governance (page 15) / Sustainability Strategy (page 21) / Involvement in Industrial and International Organizations at www.st.com
Strategy		
102-14 Statement from senior decision-maker		CEO foreword (page 4)
Ethics and integrity		
102-16 Values, principles, standards, and norms of behavior		Ethics and Compliance (page 16) / Labor and Human Rights (page 41) / ST's Code of Conduct on www.st.com
Governance		
102-18 Governance structure		Governance (pages 14 and 15)
Stakeholder engagement		
102-40 List of stakeholder groups		Sustainability Strategy (page 22)
102-41 Collective bargaining agreements		Indicators (page 52)
102-42 Identifying and selecting stakeholders		Sustainability Strategy (page 22)
102-43 Approach to stakeholder engagement		Sustainability Strategy (page 22)
102-44 Key topics and concerns raised		Sustainability Strategy (page 22)
Reporting practices		
102-45 Entities included in the consolidated financial statements		2017 Annual Report (Form-20F) at http://investors.st.com (page 25) / Governance (page 14)
102-46 Defining report content and topic Boundaries		About this report (page 2) / Sustainability Strategy (page 21)
102-47 List of material topics		Sustainability Strategy (page 21)
102-48 Restatements of information		About this report (page 2)
102-49 Changes in reporting		About this report (page 2)
102-50 Reporting period		About this report (page 2)
102-51 Date of most recent report		About this report (page 2)
102-52 Reporting cycle		About this report (page 2)
102-53 Contact point for questions regarding the report		About this report (page 2)
102-54 Claims of reporting in accordance with the GRI Standards		About this report (page 2)
102-55 GRI content index		GRI Content Index (pages 83 and 84)
102-56 External assurance		About this report (page 2) / Assurance statement (pages 88 and 89)

Material topics	Disclosure	Page number(s)/and or URL(s)	Omission
Sustainable Profit			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Sustainability Strategy (page 21)	
	103-2 The management approach and its components	Sustainable Profit (page 25)	
	103-3 Evaluation of the management approach	Sustainable Profit (page 25)	
GRI 201: Economic performance 2016	201-1 Direct economic value generated and distributed	Sustainable Profit (pages 24, 25 and 26) / Indicators (page 36) Indicators (page 51) / Indicators (page 80) / 2017 Annual Report (20F) at http://investors.st.com / (pages 4, 33, 40, 46, 53, 54)	Payment to government by country not available due to confidentiality constraints
Energy & Climate Change			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / We protect the environment (page 56)	
	103-2 The management approach and its components	We protect the environment (page 56)	
	103-3 Evaluation of the management approach	We protect the environment (page 56)	
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Indicators (page 70)	
	302-3 Energy intensity	Energy and Climate Change (page 59) / Indicators (page 71)	
	302-4 Reduction of energy consumption	Indicators (page 70)	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Indicators (page 70)	
	305-2 Energy indirect (Scope 2) GHG emissions	Indicators (page 70)	
	305-3 Other indirect (Scope 3) GHG emissions	Indicators (page 70)	
	305-4 GHG emissions intensity	Energy and Climate Change (page 59)	

Material topics	Disclosure			Page number(s)/and or URL(s)	Omission
Water					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / We protect the environment (page 56)		
	103-2	The management approach and its components	We protect the environment (page 56)		
	103-3	Evaluation of the management approach	We protect the environment (page 56)		
GRI 303: Water 2016	303-1	Water withdrawal by source	Water (page 62) / Indicators (page 71)		
	303-3	Water recycled and reused	Indicators (page 71)		
Waste & Effluents					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / We protect the environment (page 56)		
	103-2	The management approach and its components	We protect the environment (page 56)		
	103-3	Evaluation of the management approach	We protect the environment (page 56)		
GRI 306: Effluents and Waste 2016	306-1	Water discharge by quality and destination	Indicators (page 71)		
	306-2	Waste by type and disposal method	Waste and Effluents (page 65) / Indicators (page 71)		
	306-3	Significant spills	Indicators (page 70)		
	306-4	Transport of hazardous waste	Indicators (page 71)		
Chemicals					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / We protect the environment (page 56)		
	103-2	The management approach and its components	We protect the environment (page 56) / Chemicals (page 67)		
	103-3	Evaluation of the management approach	We protect the environment (page 56) / Chemicals (page 67)		
Supply Chain Responsibility					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / Supply Chain Responsibility (page 73)		
	103-2	The management approach and its components	Supply Chain Responsibility (page 73)		
	103-3	Evaluation of the management approach	Supply Chain Responsibility (page 73)		
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	Supply Chain Responsibility (page 74) / Indicators (page 79)		
	308-2	Negative environmental impacts in the supply chain and actions taken	Supply Chain Responsibility (page 74) / Indicators (page 79)		
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	Supply Chain Responsibility (page 74) / Indicators (page 79)		
	414-2	Negative social impacts in the supply chain and actions taken	Supply Chain Responsibility (page 74) / Indicators (page 79)		
Development & Engagement					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21)		
	103-2	The management approach and its components	Development and Engagement (page 44)		
	103-3	Evaluation of the management approach	Development and Engagement (page 44)		
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	Indicators (pages 50 and 51)		
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	Indicators (page 52)		
	404-3	Percentage of employees receiving regular performance and career development reviews	Development and Engagement (page 45) / Indicators (page 52)		
Health & Safety					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / Health and Safety (page 38)		
	103-2	The management approach and its components	Health and Safety (pages 38 and 39)		
	103-3	Evaluation of the management approach	Health and Safety (page 39)		
GRI 403: Occupational Health and Safety 2016	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Health and Safety (pages 39 and 40) / Indicators (pages 52, 53 and 54)		
Diversity & Inclusion					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / Diversity and Inclusion (page 47)		
	103-2	The management approach and its components	Diversity and Inclusion (page 47)		
	103-3	Evaluation of the management approach	Diversity and Inclusion (page 48)		
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	Diversity and Inclusion (page 48) / Indicators (pages 50 and 51)		
Labor & Human Rights					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / Labor and Human Rights (page 41)		
	103-2	The management approach and its components	Labor and Human Rights (page 41)		
	103-3	Evaluation of the management approach	Labor and Human Rights (page 41)		
GRI 412: Human Rights Assessment 2016	412-1	Operations that have been subject to human rights reviews or impact assessments	Indicators (page 53)		
Sustainable Technology					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / Sustainable Technology (page 33)		
	103-2	The management approach and its components	Sustainable Technology (page 33)		
	103-3	Evaluation of the management approach	Sustainable Technology (page 35)		
GRI 417: Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling	Sustainable Technology (page 35) / Indicators (page 36)		
Innovation					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / Innovation (page 27)		
	103-2	The management approach and its components	Innovation (page 28)		
	103-3	Evaluation of the management approach	Innovation (page 29)		
Quality					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / Quality (page 30)		
	103-2	The management approach and its components	Quality (page 30)		
	103-3	Evaluation of the management approach	Quality (page 32)		
Education & Volunteering					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	Sustainability Strategy (page 21) / Education and Volunteering (page 76)		
	103-2	The management approach and its components	Education and Volunteering (page 76)		
	103-3	Evaluation of the management approach	Education and Volunteering (page 76)		

International Standards

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Alignment of ST sustainability programs with the United Nations Global Compact (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 Supply Chain Responsibility Education and Volunteering
Principle 2	Make sure that they are not complicit in human rights abuses.	Labor and Human Rights Supply Chain Responsibility
Labor		
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Labor and Human Rights Supply Chain Responsibility
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 Development and Engagement Diversity and Inclusion
Environment		
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 and Effluents 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

ISO26000:2010 standards		ST Sustainability programs
6.2	Organizational governance	Governance
6.3	Human rights	Labor and Human Rights Supply Chain Responsibility Diversity and Inclusion Education and Volunteering
6.4	Labor practices	Development and Engagement Health and Safety
6.5	The environment	Energy and Climate Change Water Waste and Effluents Chemicals Sustainable Technology Supply Chain Responsibility
6.6	Fair operating practices	Ethics and Compliance Supply Chain Responsibility
6.7	Consumer issues	Quality Sustainable Technology
6.8	Community involvement and development	Education and Volunteering Innovation Sustainable Profit

ST supports the United Nations Sustainable Development Goals (SDG)



SDG	Target	ST Sustainability program	Page		
3 GOOD HEALTH AND WELL-BEING	Good health and well-being 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 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	Health and Safety	38 64 67		
4 QUALITY EDUCATION	Ensure inclusive and quality education for all and promote lifelong learning 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	Education and Volunteering	76		
6 CLEAN WATER AND SANITATION	Clean water and sanitation 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 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	Waste and Effluents Chemicals	64 67 Water	61	
7 AFFORDABLE AND CLEAN ENERGY	Ensure access to affordable, reliable, sustainable and modern energy for all 7.3 By 2030, double the global rate of improvement in energy efficiency	Energy and Climate Change Sustainable Technology	57 33		
8 DECENT WORK AND ECONOMIC GROWTH	Promote inclusive and sustainable economic growth, employment and decent work for all 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead 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 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	Energy and Climate Change Water	57 61 Labor and Human Rights Supply Chain Responsibility	41 73 Health and Safety Labor and Human Rights Supply Chain Responsibility	38 41 73
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Build resilient infrastructure, promote sustainable industrialization and foster innovation 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	27		
10 REDUCED INEQUALITIES	Reduce inequality within and among countries 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 and Inclusion	47		
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Ensure sustainable consumption and production patterns 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, 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	Waste and Effluents Chemicals	64 67		
13 CLIMATE ACTION	Take urgent action to combat climate change and its impacts 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	Energy and Climate Change	57		

Glossary

20-F	Annual report filed with the United States Securities and Exchange Commission (SEC)	IPC	Association connecting electronics industries
3TG	Tantalum, tin, tungsten and gold	KPI	Key Performance Indicator
ADAS	Advanced Driver Assistance System	LBG	London Benchmark Group
AGM	Annual General Meeting of Shareholders	LCA	Life Cycle Assessment
ADG	Automotive and Discrete Group	LCI	Life Cycle Inventory
ASICs	Application-Specific Integrated Circuit	LWDC	Lost Workdays Cases
Back-end (BE)	Second phase of manufacturing during which the silicon chip is mounted in a package	MEMS	Micro-Electro-Mechanical Systems
CAP	Corrective Action Plan	MOSFET	Metal Oxide Semiconductor Field Effect Transistor
CDP	Carbon Disclosure Project	MTCE	Metric Tons of Carbon Equivalent
CEO	Chief Executive Officer	NFC	Near Field Communication
COP	Communication On Process	NYSE	New York Stock Exchange
CMRT	Conflict Minerals Reporting Template	OECD	Organization for Economic Cooperation and Development
DJSI	Dow Jones Sustainability Indices	OEM	Original Equipment Manufacturer
ECC	External Customer Complaints	OHSAS	Occupational Health & Safety Assessment Series (OHSAS 18001)
ECOPACK®	ECOPACK® Lead-free labelling for RoHS-compliance	PFCs	Perfluorinated Compounds
EHS	Environmental, Health & Safety	PFOA	Perfluorooctanic acid
ELV	End of Life Vehicles	PMS	Project Management System
EMAS	Eco-Management and Audit Scheme	R&D	Research & Development
EMEA	Europe, Middle East & Africa	RBA	Responsible Business Alliance (formerly EICC)
ERM	Enterprise Risk Management	REACH	Registration, Evaluation and Authorization of Chemicals
ESIA	European Semiconductor Industry Association	RFID	Radio Frequency IDentification
FD-SOI	Fully Depleted Silicon-On-Insulator	RF	Radio Frequency
Front-end (FE)	First phase of the production cycle involving the manufacturing of circuits on a silicon wafer	RoHS	Restriction of Hazardous Substances
GeSI	Global e-Sustainability Initiative	SAQ	Self-Assessment Questionnaires
GHG	Greenhouse Gases	SDGs	Sustainable Development Goals
GNSS	Global Navigation Satellite System	SRI	Socially Responsible Investment
GRI	Global Reporting Initiative	SVHC	Substances of Very High Concern
HSPM	Hazardous Substance Process Management	UNGC	United Nations Global Compact
IECQ	International Electrotechnical Commission Quality	UPW	Ultra-pure Water
IGBT	Insulated Gate Bipolar Transistor	WEEE	Waste Electrical and Electronic Equipment
IoT	Internet of Things	WSC	World Semiconductor Council
IPCC	Intergovernmental Panel on Climate Change		



STMicroelectronics NV – Sustainability Report 2018 - Performance 2017 Independent Assurance Statement

Introduction

DNV GL Business Assurance France Sarl ('DNV GL') was commissioned by the Management of STMicroelectronics NV ('ST') to undertake an independent assurance of the company's Sustainability Report 2018 - Performance 2017 ('Report') concerning 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 *Moderate level* of Assurance, of data and activities related to sustainability between January and December 2017, 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, for the "Core" option.

We understand that the financial data and information reported, are based on data from the "STMicroelectronicsNV_20F_20180301" form, available on ST's website. The review of financial data from the Annual Report and Accounts was not within the scope of our work.

Verification methodology

Our assurance engagement was conducted in accordance with the DNV GL protocol for verification 'VeriSustain', which is based on our professional experience and international assurance best practice (among which the International Standard on Assurance Engagements - ISAE 3000). 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.

In accordance with the Protocol, available on demand on our website*, the Report was evaluated by considering the following criteria:

- Adherence to the principles of GRI Sustainability Reporting Standards.
- ISAE 3000, for the assessment of non-financial information.

Our verification was carried out from 14th March to 11th April 2018. As part of this engagement we visited selected sites based on their contribution which represents 14% to 29% of the Group's consolidated environmental data and 20 % of consolidated social data:

- The corporate functions in Grenoble (France)
- The Back-end manufacturing in Kirkop (Malta)
- The Back-end manufacturing in Shenzhen (China)
- The Front-end manufacturing in Rousset (France)

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 Social Responsibility 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 2018 Report.

In addition, we interviewed four different stakeholders.

We evaluated the performance data using the materiality, stakeholder inclusiveness, responsiveness, completeness, accuracy, reliability and neutrality 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.

Statement n. STAT-557476-2018-CSR-FRA

DNV GL Business Assurance France – Parc Technoland – ZI Champ Dolin – 1 allée du Lazio – 69800 Saint Priest - FR – www.dnvgi.fr

Conclusions

It is the opinion of DNV GL that the 2018 ST Sustainability Report is an accurate and impartial representation of the Company's sustainability-related strategies, management systems and performance.

Based on the work undertaken, nothing came to our attention to suggest that the Report does not properly describe ST's adherence to the Principles. Considering Key Performance Indicators, nothing came to our attention to suggest that this data has not been properly collated from information reported at operational level, nor that the assumptions used were inappropriate.

DNV GL believes that the report is in line with the "Core" option of 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 remarkable adherence of programs deployed at local levels with the CSR strategy.

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.

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.

Completeness: The Report covers material impacts satisfactorily to enable stakeholders to assess ST's sustainability performance in 2017. The information contained in the report refers to the structure defined in the boundary; in the case of data attributed to a more limited boundary, the document identifies such restriction precisely by means of proper notes.

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.

Balance: The Report is a full and 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.

Reliability: ST has developed an effective methodology for collecting information to be used in the Report. The data included in the Report subjected to our verification, was found to be identifiable and traceable. During our work, we found a limited number of non-material errors and these were corrected prior to inclusion in the Report.

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 GL's Competence and Independence

DNV GL 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 GL was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. DNV GL maintains complete impartiality toward stakeholders interviewed during the verification process.

DNV GL 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 GL Business Assurance France

17th, May 2018

Fabrizio Foglia
Lead Verifier

Zeno Beltrami
Reviewer

life.augmented



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