

# 2019

# Sustainability at a glance

2018 Performance





# ST in the world





Jean-Marc Cherv President and CEO

"As new President and CEO I am fully committed to ensuring that we remain a leader in conducting our business responsibly, leveraging our values and working with our customers to make a positive contribution to everyone's life."

- A global semiconductor leader
- 2018 revenues of US\$9.66B with year-on-year growth of 15.8%
- Listed: NYSE, Euronext Paris and Borsa Italiana, Milan
- Approximately 46,000 employees worldwide
- Approximately 7,400 people working in R&D
- 11 manufacturing sites
- Over 80 sales & marketing offices

# ST Products and Solutions

ST is 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.

Working closely with our customers, we help to enable smarter driving; smarter factories, cities and homes; and the next generation of mobile and Internet of Things devices.

#### **Our solutions address four** end-markets:

- Automotive
- Industrial
- Personal Electronics
- Communications Equipment, Computers & Peripherals



### Galvanic isolated smart power switch

Safety and robustness for Industry 4.0

The wide variety of industrial applications we address requires a range of application-specific analog solutions. ST's advanced Bipolar-CMOS-DMOS (BCD) technology provides highly integrated systemon-chip (SoC) solutions that can meet diverse needs.

#### Single-chip NFC/eSE/eSIM for worldwide mobile market



ST provides solutions that cover the needs of the security market. ranging from software solutions embedded in general purpose microcontrollers, to dedicated hardware that meets the highest security standards.

## Neural networks on STM32 MCUs

Simple, fast, optimized



ST offers a complete range of general-purpose microcontrollers, such as our STM32 microcontrollers. With 14 product families and over 1000 part numbers, we ensure designers can find the best solution for their application. Engineers also appreciate our comprehensive development ecosystem that helps to significantly reduce design costs and time to market.

#### Accelerating electrification Silicon-carbide power devices







We make driving greener with our silicon-carbide technology for vehicle drivetrain electrification and for electric vehicle charging stations. Silicon-carbide enables a longer range for electric vehicles, as well as faster charging, and lower weight. With the overall increase in electronic components per car, it is important that all the components used to power, control and monitor the different car subsystems consume less energy.

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# Sustainability Strategy

**WE LIVE OUR VALUES:** People, Integrity, Excellence **WE PUT PEOPLE WE IMPROVE WE PROTECT EVERYBODY'S LIFE FIRST** 







TOGETHER, WE SHAPE THE FUTURE

Sustainability has been part of our core values for more than 25 years, as we strive to act responsibly for all our stakeholders. It is integrated throughout our entire business, allowing us to maximize opportunities in areas such as eco-design, innovation, and employee engagement. It also helps us to predict and mitigate risks in our operations and business performance.

Philippe Brun President, **Human Resources and Corporate** Social Responsibility

"The world is changing faster than ever. Expectations on corporate responsibility are increasing. At ST we anticipate our stakeholders' requirements, keep ahead of regulations, and develop our ecosystems while focusing on our top business priorities.

We develop new responsible products and applications, and create a great employee experience while using efficiently natural resources. Our sustainability culture gives us the means to shape the future. It also gives us the means to recruit, retain and engage the talents necessary to do it."

# We live our values

As one of the world's leaders in semiconductors, we have a responsibility to lead by example. We believe that conducting our business with the highest standard of integrity is essential to our long-term success.

Our Code of Conduct is all about our values, which are shared throughout the Company. The principles it contains are the top level reference for guiding our behavior, decision making and activities.



## 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.

## 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.

## 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.

# 'Speak up' culture

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 HR managers
- Legal & Compliance departments
- Site managers





- Chief Compliance Officer
- CVP Human Resources
- General Counsel
- Chief Audit & Risk Executive
- Either by phone or online: www.st.ethicspoint.com

# Value chain

Managing our impacts all along our value chain





Front-end (FE)

Electrical

wafer sorting

Back-end (BE)

Product use

and end of life

manufacturing

manufacturina

 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.



 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 standards in all our sites to mitigate our ethics and labor and human

We carry out regular assessments and audits in all 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 CO<sub>o</sub>-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 develop innovative products to help our customers develop new energy-saving applications.

Our management of hazardous substances minimizes the impact of disposal and facilitates recycling.

#### MANAGEMENT OF OUR IMPACTS





100% conflict-mineral free

new patents filed

47 average training hours per employee

2018 Highlights

41%

MEMBER OF Dow Jones Sustainability Indices

In Collaboration with RobecoSAM (

90% of our employees covered by annual human rights



Among the best-in-class

employee engagement score 8 points above the industry norm

Bloombera **Gender-Equality** 

voluntary initiatives from 33 sites worldwide

suppliers at risk received a social audit

Outside ST Inside ST

2019 Sustainability at a glance

# Our ambitions and goals

WE LIVE OUR VALUES: People, Integrity, Excellence

#### WE IMPROVE EVERYBODY'S LIFE



## **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.

# >20%

2025 GOALS

of revenues generated by new product lines

-75% severe quality incidents\*

2016 baseline

**x3** 

% revenues generated by responsible products\*

## WE PROTECT THE ENVIRONMENT

### 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.

-20%

## **WE PUT PEOPLE FIRST**

### **Health & Safety**

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

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

### Labor & Human Rights

and accept zero tolerance on

#### Development & Engagement

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

# **Diversity & Inclusion**

Achieve full gender equality and be a leader in cultural

<0.15%

for employees

2025 GOALS

RC for employees includes

injuries only. RC for contractors not vet available. 100%

of ST manufacturing by external international bodies

5/11 sites.

China, Japan, Malaysia, Singapore, Switzerland and the Philippines.

>20%

### **TOGETHER, WE SHAPE THE FUTURE**

#### **Supply Chain** Responsibility

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

#### **Education &** Volunteering

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

100% 2025 GOALS

suppliers at risk audited

104/500 suppliers audited.

### STEM\*

education partnerships

Science, Technology, Engineering and Mathematics

China, France, India, Italy, Malta, Singapore and the Philippines.

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Mobile World Congress, Barcelona, Spain

# We improve everybody's life



Inclusion in
DJSI
World and Europe



+15.8% net revenues vs 2017



549 new patents filed

# US\$686 million net cash



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

IATF & ISO 9001

50% of our new products are recognized as Sustainable Technology



# Sustainable Profit

Our commitment to sustainability is critical to our long-term business success. Our actions to drive sustainable progress are designed to improve our financial performance, decrease risk, and support our reputation among stakeholders as a long-time pioneer in our industry.

2018 was an important year for ST. In line with our objectives, we achieved significant revenue growth across our product groups, as well as increased profitability and strong operating cash flow. Gross margin was 40%, 0.8 percentage points higher than in the previous year. Operating margin increased by 2.5 percentage points to reach 14.5% in 2018, driven by sales growth and operating efficiency. We also continued to invest to drive growth opportunities and operating efficiency over the mid-term.

# Innovation

We are - above all - an innovation driven company. Our technology developments are marketdriven, enabling or enhancing applications for the end-user by turning state-of-the-art chip fabrication technologies into cutting-edge commercial products.

To support innovation, we invested a total of US\$1.4 billion in R&D in 2018, an increase of almost 8% compared to 2017, representing 14.5% of our net revenues.

# Quality

Quality is our priority in ST. We work hard every day to ensure all ST products meet the highest quality and reliability requirements in all our end markets.

Our prominent quality culture is reflected in our 2018 employee engagement survey results, where 82% of employees stated they clearly understand how quality expectations fit into their job requirements, and 76% said the day-to-day decisions in their team demonstrate that quality is a top priority for ST.

# Sustainable Technology

Product stewardship, or what we call Sustainable Technology, is one of the cornerstones of our sustainability strategy, reflecting our focus on promoting the environmental and societal benefits of new ST products. It addresses the growing demand from consumers, customers, investors and authorities for more transparency on substances used in products and their responsible sourcing, eco-design, production, processing, use, and ultimately, the disposal or recycling of the used product.

In our Sustainable Technology program, we design, identify and promote innovative responsible products that deliver environmental and social benefits, such as reducing energy consumption, saving resources, protecting the environment, and improving people's quality of life.



Human resources workshop. France

# 0.17% recordable injury case rate, among the best-in-class

90% of employees covered by annual human rights assessments



# We put people first



Average of 47 hours of training per person



105 different nationalities



+5% in employment of disabled people

employee engagement score (+8 points above global industry norm)

23% of exempts are women

# Health and Safety

Protecting people from harm and safeguarding their health is key for our success. We maintain and continuously develop health, safety and welfare at work, by evaluating and analyzing the risks that can affect our employees and subcontractors, and managing them responsibly: at ST, we act to make work a better place to be.

We constantly strive to strengthen our safety culture by re-enforcing safe behaviors and working conditions through visits, training, audits, best practice sharing and communication. We prioritize the prevention of potential employee exposure to chemicals, fire and radiation, and we work to minimize the risks around ergonomics, machinery, handling and nanomaterials.

# Labor and Human Rights

Human rights are deeply rooted in our history and culture. Our programs are established to ensure that all of our employees are treated with respect and dignity.

We follow the most advanced standards and 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; privacy of personal information.

Participating in initiatives such as Responsible Business Alliance (RBA) and 'Entreprises pour les Droits de l'Homme', enables us to work with customers and suppliers to take the lead on understanding and addressing our risks in regions where we operate.

# Development and Engagement

Our learning and development strategy aims to provide timely answers to business needs and establish ST as a leading, innovative company where entrepreneurial spirit, feedback, cooperation and leadership are the norm.

Delivering the best employee experience is crucial to attracting and retaining the best talent. In our employee survey, 75% of employees recommended ST as a great place to work.

# **Diversity** and Inclusion

Diversity has been part of our corporate DNA for 30 years and remains one of our strategic priorities. We are present in more than 35 countries and employ 105 different nationalities.

We are convinced that diversity and inclusion bring value to our business through effective innovation, attractiveness, engagement and agility.

Strengthening the role of women in building ST's future is one of our ongoing objectives.

Photovoltaic carpark ST Catania Italy

# We protect the environment



**42**%

of direct emissions offset by reforestation projects



95% of waste is reused, recovered or sent

for recycling



8 d, ch

chemical risk assessments conducted in 2018 6% decrease in direct and indirect emissions (scopes 1,2,3)



41% of water recycled and reused



>23,000 industrial hygiene measurements performed

# **Energy and Climate Change**

Since 1993, ST has been working to reduce its carbon footprint and has set challenging targets to conserve energy and minimize direct and indirect air emissions.

Our 2025 goals include a commitment to reducing our energy consumption and greenhouse gas (GHG) emissions by 20% per unit of production compared to 2016. By the end of 2018, we had reduced our GHG emissions by almost 15% and our energy consumption by more than 19% compared to the 2016 normalized baseline.

Electricity accounts for more than 90% of the energy used by ST. As part of our strategy to reduce energy-related  $CO_2$  emissions, we have been working since 2012 to increase the proportion of renewable energy we use. In 2018, 21% of the total volume of energy we purchased came from green electricity.

# Water

Semiconductor manufacturing processes use a lot of water. Water availability is a global challenge and we continually strive to reduce our water consumption and consider its impact on local ecosystems.

Our water management is based on reuse, recycling, conservation and process optimization. In 2018, we improved our water efficiency and achieved a 5% reduction in our water consumption per unit of production compared to 2017 – reaching our lowest level ever.

# Waste and Effluents

We aim to reduce, reuse, recycle or recover as much of our waste as possible, rather than sending it to incineration or landfill. Our waste management is based on proper classification, separation and safe disposal. All our sites are required to respect the most stringent requirements of ST policy and local regulations.

Thanks to the efforts of our sites, 93% of our waste was reused, recovered or sent for recycling in 2018.

# Chemicals

The semiconductor manufacturing process uses substances and materials that can present health, safety and environmental risks.

At ST, we are committed to mitigating the risks related to our activities. We therefore focus our efforts on reducing usage, substituting chemicals and ensuring proper handling, while complying with legal and customer requirements.

The 23,067 industrial hygiene measurements we performed during the year were all below applicable limits.

To enhance our approach, we implemented the Hazardous Substances Process Management (HSPM) program to track, reduce or eliminate the hazardous substances we use in our products and processes.

Collaborative project with suppliers to renovate a school and create a plant núrsery for púpils, Bouskoura middle school, Morocco

# Together, we shape the future



100%

of our products are conflict-mineral free



education and volunteering initiatives from 33 sites worldwide

124,154

hours of company time donated

of new suppliers screened on social and environmental criteria



55% of community initiatives are STEM related

Supporting education

# Supply Chain Responsibility

ST is committed to partnering with suppliers who share our values of respecting people and driving business with integrity and excellence.

We have a number of programs to address labor and human rights, safety, ethics and environmental risks in our supply chain, based on the Responsible Business Alliance (RBA) methodology. This comprises three main steps:

- · Commitment letter, in which the supplier declares their commitment to ST's RBA based standards.
- Assessment, whereby suppliers complete an RBA self-assessment. The aggregated results enable us to identify areas that require attention.
- RBA audit to identify and prioritize risks.

In addition, we monitor our sub-tier raw material suppliers through responsible mineral sourcing and hazardous substances programs.

In 2018, we conducted a risk mapping exercise on our direct supply chain to identify the priority categories of suppliers and countries The results of this exercise enabled us to build a 2025 roadmap. Our aim is to involve all our suppliers at risk in a reasonable due diligence process.

# Education and Volunteering

We have a longstanding commitment to having a positive impact on the communities where we operate, to create additional value and minimize risks for our stakeholders.

We aim to engage employees through effective local programs aligned with our sustainability strategy and with the local, operational and cultural context.

In 2018, we implemented 374 community initiatives worldwide. These included:

- 33 sites in 20 different countries
- 124,154 hours of company time, representing 75% of the total contribution
- US\$1,240,364 in cash donations

As in previous years, education and innovation are our main drivers. Supporting education was an important focus in 80% of our initiatives, with 44% linked to innovation.

### **New strategic STEM program**

In 2017, we updated our strategy to focus on education in Science, Technology, Engineering and Mathematics (STEM), with the aim of developing a more detailed framework to engage our sites in supporting STEM education.

In an increasingly complex digital world where technological change is accelerating, we are convinced we have a role to play in inspiring the next generation to pursue STEM related careers. Opportunities linked to STEM are expected to grow in the coming years, especially in technical engineering roles, as the 'baby boomer' generation approaches retirement. So attracting more young people to STEM is a priority.

# Awards

# WE IMPROVE EVERYBODY'S LIFE



Photo: MESRI

# EUROPEAN STAR INNOVATION PROJECT

ST received the European Star Innovation award from the French Ministry of Higher Education, Research and Innovation for successfully leading the Pilot Optical Line for Imaging and Sensing (POLIS) project. During this 4.5-year project, 21 leaders in imaging technology cooperated to build pilot lines dedicated to differentiating technologies that will enable a large range of innovative sensors.

#### THOMSON REUTERS TOP 100 GLOBAL TECH LEADER

ST was recognized among the world's most innovative companies in being named a '2018 Thomson Reuters Top 100 Global Technology Leader'. This recognition honors companies that have demonstrated a commitment to leadership across several pillars such as finance, management and investor confidence, risk and resilience, legal compliance, innovation, people and social responsibility, environmental impact, and reputation.

# TOP100 GLOBAL TECH LEADER

# ELEKTRA MANUFACTURER OF THE YEAR

ST received the title of Manufacturer of the Year at the prestigious Elektra Awards organized by Electronics Weekly in London. The independent panel of judges from the UK electronics industry recognized our product and technology innovation and Company performance.



Photo: Leo Johnson

#### WE PROTECT THE ENVIRONMENT



# AWARD FROM THE MOROCCAN MINISTRY OF ENVIRONMENT

During the 12<sup>th</sup> Environment Award ceremony held by the Ministry of the Environment of Morocco, our Bouskoura site received an award for its active contribution to sustainable development. Among the 100 participants (companies, associations, professionals and local governments), ST was one of the three companies recognized in the business category.

# TOGETHER, WE SHAPE THE FUTURE



#### UNIVERSUM MOST ATTRACTIVE EMPLOYERS

ST was recognized for the activities it organizes in universities and was ranked among the most attractive employers in Italy. This result was based on a Universum survey of over 40,600 university students from 44 universities throughout the country.

#### WE PUT PEOPLE FIRST

#### ATTRACTIVE COMPANY

ST was recognized among the top five most attractive companies in France and received a Randstad Award 2018. This is aligned with the strong focus of the Company to attract the best talents.



Photo: Alexis PAOLI

#### **RBA PLATINIUM**

Our Calamba site (the Philippines) was recognized by the Responsible Business Alliance for completing the validated audit process with a score of 200/200. It rewards the efforts, commitment and leadership in corporate social and environmental responsibility at the site.



#### TROPHÉE LUMIÈRE

ST France received a Trophée Lumière for its innovative initiative to support the employment of disabled people. This rewards the inter-company apprenticeship program developed by ST and deployed locally to support training for disabled people within the company and ensure their successful integration.

#### HUMAN RESOURCE DEVELOPMENT AWARDS



Our Muar site (Malaysia) received two national awards from Pembangunan Sumber Manusia Berhad, an agency under the Ministry of Human Resources, for promoting a learning and development culture to enhance employee competencies, as well as for developing creative solutions and innovations in the domain of human resources.

# More about us

We have been a signatory of the United Nations Global Compact (UNGC) since 2000 and we follow its 10 principles. We support the United Nations Sustainable Development Goals (SDGs) and our sustainability programs

contribute to 10 of the



17 SDGs.

## 2019 Edition

This report has been prepared by: ST Corporate Social Responsibility team

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#### **Feedback**

We value your feedback and you can email us at: sustainable.development@st.com

For more details please read the 2019 Sustainability Report on ••• www.st.com/company-reports

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# life.augmented

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