Augmenting everybody's life

Industrial Summit, Shenzhen, China

Sustainable Financial Performance

ST delivered strong revenue growth and increased profitability in 2021. Net revenues increased 24.9% to US$12.76 billion, reflecting our strong performance in all our end markets, combined with the success of our customer engagement programs. Our performance strengthened progressively throughout the year, exceeding our expectations despite the challenges faced by the global semiconductor industry supply chain.

Sales to original equipment manufacturers (OEMs) and distributors returned to a more balanced split, representing 66% and 34% of total revenues, respectively.

By region of origin, 41% of our revenues came from the Americas, 34% from Asia Pacific, and 25% from EMEA.

Revenues

US$12.76 billion

Our full-year operating margin increased to 19% from 12.9% in 2020 and net income was up 80.8%. Net cash from operating activities increased by around 46% to US$3 billion.

CAPEX was US$1.83 billion compared to US$1.28 billion in 2020.

Cash dividends paid to shareholders in 2021 totaled US$205 million. We also repurchased shares totaling US$485 million under our prior and new share repurchase programs.

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

US$ million	2019	2020	2021
Net Revenues	9,556	10,219	12,761
Gross Margin	38.7%	37.1%	41.7%
Operating Income	1,203	1,323	2,419
Net Income	1,032	1,106	2,000
Free Cash Flow	497	627	1,120
Net Financial Position	672	1,099	977

Strong market growth

There was strong market demand in 2021, despite the ongoing impact of the pandemic and global semiconductor supply chain constraints.

All three of our product groups achieved double-digit growth in 2021.

- Automotive and Discrete Group (ADG) revenues increased 32.5%, with both sub-groups, Automotive and Power Discrete, recording double-digit growth.
- Analog, MEMS and Sensors Group (AMS) revenues grew 18.8%. Analog and MEMS recorded double-digit growth, supported by continued growth in Imaging product sales.
- Microcontrollers and Digital IC Group (MDG) revenues increased 24.3%.

Double digit growth

for all product groups

In Automotive, we saw unprecedented demand across all geographies as the industry continued to rebound from the difficult environment in 2020. The rebound was broad-based, across all customers and regions. It was driven by the volume of vehicles produced, the replenishment of inventories across the automotive supply chain and, most importantly, an accelerated transformation of the vehicle industry towards more electrification and digitalization.

In Industrial, we saw very strong demand throughout the year, both in high-end and consumer industrial. Electrification and digitalization are the main trends driving increased demand for semiconductors in this market.

In Personal Electronics, smartphone volumes returned to growth in 2021, around 3% year-on-year, driven by increasing 5G adoption. Demand for accessories was strong, including other connected devices such as wearables, tablets, hearables, headsets, and game consoles.

In Communications Equipment and Computer Peripherals, we saw continued adoption of 5G-related products, as well as sustained demand for PCs, especially notebooks. The hard disk drive market saw a slight recovery after its decline in 2020. We also saw low-earth-orbit satellite programs launch or ramp up in several countries.

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

In 2021, we delivered strong revenue growth and we materially improved our profitability and free cash flow resulting in a healthy net financial position. Going forward, our EBITDA and ability to generate cash enable us to invest for the future in R&D and CAPEX for sustainable growth. Ultimately, we are focused on the creation of long-term value for our stakeholders."

EU taxonomy

The EU taxonomy is a green classification system translating the climate and environmental objectives of the European Union (EU) into criteria for sustainable economic activities. On January 1, 2022, the EU Taxonomy Delegated Acts on climate change mitigation and climate change adaptation entered into force, requiring non-financial undertakings such as ST to disclose taxonomy-eligible and taxonomy non-eligible economic activities within their turnover, capital expenditure (CAPEX) and operating expenditure (OPEX).

The following table, based on our 2021 Statutory Annual Report including IFRS Financial Statements, sets forth the proportion of our turnover, CAPEX and OPEX that is taxonomy-eligible, and the proportion that is taxonomy non-eligible.

	Turnover	CAPEX	OPEX
Taxonomy-eligible economic activities (in %)	37%	46%	36%
Taxonomy non-eligible economic activities (in %)	63%	54%	64%
Total (in US$ million)	12,761	2,726	1,157

The disclosure has been prepared based on our current interpretation of the EU taxonomy. For more information, see **EU Taxonomy**.

Looking forward

We will accelerate the execution of our strategy and value proposition.

Our strategy is based around three long-term enablers:

- Smart Mobility
- Power and Energy Management
- Internet of Things (IoT) and 5G

Our value proposition is based on:

- sustainable and profitable growth
- providing differentiating enablers to customers; supporting them with an independent, reliable, and secure supply chain
- committing to sustainability for the benefit of all our stakeholders

In 2022, we plan to invest from US$3.4 billion to US$3.6 billion in CAPEX to further increase our production capacity and support our longer-term strategic initiatives. This includes:

Plans to

invest US$3.4 to $3.6 billion

in CAPEX in 2022

- capacity additions and developing the product mix, in particular for our front-end fabs including our digital 300mm at Crolles, (France), our analog 200mm at Singapore, our Silicon Carbide (SiC) 150mm at Catania (Italy) and Singapore, as well as assembly and test operations such as capacity growth on certain package families including SiC and automotive, optical sensing, and intelligent power modules for automotive and industrial applications
- strategic investments, including the first industrialization line of our new 300mm front-end fab at Agrate (Italy) as well as Gallium Nitride (GaN) technology and SiC raw material initiatives
- overall maintenance and efficiency improvements for our manufacturing operations and infrastructure, as well as our carbon neutrality program

We continue to work on making ST stronger. We believe we have the right strategy and resources in place, thanks to our:

- balanced end-market focus and position
- solid product/IP technology portfolio
- integrated device manufacturer model
- transformation programs
- focus on high-growth applications that continue to enjoy strong, positive dynamics

We are investing significantly to support this acceleration to capture new opportunities, strengthen our relationships with customers, and prepare for sustained growth over the years to come.

Extra-financial performance

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

In 2021, we maintained a strong presence in the major sustainability indices, including Dow Jones Sustainability Index World and Europe, FTSE4Good, Solactive Global and Europe CSR index, EuroNext VIGEO Europe 120, Eurozone 120 and Benelux 120, ISS ESG Corporate Rating and Vérité40.

Furthermore, we have been included in the Bloomberg Gender Equality Index since its creation.

We received an A- score for CDP Climate Change, which is in the Leadership band. This is higher than the Europe regional average of B, and higher than the electrical and electronic equipment sector average of B. We received a B score for CDP Water, which is in the Management band. This is the same as the Europe regional average of B, and higher than the electrical and electronic equipment sector average of B-. For the first year, we were recognized as a CDP supplier engagement leader.

ST was also included in the new Euronext CAC 40 ESG index, designed to identify the 40 companies within the CAC Large 60 index that demonstrate the best ESG practices. In addition, we were included in the MIB ESG index, which identifies the 40 companies with the best ESG practices out of the 60 most liquid Italian companies.

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

Innovation

As one of the world's largest semiconductor companies, ST is a technology company driven by innovation. Our technology developments are guided by the long-term market trends, enabling or enhancing applications for the end-user by turning state-of-the-art chip fabrication technologies into cutting-edge commercial products. I 103-1 I

To support innovation, we invested US$1.72 billion in research and development (R&D) in 2021, representing 13.5% of our net revenues.

Leading edge technology

The focus of our innovation (see **www.st.com/innnovation**) and the evolution of our technology stems from long-term trends reshaping industries and societies, alongside the need to support a more sustainable world. The three main trends we focus on are: Smart Mobility, Power and Energy Management, and the Internet of Things (IoT) and 5G.

US$1.72 billion
invested in R&D

Process technology

Thanks to our wide portfolio of patents and strong pipeline of innovation, we are one of the few semiconductor companies mastering a very broad range of chip manufacturing technologies. See more details about our technologies on our website at **Semiconductor manufacturing process technologies** .

In collaboration with the Important Projects of Common European Interest (IPCEI) for Microelectronics program, we achieved major advances in cutting-edge technologies in 2021. These include:

- The qualification of new digital microcontroller technologies and the introduction of a completely new type of memory – fast, robust, and energy efficient – known as embedded Phase Change Memory (**e-PCM**)

- The demonstration of Gallium Nitride (GaN) technology for power electronics, providing unrivaled energy efficiency and power density. The qualification of a Power GaN manufacturing pilot line was initiated at our Tours site (France).
- The manufacture of our first 200mm SiC bulk wafers for prototyping next-generation power devices at our facility in Norrköping, Sweden.

Also, we received the prestigious IEEE milestone award for inventing BIPOLAR-CMOS-DMOS (BCD), a family of silicon processes in the area of power management and analog data acquisition.

Application technology

Through our IPCEI collaboration, we further developed the performance and versatility of optical sensors, increasing the perception of connected objects.

We are leaders in Micro Electro-Mechanical Systems (MEMS) technologies. We have demonstrated our expertise in developing sensors and actuators over several decades, enabling us to develop augmented reality solutions.

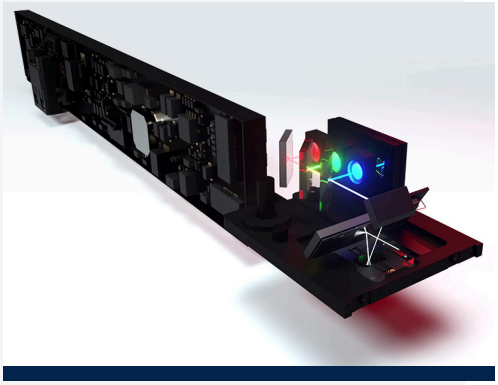
Acquisition of

Cartesiam,

a specialist AI software company

FOCUS

ENABLING FAST DEVELOPMENT OF AUGMENTED REALITY (AR) GLASSES



As a leader in MEMS technologies, we have industrialized MEMS actuators based on thermal, electrostatic, electromagnetic, and piezoelectric devices. Building on this experience, ST and other leading technology developers and manufacturers joined forces in the LaSAR Alliance to accelerate AR smart glasses solutions.

The Alliance is focused on meeting the technical challenges required for all-day wearable smart glasses. It has created an ecosystem that includes companies developing technologies, components, and solutions based on laser beam scanning to provide augmented reality and mixed reality device manufacturers with the key foundational elements.

At Consumer Electronics Show in January 2021, we unveiled proof-of-concept smart glasses based on our first-generation MEMS ScanAR reference platform. This demonstrated the capability of ST and several of the LaSAR Alliance partners to provide a complete solution for AR eyewear applications.

In 2021, to strengthen the artificial intelligence (AI) solutions we offer, we acquired Cartesiam, an edge AI software company enabling faster machine learning project development for connected devices and industrial equipment. These technologies, which are particularly relevant for the predictive maintenance market among others, strengthen our position in several markets. The NanoEdge AI Studio tool brings additional value to our customers with its privacy-oriented process (no cloud processing of customer data) and its easy implementation, enabling customers to work on projects without the need for a highly specialized data science team.

Remi El-Ouazzane
President Microcontrollers & Digital ICs Group

If the previous decade was defined by the 'Internet of Things', the current decade will be the one of 'Autonomous Things'. Many billions of smart devices are being introduced into our homes, offices, warehouses, stores, factories, cars, and hospitals. Artificial intelligence (AI) is the cement that will enable this era of 'smart-everything'. Our goal at ST is to make AI pervasive across our hardware portfolio, catering to the various needs of developers through both low-code approaches like our NanoEdge AI Studio, and open toolkit environments like STM32Cube.AI; enabling a world where ambient intelligence eventually becomes the norm, be it for anomaly detection in a photovoltaic inverter or automated pods classification in a coffee machine. The opportunities are boundless."

Innovation ecosystem

Our innovation capability is enhanced by the ST Innovation Office. Their mission is to create more external and internal innovation opportunities through an ecosystem that connects emerging market trends with our internal technology expertise (see **www.st.com/innovation**). I 103-1 I 103-2 I

External scouting for technology

Recognizing the importance of partnerships in the innovation process, we build strategic alliances, engage in bilateral research cooperation, and participate in standardization groups. Overall, we were involved in 187 active R&D partnerships in 2021. I 103-3 I

187
active R&D partnerships

One of our main programs, the IPCEI for Microelectronics program, gathers the most important European players in microelectronics to cooperate and innovate to serve the IoT, space, smart mobility, and security markets. Since its launch in 2018, it has involved 65 partners and 97 projects.

In 2021, we expanded our common R&D infrastructure at the PoliFab Micro- and Nanotechnology Center. This investment aims to boost our joint efforts with Politecnico di Milano in MEMS and motion control, as well as in power electronics and galvanic isolation.

We also joined new external partnerships that bring together industry leaders from along the value chain to accelerate innovation in the automotive and industrial sectors and diversify our scouting process in the smart mobility sector.

- Software République – a consortium of six industry leaders (Atos, Dassault Systèmes, Orange, Renault Group, ST and Thales) that aims to create a European collaborative ecosystem enabling secure and sustainable mobility.
- IoT Continuum – bringing together leading IoT players to accelerate the pervasion of end-to-end IoT solutions.
- Anchor partner of Startup Autobahn in Germany and Motor Valley Accelerator programs in Italy. These programs are powering innovation in the automotive sector by introducing selected young companies to established technology corporations. Both programs are created and managed by Plug and Play, the well-known Silicon Valley accelerator.

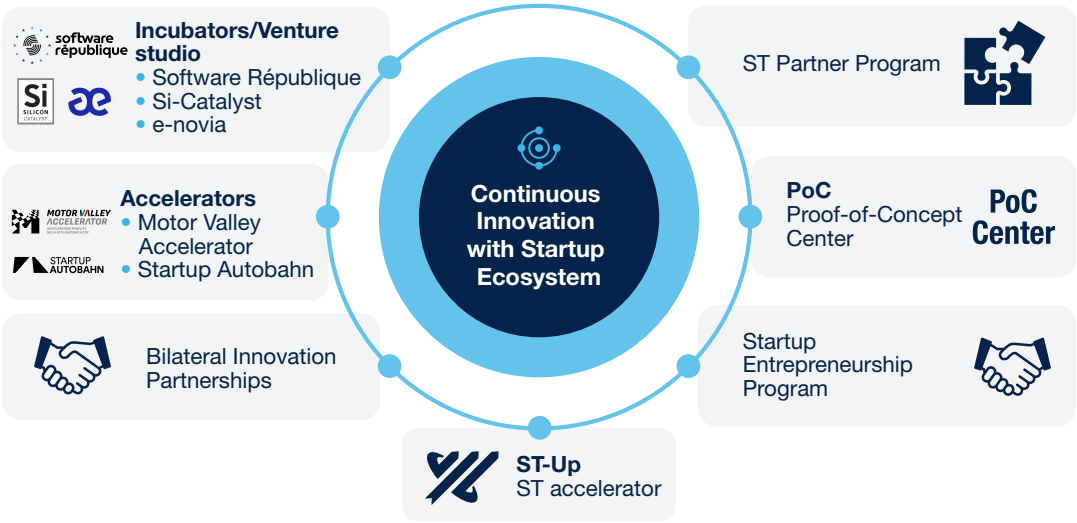
The startup ecosystem

Our Innovation Office is developing initiatives to create deeper and forward-looking relationships with several players in the startup world. There were 50 startups involved in our programs in 2021.

50 startups

engaged in our programs

Continuous innovation within our ecosystem of startups



Our strategy to foster innovation within our startup ecosystem is based on three main programs aligned to the different stages of startup evolution:

- Proof-of-Concept (PoC) Centers: we provide support to small and medium-sized enterprises in the early stages to speed up their proof-of-concept phase, through co-working spaces at 15 PoC centers.
- Startup Entrepreneurship Program: tailored incubation services, including hosting, technical support, and mentoring to help commercialize designs by hosted startups. Since its inception, more than 50 startups have been incubated in France and India through this program, with 18 startups engaged in 2021.
- ST-Up accelerator program: hardware and technology startups are supported through an 18-month, five-step process. Launched in 2018 in Israel, the program was extended to France and Italy in 2021 and now has nine active engagements in these three countries.

These programs work closely together and are complemented by an ecosystem of cooperation with selected incubators and accelerators worldwide. In addition, our ST Partner program provides endorsement and visibility to successful startups from any of these initiatives.

Thanks to these partnerships, we explore new sustainable solutions and enable responsible applications for safer, greener, and smarter living (see **Sustainable Technology**).

Internal technology expertise

Around 8,400 ST employees work in R&D and design. This includes around 780 technical staff who are recognized for their advanced expertise.

This community drives our most advanced innovations, enabling us to develop new technologies and helping to foster R&D partnerships with prestigious universities and partners worldwide.

~8,400

employees dedicated to R&D and product design

Our expertise is recognized externally through our involvement and contribution at key scientific conferences.

Our sites around the world are helping to nurture the entrepreneurial spirit of our employees through local innovation labs and hubs that help to connect our technical experts within local ecosystems. We now have nine labs, with one new lab opened in 2021: the STAR Lab at our Tours site (France).

Contributing to the Sustainable Development Goals

Our commitments and programs as described above contribute to:

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

2025 sustainability goal	Status	Comments
SG1: Generate at least 20% of our revenues from new product lines by 2025.		13%

Sustainable Technology

Industrial Summit, Shenzhen, China

Our unique lifecycle approach since 2011

For more than 10 years, we have applied a product lifecycle approach from responsible sourcing to end of life. This not only reflects our commitment to creating sustainable technology in a sustainable way, but also makes a positive contribution to the world.

The goal of this product stewardship program is to improve the impact of our products throughout the value chain. It allows us to better manage our risks and address business opportunities in fast-growing sustainability markets, such as electric mobility, renewable energy, and smart buildings.

ST full product lifecycle approach

Jean-Louis Champseix
Group Vice President, Corporate Sustainability

At ST, we create technology for a sustainable world in a sustainable way. In a nutshell: creating technology that enables our customers to improve people's lives in many domains such as electric mobility, power and energy efficiency, smart building and healthcare."

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

Responsible products			
Eco-design products		**Sustainable applications**	
Low carbon Reduce production footprint	**Power-efficient** Consume less electricity	**Planet-friendly** Enable green solutions	**Human-welfare** Improve end-user quality of life
Environmental benefits			**Social benefits**

A product is given a 'responsible product' label when it demonstrates that the use for which it was designed brings social, energy-saving, or environmental benefits. Examples of responsible products are available on **www.st.com/responsible-products** .

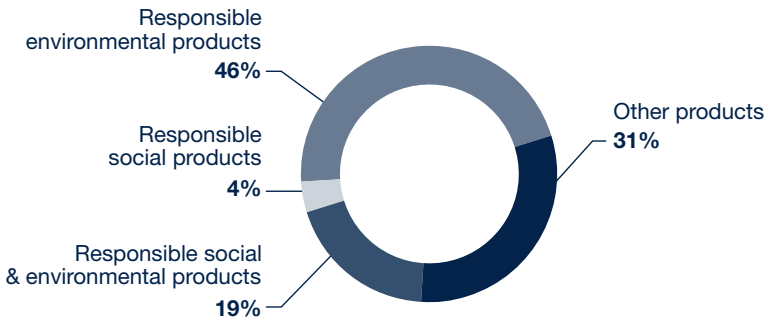
2021 achievements

We identified 69% of our new products as responsible in 2021, compared to 63% in 2020. This classification helps us identify and track revenues from our responsible product portfolio. In 2021, the total revenue derived from responsible products increased to 20%, compared to 18.5% in 2020. This is on track for our 2027 target to generate at least 33% of our revenues from our responsible products.

69%

of new ST products are responsible products

ST new products in 2021 | 417-1 |



We evaluate our products during the early stages of product design through our project management system. We award each product stars to indicate their value to society: one, two, or three stars according to their level of innovation.

STAR classification for new products in 2021 (%) | 417-1 |

	Social products[1]	Environmental products[2]
★ Incremental improvement to existing offer	33	28
★★ Significant improvement to existing offer	51	29
★★★ New or dramatic improvement to existing offer	16	43

(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.

At the end of 2021, we released our new Sustainable Technology brochure (available on www.st.com). This includes updates on our sustainability programs, such as 2027 Carbon Neutrality and much more.

In support of the ambitions of the European Green Deal, which aims to reduce emissions by at least 55% by 2030 compared to 1990 levels, we used our advanced product lifecycle assessment experience to report on the EU taxonomy requirements. Based on our Sustainable Technology program which allows us to classify products that provide society with environmental and social benefits, we identified our products, technologies and applications that aim at contributing substantially to climate change mitigation. This encompasses all products that aim at substantial GHG emissions savings across their lifecycle in other sectors of the economy. For more information, see **EU Taxonomy**.

Considering every stage of the product lifecycle

Enabling technologies and eco-design

ST creates advanced semiconductor technologies by offering innovative power electronic solutions based on wide bandgap technologies, such as Silicon Carbide (SiC) and Gallium Nitride (GaN). The main advantages compared to standard silicon substrates are reduced energy consumption, minimized application size and weight.

By keeping eco-design at the heart of our product development, our designers innovate to create:

- **Low-carbon products**: thanks to low resource consumption and the lower number of manufacturing steps required, these products reduce the environmental footprint of our production equipment, utilities, and supply chain.
- **Power-efficient products**: state-of-the-art in reducing electricity consumption and power losses, these products reduce the environmental footprint of the end-devices they are embedded in.

This approach is based on our lifecycle assessment (LCA) methodology developed in accordance with ISO standards 14040 and 14044. Our product management system tracks key indicators to encourage our product development teams to implement green designs wherever possible.

Responsible sourcing

Our responsibility begins with the raw materials and the substances we use to manufacture our products. All our raw materials are sourced in line with the latest environmental and social guidelines, and sustainability criteria are included in our purchasing processes (see **Responsible Supply Chain** and **Responsible Mineral Sourcing**).

Low footprint manufacturing

We strive to reduce the impact of our manufacturing activities on natural resources by managing our GHG emissions, reducing our energy, water, and chemical consumption, and recycling waste. We also ensure that our people are safe and treated with respect and dignity. We continuously innovate and improve our processes in accordance with environmental, social, and ethical standards.

Use

Our components and technologies help end users to reduce their impact on the environment. Reducing the power consumption of electronic devices is a major feature of our portfolio, helping to reduce our environmental footprint year after year. The benefits our products deliver during use, also referred to as the ‘handprint’ of our products, are not only about improved power-efficiency, they are also amplified by our focus on specific market segments that are helping to solve environmental and social challenges (see **Paving the way to sustainable applications section**, below).

End of life anticipation

We are committed to ensuring our products meet or exceed applicable environmental requirements such as REACH[1], RoHS[2] and HSPM[3] (see **Chemicals**). ECOPACK processes and classification help us monitor the substances used in our products, which in turn facilitates end of life and recycling when our devices are disposed of. By the end of 2021, 96% of ST products exceeded RoHS directives and were rated ECOPACK2 or ECOPACK3.

96%

of our products exceed RoHS directives

Paving the way to sustainable applications

Environmental applications

Enabling the transition to planet-friendly alternatives, these semiconductor solutions help customers to deploy smart and environmentally friendly applications.

- **Electric mobility**: by enabling large-scale vehicle electrification, as well as the supporting infrastructure that makes it possible, ST contributes to the shift from traditional vehicles to smarter, greener mobility solutions.
- **Power solutions for renewable energy or smart grids**: we contribute to the transition to greener energy sources with high-efficiency and low-power consumption components. These allow for low-loss energy conversion in solar panels, wind turbines and smart grids using wide bandgap semiconductor technologies. We also provide smart grid solutions, such as smart meters enabling energy utilities to manage their supply and demand, and allowing consumers to view their energy consumption in real time.
- **Smart building, farming and industry**: our products are used in a wide range of applications, supporting the evolution of industries to make factories and workplaces more intelligent, safer and more efficient. We provide devices to monitor, optimize, and clean gas emissions from any kind of motor engine, to measure air pollution in cities, and to purify the air. We also offer a large product portfolio for energy monitoring and control in homes, buildings, and industrial facilities. The ability of our products and technologies to be more connected with their environment has been particularly instrumental in the agriculture industry.

FOCUS

CONTRIBUTING TO SMART FARMING WITH REVOLUTIONARY TECHNOLOGY

ST's unique product portfolio plays an important role in increasing agricultural productivity by leveraging our expertise in smart products and IoT technologies. STM32WLE5, the world's first Long Range System-on-Chip (LoRa® SoC), has revolutionized the automation of extracting rubber from trees. Our microcontroller, micro-stepping motor controller and integrated low-dropout voltage regulator help provide more sustainable and resource-efficient agricultural production.

The fully automatic and intelligent harvesting robots are easy to use, with no rubber tapping skills required, thus helping alleviate chronic labor challenges. Compared with the traditional Jabong tapping knife, using these rubber tapping machines has several advantages:

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

(2) RoHS: Restriction of Hazardous Substances.

(3) HSPM: Hazardous Substance Process Management.

- improved rubber tapping productivity
- superior latex yield per tree
- protection against bark injury
- bark consumption regulation
- multiple environmental sensors for weather monitoring
- extension of the economic life of rubber plantations
- lower risk of injury to workers

Bridging modern communication and sensing technologies with the most advanced data analytics, smart farming aims to deliver agricultural production that is more sustainable and resource efficient.

Mario Diaznava
Cooperative R&D Programs Manager, Grenoble (France)

Smart agriculture optimizes resource consumption and preserves the environment by, for instance, preventing the unnecessary use of pesticides. As part of the Internet of Food & Farm project (IOF2020), I have been leading a project for remote monitoring of the vineyards of a renowned estate in the Bordeaux area (France). IoT devices based on STM32 microcontrollers and a #LoRa (Long Range) network have been deployed to collect environmental data, optimize resource consumption, improve vineyard yield and enhance wine quality."

Human welfare applications

Our semiconductor solutions that provide social benefits enable our customers to create applications for their clients, helping people lead safer and healthier lives.

ST devices helping in the fight against COVID-19

- **Medical/Healthcare**: our solutions support medical companies in developing innovative healthcare technologies, such as ultrasound imaging systems, and pacemakers. Embedded in electronic equipment, our sensors, microcontrollers, connectivity solutions and specialized ICs have been instrumental in the fight against the COVID-19 pandemic, enabling the design of virus testing kits, rapid testers, breathing ventilators, and social distancing applications.
- **Safety**: our solutions help customers design systems and products that reduce accidents on the road, in our homes, cities, factories and workplaces. We also support the development of passive (ABS[4], LED lighting) and active (ADAS[5], pedestrian detection, driver somnolence detection) safety systems in cars. Our wide range of sensors and galvanically isolated components make industrial systems safer.
- **Security**: our solutions enable secure payment and authentication in a wide range of IoT devices, to protect privacy and assets by ensuring their confidentiality and integrity. In addition, our product portfolio includes a series of secure devices which, when embedded in connected systems such as alarms and smart door locks, protect against domestic robberies and car theft.

2027 sustainability goal	Status	Comments
SG2: Generate at least 33% of our revenues from our Sustainable Technology's most advanced responsible products by 2027.		20%

[4] Anti-lock Braking System.
[5] Advanced Driver-Assistance Systems

Customer Satisfaction

STM32 Summit, Shenzhen, China

Customers are an important part of our value proposition and essential stakeholders in our business. Building strong and trusting relationships with them, considering their needs and serving them effectively is essential, not only in terms of the range, quality and reliability of our products, but also our approach to the environment, health and safety, and social responsibility.

Among the most important factors influencing customer satisfaction at ST are product quality and continuous dialog. I 103-1 I

Satisfaction through quality

Our quality strategy sets out how we can be our customers' most valued and trusted partner by focusing on excellent quality, reliability, and responsiveness. The strategies we use to achieve this are strong customer focus, results-driven improvement programs and a sustainable culture of quality excellence.

Our approach to quality

Our Company-wide quality program involves all ST organizations and encompasses all aspects of quality. This is brought together in our quality strategy, which is led by a cross-organizational Quality Steering Committee.

86%

of employees understand how quality fits into their job

Our quality and reliability focused approach to customers is supported by a framework that includes regular internal and external customer reviews and robust customer key perfomance indicator (KPI) and scorecard tracking. This helps us build closer relationships and more effective communication with our customers. This, in turn, helps us to better understand their needs and adjust and sustain our quality performance to meet their expectations.

Our commitment to fostering a culture of quality was confirmed by our employee engagement survey. 89% of employees said 'the message regarding quality's importance at ST is easy to understand' (15 points above the GEEM[1] norm), while 86% said that 'people in my team clearly understand how quality expectations fit into their job requirements' (13 points above the GEEM norm).

Management systems

Our quality approach is based on our Quality Management System (QMS). This is documented in our Quality Manual, which details the processes we use to guarantee our products meet or exceed the highest standards and customer requirements. I 103-2 I

IATF 16949 and ISO 9001 certified

ST adheres to internationally recognized quality management standards. We received our first Company-wide ISO TS 16949 certification in 2003 and it has been renewed every three years. Since 2018, ST has been certified IATF 16949:2016 and ISO 9001:2015, demonstrating our robust quality governance, effective QMS, and quality compliance across the Company. I 103-3 I

Quality performance

We achieved significant further improvement in our overall quality performance in 2021, including improved customer scorecards and quality KPIs. This demonstrates the effectiveness of our efforts and commitment towards continuous improvement.

Quality

	2017	2018	2019	2020	2021
Customer complaints	84	79	84	66	**57**
Cycle time to process failure analysis	97	88	98	102	**93**
Customer quality returns	40	35	105	45	**20**

Baseline 100 in 2016.

A continuous customer dialog

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

A wide range of customer support channels

We ensure customers have access to a number of **support channels** to obtain information about our products or find answers to any questions they may have about our business.

>80%

of customers satisfied with online support service

- Our website (**www.st.com**) provides a wealth of information and insights into ST customer solutions, including product brochures and flyers, product datasheets, application solutions, and short videos on key products and how they can help in application designs. Customers can also purchase samples and tools online.
- Online communities for specific product families or applications enable people to share knowledge and post questions to other members of the community.
- Phone and online support so customers can contact us with their requests or concerns. More than 80% of our customers are satisfied with our online support service.
- In-person and online seminars and training courses on our products, either directly hosted by ST or in partnership with third parties.

[1] GEEM: CultureIQ Global Electronic Equipment/Instruments Manufacturing norm.

- Regular newsletters to keep customers and partners up to date on new products and events, including seminars, conferences, webinars, and online courses.
- Social media posts, YouTube videos, and blog posts.

Maintaining close relationships at all levels

Our dedicated cross-functional teams are responsible for managing day-to-day relationships with larger customers. These teams include representatives from Sales, Logistics, Technical Support, and Quality. Through their daily dialog with customers, the team develops a deeper understanding of the customer, their internal processes, and their preferences. The relationships they build with their customer counterparts foster a high level of trust and satisfaction. We also work to build positive relationships between ST executives and key customer executives, further strengthening trust and satisfaction at the highest levels.

Relationships with smaller customers are managed by the ST Distribution Partner Network. This comprises ST personnel and distribution partners from all regions of the globe. Network personnel regularly visit customers to assess opportunities, present our product portfolio, and support them on design-in activity.

Collecting customer feedback on our performance

We collect feedback on our performance during our interactions with customers. Feedback may be communicated informally during meetings or phone calls, or it may be provided formally via a scorecard. Each customer scorecard is closely reviewed so the various components of the score (such as technology, delivery, and quality) can be analyzed and communicated to the appropriate functions within ST, via our 'Vivavoce' program, for example. A summary of the customer scorecards is posted on an internal website and is visible to all organizations within ST. This visibility provides each organization with customer feedback on its performance and is a driver for continuous improvement.

FOCUS

LISTENING TO THE VOICE OF OUR CUSTOMERS

To amplify the voice of our customers in a way that can be understood by everyone in our business, we launched Vivavoce – a new program to communicate insights across all organizations, sites, and functions within ST.

Accessible via a digital portal, Vivavoce is structured into different sections for each target audience. Each section shows the latest information regarding customers, including customer satisfaction, any issues or complaints, and action plans. This data can be analyzed, queried, and displayed in different ways to suit the needs of the users, such as by customer, by region, and by ST organization, while fully respecting customer confidentiality requirements.

The aim is to create internal conversations and collaborations as part of our continual drive to identify improvement opportunities, share knowledge and enhance customer satisfaction.

Sustainability – a growing expectation

Our customers are increasingly interested in our sustainability practices, reflecting the growing awareness and concern around sustainability, not only among our customers but also across society as a whole. We have adopted a proactive and transparent approach to addressing our customers' sustainability expectations.

Audit results shared

with customers

We are members of the Responsible Business Alliance (RBA). All our manufacturing and major sites complete an annual self-assessment questionnaire on labor and human rights, safety, ethics and environmental topics, and our manufacturing sites are subject to RBA third-party audits (see **Labor and Human Rights**). We share the results of these questionnaires, audits and corrective actions through the RBA platform or via our online support.

We recognize that traceability and transparency on the environmental and social impacts of our products is important to our customers. This includes information on product compliance, material declaration, working conditions, environmental impact, and the sourcing of materials. Where relevant, we publish this information on our website **www.st.com** or provide it through **online support** .

2025 sustainability goal	Status	Comments
SG21: Further reduce defects by 20% per production unit by 2027 vs 2020.		-14%

Business indicators

This section includes indicators and GRI standard disclosures.

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

	2017	2018	2019	2020	2021
Net revenues (US$m)	8,347	9,664	9,556	10,219	**12,761**
Gross profit (US$m)	3,272	3,861	3,696	3,789	**5,326**
Gross profit as a percentage of sales (%)	39.2%	40.0%	38.7%	37.1%	**41.7%**
Net earnings (US$m)	802	1,287	1,032	1,106	**2,000**
Diluted earnings per share (US$)	0.89	1.41	1.14	1.20	**2.16**
Market share versus TAM (%) (Total Available Market)	2.02%	2.06%	2.32%	2.32%	**2.30%**

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

	2017	2018	2019	2020	2021
Operating income	1,005	1,400	1,203	1,323	**2,419**
Net operating cash flow	308	533	497	627	**1,120**

Net revenues by location of order shipment[1] (%) | 102-6 | 102-7 | 201-1 |

	2017	2018	2019	2020[2]	2021
Americas	13	13	14	11	**12**
Asia Pacific	61	61	62	69	**68**
EMEA	26	26	24	19	**20**

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

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

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

	2017	2018	2019	2020	2021
OEM	66	65	70	73	**66**
Distribution	34	35	30	27	**34**

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

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

	2017	2018	2019	2020	2021
Dividends	214	216	214	168	**205**

Taxes (US$m) | 201-1 |

	2017	2018	2019	2020	2021
Tax expense for the year	86	95	165	174	**311**

ST new patents filed SDG 9.5

	2017	2018	2019	2020	2021
Total	509	549	588	557	**543**

Research partnerships SDG 9.5

	2017	2018	2019	2020	2021
Contracts with higher education institutions or research labs	234	160	138	143	**187**

On-time delivery

	2017	2018	2019	2020	2021
Delivery date in line with customer request	85	88	105	79	**67**
Delivery date in line with ST commitment	89	92	103	90	**80**

Baseline 100 in 2016.

ECOPACK® labelling (%) | 417-1 |

	2017	2018	2019	2020	2021
Non ECOPACK®	0.2	0.2	0.2	0.1	**0.2**
ECOPACK® 1: Compliant with the RoHS/ELV directives, second level interconnect lead-free[1]	6.7	6.8	6.3	4.2	**3.9**
ECOPACK® 2: as ECOPACK® 1, plus free of brominated, chlorinated and antimony oxide flame retardants	86.0	85.1	85.2	88.4	**87.4**
ECOPACK® 3: as ECOPACK® 2, plus free of halogens with no RoHS exemptions	7.1	8.0	8.3	7.3	**8.5**

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

ST site certifications
ST is ISO 9001 certified Company-wide

	ISO 45001 Health & Safety	ISO 14001 Environ-ment	EMAS Environment performance disclosure	ISO 14064 GHG Emissions	ISO 50001 Energy	ISO 22301 Business Continuity	IATF 16949
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	**19**	**17**	**13**	**13**	**11**	**18**	**20**

(1) Rennes Space & High-Reliability Products.