We are creators and makers of technology

One of the world’s largest semiconductor companies

48,000 employees of which 8,400 in R&D

$12.8 billion revenues in 2021

Over 80 sales & marketing offices serving over 200,000 customers across the globe

14 manufacturing sites

Signatory of the United Nations Global Compact (UNGC)
Member of the Responsible Business Alliance (RBA)

As of December 31, 2021
Global presence

- Research & Development
- Main Sales & marketing
- Front-End
- Back-End
ST stands for

**life.augmented**

Everywhere microelectronics makes a positive contribution to people’s lives, ST is there.
Our value proposition for all stakeholders

For our **shareholders**
- Return value in line with our objective
- Sustainable and profitable growth

For our **customers**
- Provide differentiating enablers
- Independent, reliable & secure supply chain

For all **stakeholders**
- Committed to sustainability
- Our values: Integrity – People – Excellence
Our technology starts with you

At ST, we create technology that starts with You

Our employees
Our customers
Our partners
Where you find us

Making **driving** safer, greener, and more connected

Making **homes & cities** smarter, for better living, higher security, and to get more from available resources

Enabling the evolution of **industry** towards smarter, safer, and more efficient factories & workplaces

Making everyday **things** smarter, connected, and more aware of their surroundings
Trends and markets
Our strategy stems from key long-term enablers

**Smart Mobility**
Helping car manufacturers make driving safer, greener, and more connected for everyone

**Power & Energy**
Enabling industries to increase energy efficiency everywhere and the use of renewable energy

**Internet of Things & Connectivity**
Supporting the proliferation of smart, connected IoT devices with products, solutions & ecosystems
ST provides innovative solutions to help our customers make driving safer, greener and more connected for everyone.

- **Increase safety for road users & driver comfort and convenience.**
- **Affordable, desirable electric vehicles**
- **Cleaner, greener Internal Combustion Engines (ICE)**
- **Road crashes carry a high human toll and cost $500B+ every year**
- **Electric vehicles from 9% in 2019 to over 20% in 2025**
- **ICEs in over 90% of new vehicles produced 2020-2025**

Sources: [www.asirt.org](http://www.asirt.org), Strategy Analytics
* Excluding Mild Hybrid EV
ST technology and solutions enable customers to increase energy efficiency everywhere & support the use of renewable energy sources

- Rising demand for and usage of electrical energy
- Decrease carbon emissions to reduce global warming impact
- Increase use of renewable energy

Over 30% global electricity demand increase from 2020 to 2030

45% CO₂ emission reduction from 2010 to 2030 to limit warming to 1.5°C

Electrical energy from renewal sources from ~10% in 2020 to ~20% in 2030

Sources: IEA, IPCC, BP
ST provides sensors, embedded processing, connectivity, security and power management, as well tools and ecosystems.

- **Cloud connected and data-enabled services**
- **Digital security for all data**
- **5G accelerating the connection of objects to the IoT**

**Two billion** industrial IoT & utility connected devices by 2022

IoT security services market over **$10 billion** in 2021

**Over 90 million** new 5G IoT connections in 2026

Source: ABI
Our strategy
We address four end markets

Automotive

Industrial

Personal electronics

Communications equipment, computers & peripherals
Our strategic objectives

Automotive
- Lead in car electrification
- Lead in car digitalization

Industrial
- Lead in embedded processing
- Lead in Power & Energy Management
- Lead in Sensors
- Accelerate in Analog

Personal electronics
- Lead in selected high-volume smartphone applications with differentiated products or custom solutions
- Leverage broad portfolio to address high-volume applications

Communications Equipment, Computers & Peripherals
- Address selected high-volume applications with differentiated products or custom solutions
- Leverage broad portfolio to address high-volume applications
Products and technologies
Differentiated technologies are our foundation

<table>
<thead>
<tr>
<th>MEMS</th>
<th>Smart Power: BCD (Bipolar - CMOS - Power DMOS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD-SOI CMOS</td>
<td>Discrete, Power MOSFET, IGBT</td>
</tr>
<tr>
<td>FinFET through Foundry</td>
<td>Silicon Carbide, Gallium Nitride</td>
</tr>
<tr>
<td>Analog &amp; RF CMOS</td>
<td>Vertical Intelligent Power</td>
</tr>
<tr>
<td>eNVM CMOS</td>
<td>Optical sensing solutions</td>
</tr>
</tbody>
</table>

Packaging technologies
Leadframe – Laminate – Sensor module – wafer level
Our products and solutions enable customer innovation

Dedicated Automotive ICs

Analog, Industrial & Power Conversion ICs

GP MCU & MPU, Secure MCUs, EEPROM

Discrete & Power Transistors

MEMS & Optical sensing solutions

ASICs based on ST proprietary technologies
## ST product portfolio enabling strategic trends

<table>
<thead>
<tr>
<th>Dedicated Automotive ICs</th>
<th>Discrete &amp; Power Transistors</th>
<th>Analog, Industrial &amp; Power Conversion ICs</th>
<th>GP, Connected MCU, MPU Secure MCU, EEPROM</th>
<th>MEMS &amp; Optical sensing solutions</th>
<th>ASICs based on ST proprietary technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC5</td>
<td>STPOWER</td>
<td>STSPIN</td>
<td>STM32</td>
<td>iNEMO</td>
<td>RF-SOI</td>
</tr>
<tr>
<td>Stellar</td>
<td>SIC</td>
<td>VPerPlus</td>
<td>STSECURE</td>
<td>Flight Sense</td>
<td>FD-SOI</td>
</tr>
<tr>
<td>ADAS</td>
<td>IGBT</td>
<td></td>
<td>ST25</td>
<td></td>
<td>BICMOS</td>
</tr>
</tbody>
</table>

**Smart Mobility**  
**Power & Energy**  
**Internet of Things & Connectivity**
## Dedicated automotive ICs

### Automotive MCUs
- Scalable single- and multi-core MCU solutions
- Targeting cost-sensitive to highly-advanced applications
- Comprehensive development ecosystem

### ADAS solutions
- CMOS image sensors
- Image signal processors
- Radar transceivers
- V2X communication solutions

### Infotainment & telematics
- Makes the driving experience more fun and comfortable
- Outstanding audio fidelity and positioning accuracy in every condition
- Secure smartphone mirroring
- Safe vehicle connectivity with wide set of peripherals

### Automotive analog & power
- Compliance with rigorous automotive requirements
- Design-ins at automotive suppliers and car makers
- Wide portfolio of analog, power and digital products
- VIPower* HSDs, LSDs & H-bridges and LED drivers
- Complete system kit solutions

* registered and/or unregistered trademarks of STMicroelectronics International NV or its affiliates in the EU and/or elsewhere
Discrete & power transistors

- Silicon carbide (SiC) & high- and low-voltage silicon diodes
- Ultra-fast & bridge rectifiers
- Power Schottky diodes & field-effect rectifiers
- Thyristors (SCR) & Triacs
- ACS* AC switches

- Transient Voltage suppressors (TVS)
- Integrated EMI filtering and protection ICs
  - ESD protection
  - EOS & lightning surge protection
  - Current limiters
  - IPAD* Integrated EMI and ESD protection devices
  - Integrated passive devices

Key power technologies & packages for:
- Car electrification, power management, motor control
  - Gallium Nitride (GaN) on silicon power and RF transistors
  - LDMOS & DMOS RF power transistors
  - Silicon-Carbide MOSFETs
  - High- and low-voltage silicon power MOSFETs (STripFET, Planar & MDMESH*)
  - IGBTs. Power bipolar transistors
  - ACEPACK* power modules. SLLIMM* intelligent power modules

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Analog, industrial & power conversion ICs

### Power management
- AC/DC & DC/DC converters
- Analog & digital controllers
- Linear voltage regulators
- LED drivers & lighting ICs
- Intelligent Power Switches
- Battery management ICs
- Voltage reference
- eFuses
- Wireless power ICs
- PoE ICs
- Photovoltaic ICs
- Rad-hard products

### Analog products & Specific ICs
- Operational amplifiers
- Comparators
- Current sensing amplifiers
- Filtering & signal conditioning
- Interfaces & transceivers
- Reset and supervisors
- Audio ICs
- Switches
- Rad-hard products
- Medical ICs
- Smart Metering ICs

### Motor control
- Brushed DC motor drivers
- Brushless DC motor drivers
- Stepper motor drivers
- MOSFET & IGBT gate drivers
- Galvanic isolation ICs
- GaN drives

### Connectivity solutions
- Bluetooth® Low Energy ICs
- Sub-1 GHz transceivers, Sigfox-compatible devices
- LoRaWAN® technology
- Short-range RF transceivers
- Powerline communication ICs
- IO-Link
MEMS & optical sensing solutions

**Motion sensors**
- Accelerometers
- e-compasses
- Gyroscopes
- iNEMO* inertial modules
- T-Plus: Motion MEMS with embedded temperature sensor

**Environmental sensors**
- Pressure sensors
- Temperature sensors
- Humidity sensors
- MEMS microphones

**Micro actuators**
- Actuators for printheads
- Micro mirrors & drivers
- Piezoelectric actuators
- Electrostatic actuators
- Electromagnetic actuators
- Thermal actuators

**Optical sensing solutions**
- FlightSense* ToF proximity & ranging modules
- 3D FlightSense* ToF sensors
- Global shutter CMOS image sensors
- Ambient light sensors
- Custom optical solutions

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# General-purpose MCU & MPU, secure solutions & NFC

## General-purpose 32-bit MCUs & MPUs
- STM32* 32-bit general-purpose microcontrollers (MCUs) and microprocessors (MPUs)
- 1000+ compatible devices
- Arm® Cortex® cores
- Maximum integration
- Extensive ecosystem

## General-purpose 8-bit MCUs
- 8-bit general-purpose microcontrollers (MCUs)
- Dedicated series for mainstream, ultra-low-power and automotive
- Rich ecosystem

## Secure solutions
- Secure MCUs
- eSIM, eSE, NFC for mobile
- eSIM, eSE and TPM for industrial, IoT and automotive
- Secure payment solutions
- Authentication and Brand protection solutions

## NFC & Memory
- NFC / RFID Tags
- Dynamic NFC tags
- NFC / RFID Readers
- UHF Readers
- High-performance & high-endurance EEPROM

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ST offers strategic independence and product differentiation to ASIC customers through three key enablers:
- Advanced manufacturing technology platforms
- Worldwide design resources and advanced IP
- ST’s Independent Device Manufacturer supply chain

<table>
<thead>
<tr>
<th>Digital ASICs</th>
<th>Analog &amp; RF ASICs</th>
</tr>
</thead>
<tbody>
<tr>
<td>System-on-Chip designs in CMOS and FD-SOI technologies with eNVM option, as well as FinFET (through foundry)</td>
<td>Unique expertise in GHz wireless RF and analog design using advanced technologies, such as RFSOI, BiCMOS, and millimeter wave</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEMS and imaging ASICs</th>
<th>Power ASICs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary micromachining process, deep expertise in MEMS integration</td>
<td>A broad portfolio of differentiated technologies including BCD, VIPower*, SiC, GaN, and power MOSFET</td>
</tr>
<tr>
<td>Custom imaging solutions and premium foundry services</td>
<td></td>
</tr>
</tbody>
</table>

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Manufacturing and R&D
We offer quality, flexibility, and supply security.
We are drivers of your innovation

Advanced R&D centers around the world for close collaboration with operations, customers, and partners

- ~8,400 people working in R&D and product design
- 13.5% of revenues invested in R&D in 2021
- 187 active R&D partnerships
- ~18,500 patents
- ~550 new filings in 2021

Open innovation with startups in 15 Proof of Concept centers
- 50 startups engaged in our programs
Our commitment to quality

Our quality vision

Elevate ST to the highest level of quality as an asset for our customers

How do we achieve this?

- Sustainable culture of quality excellence
- Customer focus
- Result-driven improvement programs

Our quality mission

Ensure ST products meet the highest quality and reliability requirements of customers in the markets we address.
Customers & sales
We are partners with our customers worldwide

Over 80 sales offices in 35 countries
We serve more than 200,000 customers

Top 10 Customers* 2021

- Apple
- Huawei
- Bosch
- Intel-Mobileye
- Continental
- Samsung
- Delta
- Seagate
- HP
- Tesla

Unified worldwide account management tailored to each account to provide global coverage and service

Standard process, reporting & follow-up in Sales & Marketing worldwide
Differentiated approach by type of customer

*In alphabetical order
2021 full year Revenues

% by product group

- Microcontrollers & Digital ICs Group (MDG) 30%
- Automotive & Discrete Group (ADG) 34%
- Analog, MEMS & Sensors Group (AMS) 36%
- Others 0.2%

% by shipment location

- Americas 68%
- EMEA 20%
- Asia Pacific 12%

% by region of origin

- Americas 41%
- EMEA 25%
- Asia Pacific 34%

% by customer type

- Distribution 34%
- Top 10 OEMs 45%
- Other OEMs 21%
Our people
Our technology starts with our people

- Manufacturing ~ 66%
- Research & Development ~ 17%
- Marketing & Sales, Divisional Functions, Administration & General services ~ 17%

As of December 31, 2021

- Italy ~ 11,300
- Mediterranean ~ 4,900
- Americas ~ 750
- Asia ~ 19,000
- Others ~ 1,000
- France ~ 11,300
Sustainability
A long-standing public commitment to sustainability

Environmental policy

1st Environmental report ISO 14001, EMAS

1st Environmental Decalogue

ST Code of Conduct Principles of Sustainable Excellence

Health Plan

OHSAS 18001 certification

ST creation

Business conduct & ethics policy

Signatory of UNGC 10 principles

Reforestation program

Supply Chain Responsibility

Conflict Minerals program

Ethics committee

ISO 50001 energy management

ISO 22301 Business Continuity 1st certification

5th Environment, Health & Safety Decalogue

Commitment to be Carbon Neutral by 2027

20th Sustainability Report

2019

2021

2022

2017

2016

2015

2014

2012

2011

2025 CO₂ goal achieved

Sustainability Charter

Supervisory Board sustainability committee

25th Sustainability Report

2020
Our approach to sustainability

**Sustainable Technology**
- We create technology for a sustainable world
  - Designing responsible products and technologies
  - Managing the lifecycle of our products in sustainable way
  - Responsible minerals sourcing
  - Eco-design devices - power-efficient & low-carbon

**Sustainable Way**
- We prioritize people
  - Ensuring people health, safety, & well-being
  - Role model in labor & human rights
  - Fostering diversity & inclusion
  - Offering great employee experience

**Sustainable Company**
- We protect the planet
  - Committing to carbon neutrality
  - Leading environmental management system
  - Reducing water usage & addressing local scarcity risks
  - Reducing waste & promoting a circular economy

- We generate long-term value for all stakeholders
  - Embedding risk management
  - Monitoring and developing the extended supply chain
  - Promoting STEM in all our eco-systems
  - Monitoring & transparently reporting our progress
Our business model
Management of our impact

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

Environment
We deploy programs to reduce our direct and indirect greenhouse gas emissions from all our operations, including Perfluorinated Compounds (PFCs), which have a very long atmospheric lifetime and high global warming potential.
We minimize the environmental, health and safety risks related to the chemicals and materials used in the manufacturing process, by basing the selection, handling, and substitution on the precautionary principles.
We are continually reducing our water footprint through reuse and recycling and all our wastewater is treated before being discharged into the environment.
We reduce, reuse, recycle or recover as much of our waste as possible, rather than sending it to incineration or landfill.

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

Products
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.
Our Sustainable Technology program aims to develop responsible products which:

- improve our social and environmental footprint at every stage of the product life
- have the greatest positive impact on the planet and people in the end-application

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We will be carbon neutral by our 40th anniversary

Milestones

• Compliance with the 1.5°C scenario by 2025 – recognized by SBTi
• Carbon neutral by 2027
• Sourcing 100% renewable energy by 2027
• Collaborative programs and partnerships for carbon neutrality throughout our ecosystems
Sustainability reporting
25th edition

Transparency – Reliability – Comparability

- Economic, environmental and social performance
- Our long-term sustainability ambitions and goals
- Program progress
- Focus on site initiatives
- Stakeholder inclusiveness
- Aligned with international reporting standards and disclosures:
  - Global Reporting Initiative (GRI)
  - Sustainability Accounting Standards Board (SASB)
  - Task Force on Climate-related Financial Disclosures (TCFD)
  - EU taxonomy
- Content and data verified by a 3rd party

Read ST’s 2022 sustainability report: sustainabilityreports.st.com
Our technology starts with You

Find out more at www.st.com