STMicroelectronics

February 28, 2017
Barcelona

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Agenda

9:30 am	ST making everything smarter
	Smart Connected Driving
	Meeting the needs of the IoT
	Takeaways
	Questions & Answers
11:00 am	End

Speakers

Carlo Ferro
Chief Financial Officer

Marco Monti
EVP, General Manager, ADG

Claude Dardanne
EVP, General Manager, MDG

Benedetto Vigna
EVP, General Manager, AMG

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Forward Looking Statements

Some of the statements contained in this release 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) that are based on management's current views and assumptions, and are conditioned upon and also involve known and unknown risks and uncertainties that could cause actual results, performance, or events to differ materially from those anticipated by such statements, due to, among other factors:

- *Uncertain macro-economic and industry trends, which may impact end-market demand for our products;*
- *Customer demand that differs from projections;*
- *The ability to design, manufacture and sell innovative products in a rapidly changing technological environment;*
- *Unanticipated events or circumstances, which may impact our ability to execute the planned reductions in our net operating expenses and / or meet the objectives of our R&D Programs, which benefit from public funding;*
- *Changes in economic, social, labor, political, or infrastructure conditions in the locations where we, our customers, or our suppliers operate, including as a result of macro-economic or regional events, military conflicts, social unrest, labor actions, or terrorist activities;*
- *The Brexit vote and the perceptions as to the impact of the withdrawal of the U.K. may adversely affect business activity, political stability and economic conditions in the U.K., the Eurozone, the EU and elsewhere. While we do not have material operations in the U.K. and have not experienced any material impact from Brexit on our underlying business to date, we cannot predict its future implications;*
- *Financial difficulties with any of our major distributors or significant curtailment of purchases by key customers;*
- *The loading, product mix, and manufacturing performance of our production facilities;*
- *The functionalities and performance of our IT systems, which support our critical operational activities including manufacturing, finance and sales, and any breaches of our IT systems or those of our customers or suppliers;*
- *Variations in the foreign exchange markets and, more particularly, the U.S. dollar exchange rate as compared to the Euro and the other major currencies we use for our operations;*
- *The impact of intellectual property ("IP") claims by our competitors or other third parties, and our ability to obtain required licenses on reasonable terms and conditions;*
- *The ability to successfully restructure underperforming business lines and associated restructuring charges and cost savings that differ in amount or timing from our estimates;*
- *Changes in our overall tax position as a result of changes in tax laws, the outcome of tax audits or changes in international tax treaties which may impact our results of operations as well as our ability to accurately estimate tax credits, benefits, deductions and provisions and to realize deferred tax assets;*
- *The outcome of ongoing litigation as well as the impact of any new litigation to which we may become a defendant;*
- *Product liability or warranty claims, claims based on epidemic or delivery failure, or other claims relating to our products, or recalls by our customers for products containing our parts;*
- *Natural events such as severe weather, earthquakes, tsunamis, volcano eruptions or other acts of nature, health risks and epidemics in locations where we, our customers or our suppliers operate;*
- *Availability and costs of raw materials, utilities, third-party manufacturing services and technology, or other supplies required by our operations; and*
- *Industry changes resulting from vertical and horizontal consolidation among our suppliers, competitors, and customers.*

Such forward-looking statements are subject to various risks and uncertainties, which may cause actual results and performance of our business to differ materially and adversely from the forward-looking statements. Certain forward-looking statements can be identified by the use of forward looking terminology, such as "believes," "expects," "may," "are expected to," "should," "would be," "seeks" 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 these risk factors are set forth and are discussed in more detail in "Item 3. Key Information — Risk Factors" included in our Annual Report on Form 20-F for the year ended December 31, 2015, as filed with the SEC on March 16, 2016. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this release as anticipated, believed, or expected. We do not intend, and do not assume any obligation, to update any industry information or forward-looking statements set forth in this release to reflect subsequent events or circumstances.

ST making everything smarter

Carlo Ferro
Chief Financial Officer

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ST at a Glance

The leading provider of products and solutions
for Smart Driving and the Internet of Things

Smart Driving

Safer

More connected

Greener

Internet of Things

Smart Industry

Smart Home

Smart City

Smart Things

- A global semiconductor leader
- 2016 revenues of **$6.97B**
- **19%** R&D/Sales

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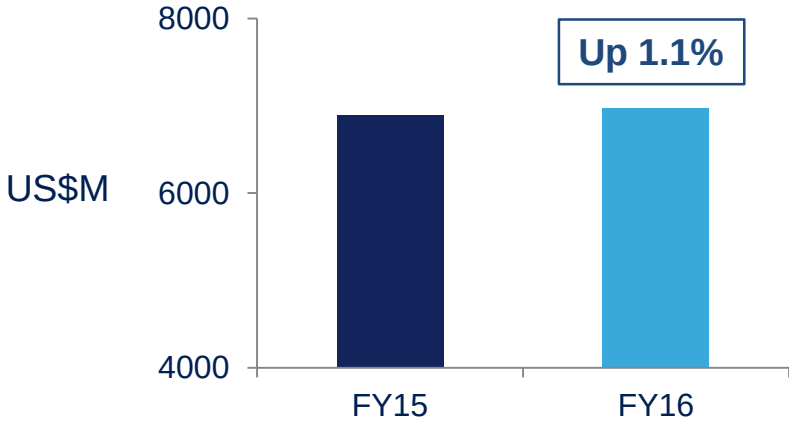
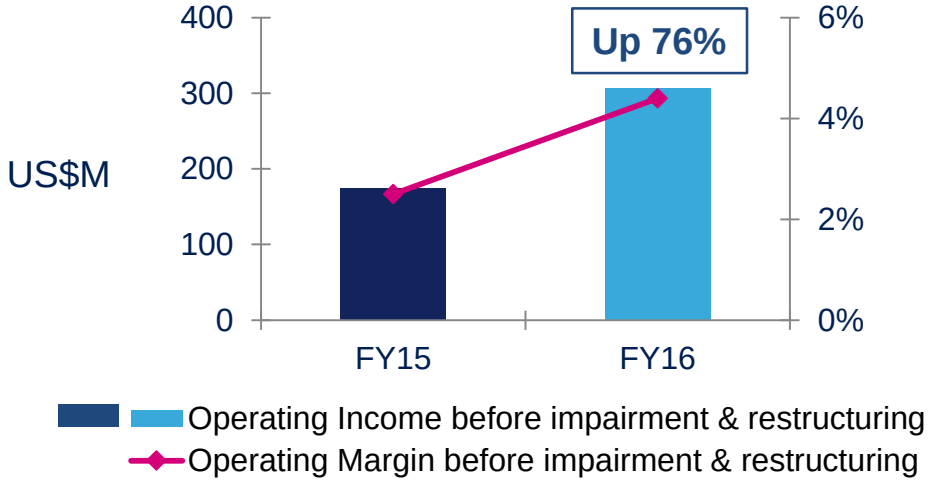
FY2016 Financial Highlights

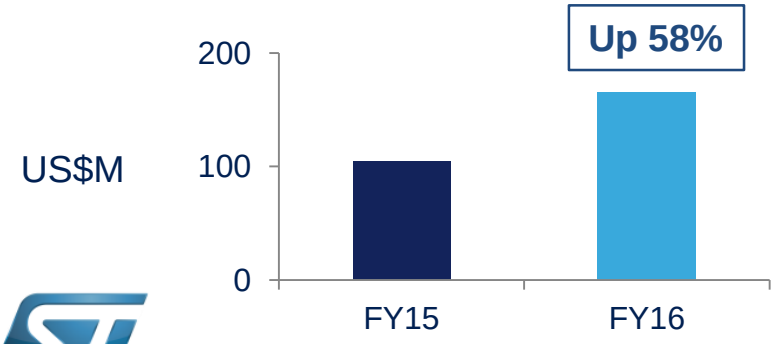
Revenues = $6.97B



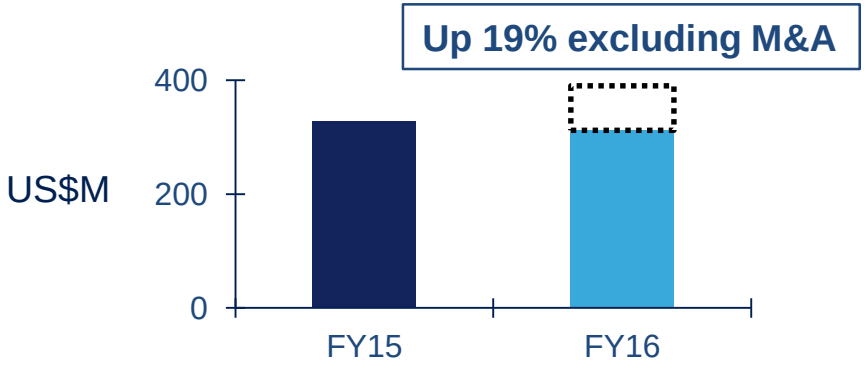
Operating Income* = $307M



Net Income = $165M



Free Cash Flow* = $312M



*Non-GAAP measure – see Appendix

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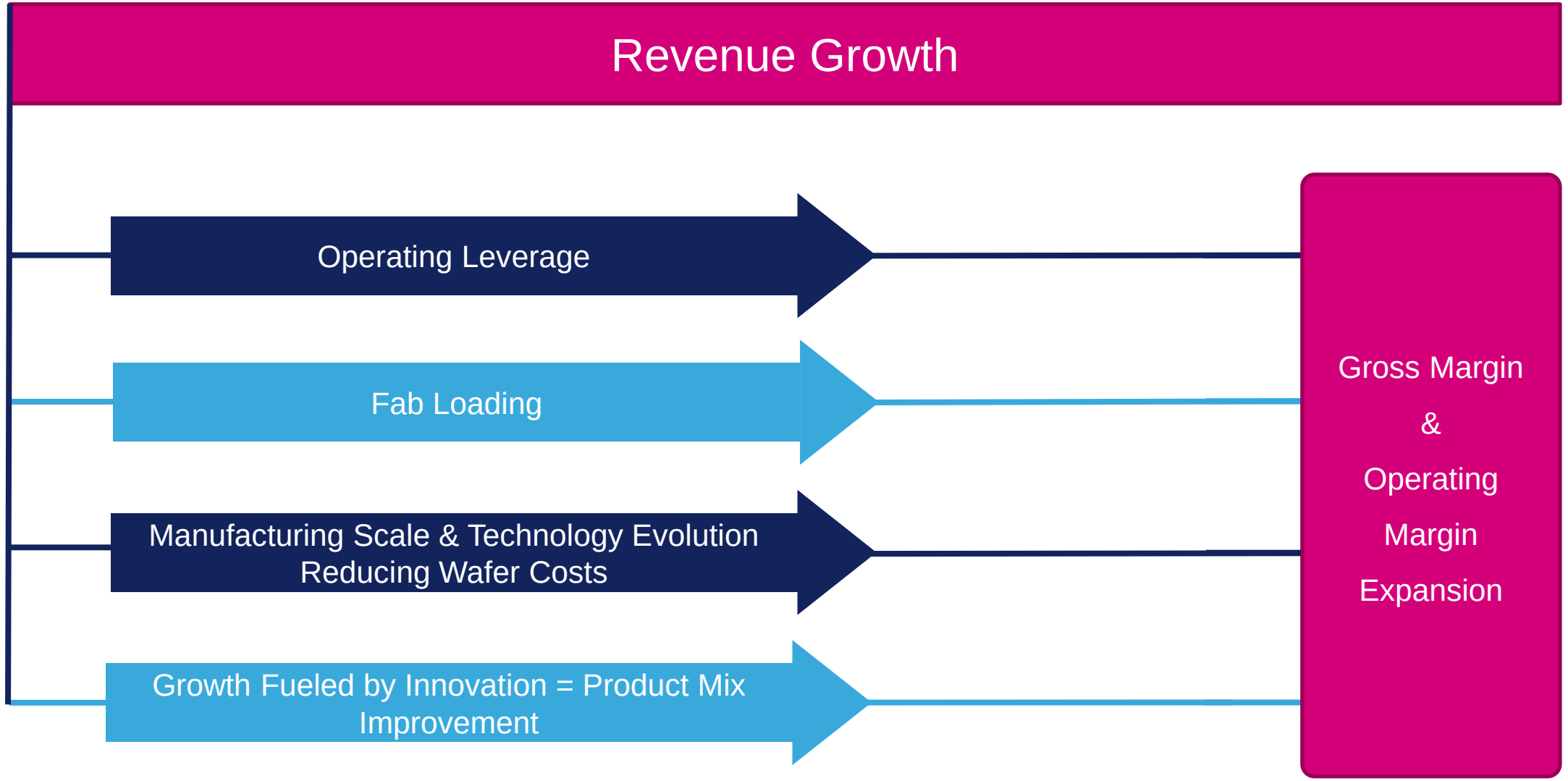
Revenue Growth to Translate Into Margin Expansion

Four drivers



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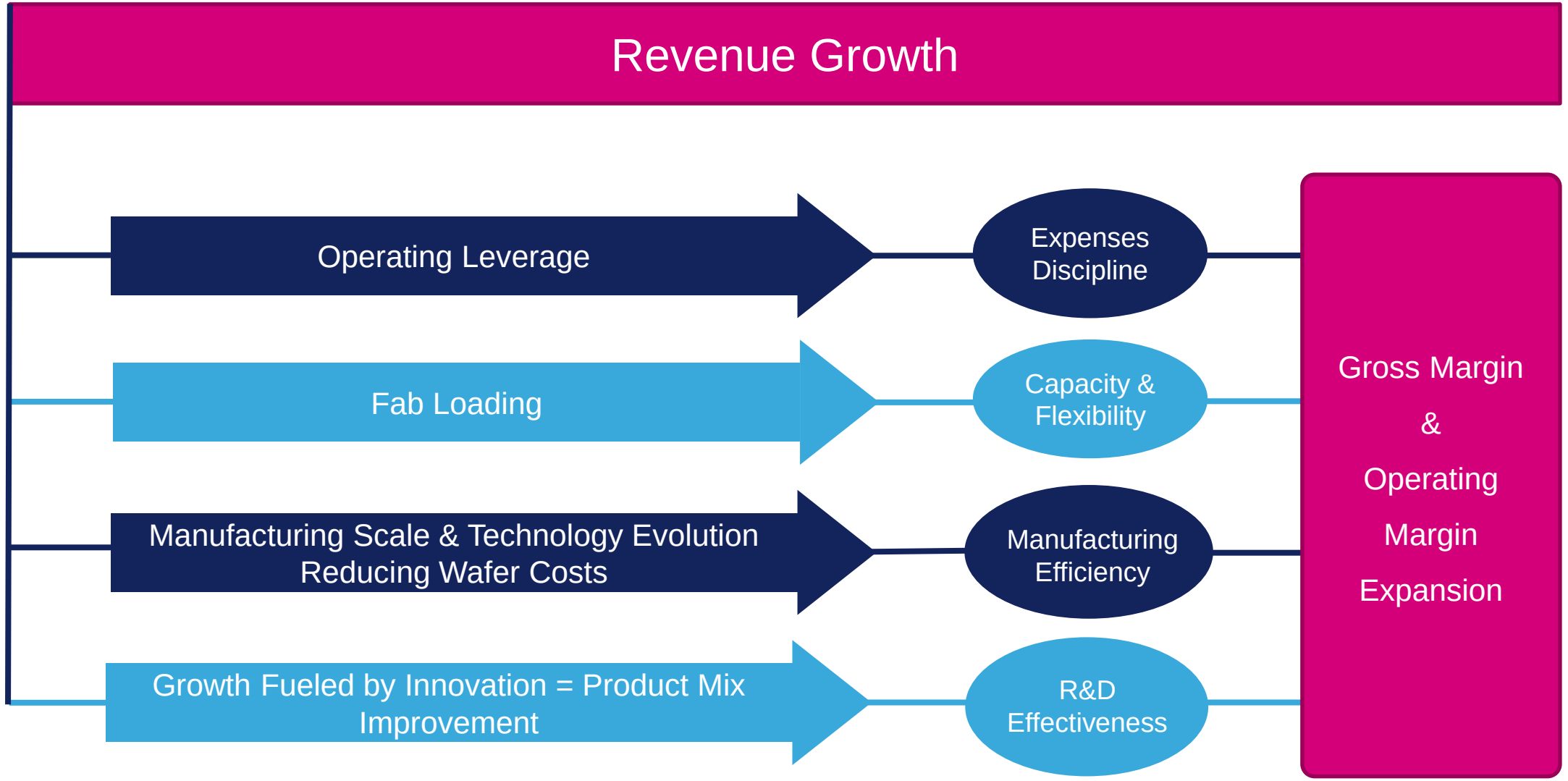
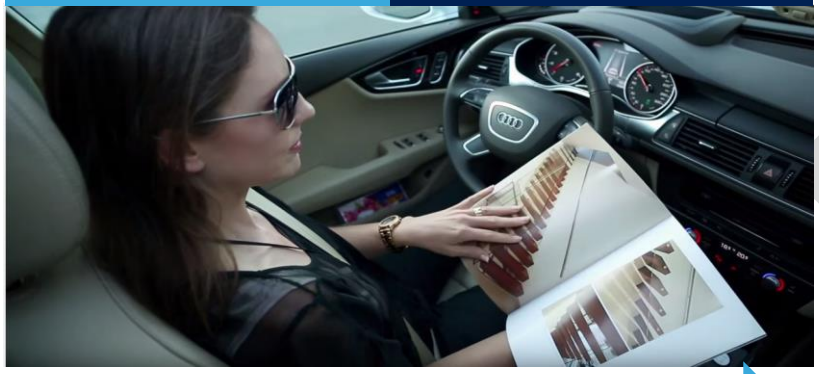
Revenue Growth to Translate Into Margin Expansion

Four areas



ST Offer for Smart Driving

Safer | More Connected



Car Digitalization

- Sensor fusion processors
- 77GHz/24GHz RADAR processors
- Machine vision processors
- 32-bit MCUs specific for automotive
- Infotainment processors
- Telematics processors
- Positioning, Wi-Fi, tuners
- V2X connectivity

Smart Driving

Silicon technologies
Application knowledge
Key partners
Customer portfolio
Proprietary IP
Security Expertise

Greener

Analog and Power Technologies

- Smart Power ASIC's
- Smart Power ASSP
- Image and MEMS sensors
- Battery management IC's
- Motor controllers/drivers
- HV MOS, IGBT power drivers
- Silicon Carbide diodes and MOSFETs

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ST Offer for IoT

	Processing	Security	Sensing & Actuating	Connectivity	Signal Conditioning & Protection	Motor Control	Power & Energy Management
Smart Things	Ultra-Low Power to High Performance	Scalable security solutions	Full range of sensors and actuators	10 cm to 10 km	Nano Amps to Kilo Amps	Power conversion Monitoring Drivers	Nano Watt to Mega Watt
Smart Home & City							
Smart Industry							

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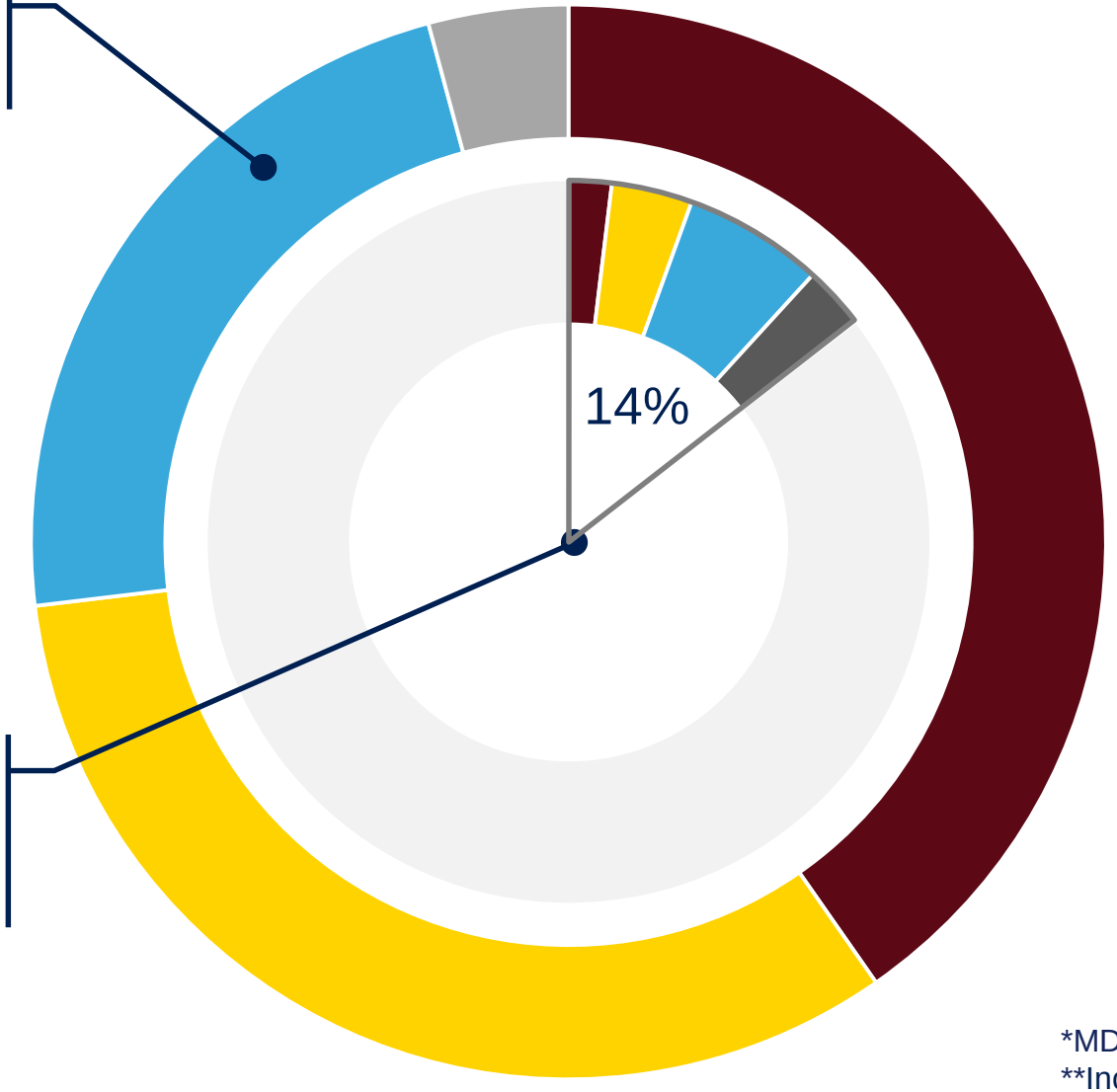
ST 2016 Revenues

Split of ST's FY2016 revenue of $6.97B by Group



- Automotive & Discrete Group (ADG): $2.81B
- Microcontrollers & Digital ICs Group (MDG)*: $2.28B
- Analog & MEMS Group (AMG): $1.58B
- Others** $291M

Wireless contribution to ST's total revenue

*MDG includes set-top box business under phase-out
**Includes Imaging Product Division

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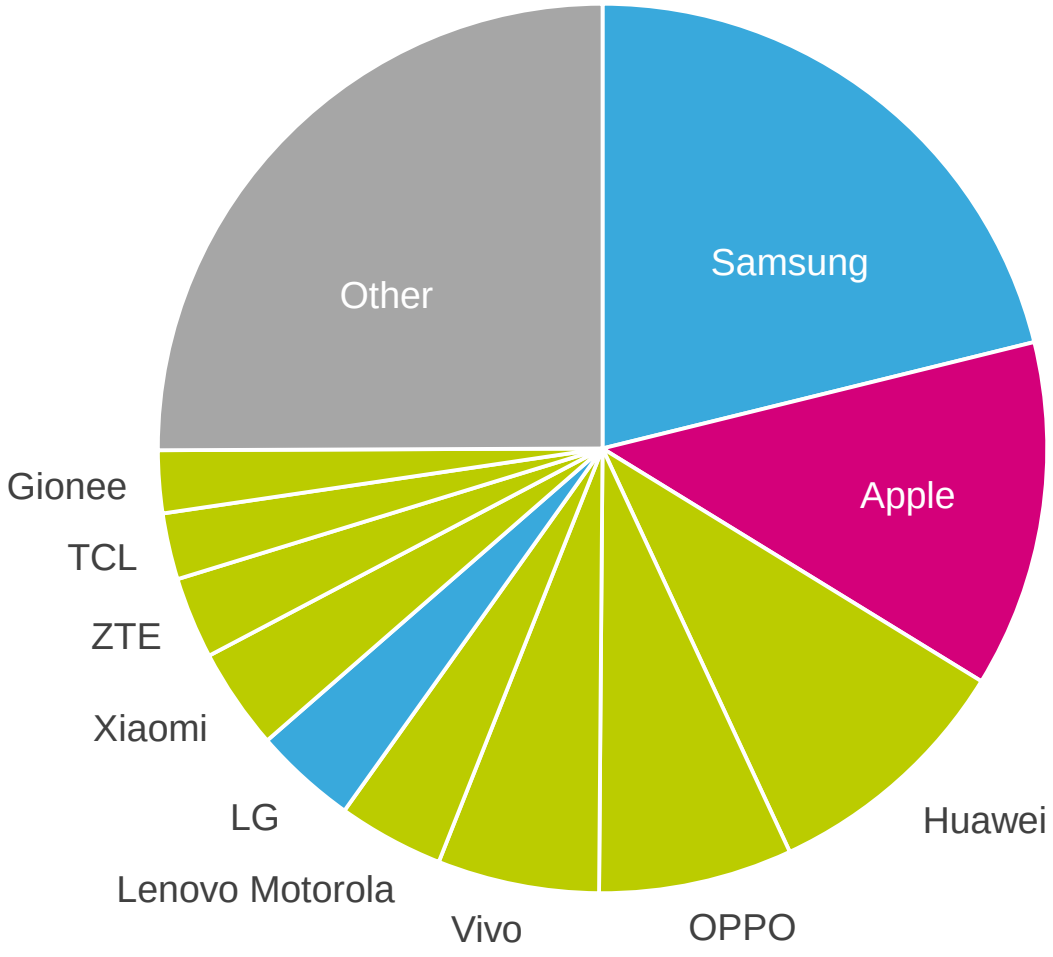
Smartphones: an Important Opportunity



Top ST Growth Opportunities

Touch Controllers

Power Management
Wireless Charging

Discrete, in particular Protection Devices

STM32 in Accessories
NFC + Secure Element
Very small form factor EEPROM

Time of Flight - Specialized Imaging Solutions

6-Axis Motion Sensors
Gyroscopes for Optical Image Stabilization
Environmental Sensors
Micro-actuators for Autofocus

Source: IDC, Q3 2016

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Smart Connected Driving

Marco Monti
Executive Vice President
General Manager, Automotive and Discrete Group

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ST: a Global and Diversified Automotive Leader

with over 30 years experience

2015

$2.1B
Auto Revenue

+6%
Y-o-Y

2016

>$2.2B
Auto Revenue

Market Share
(on SAM) **9%**

32% **Of ST revenue**

Automotive

- Automotive Microcontrollers
- Infotainment and Telematics
- V2X
- Radar & Vision ADAS
- Automotive Sensors
- Power & Smart Power

- #1 Engine Management
- #1 Smart Power
- #1 24 GHz RADAR
- #1 ADAS Safety
- #1 Entry & Mid-end Telematics
- #1 Car Audio Amplifiers
- #1 GNSS
- #2 Infotainment

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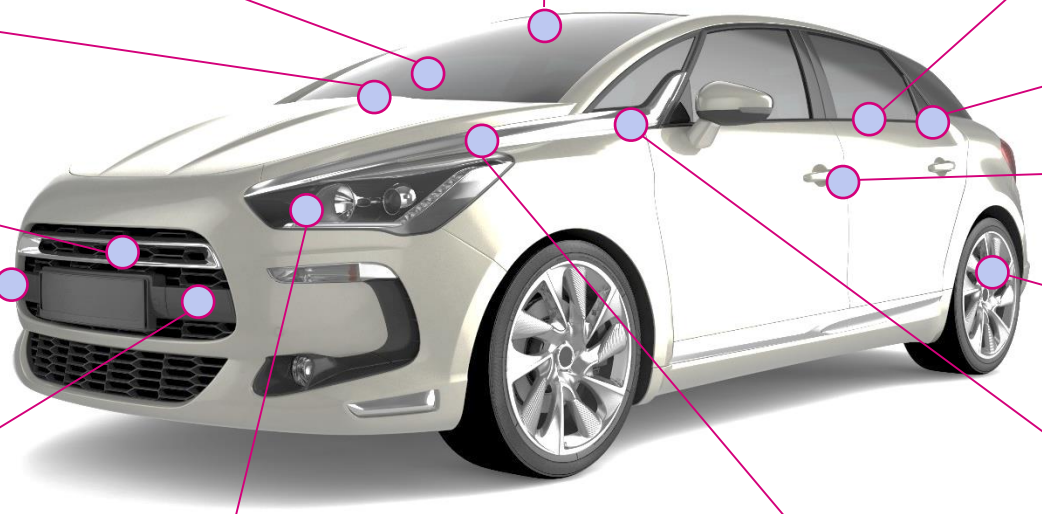
Source: Strategy Analytics, ST

Strong Commitment to Automotive

~35 components on average for each new car produced
Up to 800 components in premium models



Market Leader in US satellite radio market

10 Million car radio Processors shipped

3 out of 4 cars produced have at least one ST component in Engine Management

2 Million Protection Diodes & Filters shipped every day

3 Million VIPower chips shipped every day

8 out of 10 cars shipped with an ADAS system on board had an ST ADAS on board

1 Billion Lamps
(1 out of 2) driven by ST

1 out of 4 Infotainment systems had an ST GNSS receiver and 1 out of 5 had an ST Motion MEMS

>10 Million cars equipped with ST RADAR Transceivers

>50 Million 32-bit MCUs shipped

420 Million Power Transistors shipped

2 out of 3 cars produced had at least one ST component in braking

2 out of 3 cars produced are equipped with an ST Sound System

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Expectations for 2017

safer	greener	more connected

- EyeQ4 FD-SOI volume ramp-up from Crolles 300mm for several car makers
- Increasing volumes of surround view video solution with premium car makers
- 20Mpcs of RADAR based ICs to be shipped, ramping up 77GHz RF solution
- Continuing double-digit growth of 32-bit automotive MCU after ~50% growth in 2016
- SiC transistor volume ramp-up in H2 for electrical traction and on-board charging
- Accordo platform ramp-up with European, Japanese, Korean and American OEMs
- 15 new Smart Power ASICs (BCD9 110nm) entering production for key applications
- Expanding volumes in audio following contracts with our premium audio partners

Automotive Industry Transformation

From Mechanics to User Experience focus

Computational Power

Mechanical era

Car Engine

Electronics era

ECUs

Software in-car networking era

Data Processing

End-to-End User Experience

Cloud / Data Business Model

Connectivity

1900 1970 1990 2010 Today

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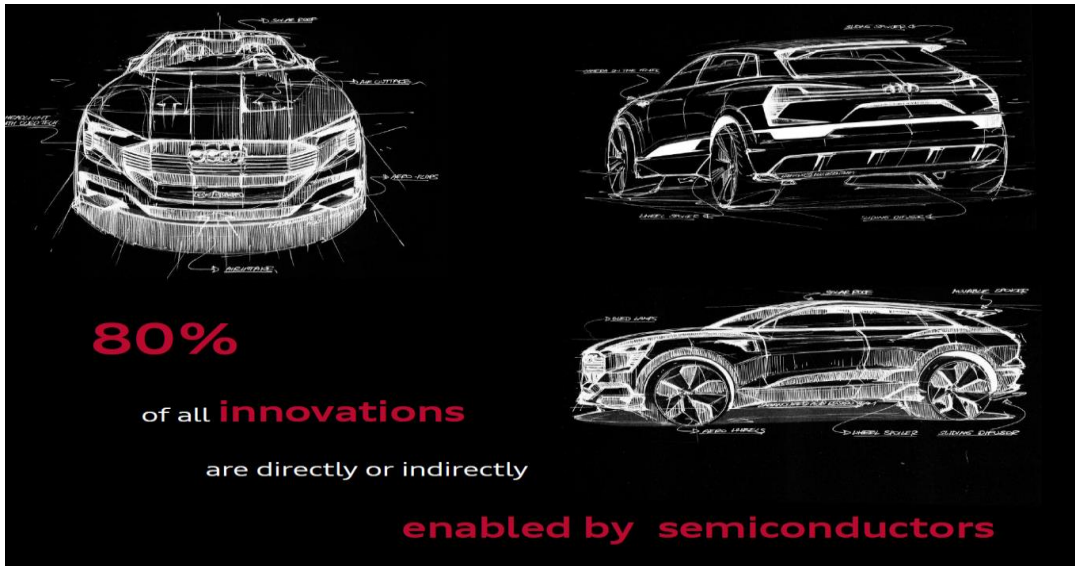
User Experience is the Focal Point

User Value Added Services

All Car Makers Focus on User Experience

Semiconductors Leading the new Mobility Transformation



Courtesy of Audi

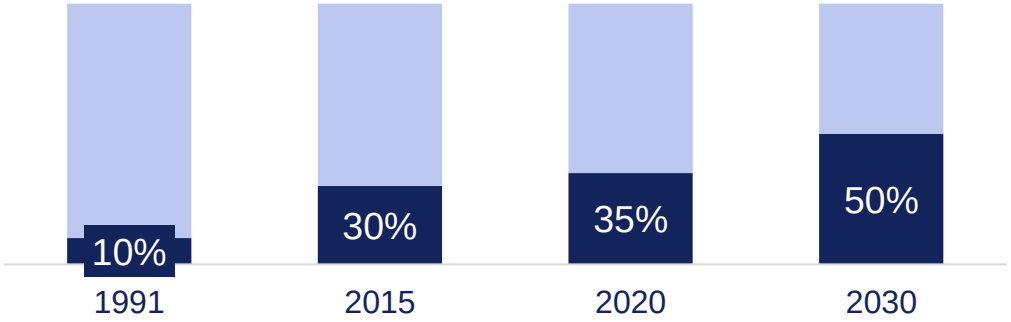
2016- 2021

Semiconductor Market CAGR +3.3%

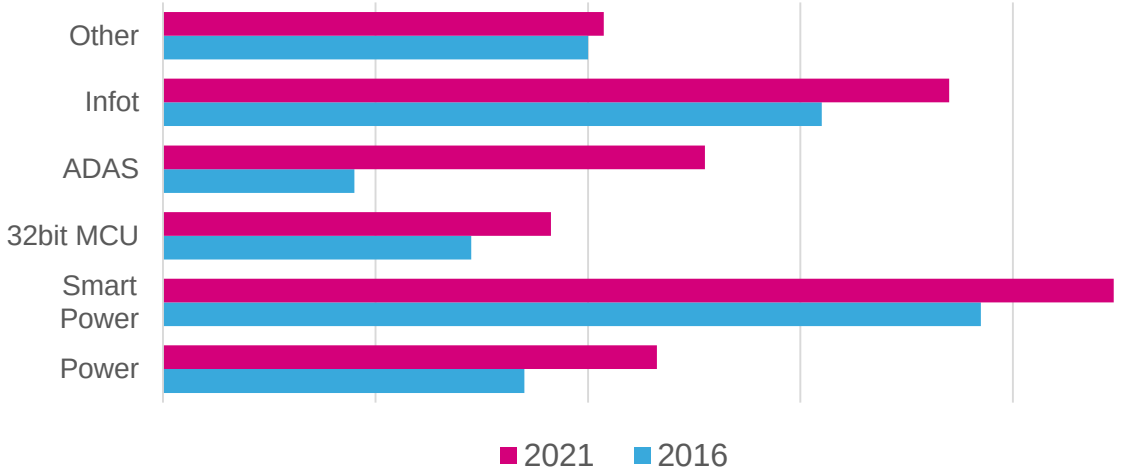
Automotive Semiconductors +5.2%

Electronic Component as % of Vehicle Cost (*)

(*) Data source: www.pwc.de



2016 to 2021 Automotive Semiconductor market



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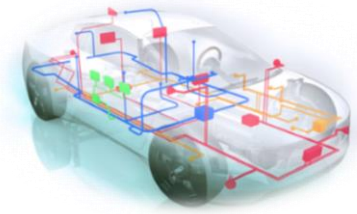
THE NEXT ELEMENT in Smart Driving

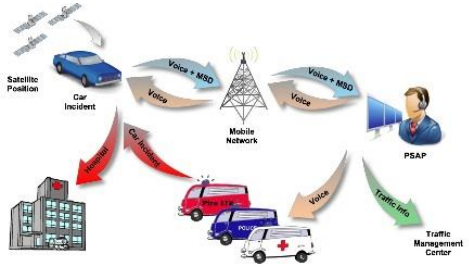
Vehicles connected seamlessly with the world (V2X)

Car elements connected together



Connectivity drives Infotainment

Connectivity improves Safety

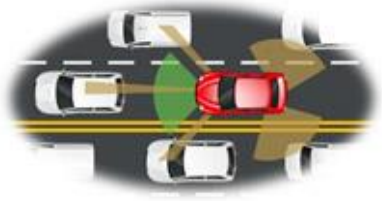


Swarm Distributed Intelligence

1990 2000 2010 2020

Swarm Distributed Intelligence allows Cars to Know What, Where and When things happen

Cars Sense….



Cars Communicate….

Cars Decide

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Vehicles in the Network: Today

Multiple communication channels

Wi-Fi

- Access to the cloud
- Vehicle-to-Vehicle Communications
- Vehicle-to-Infrastructure Communications

Terrestrial

- Digital Radio Audio/Data broadcast
- Modem connectivity
- Smartphone integration
- Emergency Call

Telematics (*)

530 M$

2016 Market

ADAS Safety (*)

735 M$

2016 Market

Satellite

- Navigation
- Satellite audio and data stream
- Insurance Box, pay-per-use

Vision & RADAR Sensing

- ADAS
- Assisted driving
- Autonomous driving

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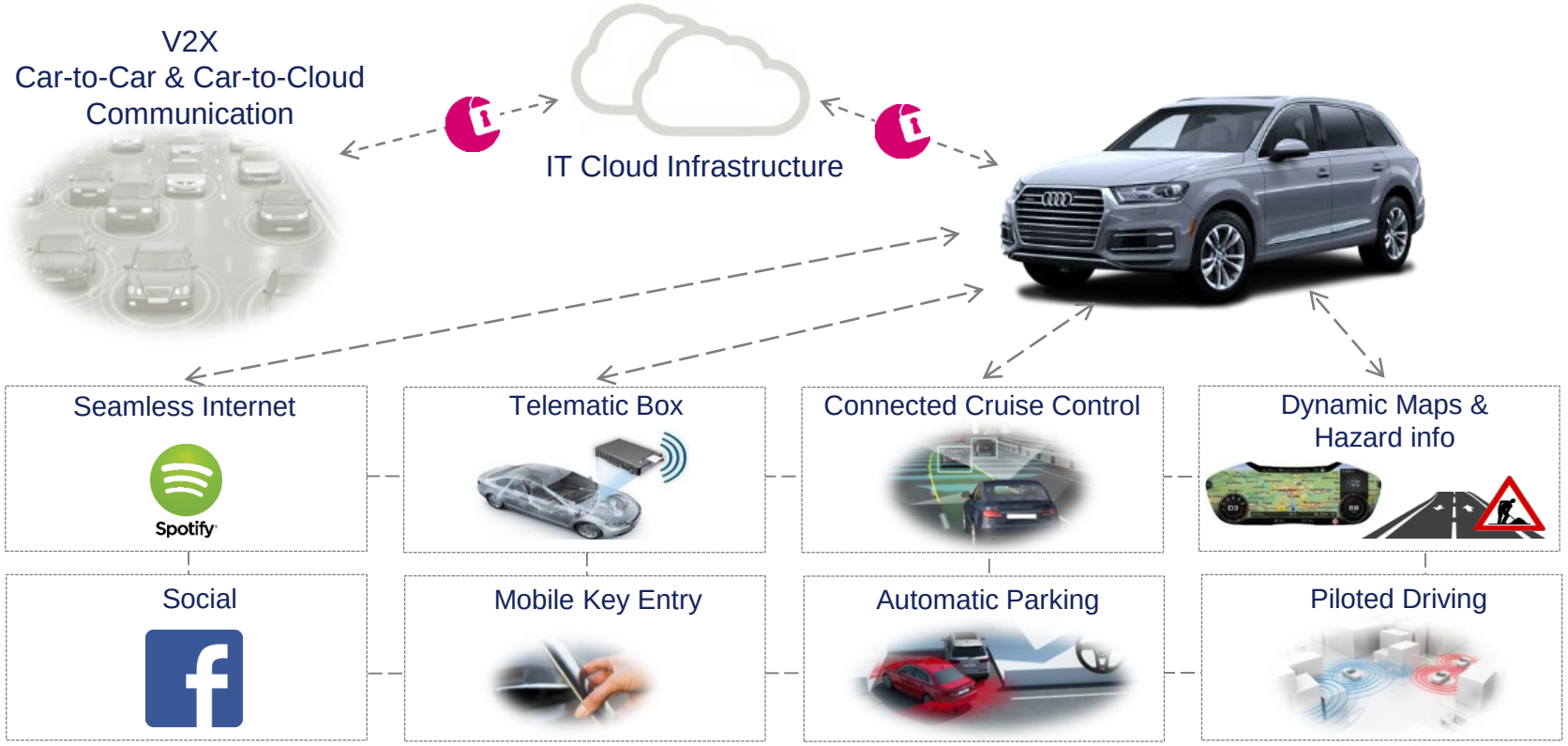
(*) ADAS Safety: Collision Warning, Distance Warning, Lane Departure, Source: Strategy Analytics Oct 2016, Internal data

The Evolution: Vehicles to Everything

All communication channels are fused to enhance functionality



More connected vehicles enable innovative new functionalities for customers
Additional 730M$ Market Opportunity by 2021 (*) on top of traditional ADAS

V2X Enabling Elements

- Sub-meter GNSS positioning
- Level 3+ vision based ADAS
  - Vision processor
  - RF (24/77 GHz) redundancy
  - Sensor fusion
- Wi-Fi communication
  - Secured
  - Automotive grade
- Cellular connectivity and Smart Phone integration processor
- Secure module (End 2 End security)

ST has technology leadership in all these technologies

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(*) 2021 market for V2X and extended adoption rate of vision based system to enable new services (ST internal data).

Sub-meter Positioning

Teseo GNSS (in production)

- Multi-constellation capability
- Navigation
- Data collection
- Flexible architecture (standalone / baseband integration)

ST Performance

- +20% Y-o-Y Sales
- Leading with Major OEMs

ST Technology know-how

Multi-constellation and Multiband GNSS signal processing to obtain decimeter precision

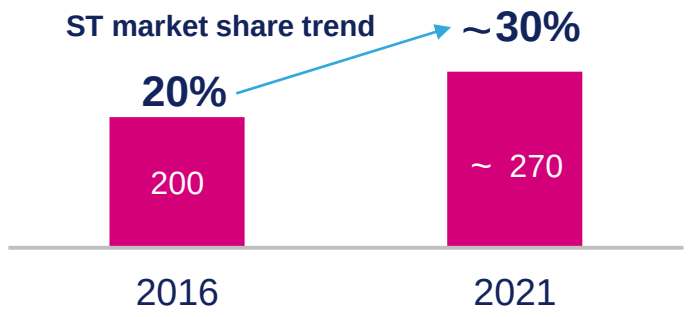
Teseo APP - Automotive Precise Positioning

Sampling 2017

- Multi-constellation capability
- Decimeter precise vehicle positioning
- Highway Autopilot, Autonomous Driving
- Valet / Automatic Parking
- Data Mining with Driver & Roads Profiling
- Black box full functionality

Best positioning accuracy, Boost market share

Market Share Evolution (M$)



Source: Strategy Analytics Oct 2016 & ST

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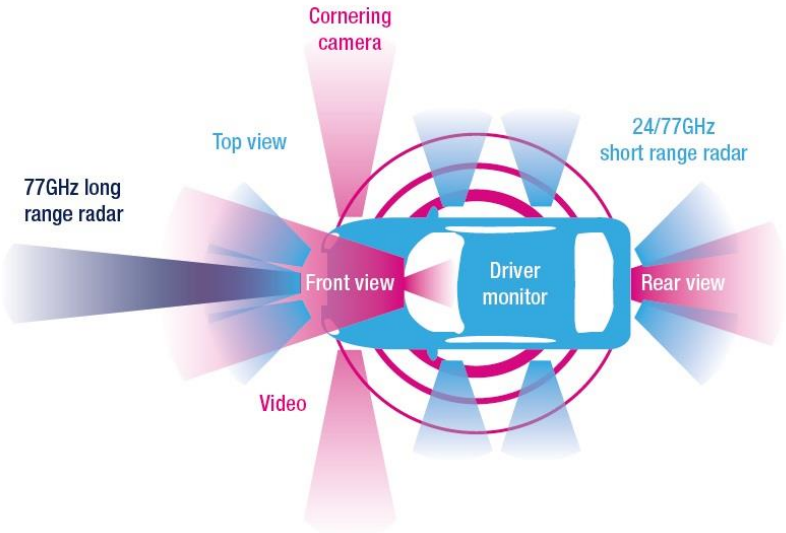
Vision Processors & RADAR sensors

The ADAS functionality

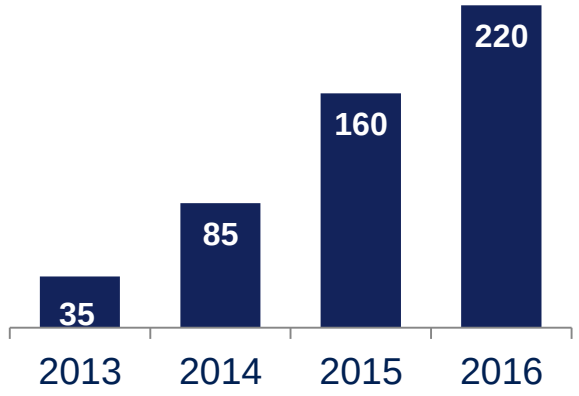
#1 with 30% market share in ADAS safety

#1 Machine Vision in 2016

#1 in RF RADAR Transceivers Market in 2016



ST Sales in ADAS (M$)



2005
- Mobileye 1st Gen

2010
- Mobileye 2nd Gen
- 1st 24Ghz Gen

2015
- Mobileye 3rd Gen
- 2nd 24Ghz Gen
- 1st 77Ghz Gen

2017
- Mobileye 4th Gen
- 2nd 77Ghz Gen
- Auto Parking MPU
- Surround view Video Processor

2020
- Mobileye 5th Gen
- High data rate Radar MCU
- 360º Vision video processor

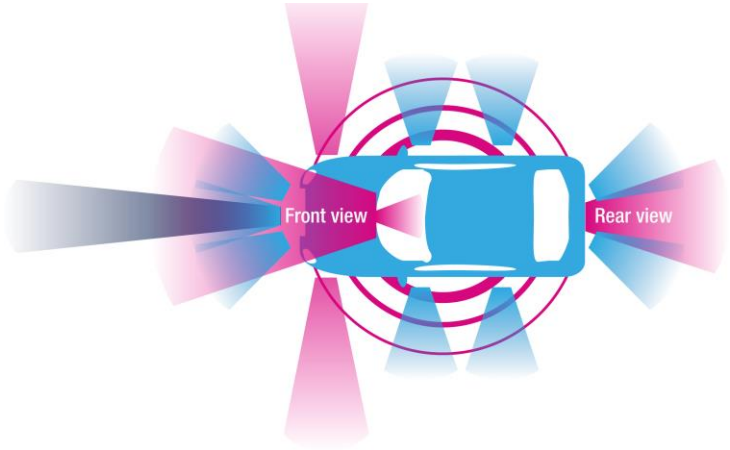
Highest Growth in RADAR Transceivers (> 30Munits expected to be shipped)

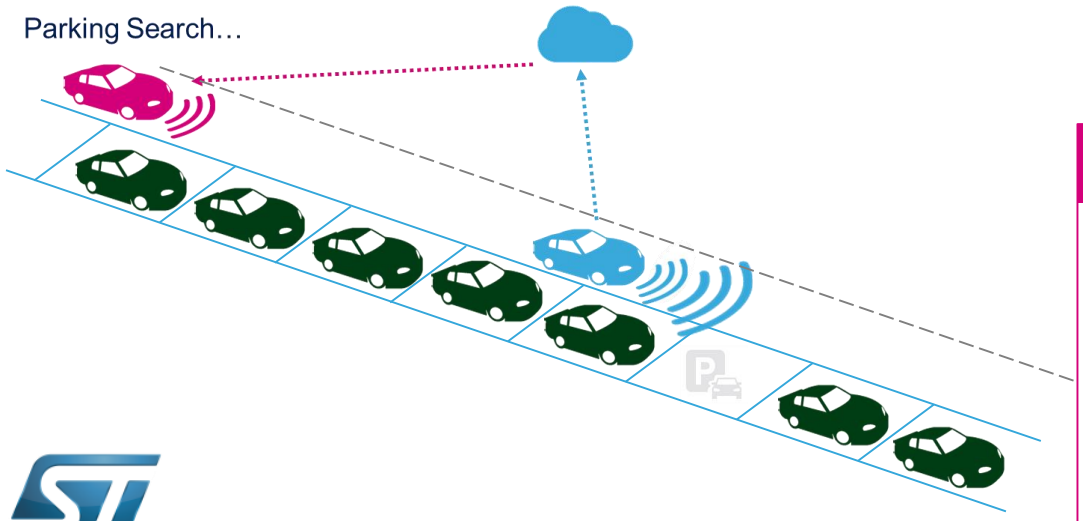
Powering de facto market standard for vision based ADAS (EyeQ)

Progressively expanding vision-based ADAS solutions

Vision Processing beyond ADAS

non-safety features enabled by connected real-time vision processors





Mobileye & HERE partnership

Dynamic HD MAPS

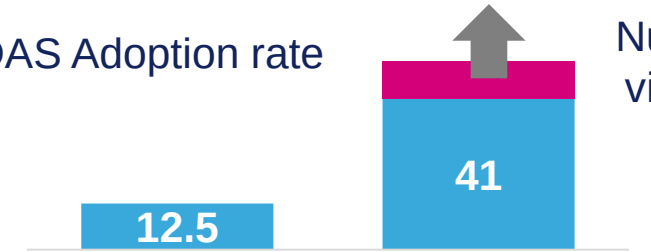
Application examples

- Available Parking Identification
- Road Condition Reporting
- Localized Hazard Information
- Queue Management

NEW end-user functionalities boost ST product adoption rate

ADAS Adoption rate

Number of cars equipped with vision based ADAS (M Units)



Vision : new functionalities

Vision : safety use case

(*) Strategy Analytics Jan 2017, internal data

V2X Communication Wi-Fi 11.p

Autotalks Partnership

V2X Wi-Fi modem + multicore ARM processor

Secure Modem Connectivity

ST – Autotalks Technology at a glance

- DSRC: Wi-Fi -11.p
- Autotalks modem proprietary IPs (HW+SW)
- ST Multicore ARM real-time processor IPs (HW+SW)
- Full Compliance with US Mandate
- Fully proven Cyber Security protection
- Cutting Edge RF performances
- High operating temperature for Auto Grade quality

10
OEMs Awarded
US, EMEA, JAPAN

>50%
2023 Market Share

200 M$
2023 Opportunity

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Cellular Connectivity

Complete Solution to bring Connectivity to every car

560 M$

2021 Market Value

Accordo platform
Smartphone Integration Processor

- Multi-core ARM processor
- Full phone replication in dashboard
- Multi-standard capabilities
- Advanced graphic to complement car HMI
- Automotive quality

Telemaco platform
Telematics and Connectivity Processor

- Multi-core ARM processor
- Unique embeded security module
- Automotive quality
- Flexible system architecture

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(*) Strategy Analytics Jan 2017, internal data

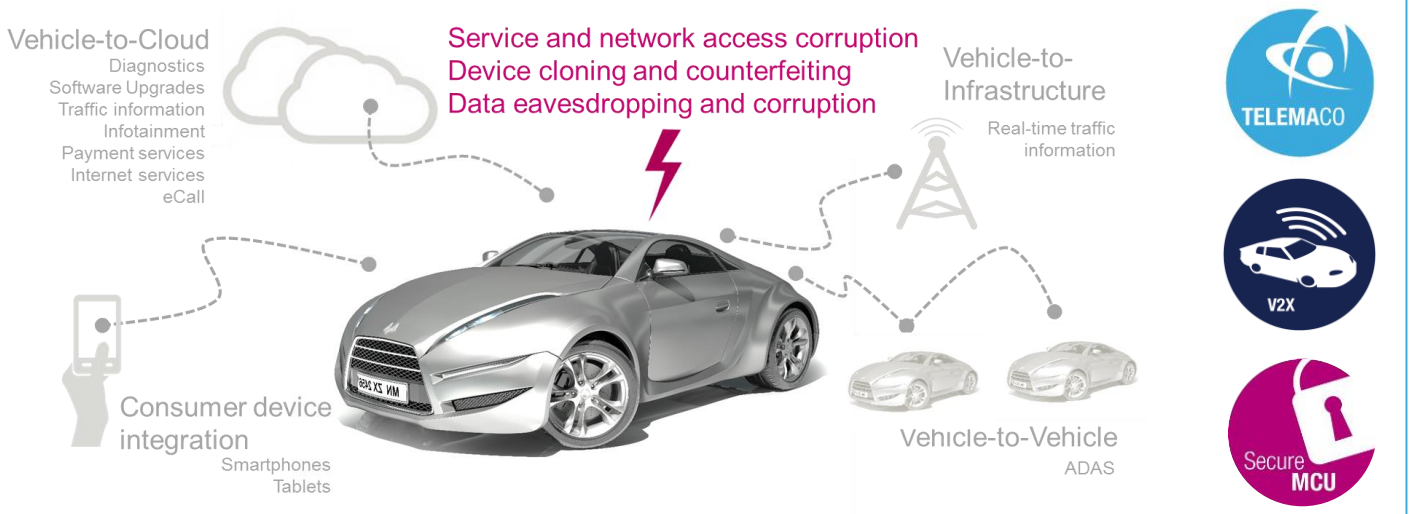
Secure Vehicle Communication

Automotive Security requires two levels of protection

1st Level: Authentication and securing of the connection with the external world

2nd Level: Data integrity and secure communication inside the car and in the car sub-systems

Connected vehicles become more vulnerable to attacks (1st Level)



32-bit Auto. MCU with embedded security (2nd Level)

32-bit automotive MCUs with security on board
vs
Total 32-bit automotive MCUS (in $B)

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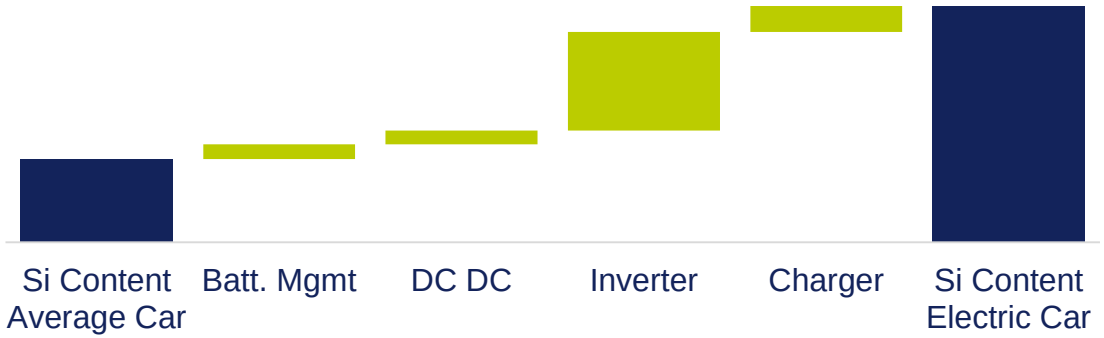
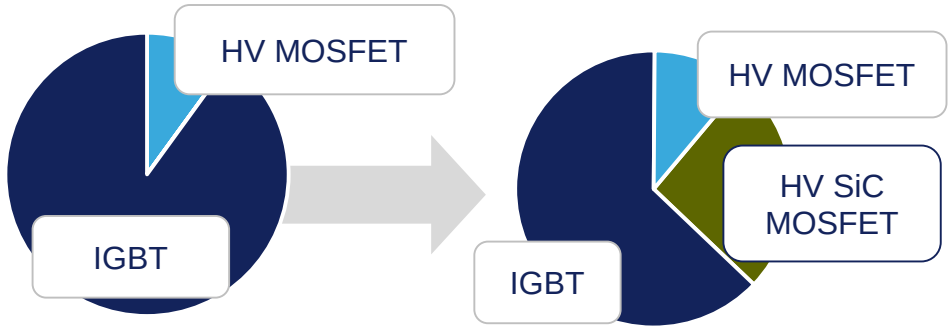
(*) Strategy Analytics Jan 2017, internal data

ST Commitment to Electrical Mobility

500$ Additional Opportunity per Vehicle (*)



Market Evolution (*)



2015 TAM* $140M

2020 TAM* $600M

SiC Advantages vs. Conventional IGBT

- 5-8x smaller size
- 7x lower switching loss (W)
- 40% lower total loss (W)
- 40% higher working temperature

⇨ Extended mileage

ST unique competitive offer

- Chargers SiC diode (650/1200V)
- Main inverter SiC MOSFET (650/1200V)
- On Board Charger SiC MOSFET (650/1200V)

ST target is to be market leader in SiC components

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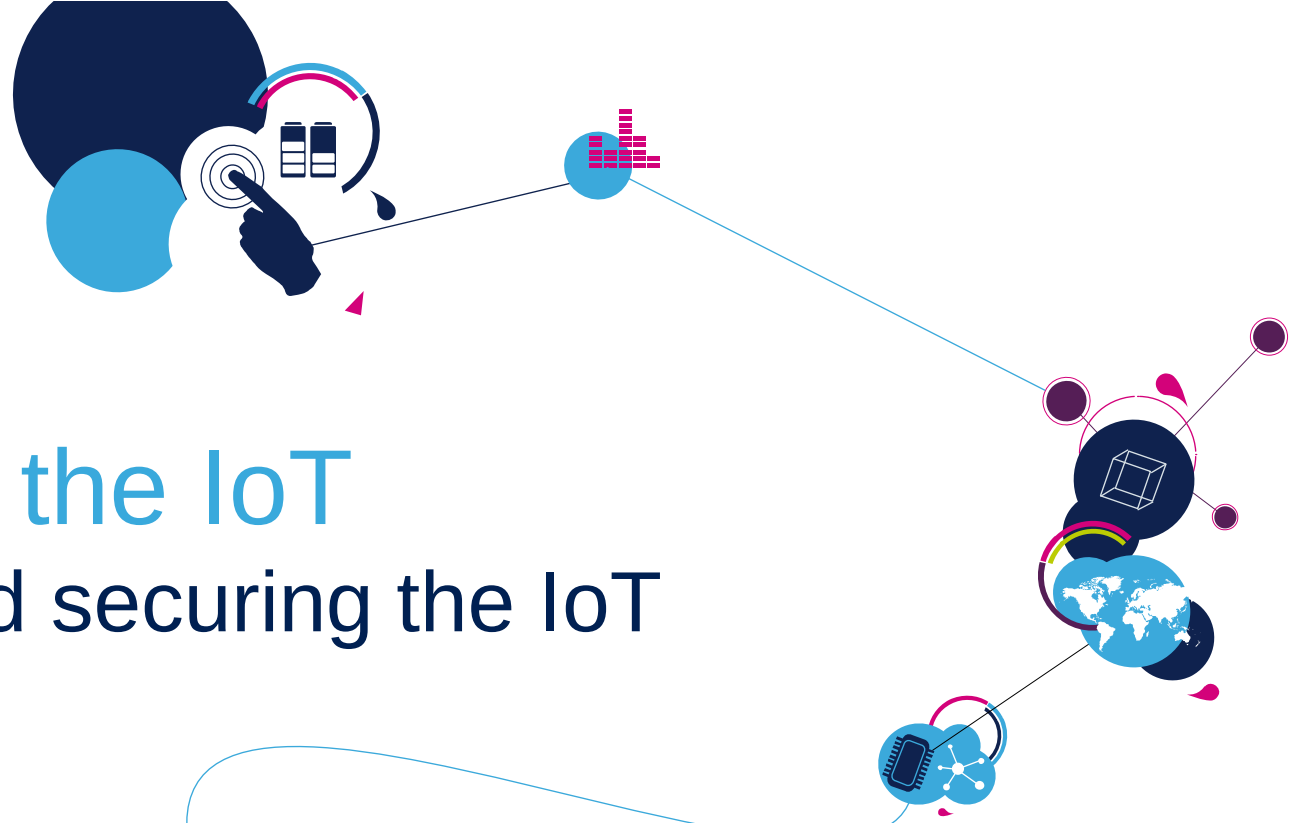
(*) Pure EV's, Hybrid Plug-in

Takeaways

- ST is a market leader in Automotive with a full product offer
- Car connectivity is progressively changing the automotive industry
- Seamless connectivity with infrastructure, other vehicles and the cloud makes the car safer and enhances the user experience
- This trend, together with the electrification, is progressively increasing the silicon content in every vehicle
- ST is ready to serve this market transformation with its connectivity solutions, including Wi-Fi and terrestrials channels, precision GNSS, Cameras, vision processing, RADAR and sensors



Meeting the needs of the IoT

Controlling, connecting and securing the IoT

Claude Dardanne
Executive Vice President
General Manager, Microcontrollers and Digital ICs Group

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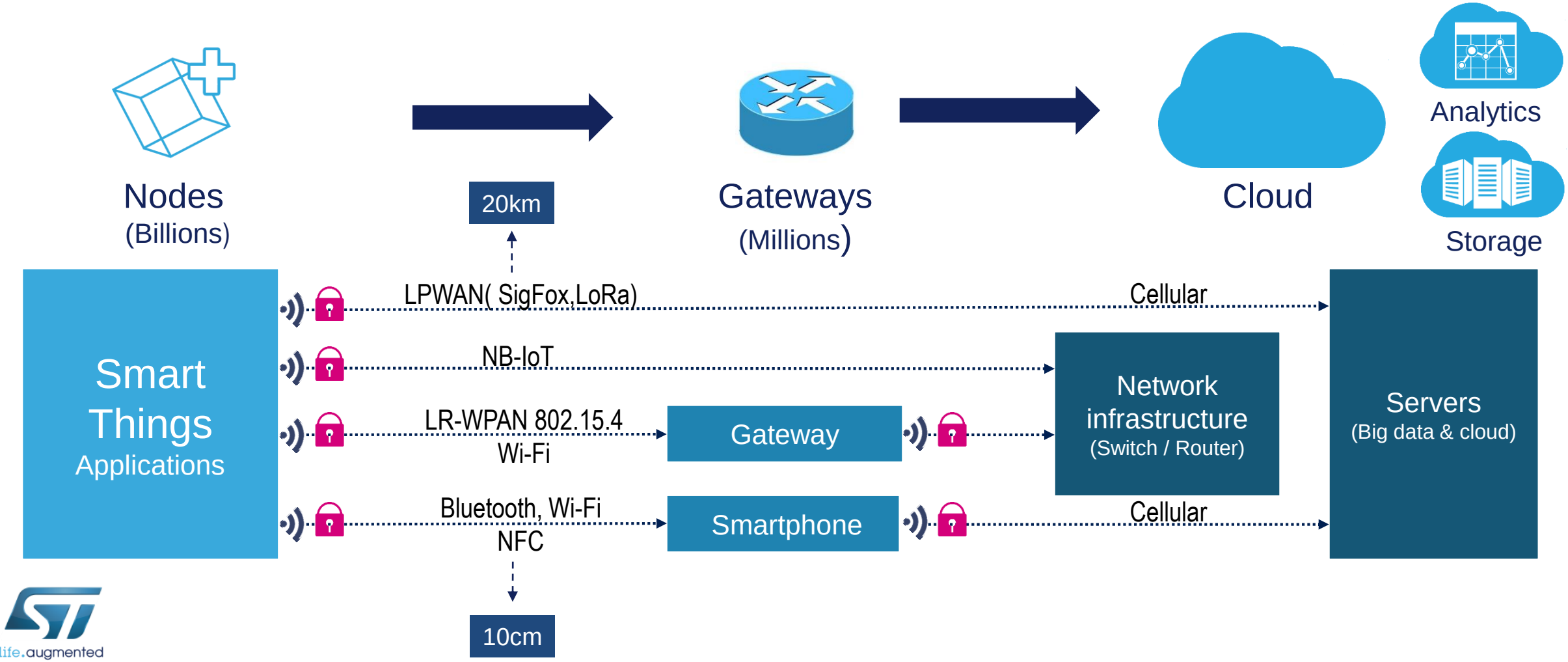
The IoT Trend

Any system able to leverage the Internet and its ecosystem



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STM32
The brain of IoT applications

Range of 32-bit MCUs fitting application needs

- From low to high end
- Embedding dedicated connectivity solutions
- Adapted security level

Application

Smarter applications with

- more flexibility
- more efficiency
- more processing power
- lower consumption

Communication

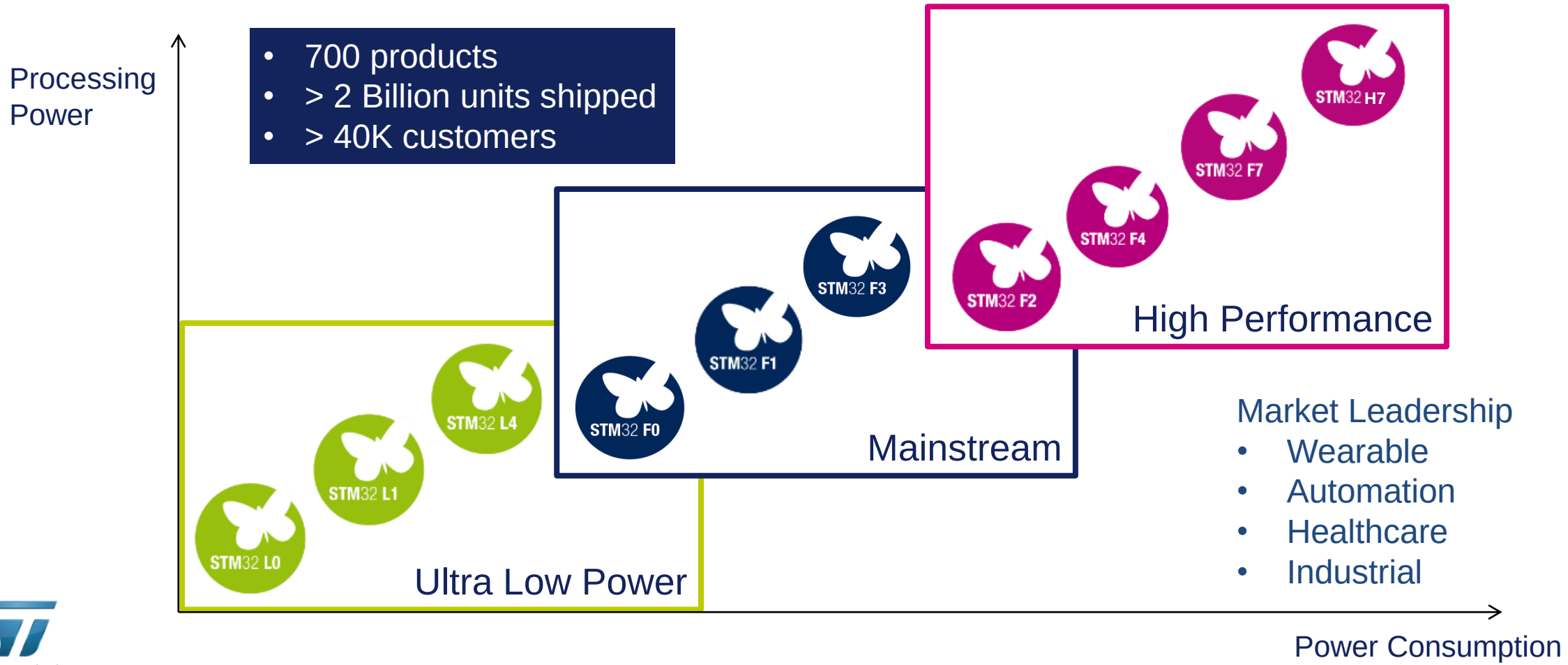
Connected World requiring connectivity capabilities for all devices from 10 cm to 20km

Security

Scalable Security solutions mandatory in a smarter connected world

Broad portfolio serving many applications

Leading 32-bit Microcontroller Supplier (excluding Automotive)

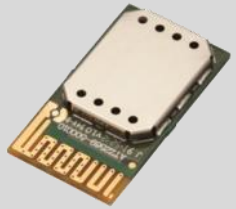
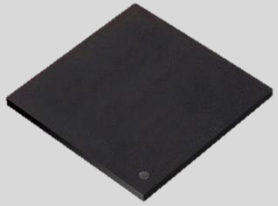
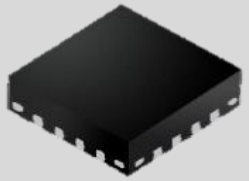


Connectivity Powered by the STM32

From Module to Integrated Solutions
Meeting requirements for time-to-market and volume

STM32

Secure MCU

Module		Partners
System In Package (SiP)		ST and/or Partners
System On Chip (SoC)		ST

- NFC
- 2.4GHz — Bluetooth SMART, ZigBee, THREAD
- 2.4/5GHz — Wi Fi
- Sub-1GHz — LoRa, 6LoWPAN, SIGFOX, M-Bus wireless
- Cellular — 4G LTE -M -NB-IOT, GSM

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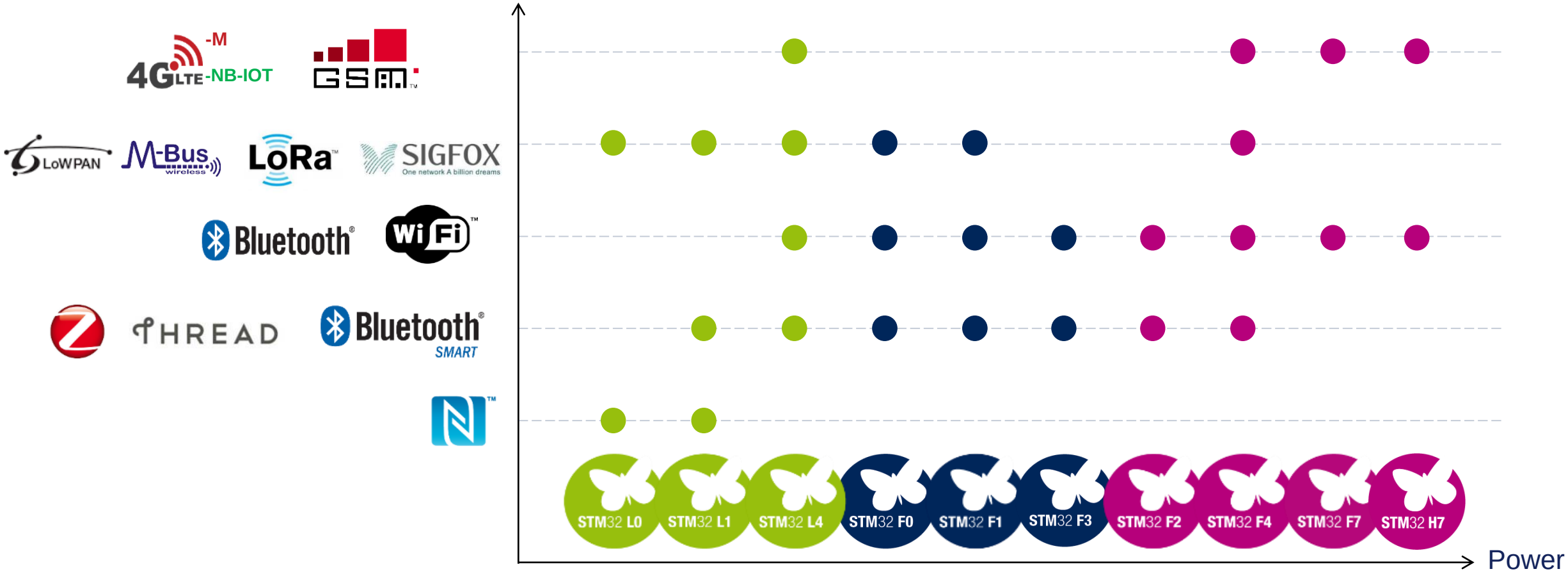
Powering a broad range of connectivity solutions

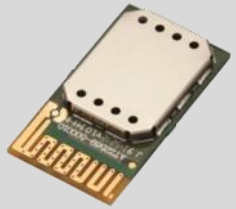


Connectivity powered by the STM32

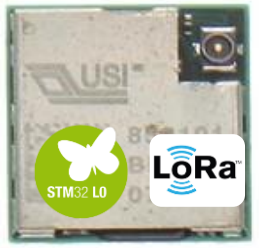
Some Examples – LoRa™

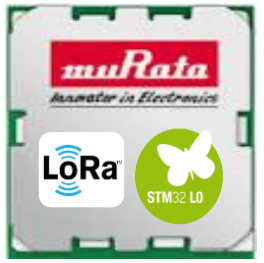
STM32

Module

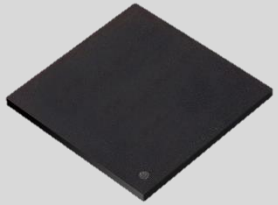


Partners



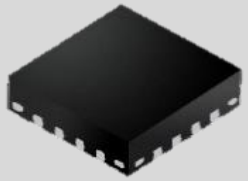


System In Package (SiP)



ST and/or Partners

System On Chip (SoC)



ST

STM32WL

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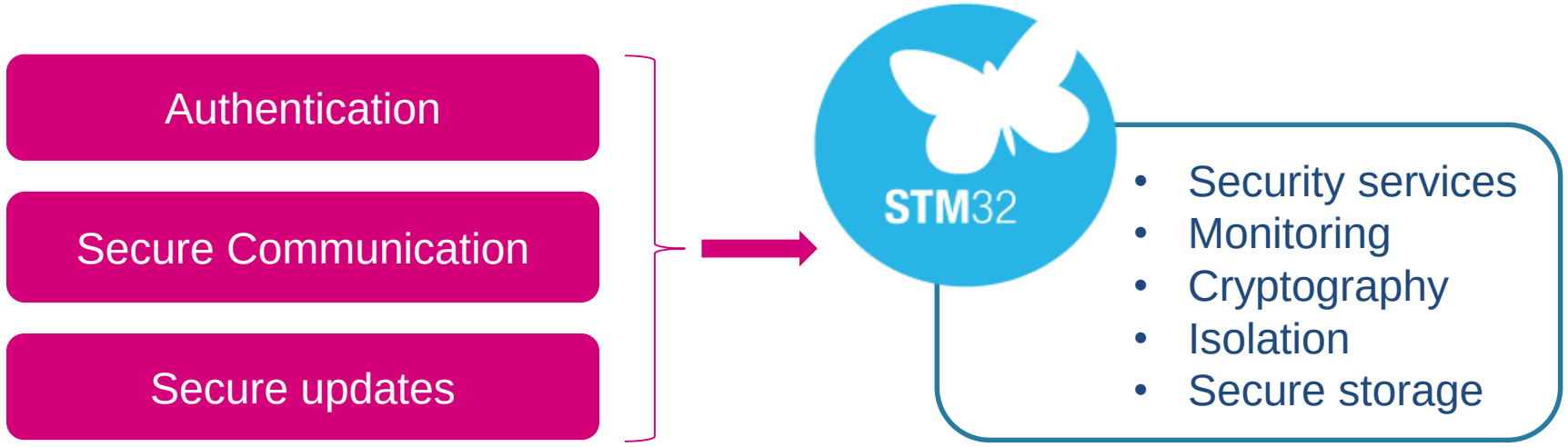
Security Threats

Protection against software attacks

Threat: Malware installed on IoT nodes throughout the network to perform remote illegal actions

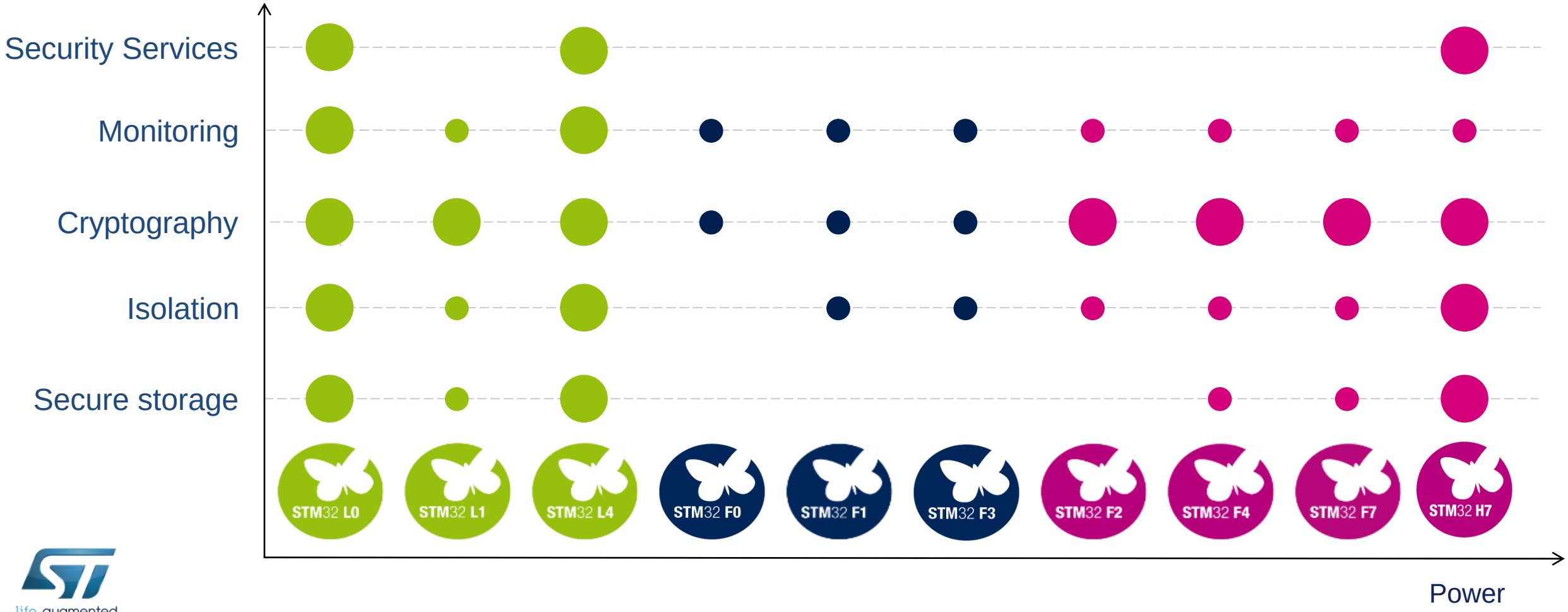
- Distributed Denial of Service
- Ransomware

Solution: Prevent malware infection by implementing security in end-devices



Embedding scalable security

Solutions for ultra low power and high performance platforms



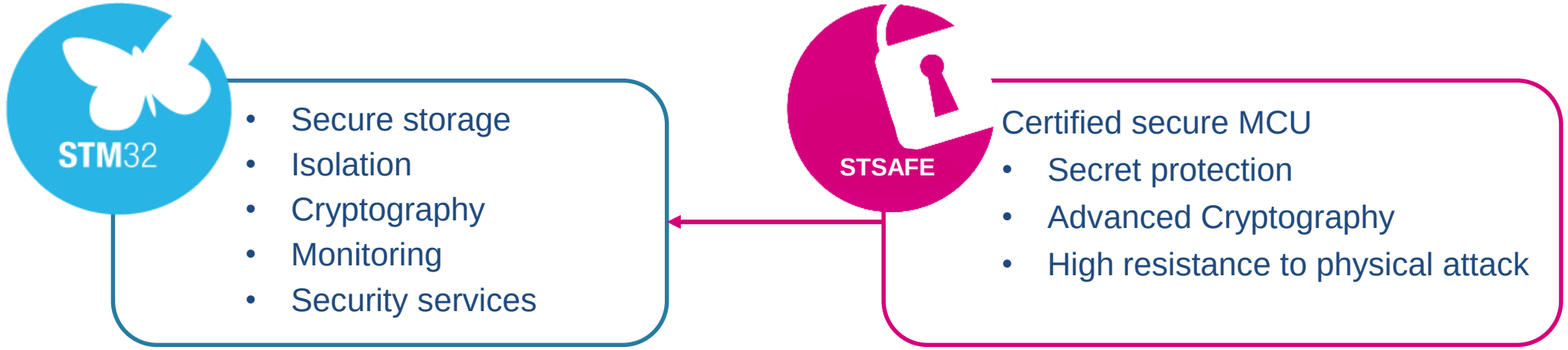
Security Threats

Protection against hardware attacks

Threat: Security (authentication, secure communication & secure updates) relies on cryptography and secret keys

- Cryptographic key extraction could be performed using physical attacks methods

Solution: Strengthen key protection with **STSAFE**



ST Solutions

Application

Payment

Identification

Smart Grid, Industrial gateways

Healthcare

Smart meter

Appliances
Smart home

Wearables

Communication

Secure MCU

STM32

Security

ST31/33 SE

STM32 eSE

STM32 MCU ↔ STSAFE

STM32 MCU

STM32 MCU

Highest

Basic

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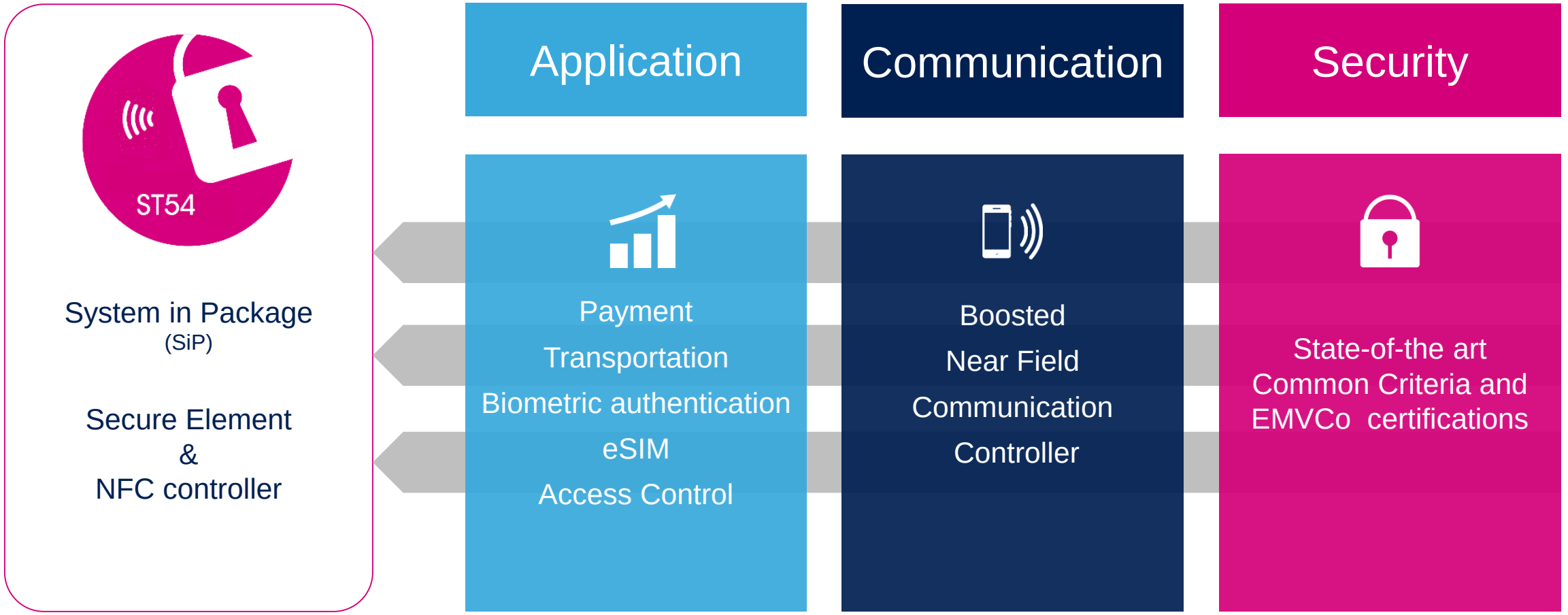
State-of-the-art secure solution for mobile transactions



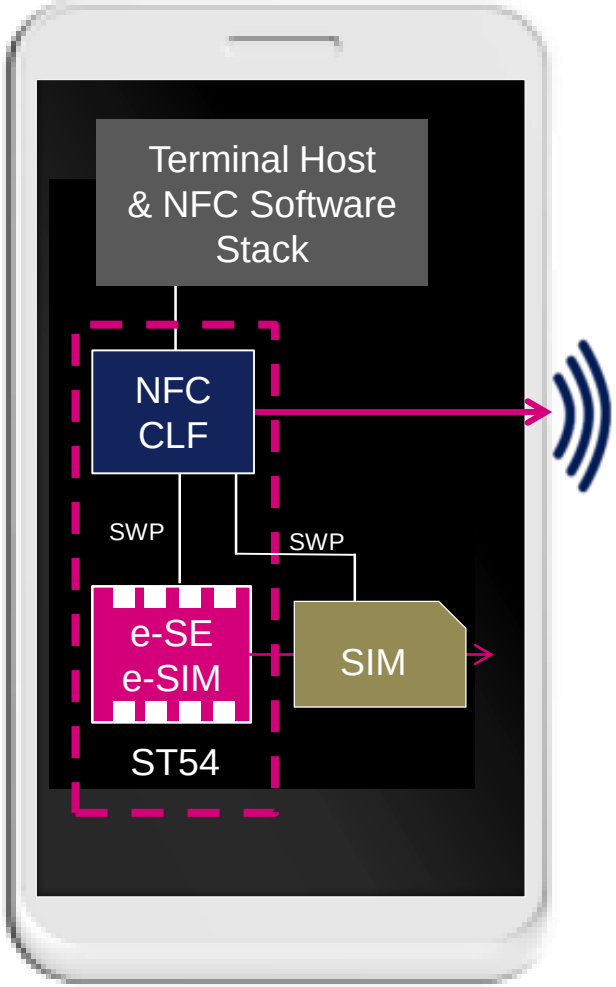
Solutions adapted to smartphone market needs

ST21NFCD Controller (80nm)
- Boosted for tiny & metal cover antenna
- Reduced BOM
- Low Power mode
- Card emulation, Reader & P2P

ST33G1M2 SE (80nm)
- 1.2MB Flash
- e-SE & e SIM capabilities
- EMVCo, CC EAL5+

Licensed 3rd party OS

ST54F



ST21NFCD Controller (80nm)
- Boosted for tiny & metal cover antenna
- Reduced BOM
- Low Power mode
- Card emulation, Reader & P2P

ST33J2M0 SE (40nm)
- 2MB Flash
- Increased Performances
- EMVCo, CC EAL5+

Licensed 3rd party OS

ST54H

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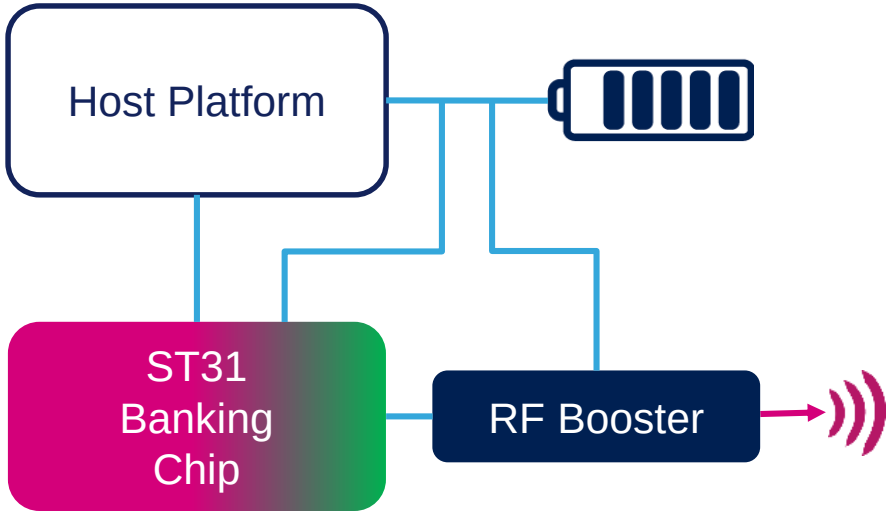
(*) SWP = Single Wire Protocol CLF=Contactless Front End (ETSI definition)

Boosted ST31 and ST54

Payment & transport solutions for wearable devices

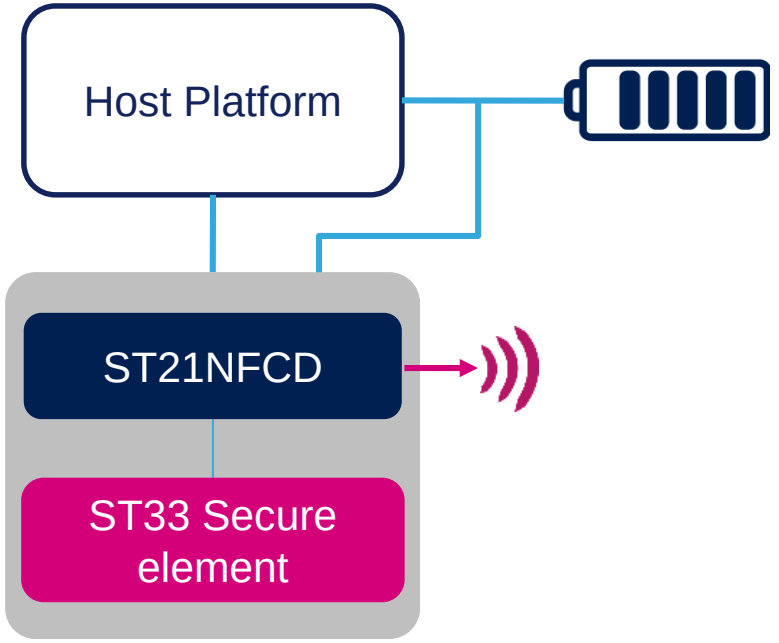
Wearable Entry Range



ST31 + STS3921/22

Card emulation

Wearable Multi-application



ST54F/H

Card emulation, Reader & P2P

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Takeaways

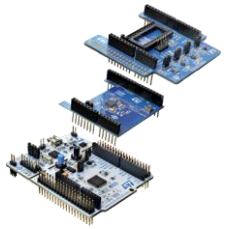
Market Trends

Smart Things	Smart Home	Smart City	Smart Industry
			
Ultra-low power Processing power	Short-range connectivity Advanced peripherals	Long-range connectivity Smart peripherals	Security features and certification

ST Offer

Broad MCU offer

Accessible ecosystem for application development



STM32 Nucleo development kits

STM32 Open Development Environment

NFC LoRa

ARM mbed enabled

STM32 Cube

Free SW platforms for all OSes

Educational Programs & MOOC

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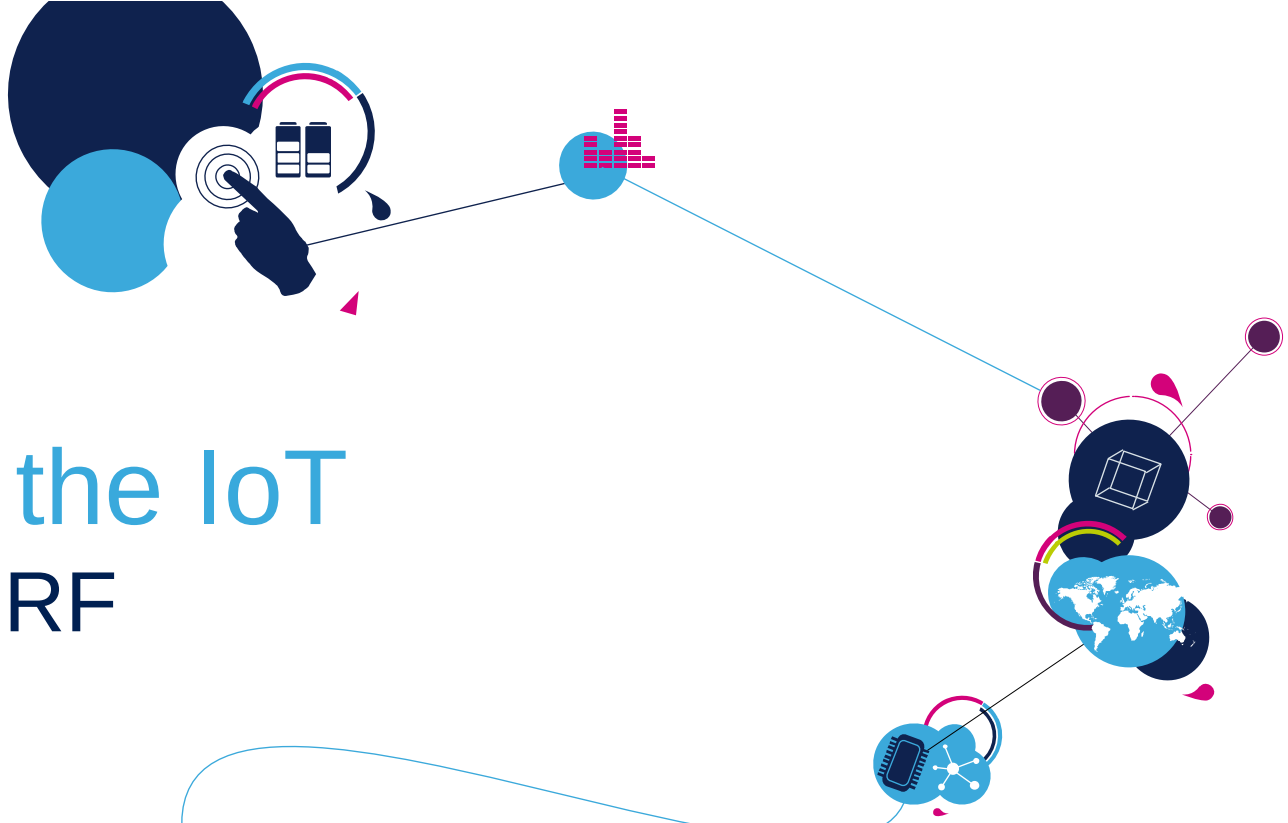

Meeting the needs of the IoT

Sensors, Analog, Power & RF

Benedetto Vigna
Executive Vice President
General Manager, Analog and MEMS Group

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When you Think of Analog & MEMS

Think …

Gyroscope

Smart 6-axis IMU

Pressure sensor

STSPIN

Magnetic sensor

Thermal Actuator

Microphone

Wireless Charging

STDRIVE
(with/without
galvanic Isolation)

VIPerPlus

Accelerometer + Pedometer

Piezo Actuator

LDO

STNRG

STLUX

Op Amps

SubGHz

Bluetooth Low Energy

Wi-Fi

Touchscreen Controllers

HVLED

AMOLED DC-DC controllers

Consumer

Internet of Things

Industrial

Smart Driving

Automotive

Winning in leading mobile & wearable devices

Sensing

Connectivity

Signal Conditioning & Protection

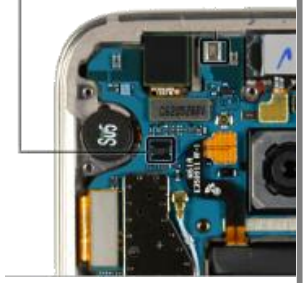
Microsoft Band2

Sensing

Connectivity

Signal Conditioning & Protection

SAMSUNG Galaxy S7



STMicroelectronics
L2G2IS
Gyroscope

Sensing

iPhone 7

Sensing

http://www.systemplus.fr/reverse-costing-reports/apple-iphone-7-plus-mems-microphones/

And with Other Leading Smartphone Makers

HUAWEI


P9 / P9 Plus


Mate 9 / 9 Pro


Mate 8


Mate S


Honor Magic


Honor V8


Honor 5X


Mi Mix


Mi 5


Redmi Note 3

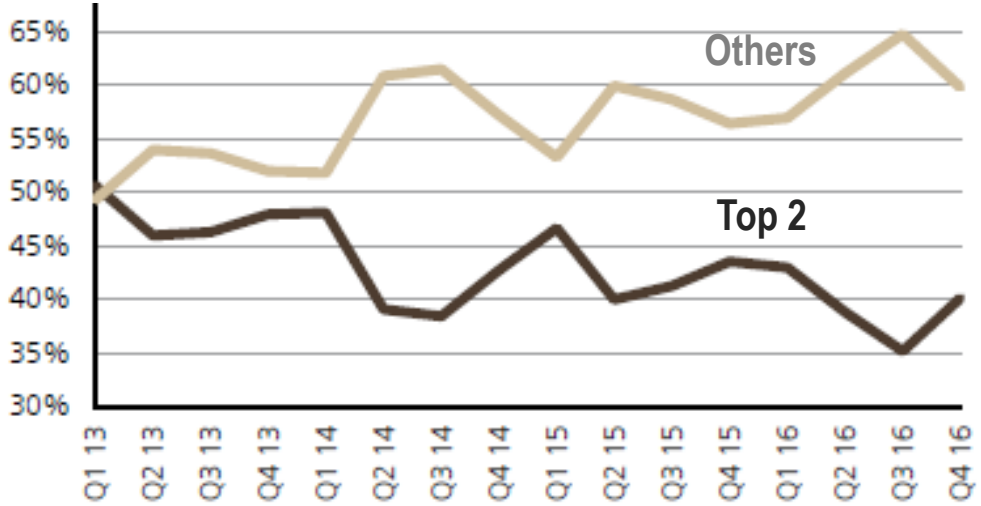

Mi Note 2

VIVO


X6 /X6 Plus


Xplay 5

Smartphone volume market share



oppo


R9 Plus


R9s


R7 Plus


R7s

lenovo


Moto Z Force


Moto G4 Plus

MEIZU 魅族


Pro 6s


Pro 6 Plus

GiONEE


Elife S8

Source: UBSe

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High Performance & Smart Motion Sensing

Optical image stabilization gyroscope

L2G2IS

High performance and accuracy (ZRL ±5 [dps], phase delay 5 [deg]@ 20 Hz).

Accelerometer & Gyroscope 6-Axis IMU

LSM6DSM

Low power, low noise combo unit for User Interface and Image Stabilization.

Ultra Low Power Accelerometer

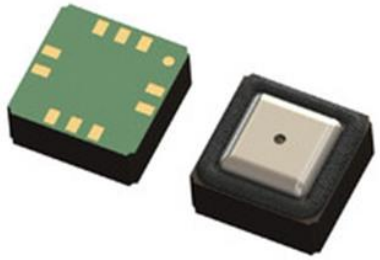
LIS2DW12

Ultra low power accelerometer with embedded FiFo for wearable applications.

High Accuracy Pressure Sensor

LPS22HB / LPS35HW

Compact high performance and stability, low power, water resistant pressure sensor.



Accelerometer & Magnetometer

LSM303

Compact accelerometer and compass unit with pedometer capabilities.

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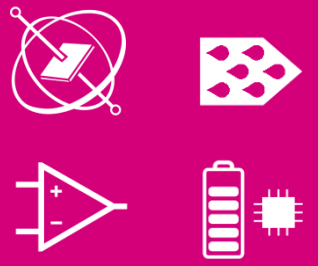
Diversification Strategy

New products

New products for traditional markets

New products for new markets

Traditional products for traditional markets



Traditional products in new markets for ST

New Markets

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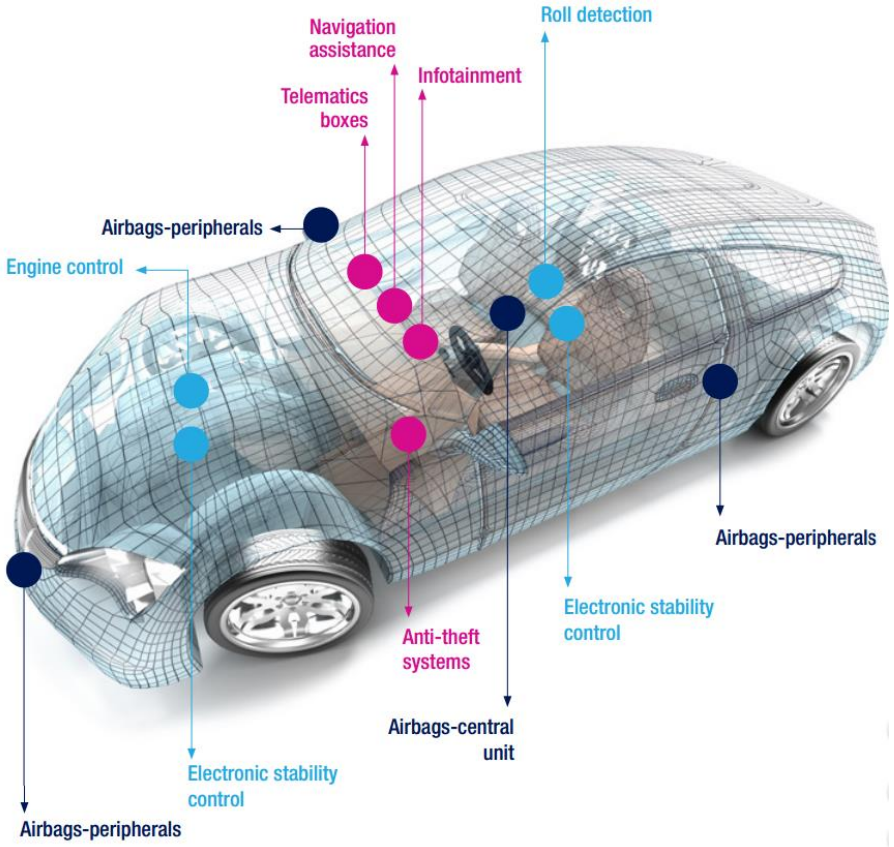
Automotive MEMS

Navigation & Telematics

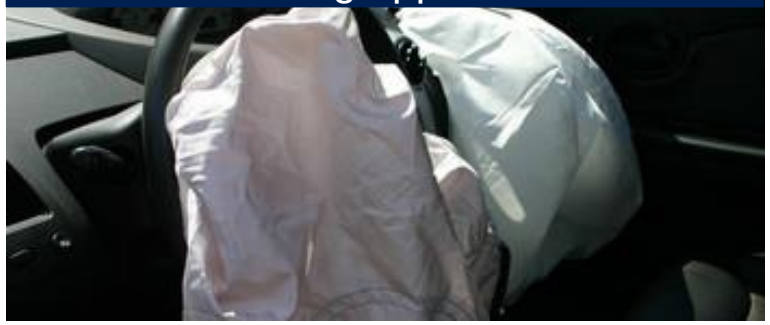
6-axis inertial module
for navigation assistance

Medium-g accelerometer
for telematics boxes



Safety

Hi-g accelerometers
for airbag applications



Gyroscopes
for vehicle dynamics applications

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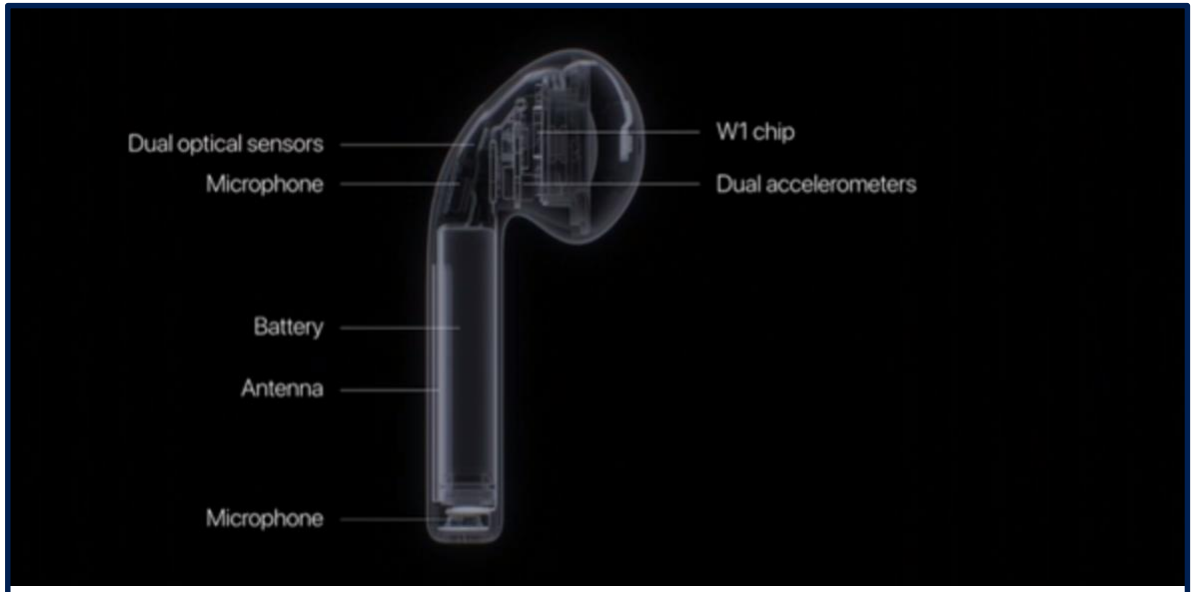
Diversification

New Applications for Motion MEMS & Analog



Each Airpod is identical in design and chip count. Within the two ear buds, here are the major IC counts:

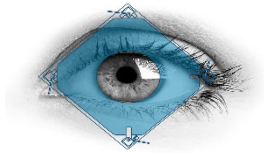
STMicroelectronics ultra low power 3 axis accelerometer	2
STMicroelectronics low dropout regulator	2

www.techinsights.com/about-techinsights/overview/blog/airpods-airpods-and-the-W1-wireless-SoC-squeezing-innovative-technology-inside-very-small-packages/

Actuator Partnerships

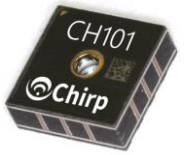
Piezo Autofocus

poLight



Ultrasound Ranging

Chirp



Micro-mirror Projection

MicroVision

MEMS Loudspeaker

USOUND

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Virtual Reality Experiences

Get the thrill of the game up close

Enjoy your private entertainment

Immerse yourself in the News

The best view for concerts & shows

Travel to impossible places

Fly your Drone in the virtual world

The next step in Social Networking

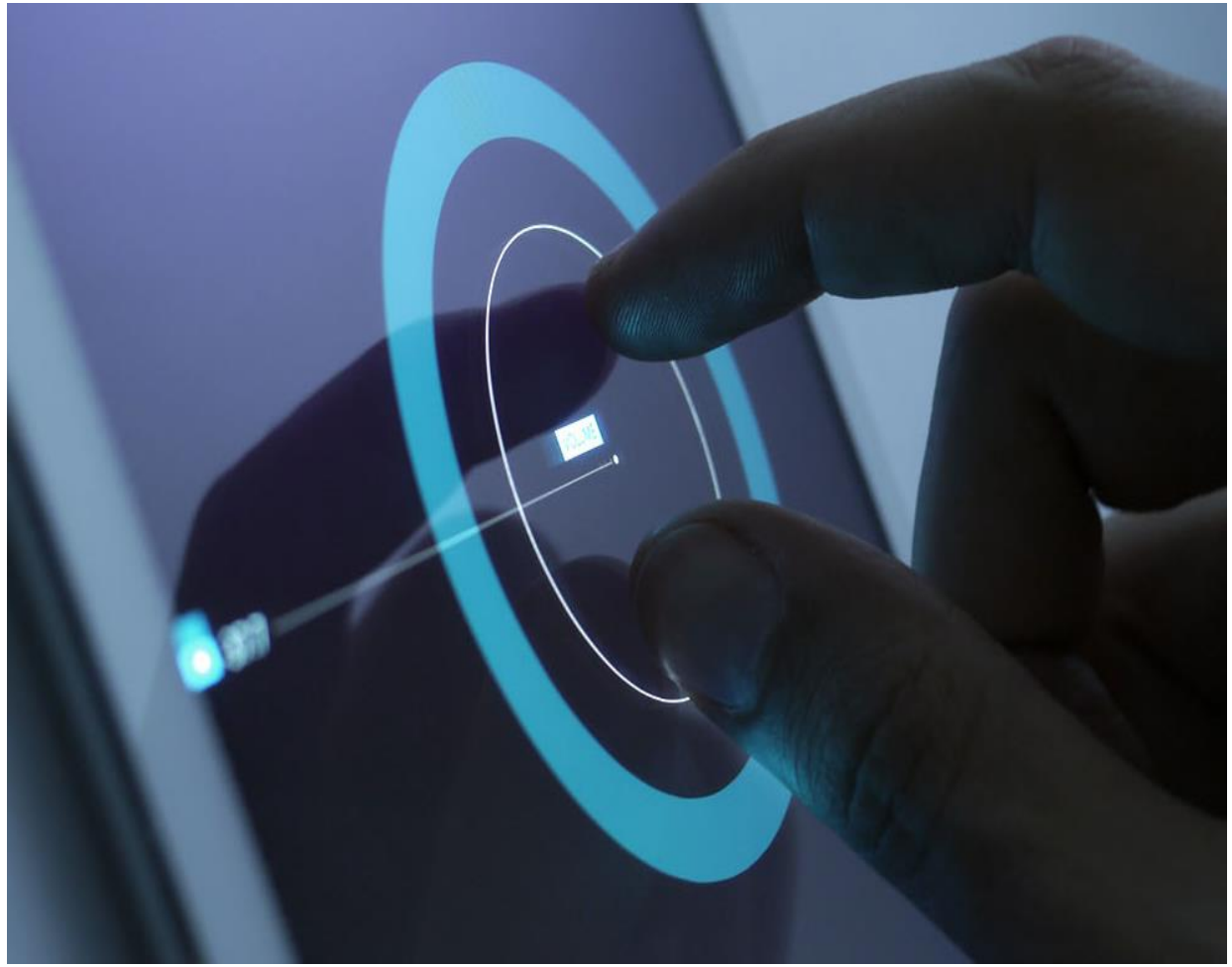
Visit before you visit

A new way to educate

Sensing Opportunities

- Motion MEMS
- Ranging
- Ultrasound

FingerTip Touchscreen Controllers



Smart Touch Screen controller - Context Aware

- Understands the surroundings
  Water on screen, Gloves
- Low drawing latency
  Augmented Reality
- Understands user intentions
  Grip or Touch
- Be energy-efficient
  Longer Battery life
- Interacts with accessories
  Intelligent Cover

ST proprietary technology

- 32-bit Processing
- Low Latency
- Hybrid Scan
- High Sensitivity
- Ultra-Low Power

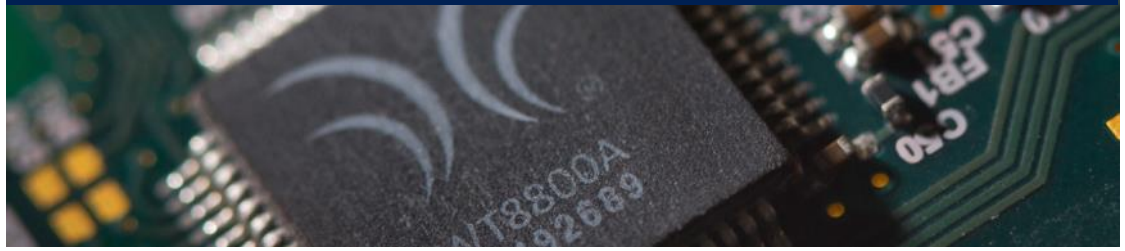
Wireless Charging

Inductive and magnetic resonance solutions

Multi Mode Qi/Airfuel Wireless Power
Bi-directional - Receiver & Transmitter

- Plug and play solution certified with Qi 1.2 15W and Airfuel Inductive 5W standards
- Wireless Power Receiver with Transmitter Function

Magnetic Resonance
In partnership with WiTricity



- Power without compromise – milliwatts to kilowatts
- ”Drop and Charge” user experience
- Fast charging with high efficiency and safety

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WiTricity

Wireless Charging

Power & Energy Management

Advantages of Magnetic Resonance

- Spatial Freedom
- Power delivery through surfaces - *wood, concrete, granite, plastic, etc.*
- Multiple devices/single source - *differing sizes & power levels*
- Scalable power transfer – *milliwatts to kilowatts*

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Fast Charging Solutions

Faster charging time, Enhanced user experience

USB Type-C and Power Delivery

- Robust & safe for devices & users
- High voltage analog ICs
- Plug & play, easy device configuration
- Reliable & certified hardware

Quick Charge

- 24W Offline charger for smartphone/tablet based on Quick Charge™ 3.0

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Size, Power & Simplicity

Motor control for the IoT

Power Transistors

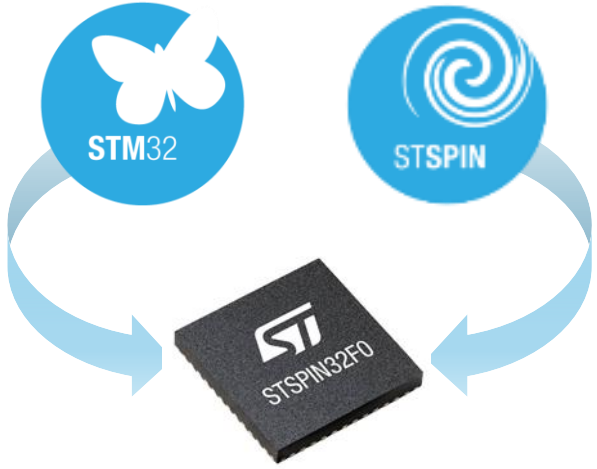
Motor Control

Microcontroller

World's Smallest Motor Drivers to Streamline Design and Boost Runtime of Battery-Powered Devices for the Internet of Things

- Tiny 3mm x 3mm package
- Standby current of less than 80nA
- Down to 1.8V operating voltage for ultra low

Power and Simplicity in Intelligent Motion-Control Device for Smart Industry and High-End Consumer Electronics



- Highly integrated system-in-package 7mm x 7mm
- Powerful ST ecosystem comprising tools and software including motor-control algorithms

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Bluetooth Low Energy Processor Family

BlueNRG Family

- Ultra Low Power ARM-Based Bluetooth Processors
- Native Bluetooth 4.2
- Security, robustness & reliability
- Ultra small packages

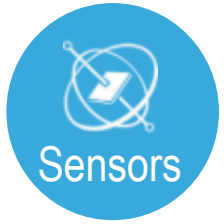
Wearable

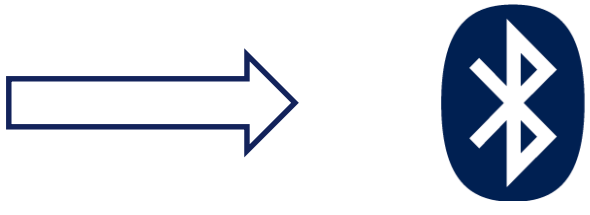
Beacon / Retail

Diagnostic

Medical

Toys / Gaming





Automotive

ePayment

Smart Home

Tags and Finders

Industrial

CHIPS AND MODULES

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Sub-1GHz for Sensor to Cloud

Sensor to Cloud

Sensors

SUB GHz

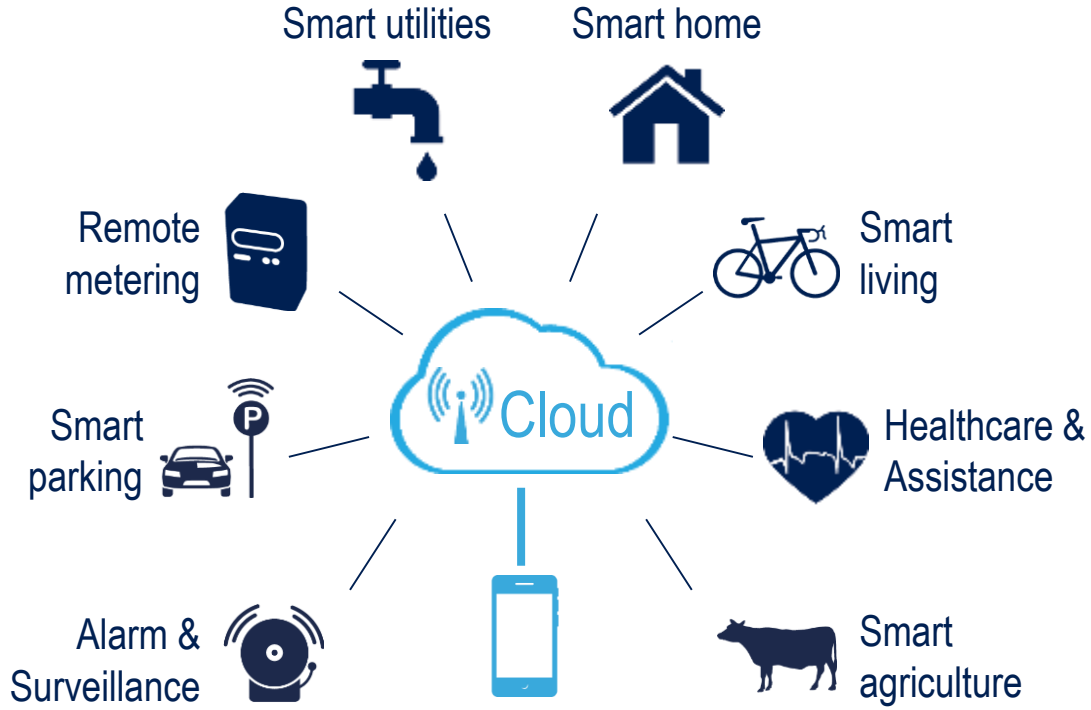
Sub-GHz Radio Transceiver

S2-LP

sigfox

M-Bus wireless

LoWPAN



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CHIPS AND MODULES

Combo-radio Finder/TAG

Dual-radio turnkey solution for Wireless Sensor Nodes, Remote diagnostic, Smart Parking, Smart Objects

Smartphone

- User Interface
- Configurability
- Local monitoring
- Diagnostic
- Firmware upgrade

Finder/TAG
BLE/LPWAN
Dual-Radio

Cloud

- Remote monitoring
- Tracking and Positioning
- Notifications of events
- Data aggregation
- Diagnostic and assistance

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HMicro
Sense More

Smart Healthcare

Low power Wi-Fi technology suitable for a broad range of applications

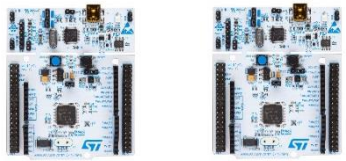
Processing	2 Microcontrollers
Connectivity	3 RF Transceivers (M-band, TX UWB Wi-Fi 11Mb/sec)
Signal Conditioning & Protection	High resolution Analog Front End

The only wireless biosensor platform for disposable medical applications using coin cell batteries

Development & Prototyping Tools

Microcontrollers

STM32 Nucleo development boards



STM32 Open Development Environment

Prototyping Tools

ST Sensor Tile

Partner Solutions

STM32 Nucleo expansions boards

Evaluation platforms

Sensors, Connectivity, Power and Analog

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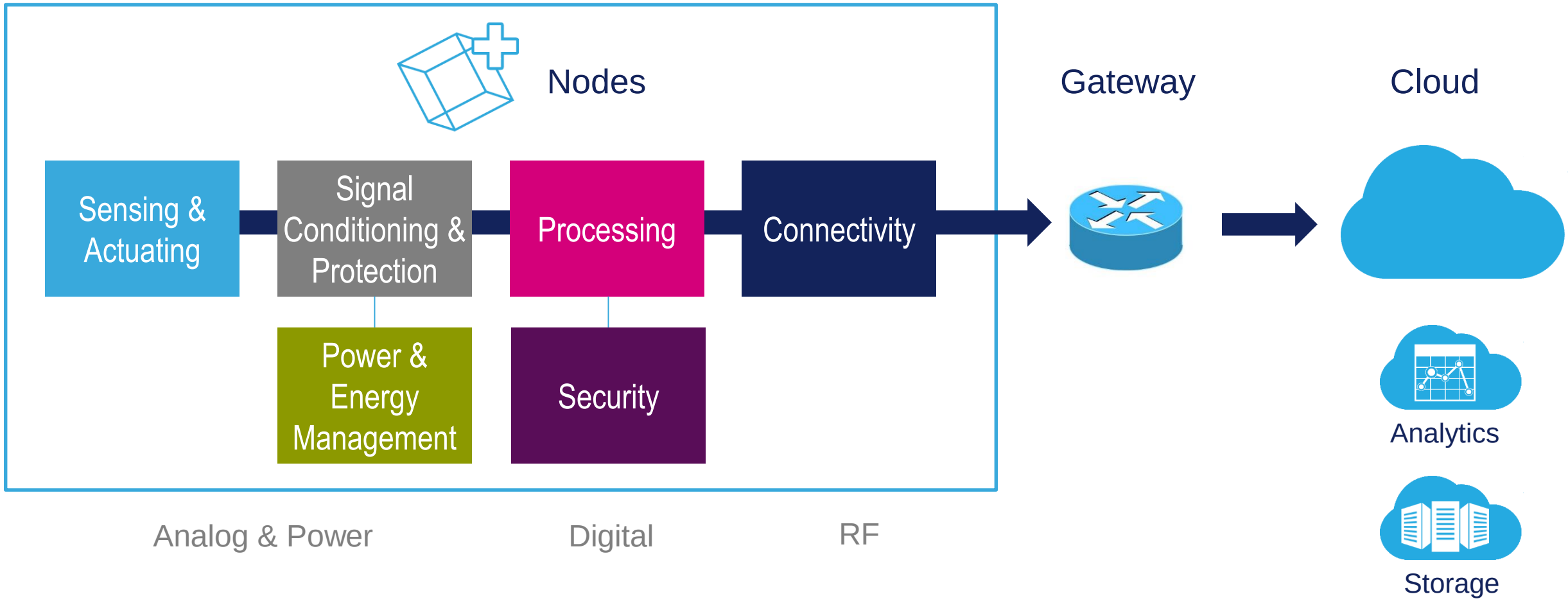
Sensor to Cloud



Takeaways

- Renewed product and market **Leadership** with Motion and Environmental MEMS in smartphone and wearable markets
- Diversification strategy results fully visible along the **4 vectors**
- Signed multiple **partnerships** to address new markets and new products in MEMS and Analog market segments
- Winning more sockets in existing customers and **enlarged** customer base
- Expanded **wireless** product family of Bluetooth processors, Sub-1GHz RF and Wi-Fi solutions gaining traction in Mass Market

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Internet of Things

Smart Driving

1 Sense

2 Actuate

3 FlightSense™

4 STM32 Open Development Environment / LoRa™ / Sigfox

5 Process - STM32 Ecosystem

6 Tap & Connect - NFC Solutions

7 Secure & Connect - Solutions for Wearable

8 Power – Wireless Charging – USB Type-C

9 Smart Driving

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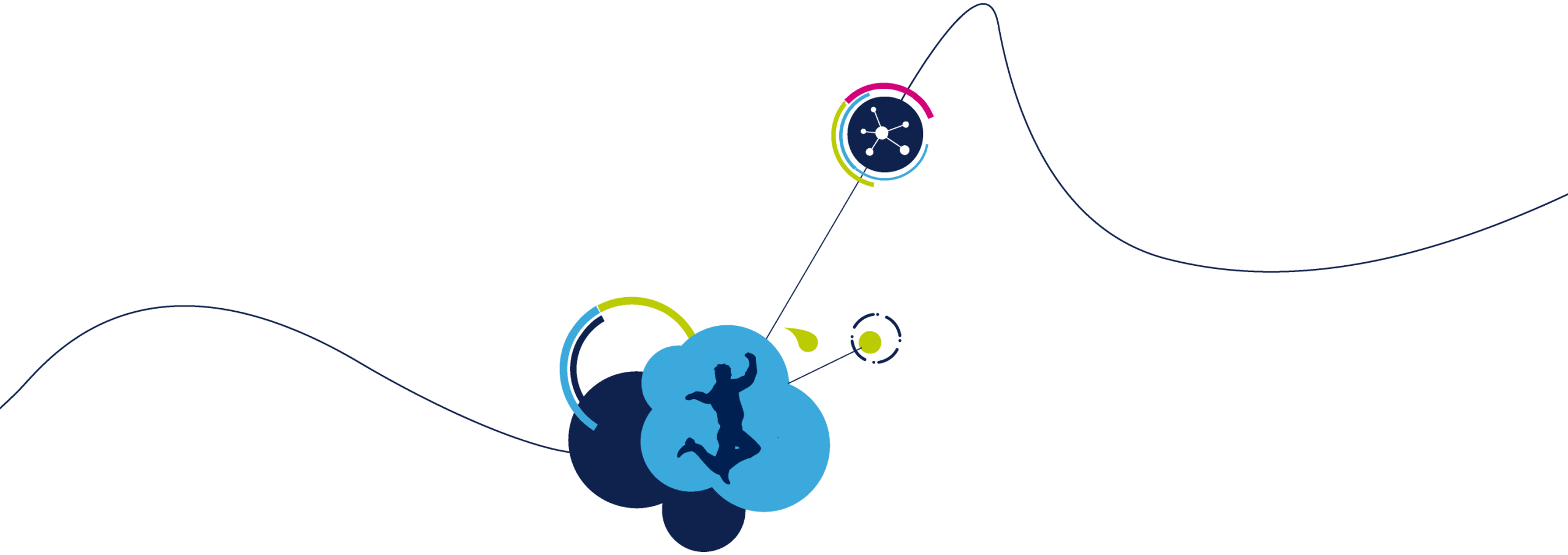

Questions & Answers

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STMicroelectronics

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