Business & Financial Roadmap

Carlo Ferro

Chief Financial Officer

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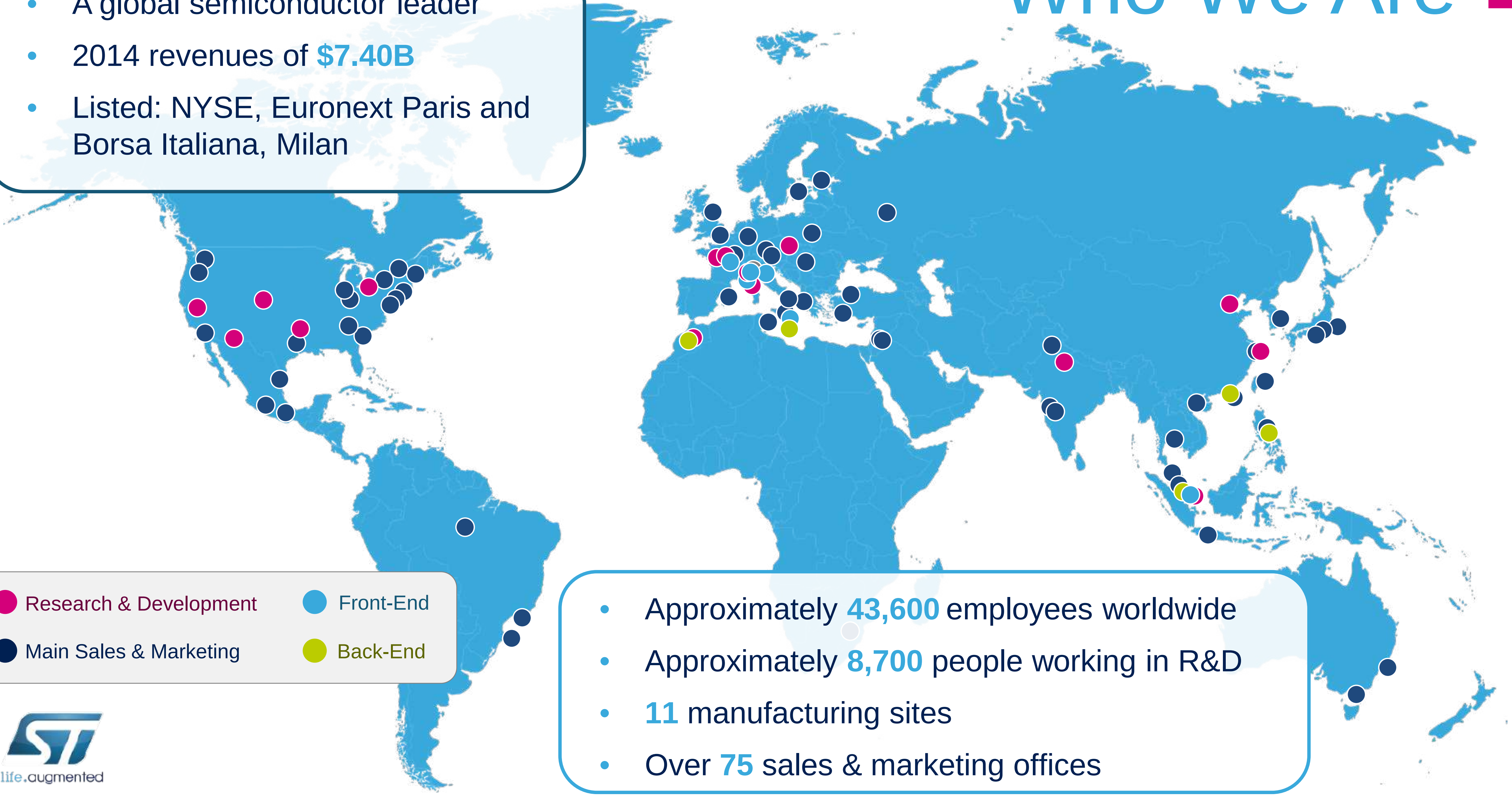
Who We Are

- A global semiconductor leader
- 2014 revenues of **$7.40B**
- Listed: NYSE, Euronext Paris and Borsa Italiana, Milan



- ● Research & Development
- ● Main Sales & Marketing
- ● Front-End
- ● Back-End

- Approximately **43,600** employees worldwide
- Approximately **8,700** people working in R&D
- **11** manufacturing sites
- Over **75** sales & marketing offices

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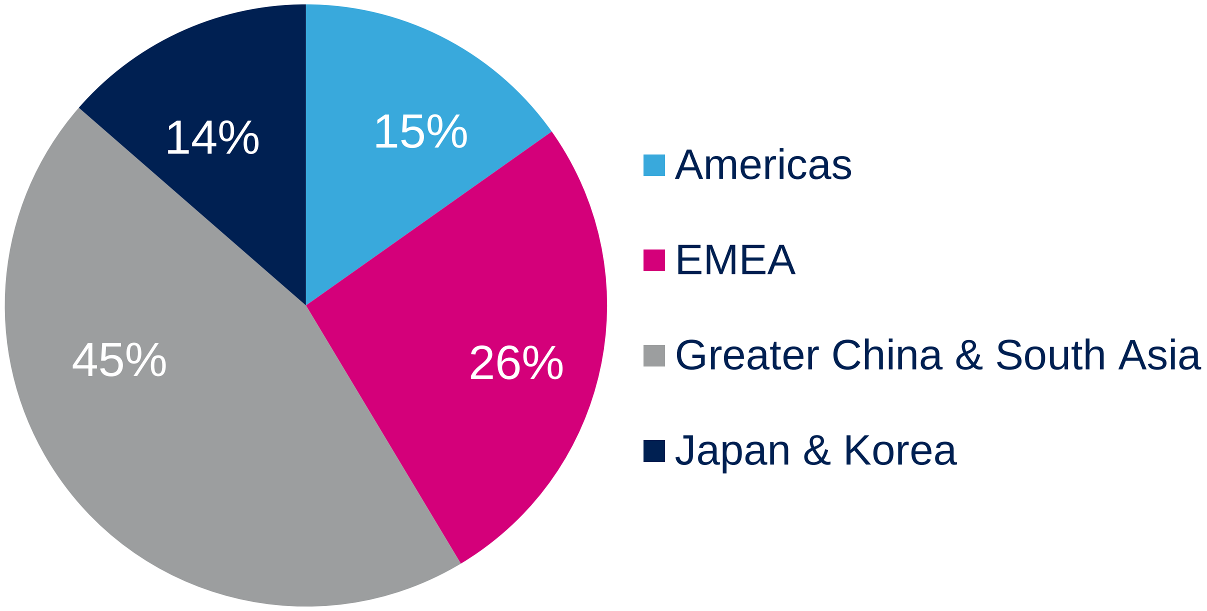
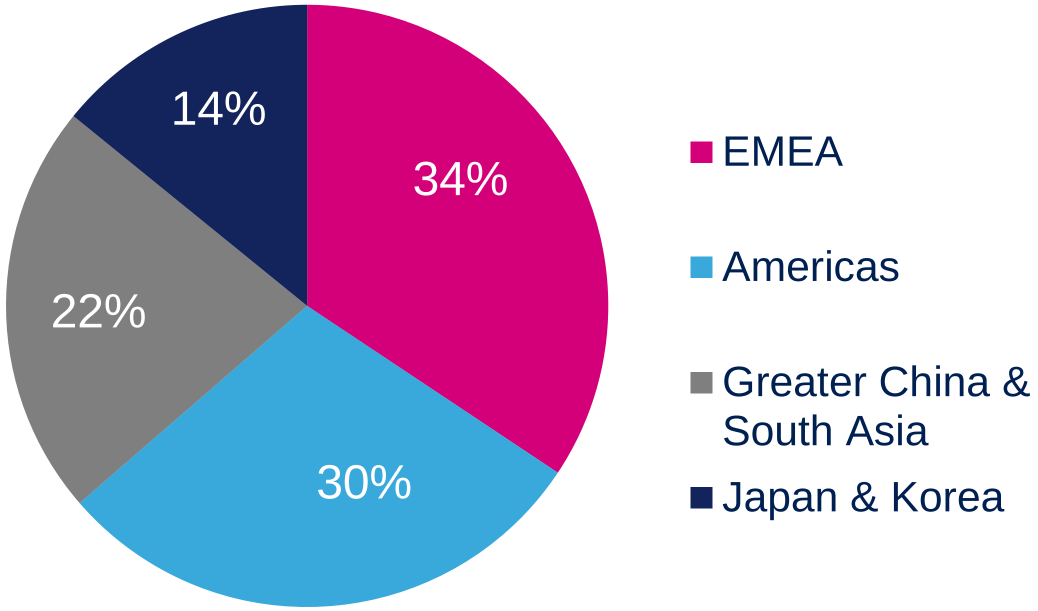
A global Semiconductor Player

FY 14 Revenues by shipment location



FY 14 Revenues by region of origin



FY 14 Revenues = $7.40B

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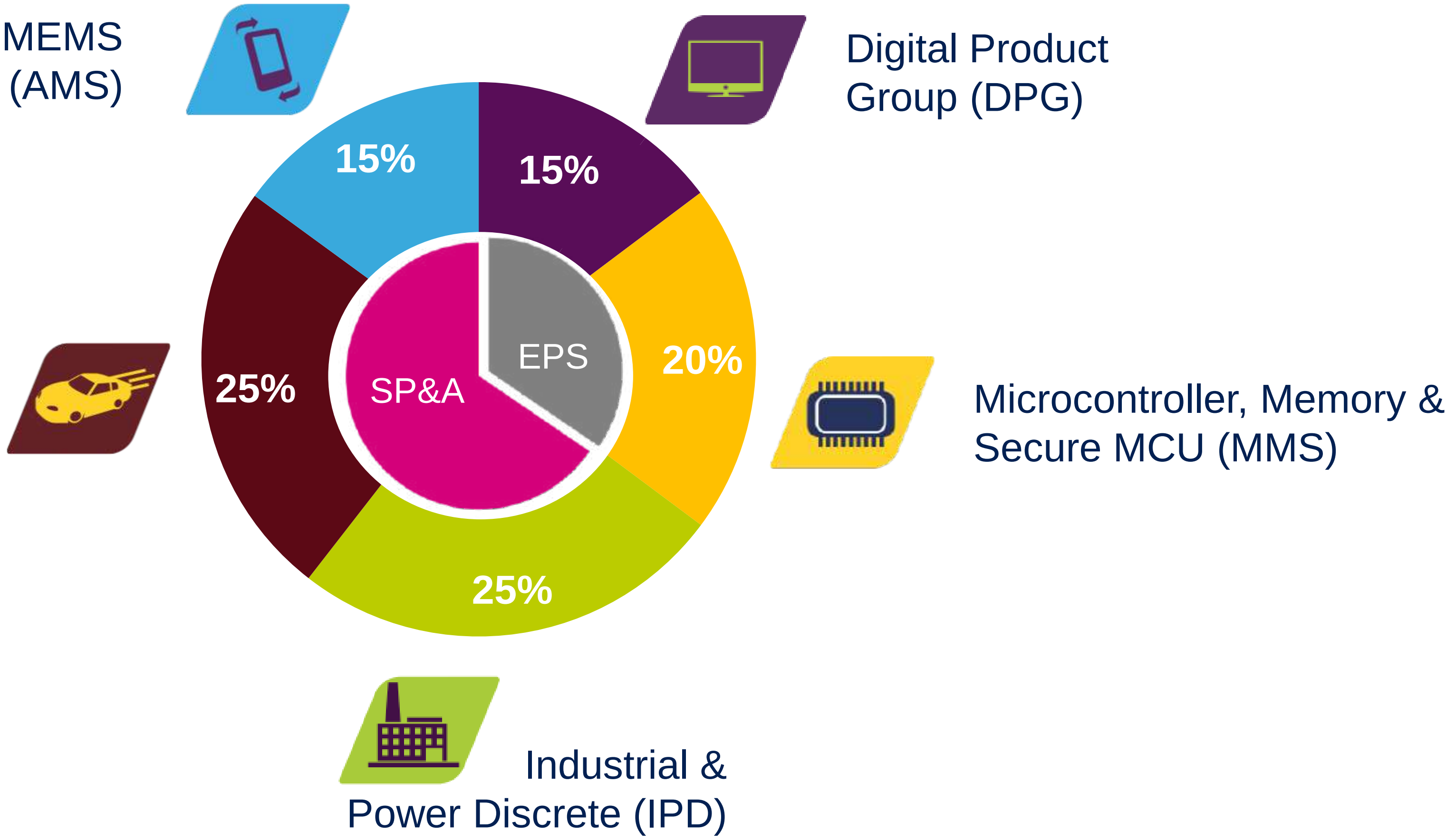
Well diversified Product Portfolio

Revenues by Product Group FY 2014



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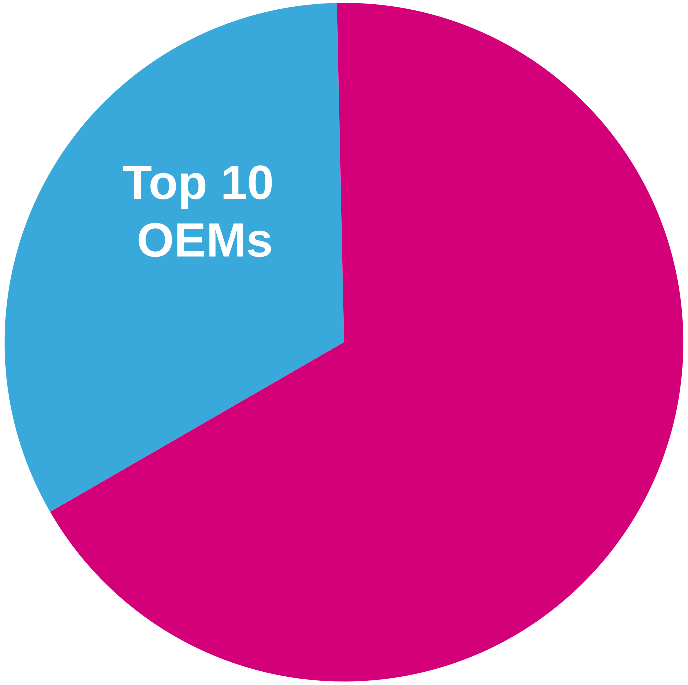
Expanding the Customer Base

Top 10 OEMs*
FY 14

Apple
Bosch
Cisco
Conti
Delta
HP
Microsoft
Samsung
Seagate
Western Digital

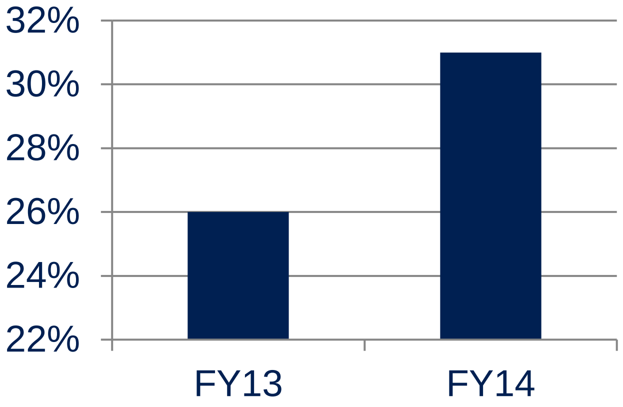
FY 14
Revenues



Top 4 Distributors*
FY 14

Arrow Electronics
Avnet
Wintech
Yosun

Distribution
(as % of total revenues)

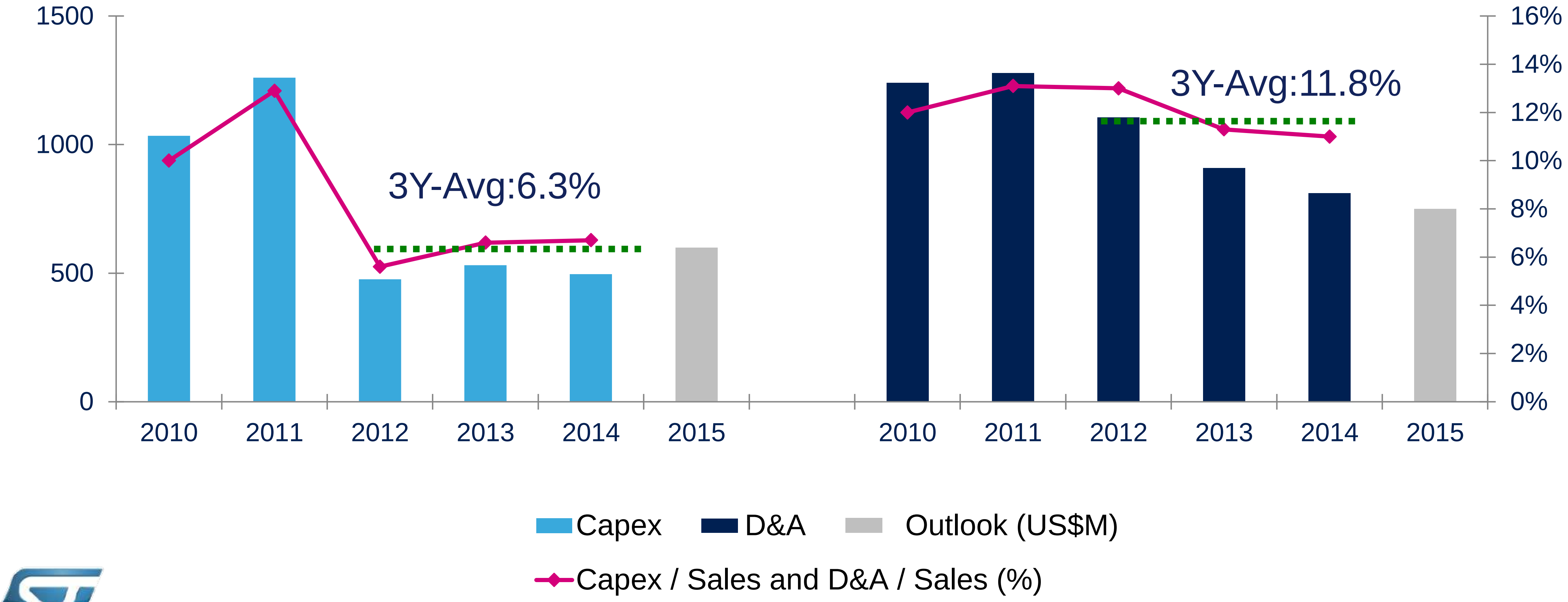


*Listed alphabetically

Stabilizing Capital Intensity

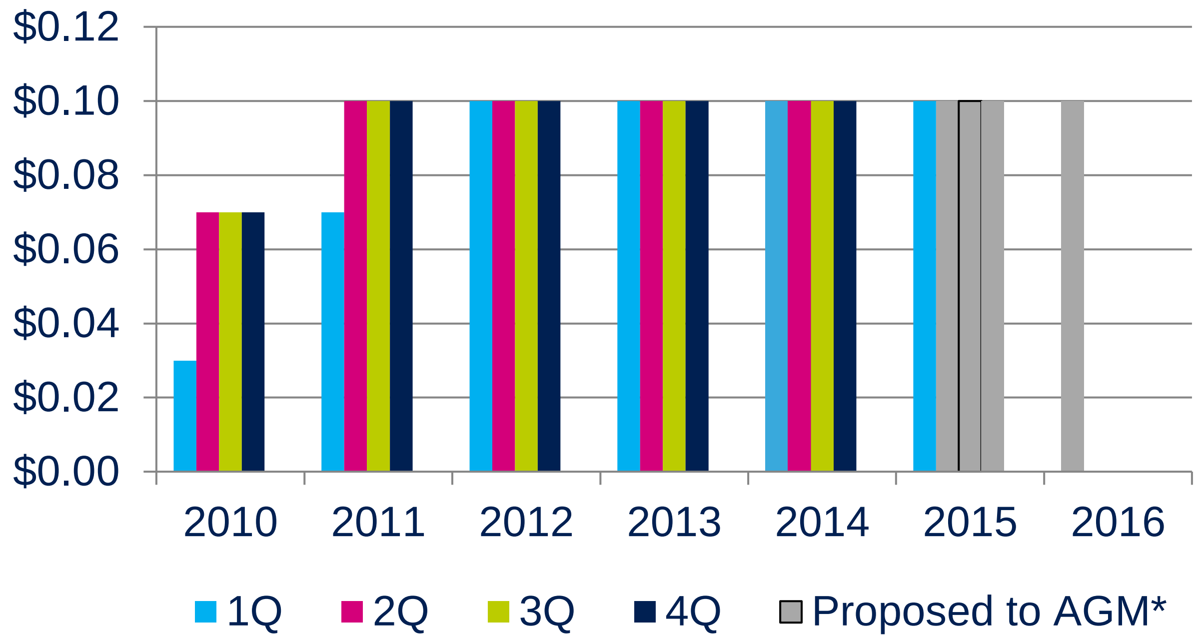
Capital Expenditures

Depreciation & Amortization



Solid Capital Structure Rewarding Shareholders

End of period (US$M)	Mar 28 2015	Dec 31 2014	Mar 29 2014
Total Liquidity	**2,287**	**2,351**	**1,745**
Short term debt	(200)	(202)	(225)
Long-term debt	(1,575)	(1,599)	(908)
Total Financial Debt	**(1,775)**	**(1,801)**	**(1,133)**
Net Financial Position*	**512**	**550**	**612**



*2Q15, 3Q15, 4Q15 and 1Q16 dividend proposed to the AGM

Continuing to Reward Shareholders

Cash dividend of $0.10 per share for each of the 2nd, 3rd, and 4th quarter of 2015 and 1st quarter of 2016 to be proposed to the 2015 AGM

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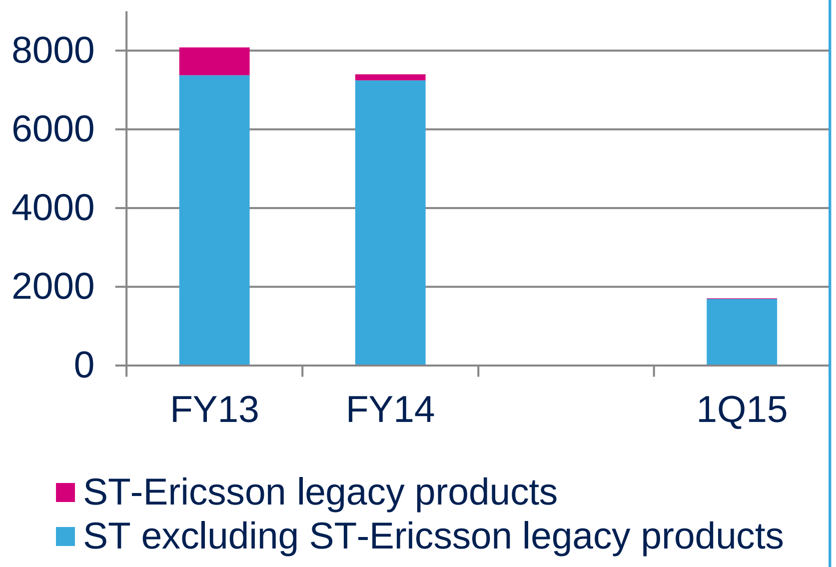
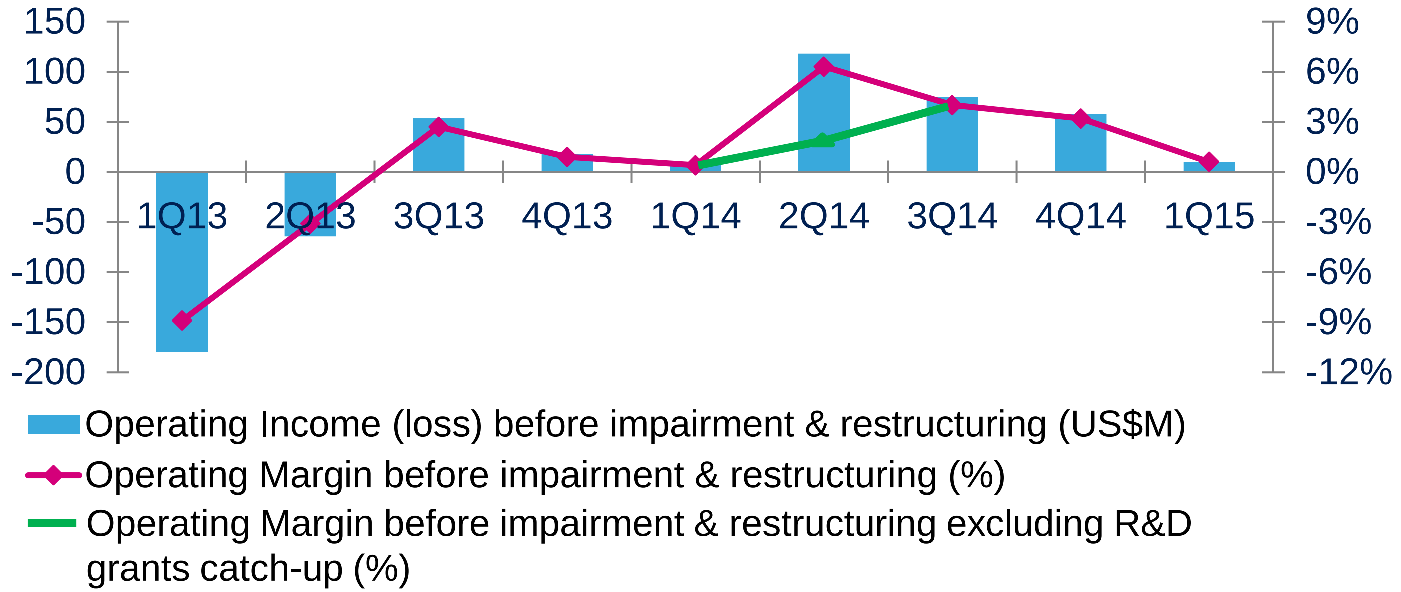
2014 – A Year of Progress

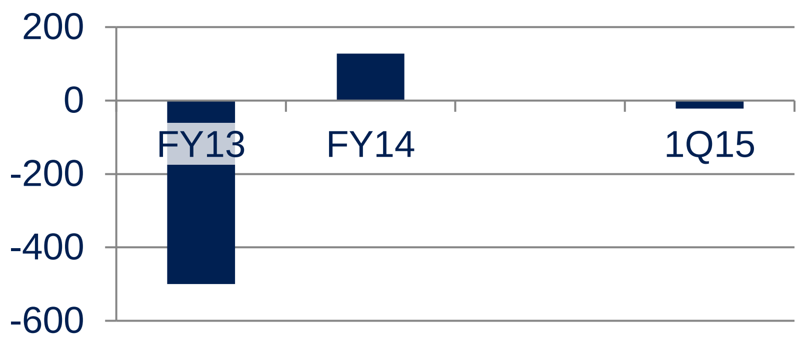
Revenues (US$M)



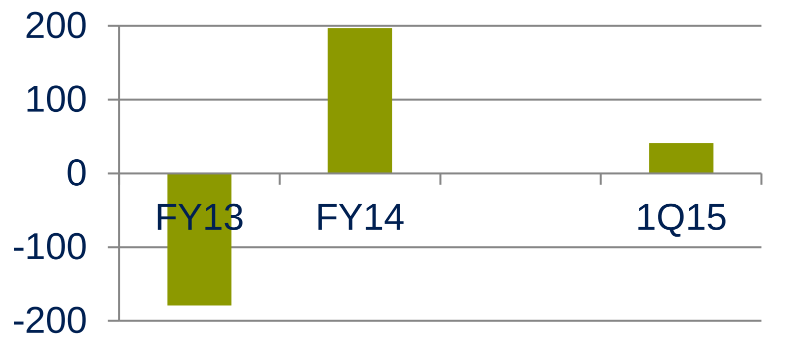
Operating Results (US$M & %)



Net Income (US$M)



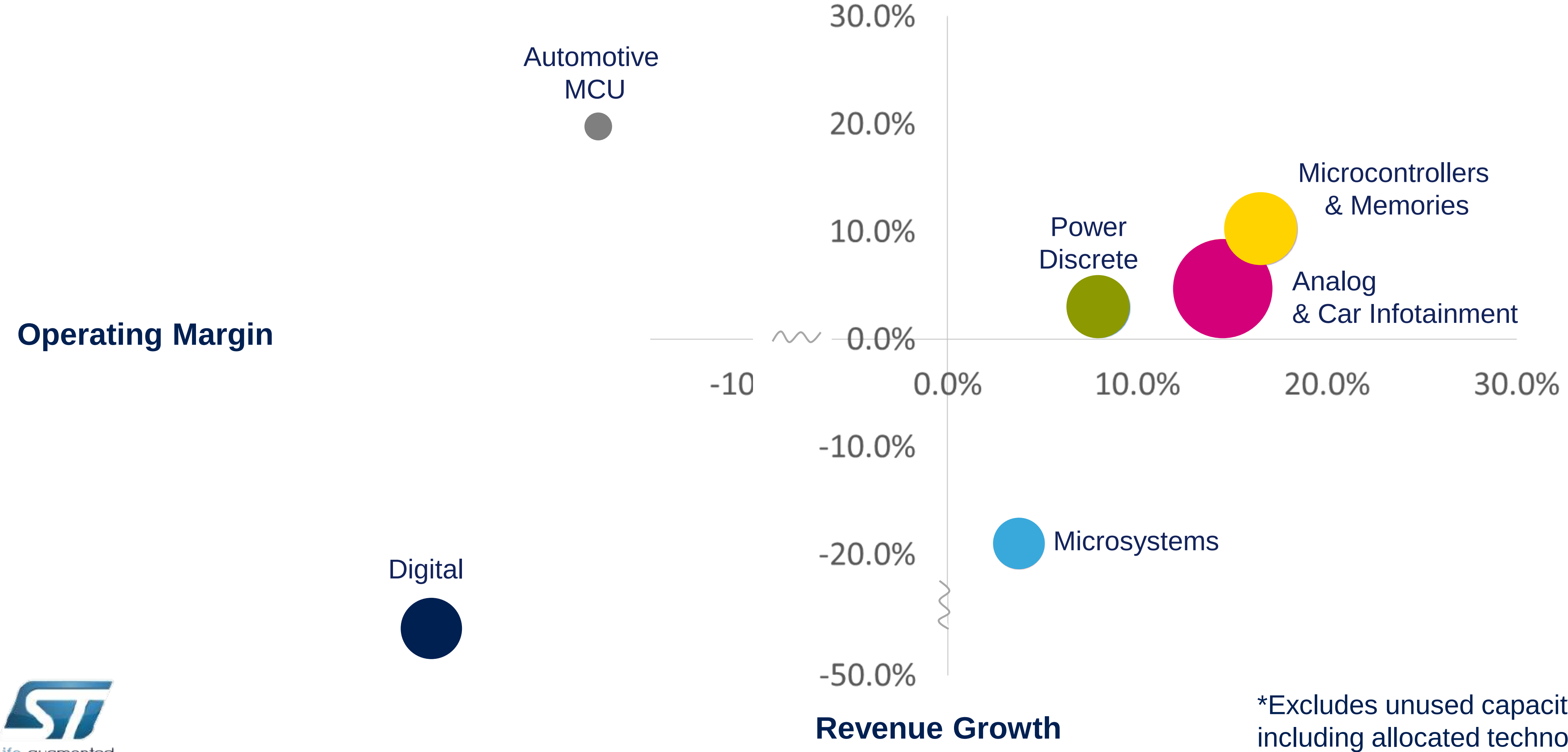
Free Cash Flow* (US$M)



*See appendix

Business Portfolio Growth and Profitability

Operating Margin 2014* vs. Revenue Growth 2014/2013



*Excludes unused capacity charges and including allocated technology and SG&A

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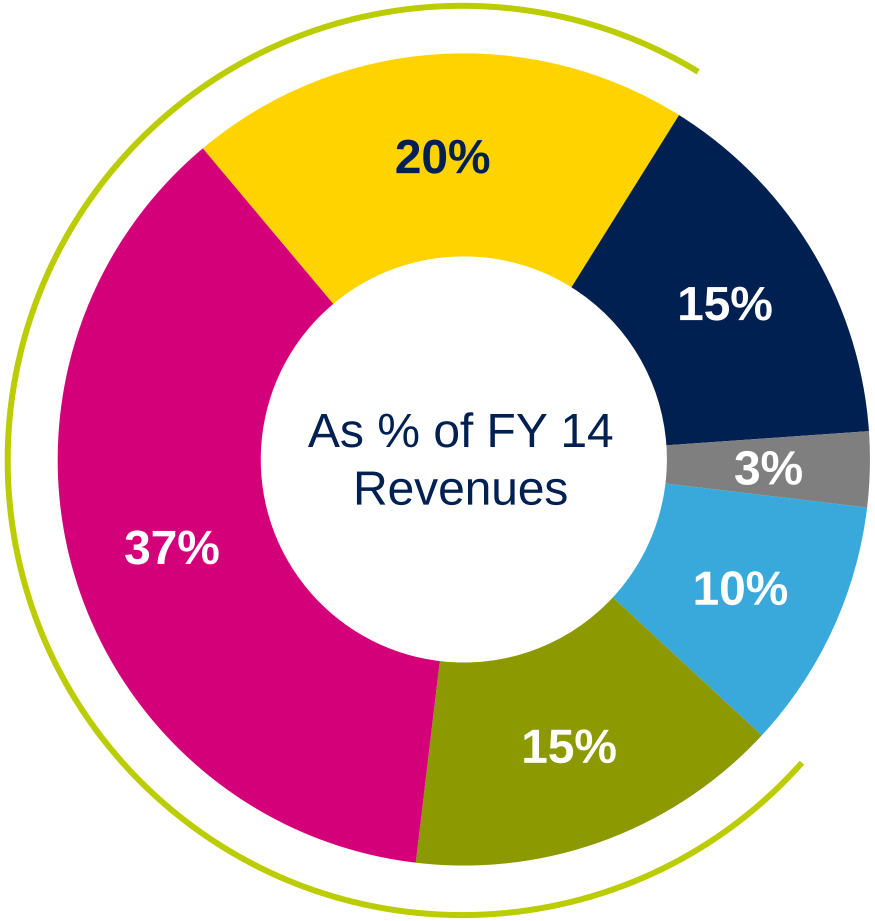
High Value Portfolio

72% of revenue generated from profitable and growing business



Action: Fix loss-making Digital business and turn investment in Specialty Image Sensors into profitability

Action: Turn investment to fast growth and profitability in Automotive MCU

Action: Accelerate revenue growth in Microsystems

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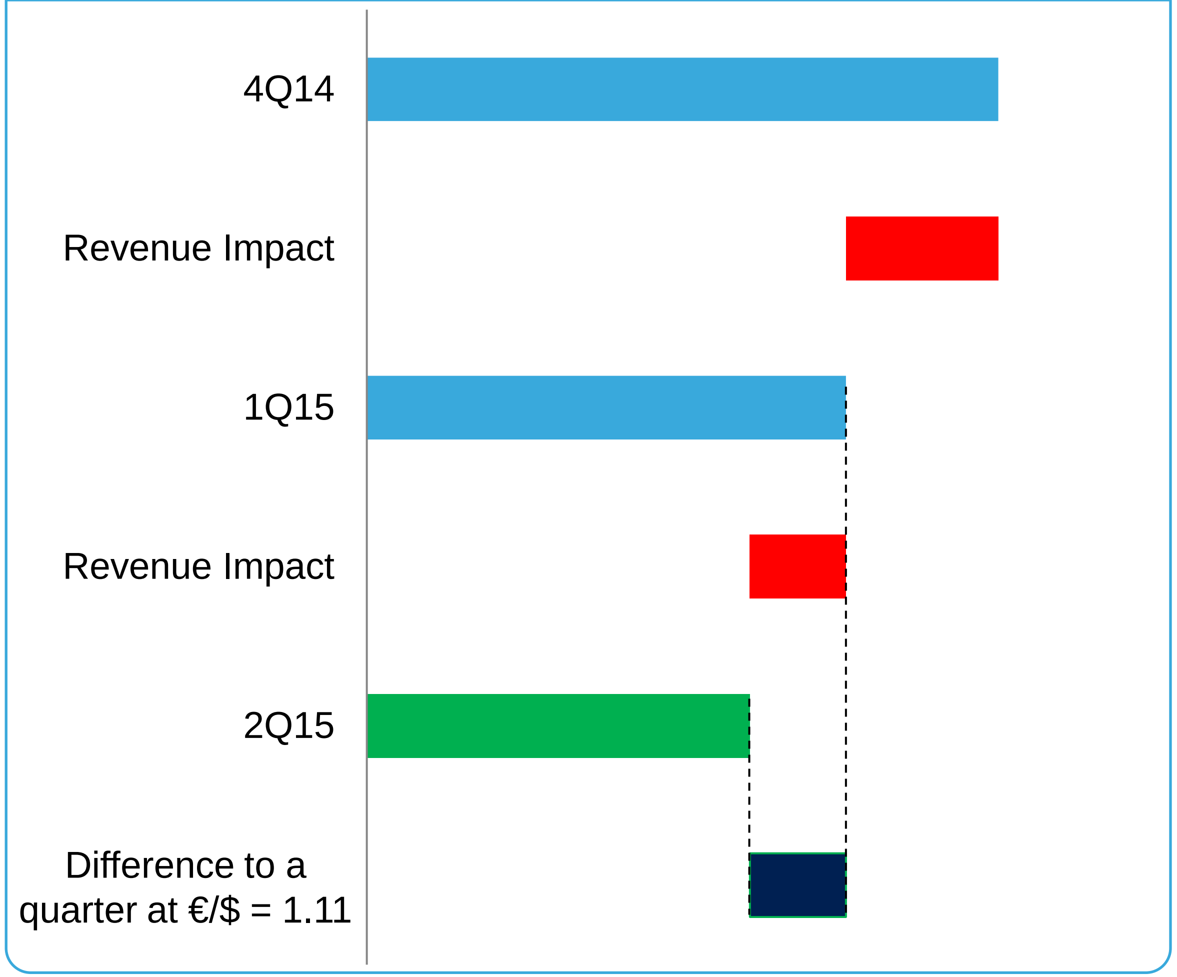
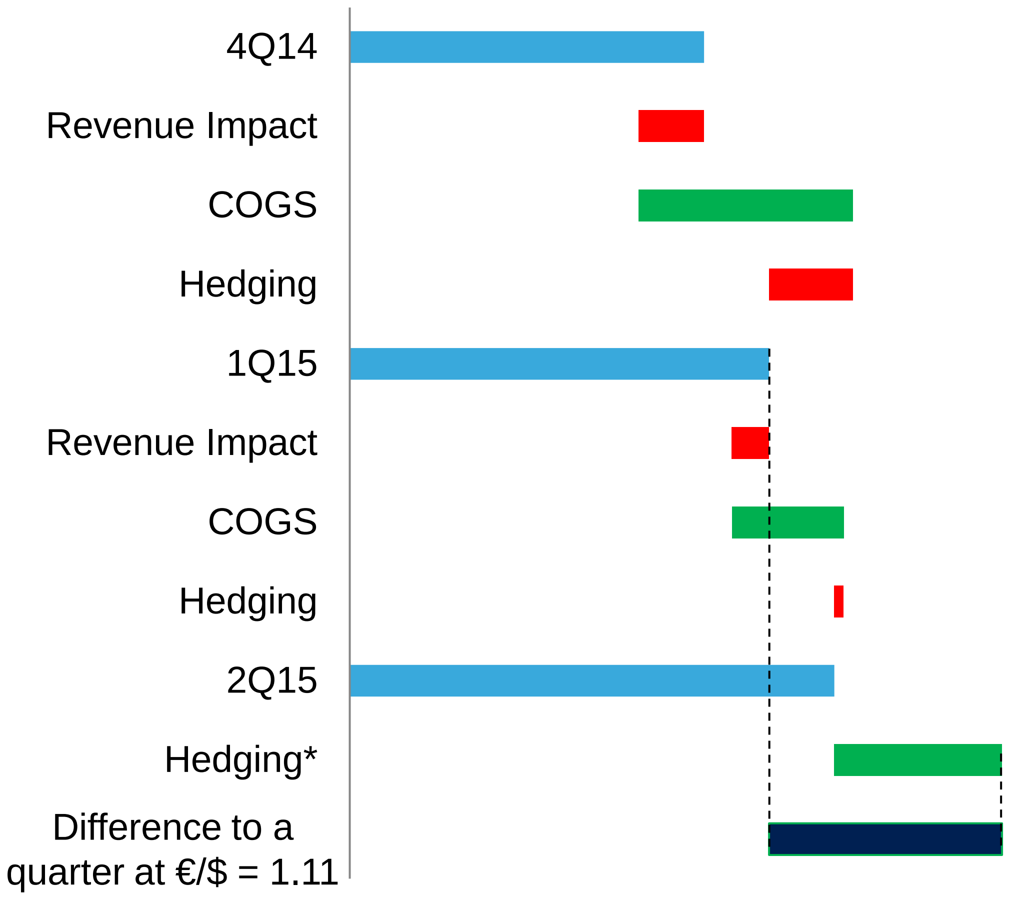
Currency Impact: Most of the Benefits to Come (1 of 2)

Revenues (US$M)



Gross Margin (%)



Benefit from 1Q15 ~ 250bps

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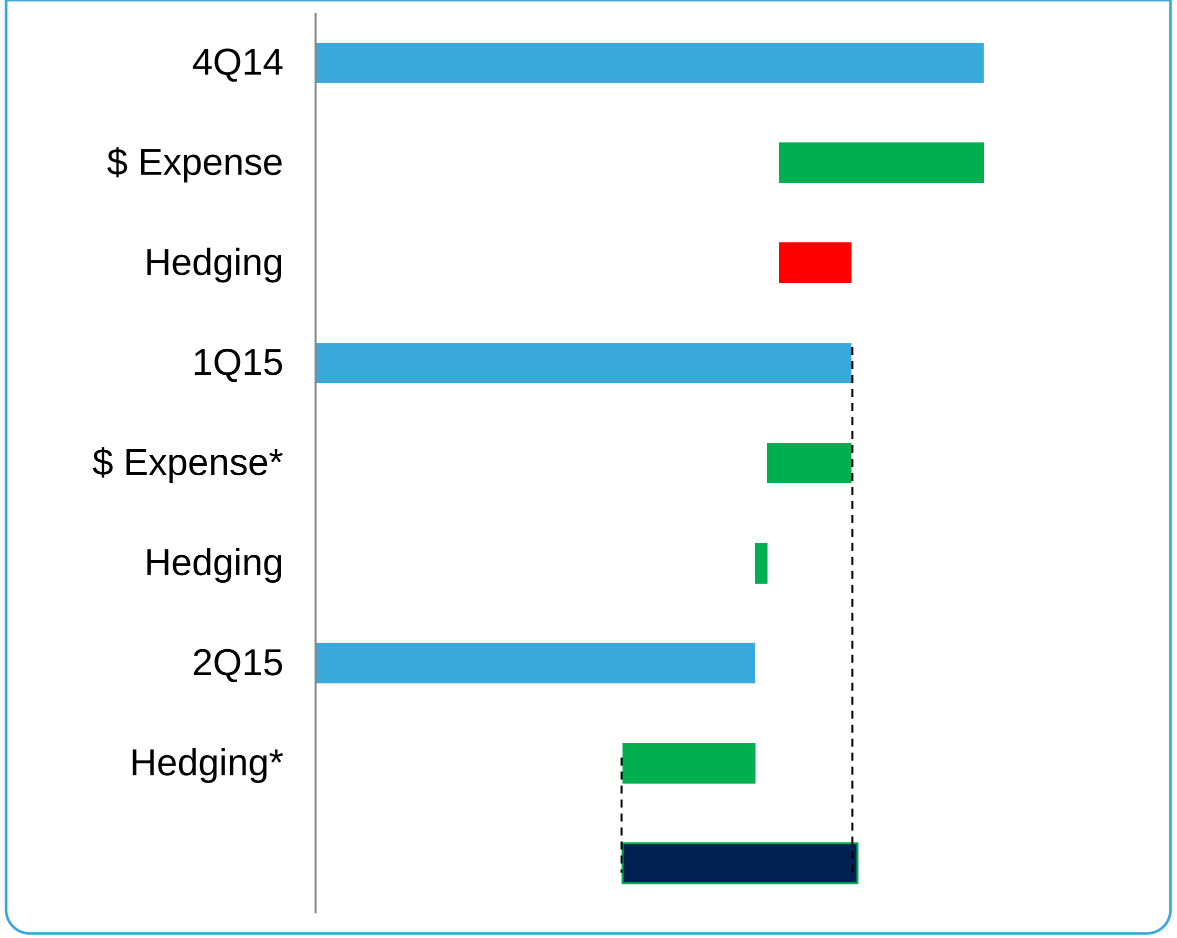
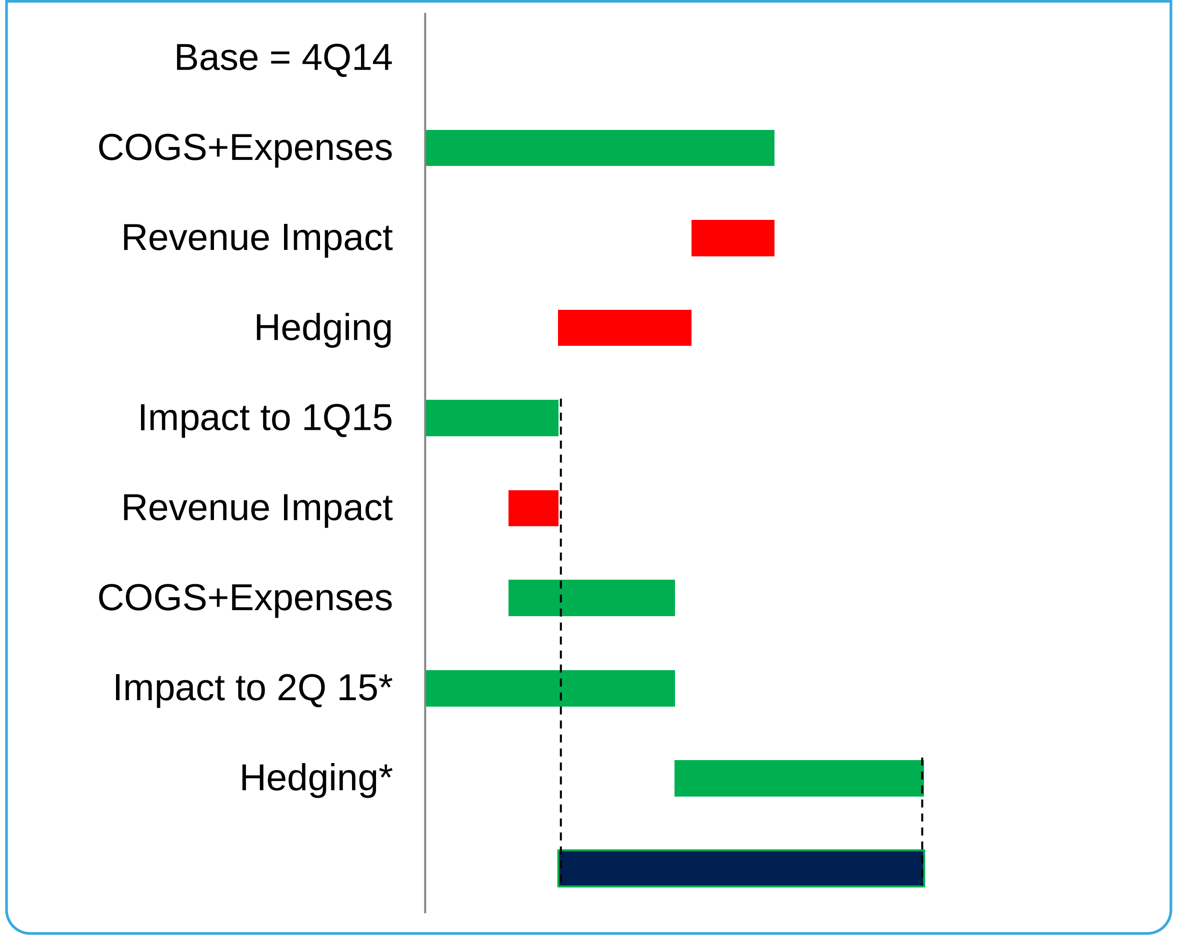
* Estimates based on constant currency rate of €/$ at 1.11

Currency Impact: Most of the Benefits to Come (2 of 2)

Net Operating Expenses (US$M)



Operating Margin Impact (% Points)

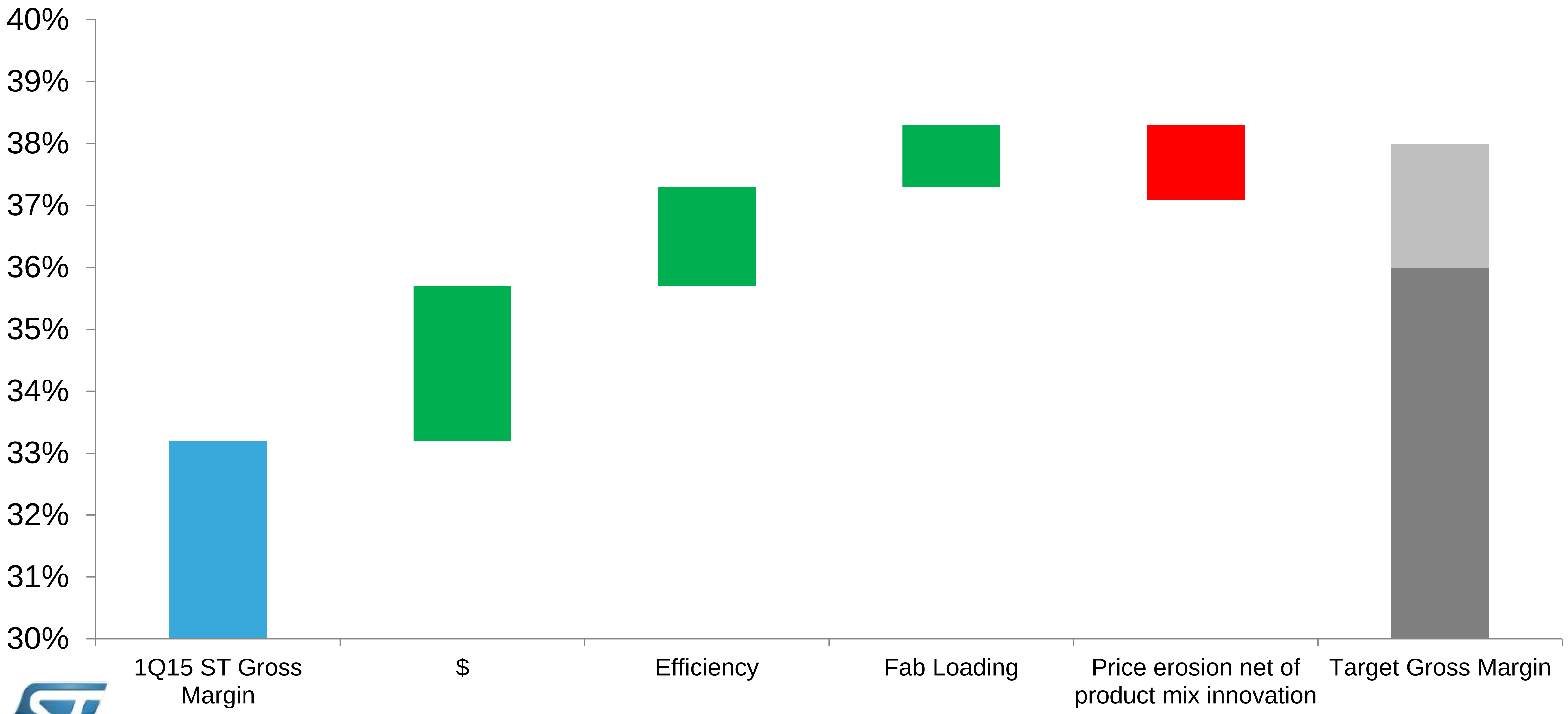


Benefit from 1Q15 ~ $37M

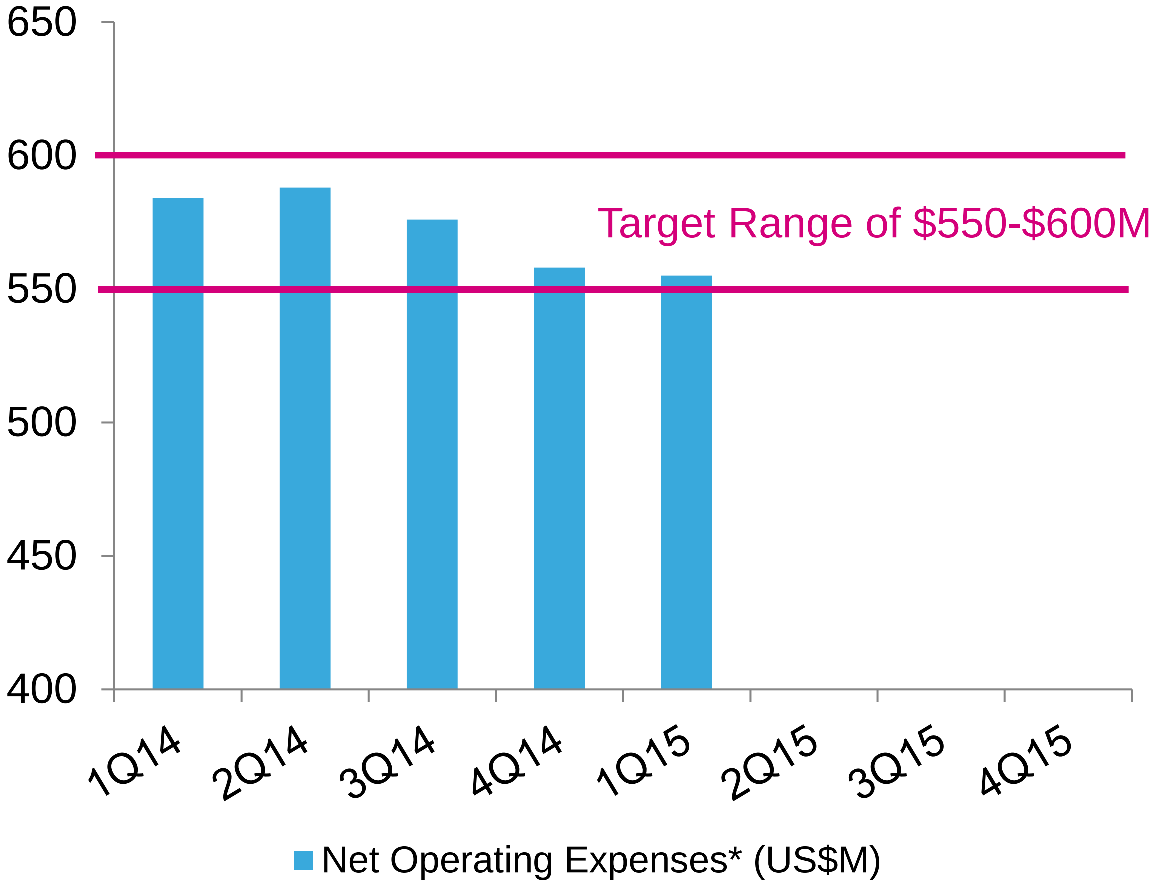
Benefit from 1Q15 ~ 440bps

* Estimates based on constant currency rate of €/$ at 1.11

Key Initiatives to increase Gross Margin



Net Operating Expenses on Target



Net Operating Expenses*

1Q15 SG&A and R&D, net of grants, at $555M

- Combined R&D and SG&A at $591M
- Starting to benefit from stronger $
- EPS cost reduction plan targeting $100M annualized savings:
  - ~30% of target savings in 1Q15 actual

Well in line with low-end of quarterly net operating expenses target of $550-$600M

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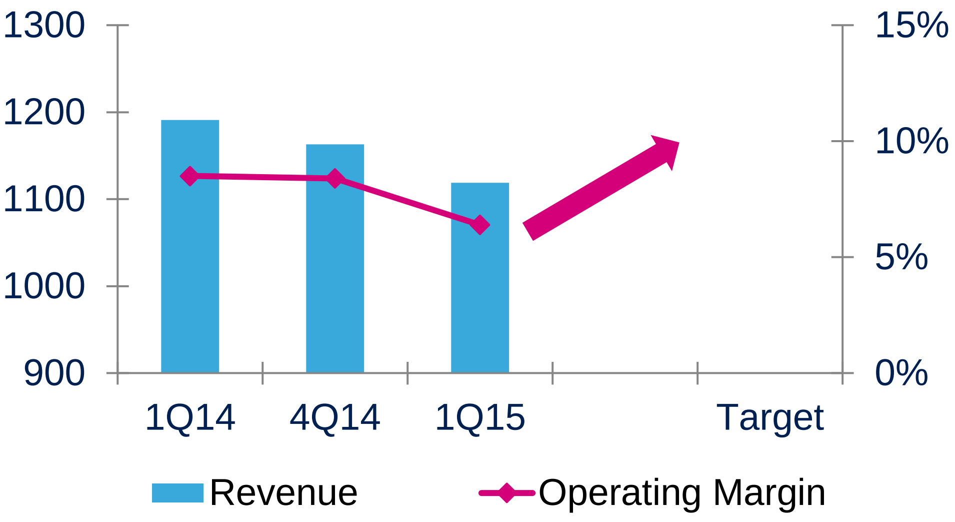
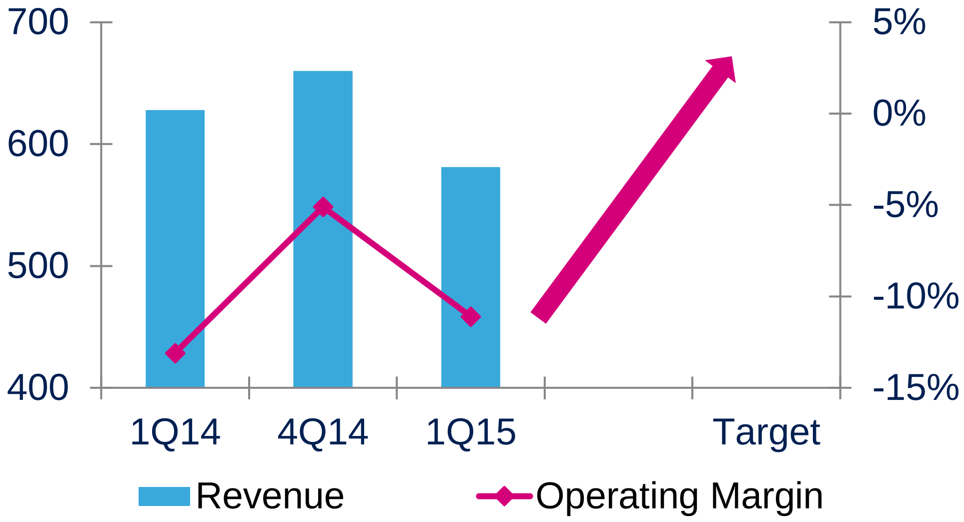
* Net Operating Expenses: R&D + SG&A – recurring R&D grants

SP&A and EPS to support Financial Model

SP&A Operating Margin



EPS Operating Margin



Operating Margin Mid-term Targets

SP&A about 10-15%
IPD from about 10% to mid-teens
APG from about 10% to mid-teens
AMS from a few points to high single-digit

EPS about 5%
MMS maintaining mid/high-teens
DPG to fix current losses

From January 1, 2015, unused capacity charges have been allocated to the associated product segments

Appendix

Financial Performance

In US$M, except EPS	1Q14	4Q14	1Q15
Net Revenues	**1,825**	**1,829**	**1,705**
Gross Margin	**32.8%**	**33.8%**	**33.2%**
Operating Income (Loss) before impairment, restructuring*	**8**	**58**	**10**
Operating Margin before impairment, restructuring*	**0.4%**	**3.2%**	**0.6%**
Net Income – Reported	**(24)**	**43**	**(22)**
EPS Diluted	**(0.03)**	**0.05**	**(0.03)**
Adjusted EPS Diluted*	**(0.01)**	**0.07**	**0.01**
Free Cash Flow*	**(51)**	**208**	**41**
Net Financial Position	**612**	**550**	**512**
Effective Exchange Rate €/$	**1.35**	**1.29**	**1.23**

*See appendix

Pre-Tax Items to Adjusted Earnings*

OPERATING RESULT

NET EARNINGS

In US$M	1Q14	4Q14	1Q15
U.S. GAAP Net Earnings	**(24)**	**43**	**(22)**
Impairment & Restructuring Charges	**12**	**20**	**29**
Estimated Income Tax Effect	**(1)**	**(2)**	**(1)**
Adjusted Net Earnings*	**(13)**	**61**	**6**

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*See appendix

2Q15 Outlook

- **In 2Q15, we expect to increase our revenues by about 3.5% sequentially, with most of our product groups contributing. Gross margin is anticipated to increase by about 60 basis points to 33.8%, including existing hedging contracts significantly mitigating the positive impact from currency**

- 2Q15 revenues are expected to increase about 3.5% on a sequential basis, plus or minus 3.5 percentage points

- 2Q15 gross margin is expected to be about 33.8%, plus or minus 2.0 percentage points.

Outlook based on an assumed effective currency exchange rate of approximately $1.16= €1.00 for 2Q15 and includes the impact of existing hedging contracts. 2Q15 will close on June 27, 2015

Appendix

- **Free cash flow** is defined as net cash from operating activities minus net cash from (used in) investing activities, excluding proceeds from the sale of marketable securities and net cash variation for joint venture deconsolidation. We believe free cash flow provides useful information for investors and management because it measures our capacity to generate cash from our operating and investing activities to sustain our operating activities. Free cash flow is not a U.S. GAAP measure and does not represent total cash flow since it does not include the cash flows generated by or used in financing activities. In addition, our definition of free cash flow may differ from definitions used by other companies.

- **Net financial position** resources (debt) represents the balance between our total financial resources and our total financial debt. Our total financial resources include cash and cash equivalents, marketable securities, short-term deposits and restricted cash, and our total financial debt includes short term borrowings, current portion of long-term debt and long-term debt, all as reported in our consolidated balance sheet. We believe our net financial position provides useful information for investors because it gives evidence of our global position either in terms of net indebtedness or net cash position by measuring our capital resources based on cash, cash equivalents and marketable securities and the total level of our financial indebtedness. Net financial position is not a U.S. GAAP measure.

- **Operating income before impairment and restructuring** excludes impairment, restructuring charges and other related closure costs. It is used by management to help enhance an understanding of ongoing operations and to communicate the impact of the excluded items.

- **Adjusted net earnings and earnings per share (EPS)** are used by our management to help enhance an understanding of ongoing operations and to communicate the impact of the excluded items like impairment, restructuring charges and other related closure costs, net of the relevant tax impact.

Embedded Processing Solutions (EPS)

Jean-Marc Chery

Chief Operating Officer

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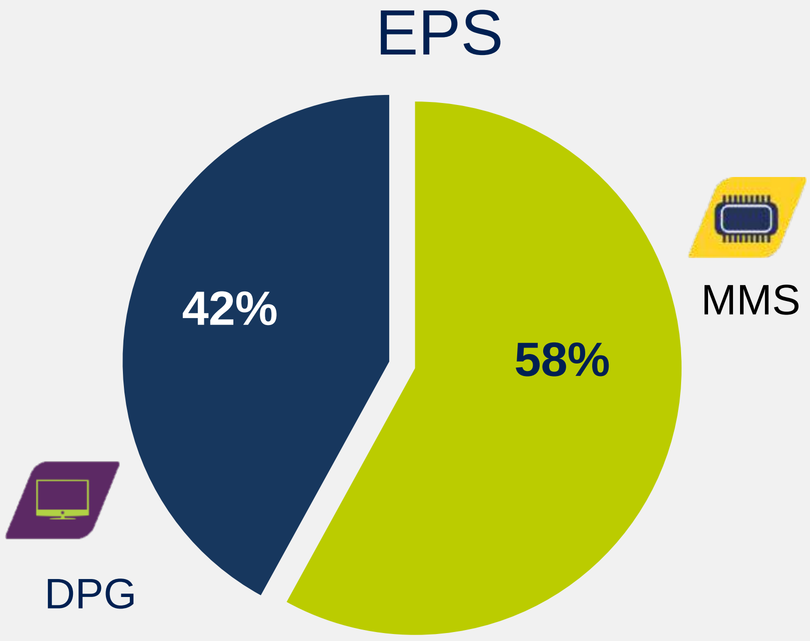
EPS – Embedded Processing Solutions



Total revenues 2014 : $2.61B

-20.2% y-o-y
-4.4% y-o-y excluding
ST-Ericsson legacy products

2 Product Groups

DPG

Digital Product Group

MMS

Microcontroller, Memory & Secure MCU

2 Front-End Manufacturing Sites

Focus on digital CMOS (300mm) & derivative technologies (200/300mm)

Partnerships for process development and manufacturing


Rousset


Crolles

EPS Challenges

Managing two opposite dynamics

MMS
Leading revenue growth & profitability

DPG
Turnaround situation & loss-making

Addressing the DPG Issues

Current focus on growth opportunities

- Rebuilding higher end market position in UHD/HEVC STB & Home Gateway
- Leveraging on FD-SOI and mixed signal/photonics technologies in ASICs for networking, computer peripherals, consumer applications and automotive
- Leveraging on growing and emerging applications in Imaging through differentiated technology

Facing variety of top line issues

- Legacy broadcast STB Business declining faster than expected
- Unexpected cancellation and postponement in important consumer ASIC programs
- Slower market adoption of UHD/HEVC with increasing competition on HD broadcast STB.

Ready to react to changes

Cost saving plan on track
(annualized $100M OPEX savings)

Revised technology roadmap and strategy

DPG product families under scrutiny, exploring options

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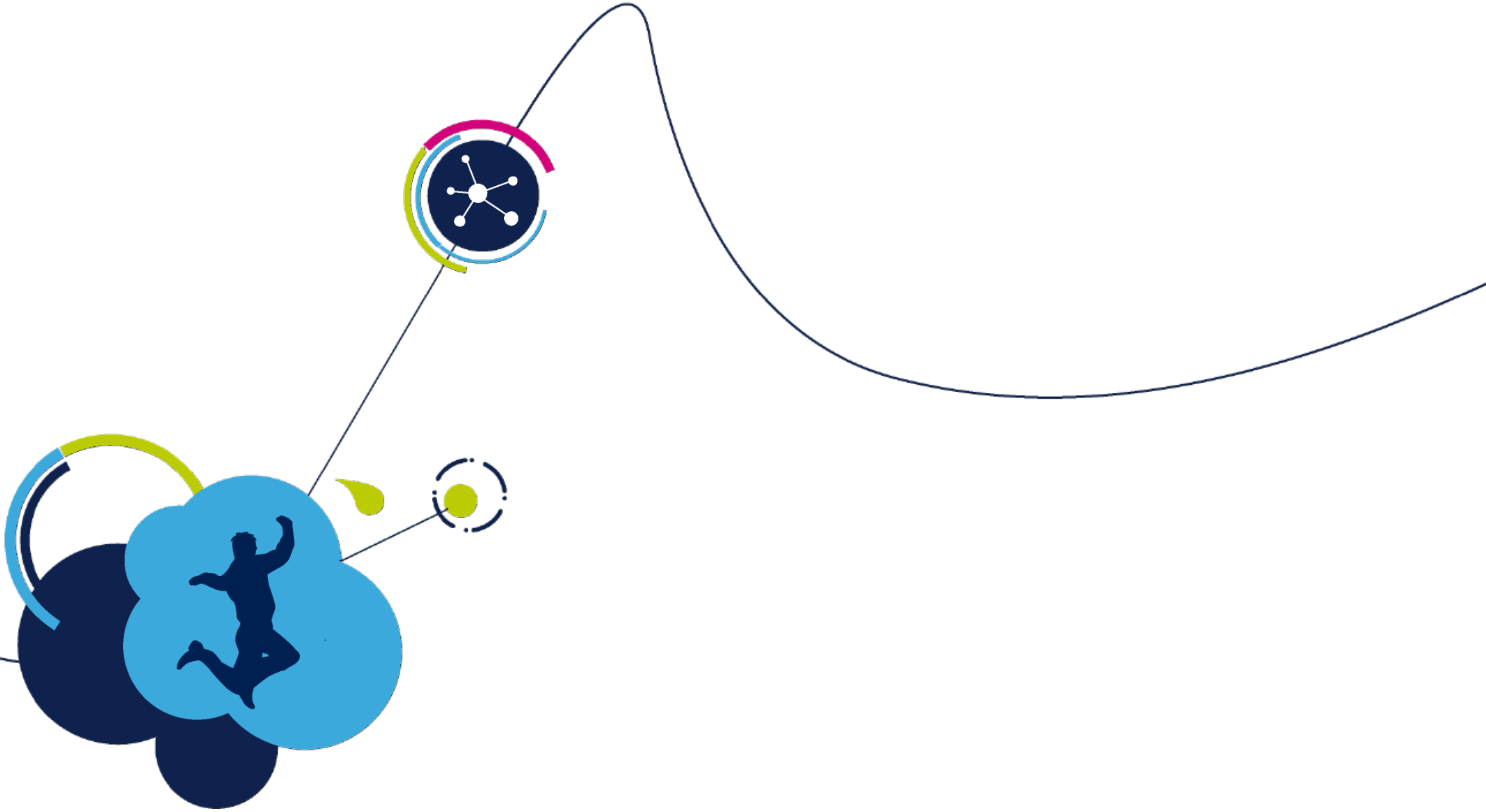

EPS Product Strategy and Portfolio

DPG – Digital Product Group

Products	Key Focused Applications		Strategic Positioning
Consumer ASSP	Broadcast Set-Top Box & connected Client/Servers	Home Gateways, including DOCSIS	• Leadership in the transition to HEVC/UHD Set-Top Box and DOCSIS 3.1 headless gateways and cable modems toward the Smart Home
Digital & Mixed Signal ASIC	Networking ASICs, including FD-SOI and mixed process devices	Others FD-SOI based ASICs for automotive, consumer, industrial applications	• Leadership in high-speed, highly integrated devices for networking and the transition from copper to optical fiber • Leadership in ultra-low power & ultra-low leakage embedded processing solutions
Imaging	Photonic sensors	Specialized imaging sensors	• Leadership in Time-Of-Flight sensors and specialized imaging sensors through close cooperation with key players in consumer, automotive, emerging and fast growing applications

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STB & Home Gateway: Product Portfolio

HOME GATEWAY

Network Access
DOCSIS
Telephony
Routing

CLIENT & SERVER

Content anywhere
High Multimedia performance
Ultra HD

BROADCAST STB

Cost-effective multimarket solutions

Alicante
STiD12x

DOCSIS 3.1

Monaco
STiH4xx

Cannes
STiH3xx

Liege 2
STiH301

Liege
STiH2xx

CL
CableLabs CERTIFIED

MoCA

ULTRA HD

HEVC
H.265 - HIGH EFFICIENCY VIDEO CODING

VP9

ARM Cortex

HD TV 1080p

Complete and cost-optimized HW/SW portfolio

Ad-hoc devices for specific use cases

HW/SW compatibility within each product family

From entry broadcast to high-end HEVC on ARM

Strong ecosystem

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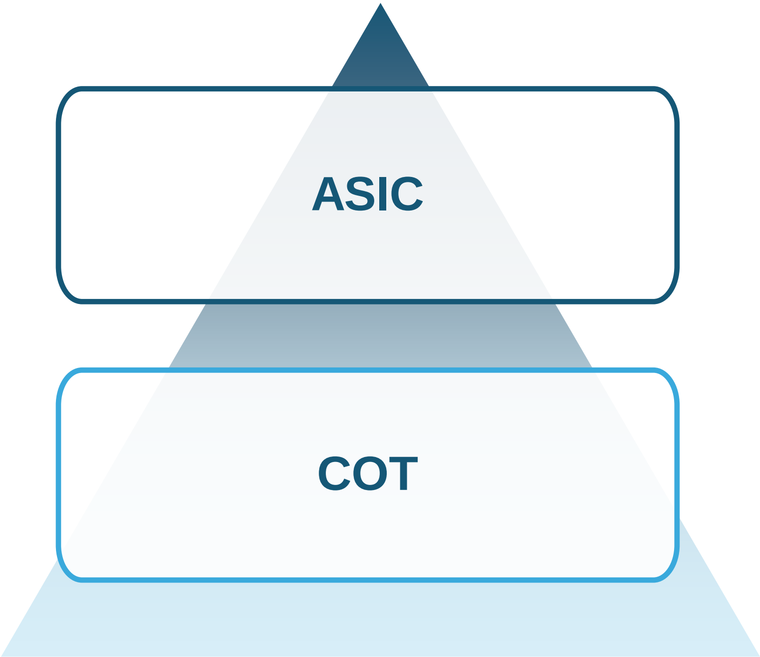
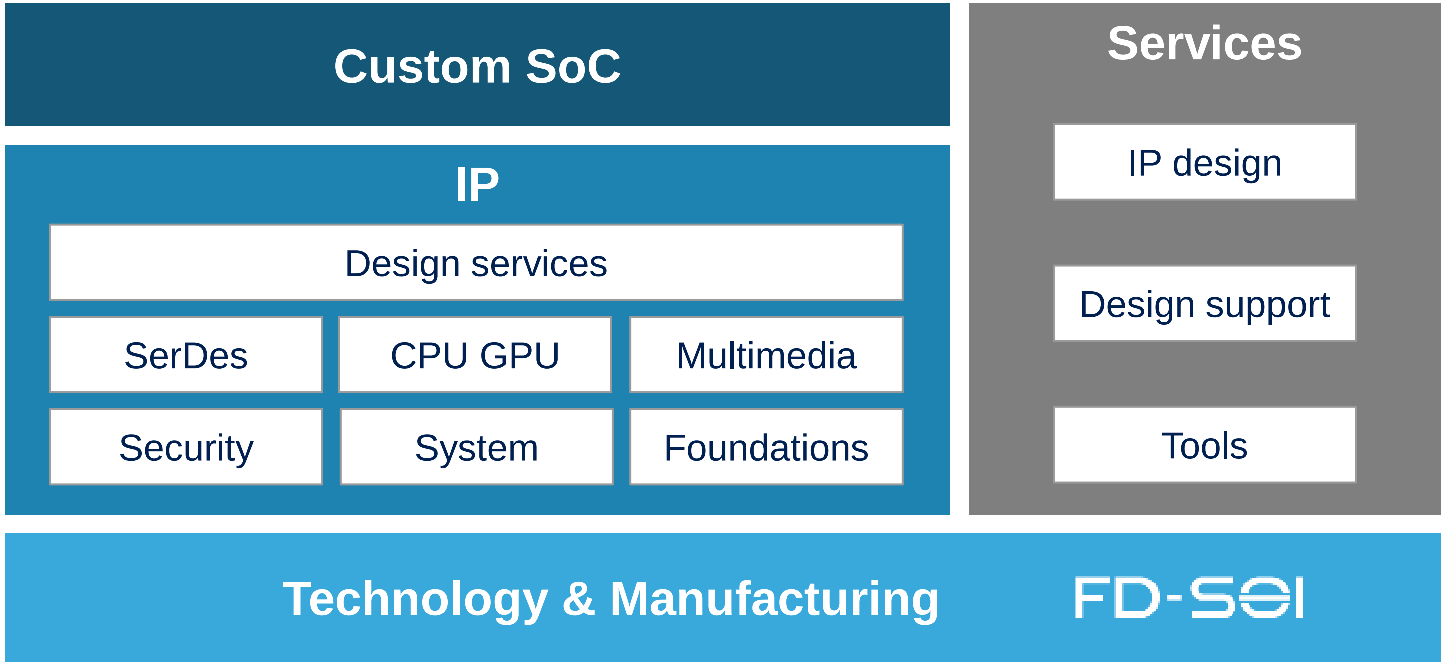
Digital & Mixed Signal ASICs

Flexible Model





Custom SoC

IP

Design services

SerDes | CPU GPU | Multimedia

Security | System | Foundations

Services

- IP design
- Design support
- Tools

Technology & Manufacturing FD-SOI

Consumer

Networking

Computer Peripherals

Digital & Mixed Signal ASICs

IP & Technology Portfolio

MIXED PROCESS & SILICON PHOTONICS

- Best-in-class BiCMOS technology enables multiple applications, including ICs for fiber optic modules
- Fully integrated silicon photonics technology brings savings in bill of material, production throughput, power consumption and space

28/14nm FD-SOI PROCESS

- FD-SOI technology enables mixed analog/digital ICs with high performance, ultra-low power and high resilience to space radiation
- Complete foundation IP, including High Speed SerDes (up to 28GBps) and special memories (TCAM)

40/32/28 nm BULK PROCESS

- Bulk technology enables cost sensitive and high integration ICs
- Complete foundation IP, including High Speed SerDes (up to 14GBps) and special memories (TCAM)

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Imaging Opportunities leveraging Technologies

Proprietary Technologies

Time-of-Flight

Specialized imaging silicon processes and pixels

Imaging processing IP

Differentiated Offering

Photonic sensors

Proximity

Ranging

Gesture

Depth map

Specialized imaging sensors

Custom solutions

Large pixel

Visible & IR

Key Applications & Segments

Hybrid autofocus

User & gesture detection

3D sensing

Consumer devices

Automotive

Emerging applications & new usages

MMS – Microcontroller, Memory & Secure MCUs

Products	Key Focused Applications		Strategic Positioning
General Purpose Microcontroller	Mass Market aiming to serve more than 40,000 customers	Fast growing IoT & wearable markets associated with Secure Microcontroller	• Leadership in 32-bit Microcontrollers market bringing higher computing power, lower leakage and power consumption, more connectivity features and smaller form factors
Memory	Consumer, automotive markets driven by need for parameters storage	Others market requiring contact/contactless interfaces or specific features such as brand protection	• Leadership based on best-in-class product quality and performance and state-of-the-art proprietary process
Secure Microcontroller	Secure identification solutions such as banking, e-government, transportation anticipating contactless migration	Fast growing IoT & Wearable markets	• Leadership in 32-bit Secure Microcontrollers market bringing best-in-class security and contactless with smaller form factors

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STM32

General Purpose Microcontrollers

Wearable & IoT

IoT-based Smart Lock

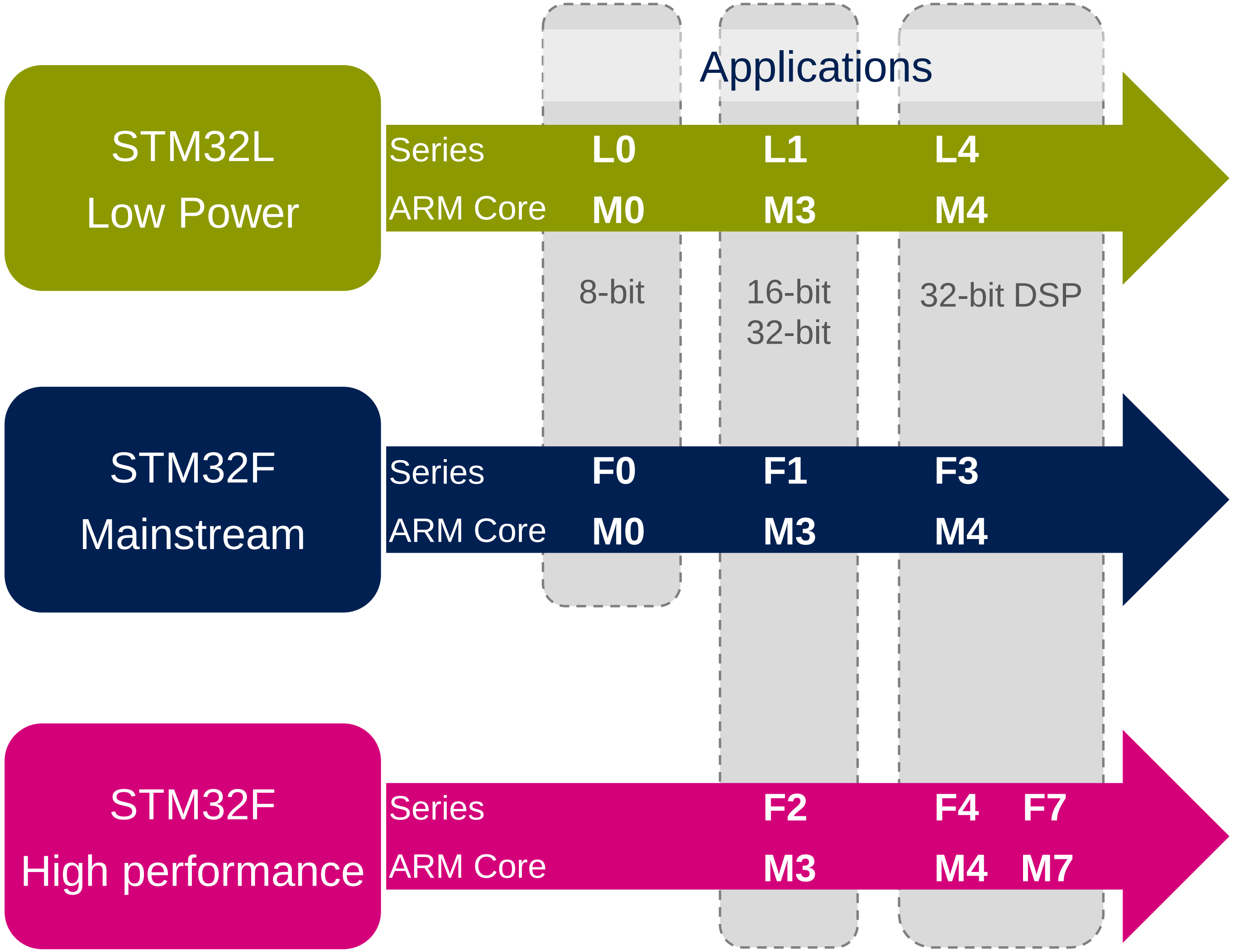
STM32 L1

Market's smallest
wrist heart monitor

Heads-up swimming monitor

General Purpose Microcontrollers

Product Portfolio



Applications

		8-bit	16-bit 32-bit	32-bit DSP	
STM32L Low Power	Series	**L0**	**L1**	**L4**	
	ARM Core	**M0**	**M3**	**M4**	
STM32F Mainstream	Series	**F0**	**F1**	**F3**	
	ARM Core	**M0**	**M3**	**M4**	
STM32F High performance	Series		**F2**	**F4**	**F7**
	ARM Core		**M3**	**M4**	**M7**

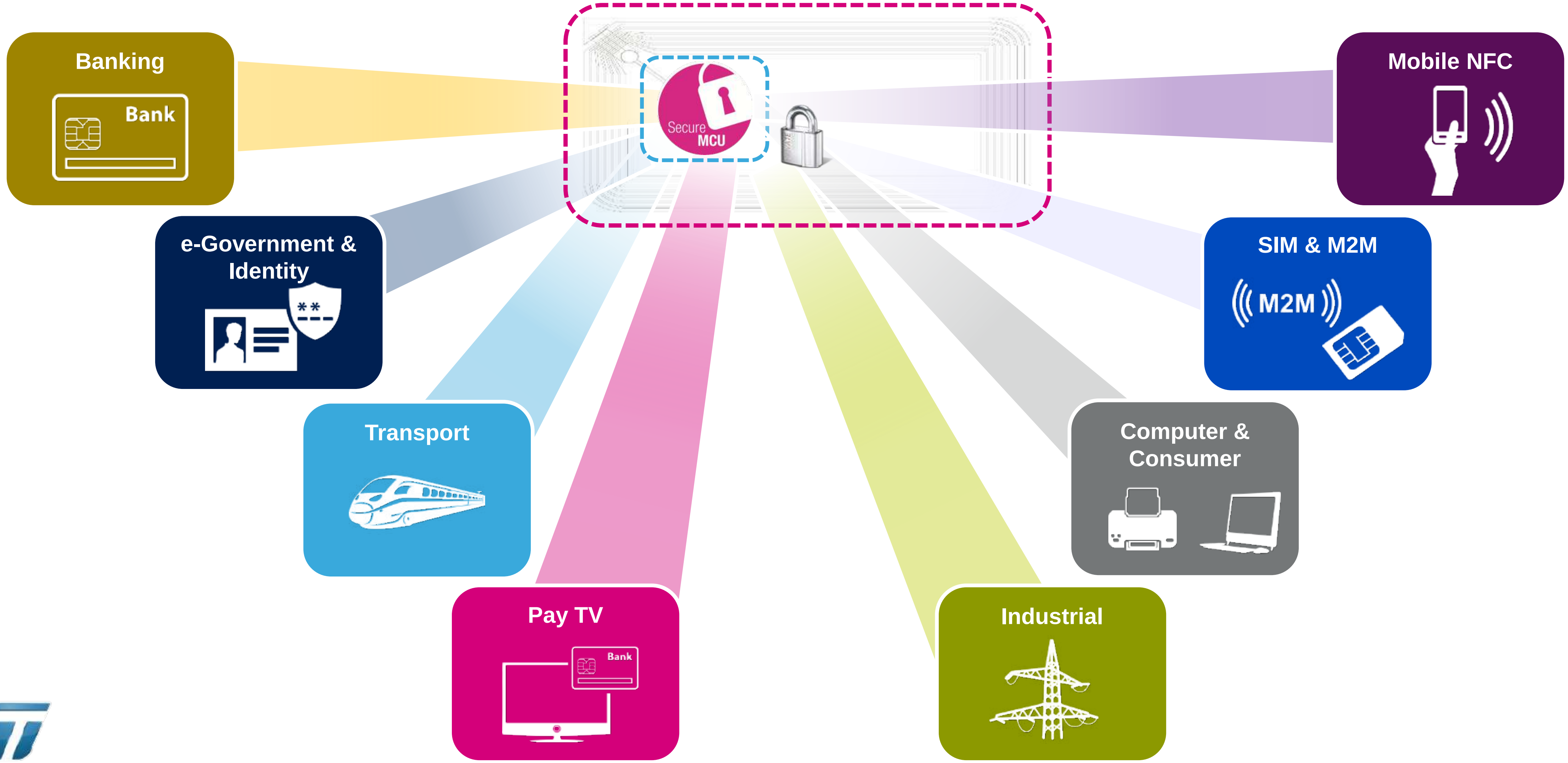
- Battery operated applications
- Ultra-low-power applications
- 8 to 32-bit + DSP applications

- Multi-segments/applications
- Mainstream with >200P/N
- 8 to 32-bit + DSP application

- High-end applications computing power, connectivity
- Bridge to MPU

Secure Microcontrollers

Perimeter



Banking

e-Government & Identity

Transport

Pay TV

Industrial

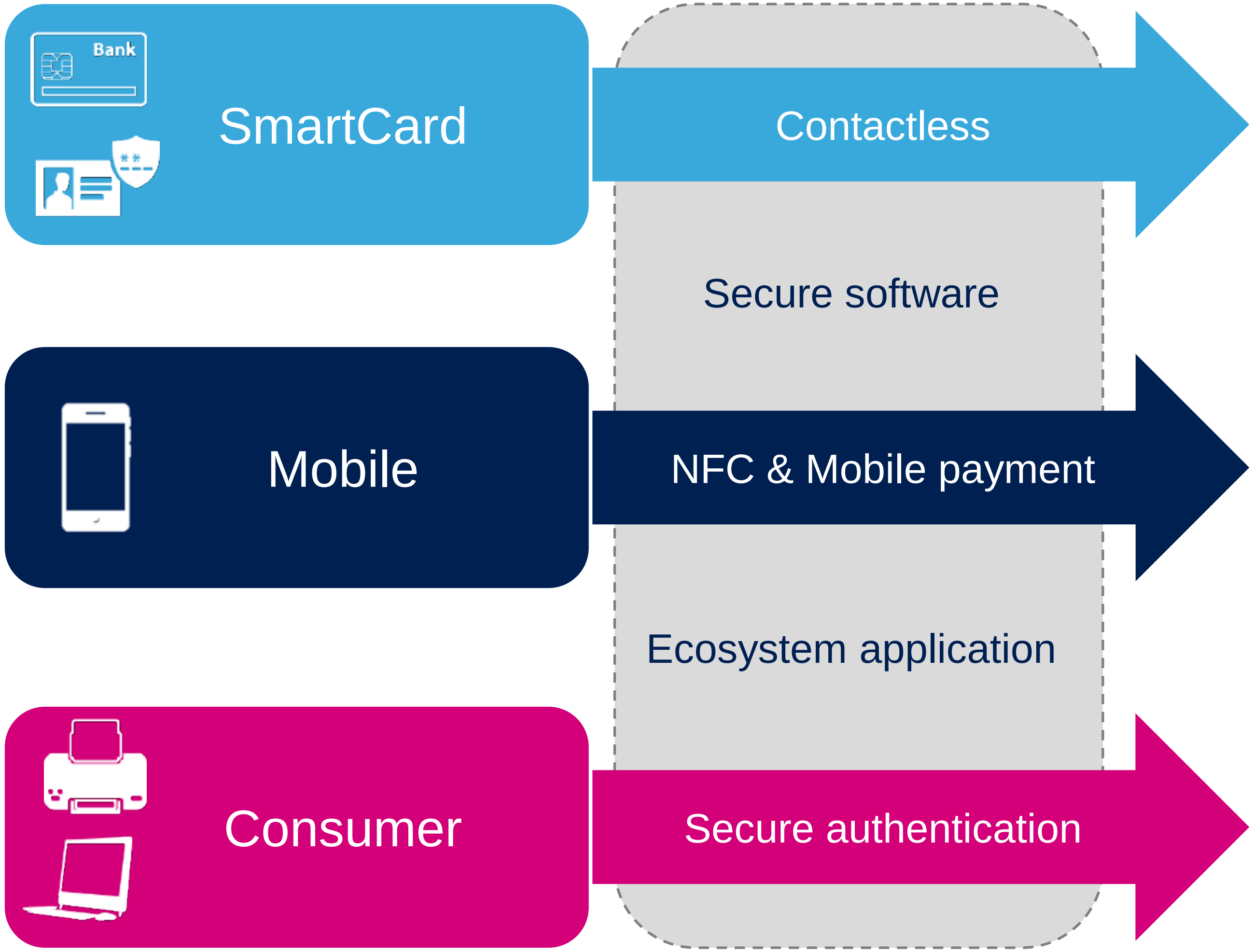
Computer & Consumer

SIM & M2M

Mobile NFC

Secure Microcontrollers

Product Portfolio



Personal security

SmartCard

Contactless

- Contactless platform : ST31
- e-Flash flexibility

Secure software

Embedded security

Mobile

NFC & Mobile payment

- NFC Secure Element : ST33
- NFC full solution: SE + CLF
- Secure SIM : ST33

Ecosystem application

Consumer

Secure authentication

- End-to-end turn key solutions
- Hardware, software & customization

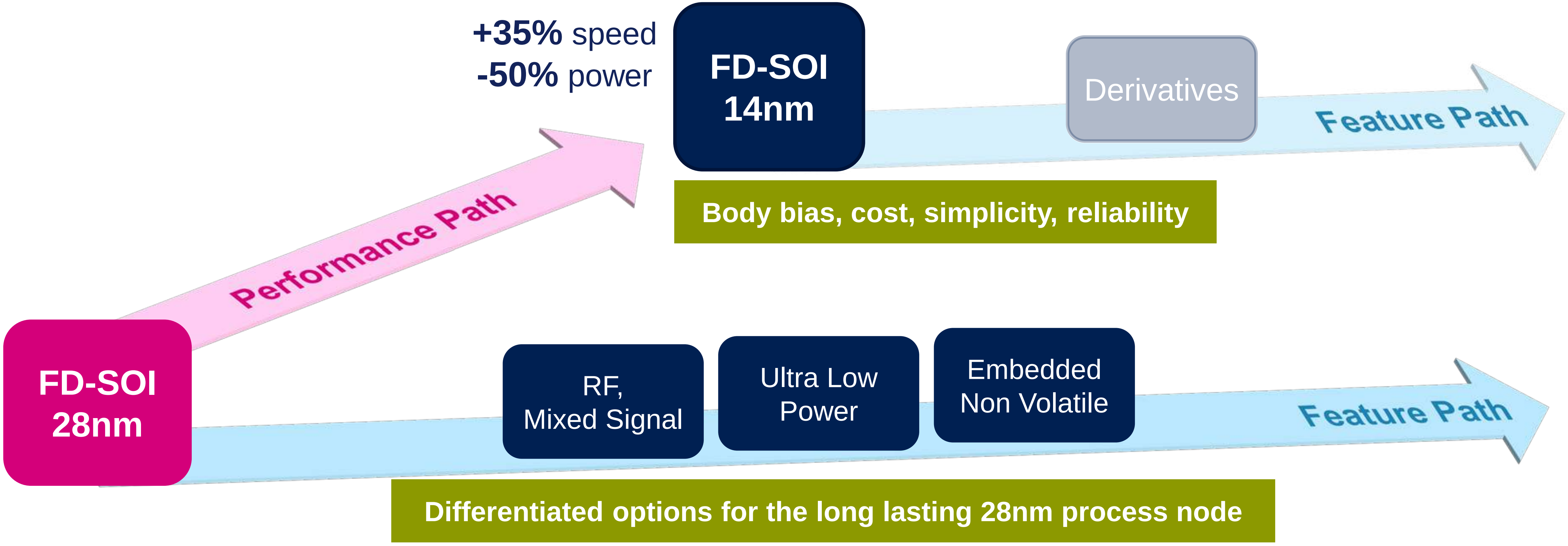
EPS Technology R&D and Manufacturing Strategy

FD-SOI Roadmap

Mass Production

Development

Research



+35% speed
-50% power

FD-SOI 14nm

Derivatives

Feature Path

Body bias, cost, simplicity, reliability

Performance Path

FD-SOI 28nm

RF,
Mixed Signal

Ultra Low Power

Embedded Non Volatile

Feature Path

Differentiated options for the long lasting 28nm process node

FD-SOI Fast Growing Ecosystem

Ecosystem

- Products
- Services
- IP
- Tools & EDA
- Wafer & Foundry

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SAMSUNG
Soitec
cadence
eSilicon
cea leti
SONY
FUJITSU
Mentor Graphics
Open-Silicon
freescale
LATTICE SEMICONDUCTOR
SYNOPSYS
ShinEtsu
QUALCHIP
surecore
alchip
SunEdison SEMICONDUCTOR
ciena
VeriSilicon
KEYSIGHT TECHNOLOGIES
SYNAPSE design

Addressing Digital & Mixed Signal Markets

IoT, Wearable

Consumer

Automotive

Infrastructure

Smartphone

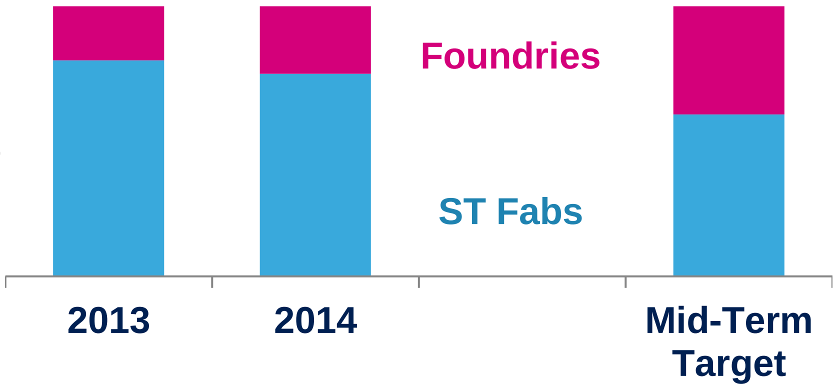
Differentiated Technology Roadmap

eNVM CMOS	**GP/secure** **Automotive**	40nm NOR	28nm FD-SOI
High-Speed Mixed Signal	**RF SOI foundry** **BiCMOS** **Integrated Photonics**	Ultra-Linear RF BiCMOS 55nm PIC 25G	Integrated RF FEM BiCMOS 28nm PIC 56G CWDM
Imagers	**Specialized Imaging**	Gen 1	Gen 2 3D

EPS Manufacturing Strategy

- Multiple sourcing through technology & manufacturing partnerships
- Rousset / Crolles clustering
- Crolles 300mm increase of scale on differentiated technologies according to demand

Targeting 40% outsourcing



Technology		Driver/First	Second
CMOS Bulk	≥40nm	Crolles 300	Foundry
	<40nm	Foundry	Crolles 300
CMOS FD-SOI	28nm	Crolles 300	Foundry
Differentiated Imaging		Crolles 300	
BiCMOS	≥90nm	Crolles 200	
	<90nm	Crolles 300	
Si Photonics		Crolles 300	
RF SOI		Crolles 200	Crolles 300
HCMOS9A		Crolles 200	Crolles 300
eNVM	≥90nm	Rousset 200	Foundry
	<90nm	Crolles 300	

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Takeaways

- EPS managing two opposite dynamics
  - MMS leading revenue growth and profitability
  - DPG product families under scrutiny, exploring options but business as usual is no longer an option
- Differentiated and focused technology roadmap driving internal manufacturing volume

Ready to react to changes

Sense & Power and Automotive (SP&A)

Georges Penalver

Corporate Strategy Officer

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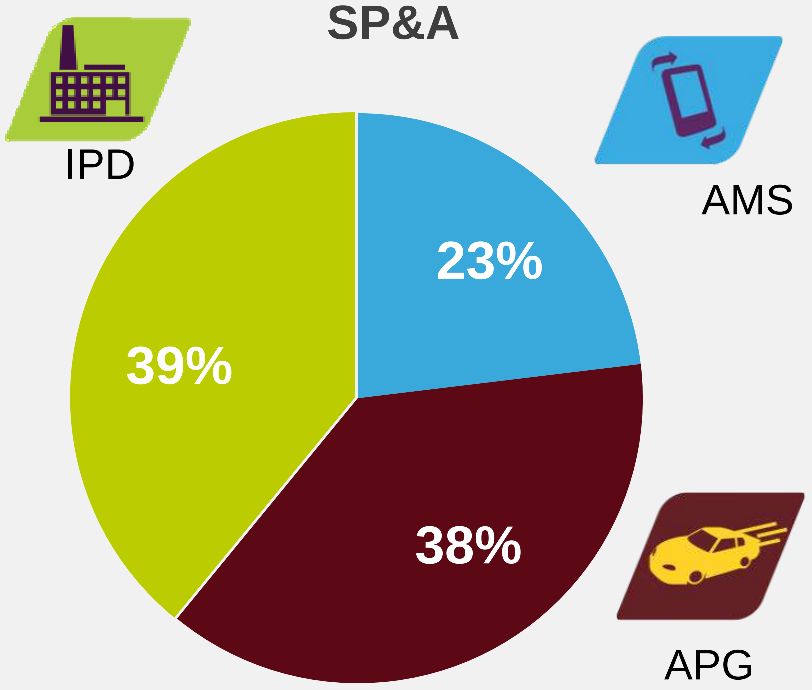
SP&A – Sense & Power and Automotive



Total revenues 2014 : $4.77B

3 Product Groups

AMS

Analog, MEMS and Sensors

IPD

Industrial & Power Discrete

APG

Automotive Product Group

4 Front-End Manufacturing Sites

Focus on analog, power and MEMS technologies


Agrate

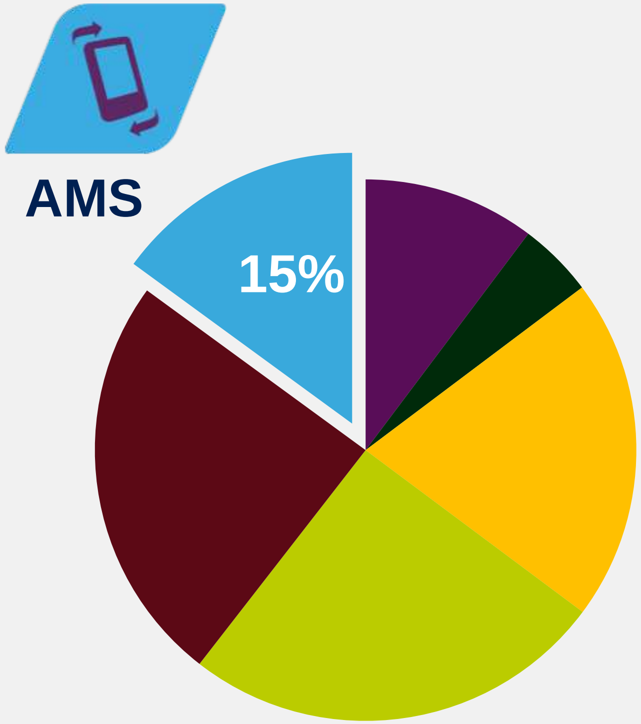

Tours


Singapore


Catania

AMS – Analog, MEMS & Sensors

Contribution to ST revenues FY14



Portfolio

MOTION SENSORS
Accelerometer, gyroscope, Magnetic sensor

MICROPHONES
Analog & Digital

ENVIRONMENTAL SENSORS
Pressure, UV

ACTUATORS
Fluidics MEMS
Micro-Mirror

Sensor Hub & Sensor Fusion

TOUCH
FingerTip

LOW POWER ANALOG
Standard Analog
High-end Analog

RF
Bluetooth, SubGhz, Wi-Fi

AMS – Strategy

Back to growth, Diversification and addressing New Markets

Application-driven Innovation

- Continue to differentiate our industry leading products (motion MEMS, microphones, touchscreen ..)
- Adapting existing technologies to new uses (e.g. fluidic)
- New technologies for existing markets (Thin-film piezo)
- New technologies for new markets (MEMS µmirrors)

Customer & Market Diversification

- Beyond the top customers
- Increasing footprint in Greater China
- Broader reach through distribution
- Longer-term position build up in automotive

Technology & Partnerships

- Retain strong, differentiated technology portfolio with in-house manufacturing for fast ramp and supply security
- Partnerships to accelerate time to market and build-up of new skills and competences

Portfolio Diversification

- Motion MEMS for OIS and pedestrian navigation
- Expanding in new areas (environment & microphones)
- New generation of touch screen controllers
- Products for automotive and industrial
- MEMS actuators (Thermal, Piezo, Electrostatic)
- Investing in low power Analog and RF to grow in IoT

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AMS – Strategy Execution

2012-2015 Revenue evolution drivers

- ⬅ Consumer motion MEMS
- ⬅ Standard Analog & Logic (pruning)
- ⬅ Inkjet
- ➡ µMirrors
- ➡ Automotive/Industrial MEMS
- ➡ Touchscreen and High-End Analog
- ➡ MEMS Microphones

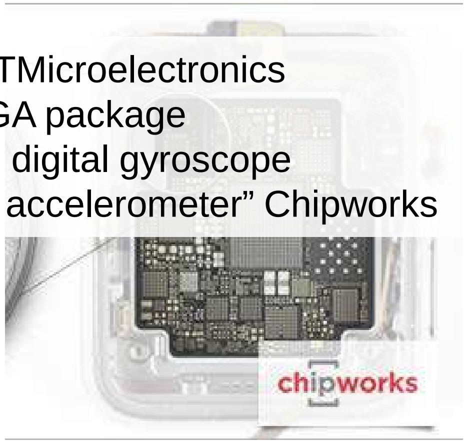
2015 Focus

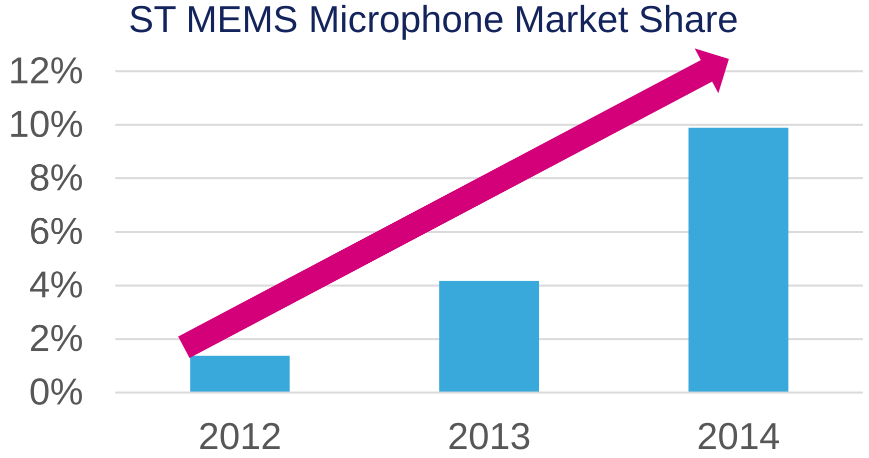
- Grow **new generation 6-axis ultra-low power motion MEMS** with key customers
- Continued expansion of **touchscreen controllers** & **MEMS microphones** business
- Wider adoption of **environmental sensors**
- Broadening our **customer base in China**
- **MEMS micro Mirrors** in PC applications
- Addressing **Mass Market** through STM32 Open Development Environment and Open SW solutions
- **Automotive MEMS** ramp up
- **Bluetooth Low Energy** for Internet of Things

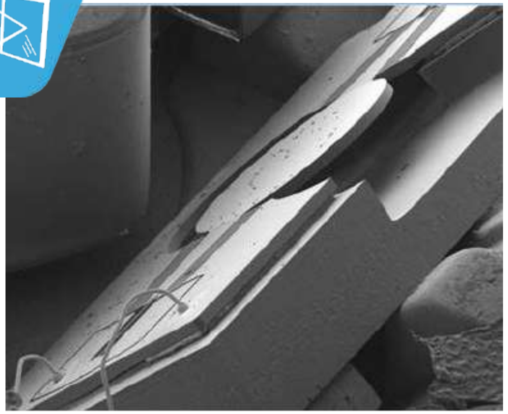
Back to year-over-year quarterly growth starting in 2Q15

AMS – Strategy in Action

"Brand new STMicroelectronics 3mmx3mm LGA package featuring a 3D digital gyroscope and 3D digital accelerometer" Chipworks







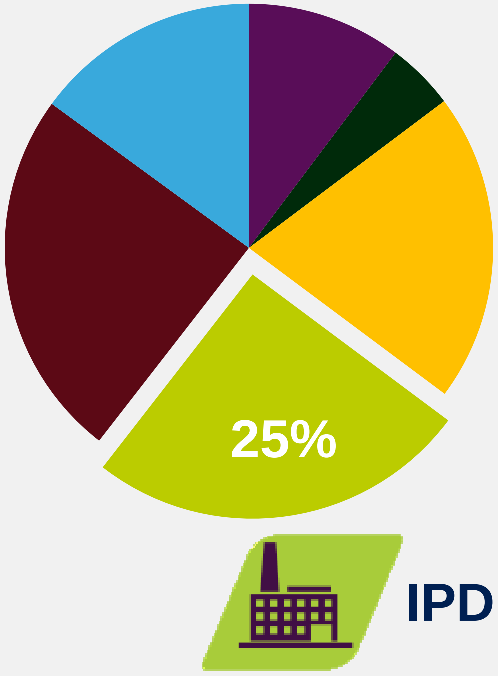
Intel Realsense™

New Touchscreen technologies for flagship smartphones

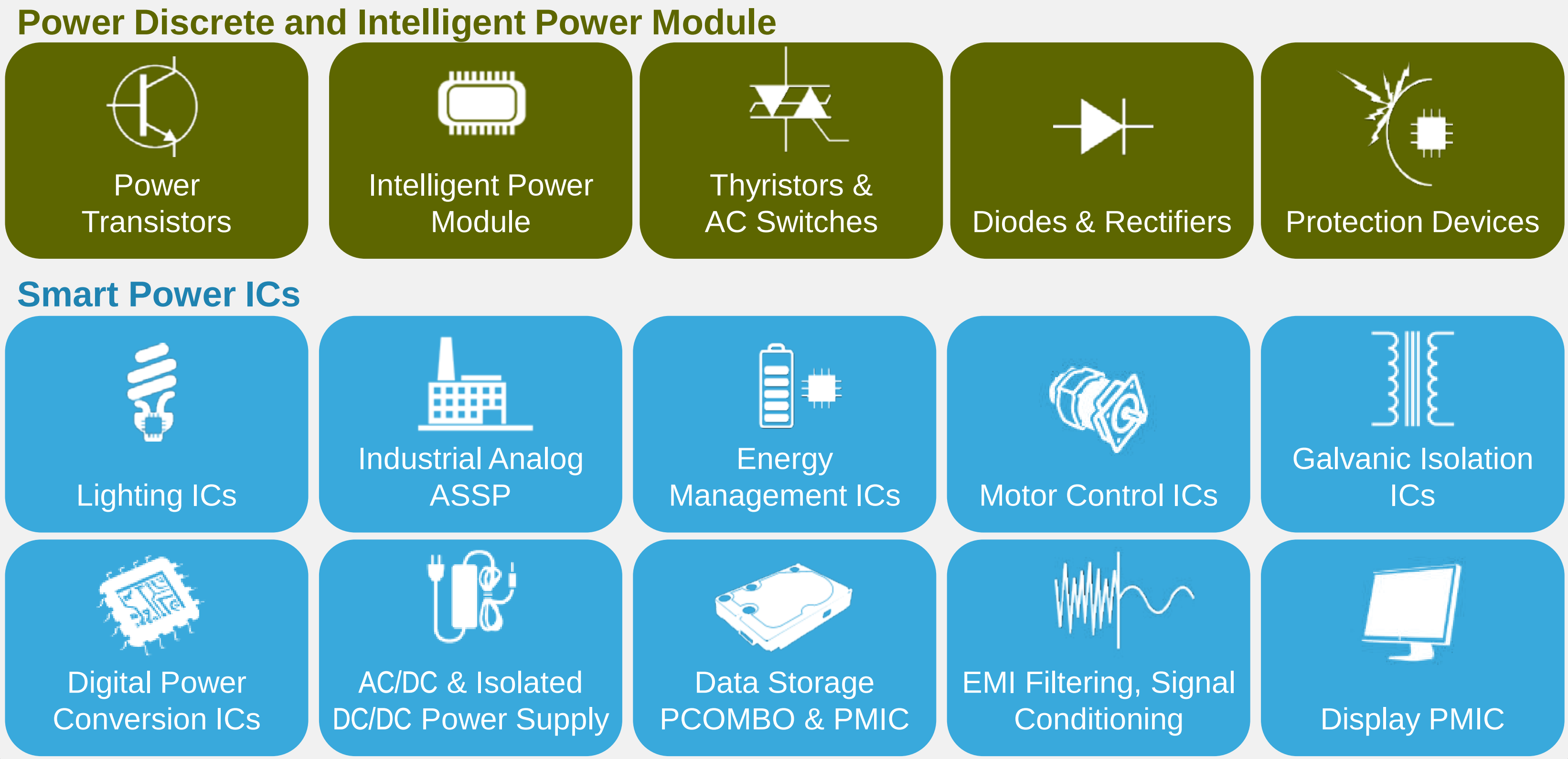
Source : IHS, ST

IPD – Industrial & Power Discrete

Contribution to ST revenues FY14



A Complete Portfolio for Power Applications



Power Discrete and Intelligent Power Module

- Power Transistors
- Intelligent Power Module
- Thyristors & AC Switches
- Diodes & Rectifiers
- Protection Devices

Smart Power ICs

- Lighting ICs
- Industrial Analog ASSP
- Energy Management ICs
- Motor Control ICs
- Galvanic Isolation ICs
- Digital Power Conversion ICs
- AC/DC & Isolated DC/DC Power Supply
- Data Storage PCOMBO & PMIC
- EMI Filtering, Signal Conditioning
- Display PMIC

IPD – Strategy

Leverage technology & portfolio to target fastest growing markets

Targeting the fastest growing Markets

- **Portable** - Power management & interfaces
- **Automation** - Motion control
- **Power Conversion** - Digital power & LED lighting, server power supply
- **Energy Management** - Energy monitoring & harvesting, power line modem, electric and hybrid vehicles

Reinforce Market Position

- Reinforce position and increase share in major accounts
- Customer base expansion in mass market
- Increase efforts in the Chinese market

Differentiated Technology Portfolio

- Smart Power - Advanced BCD
- Power Discrete, SiC and GaN
- Tunable antenna
- Miniaturized packages (Flip Chip, Wafer Scale)
- Proprietary IP for mixed Digital-Analog designs

Strengthening Portfolio in Key Areas

- Expanding Smart Power for industrial, server and portable
- New Power Discrete & Intelligent Power Module families
- Filtering and protection for wireless

Targeting solid and growing Applications

Market Boosters

Cloud | Industry 4.0 | IoT | Energy

Power Conversion

High-efficiency and power density

- Digital Power Supply
- Server Power Supply
- LED Lighting

$8.7B*

Automation

Efficient, safe, comfortable, secure

- Motion Control
- Factory Automation
- Home & Building Automation

$7.1B*

Portable

Miniaturized, ultra-low power & high-efficiency

- Display Power Management
- Chargers
- Filtering & Protection
- HDD and SSD

$4.7B*

Energy Management

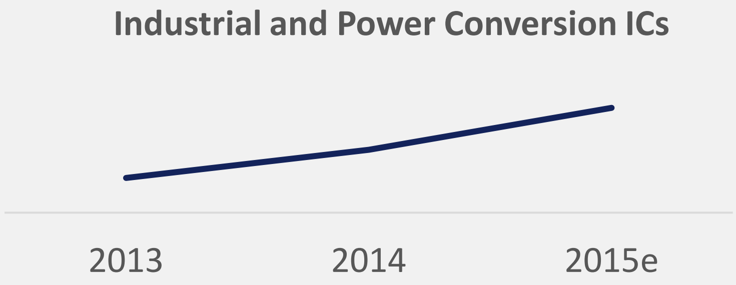
Generation, Distribution, Storage and Control

- Energy Monitoring & Harvesting
- PLM Communication
- Electric and Hybrid Vehicle

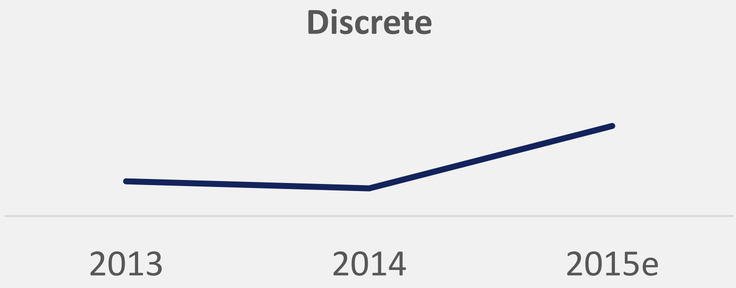
$2.2B*

*2015 TAM, Source : IHS

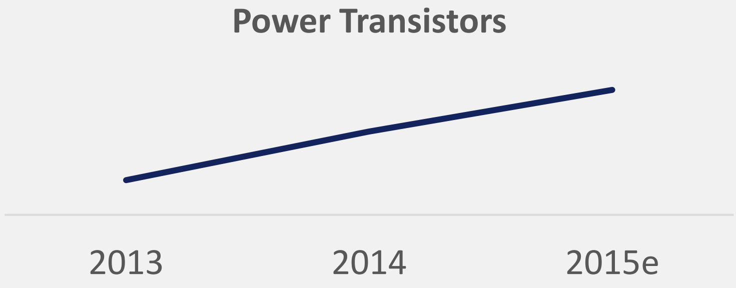
Growing across all Product Lines in 2015



- PMICs for AMOLED in tablets and smartphones
- Digital controllers for lighting and power conversion
- PMICs for Servers
- Motion control and factory automation ICs



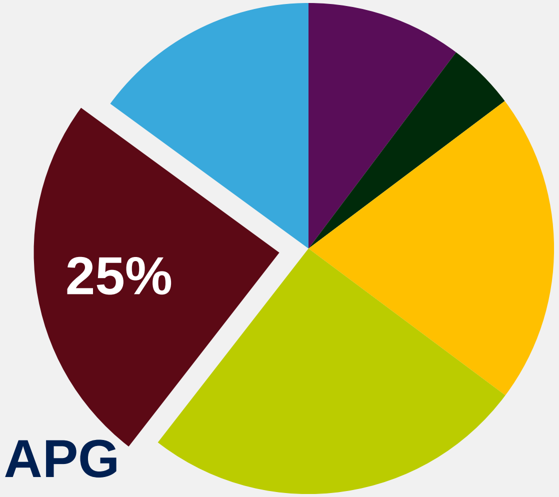
- RF Modules with RF Couplers and Filters for mobile
- SiC Diodes in servers, telecom and automotive
- SCR and high performance rectifiers for energy management



- Low Voltage Trench MOSFETs for industrial, servers and automotive
- IGBTs and Intelligent Power Modules
- High Voltage Super Junction and SiC Transistors for energy management and EHV

APG – Automotive Product Group

Contribution to ST revenues FY14



Portfolio

Infotainment

Telematics & Connectivity

Car Entertainment

Body electronics

Door modules, Steering

Lighting, Wipers, BCM

Chassis

Braking Vehicle control

Passive Safety Active safety

Powertrain

Thermal Engine Electrical Engine

Transmission

APG – Strategy

Driving Innovation in Automotive

- The car is a technology hub
- ST driving innovation in automotive focused on:
  - Car electrification and fuel economy
  - Autonomous driving system and Active Safety
  - Connected car and infotainment
- Addressing digital in the car

Customer relations, China, partnering

- Continued strong customer relationships (EU, Japan, US)
- Dedicated approach for China
- Strengthened customer support for our complex functions
- Extend partnerships with car makers to maintain leading edge innovation level

Manufacturing & Technology Key

- Leverage independent manufacturing
- Keep leadership in smart power technologies on lithography and cost
- Use eFlash proprietary technology as a key differentiator
- Leverage RF technology to gain market share on Active Safety complementing our vision-based processor offer

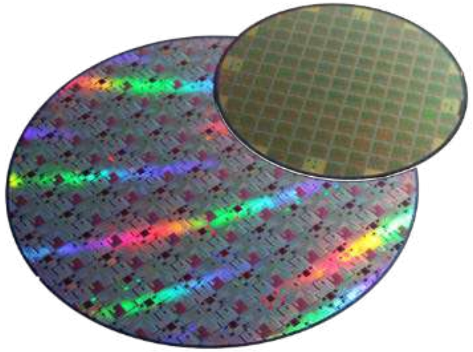
Flexible Product Portfolio

- Keep leadership in our traditional application perimeter
- Expand coverage on fast growing Automotive applications
- Keep ASIC leadership maintaining strong innovation level
- Turn strong 32-bit microcontrollers design win pipeline into double-digit sales growth
- Extend the offer with an ASSP product family to serve the mass market and emerging countries

APG – Strategy Execution

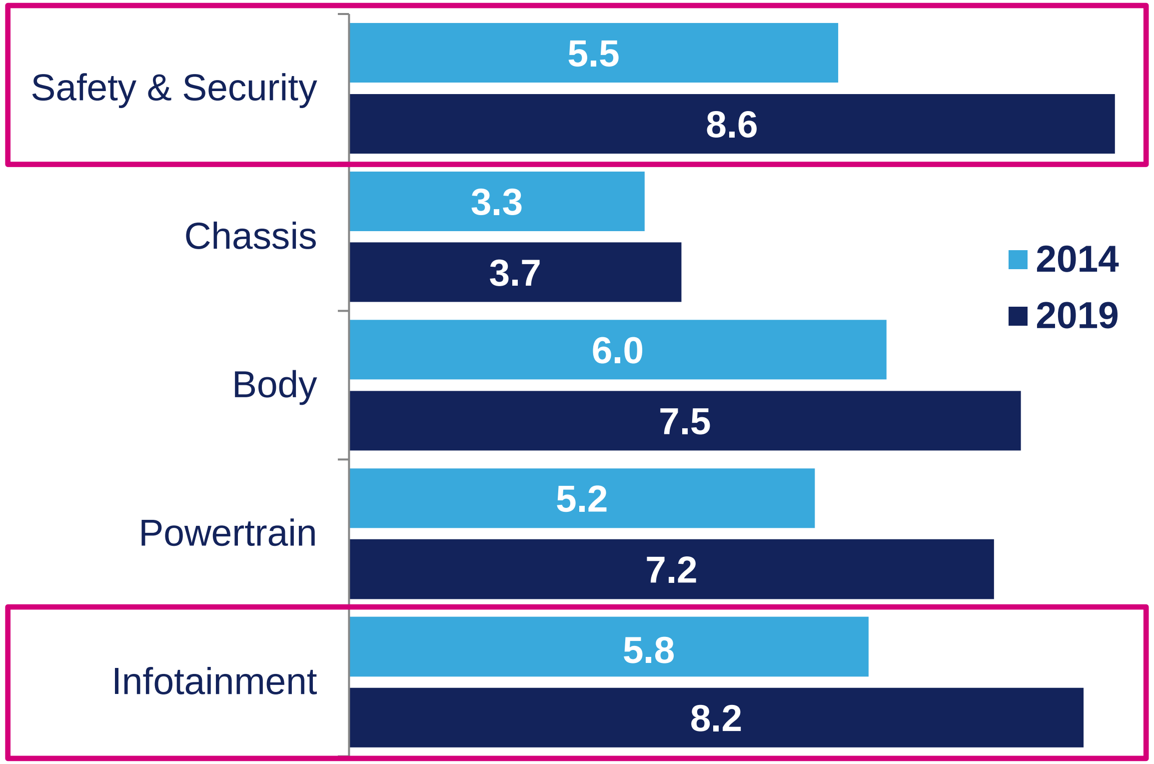
2015 Focus

- **Active Safety** (camera and radar-based) products, thanks to growing penetration of these products in the market, also leveraging our FD-SOI technology
- Continue to gain market share in **32-bit microcontrollers,** thanks to our strong design-win pipeline with a double digit growth
- Further **broadening of customer base** with distribution and in the mass market, leveraging our capability to support full system development in automotive
- Growing revenues derived from **leading-edge technologies**: 40/28nm embedded flash on 300mm, 110/90nm smart power, 110nm VIPower, 28nm FD-SOI



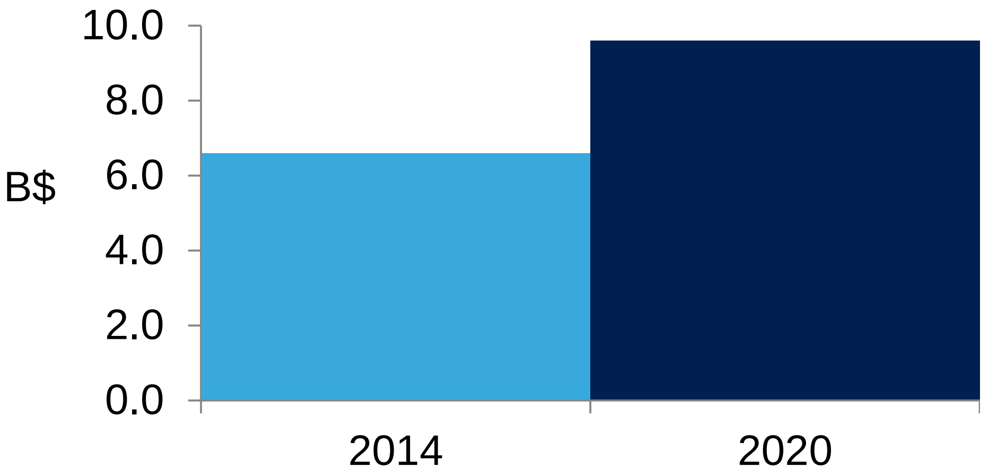
Digitalization in Automotive

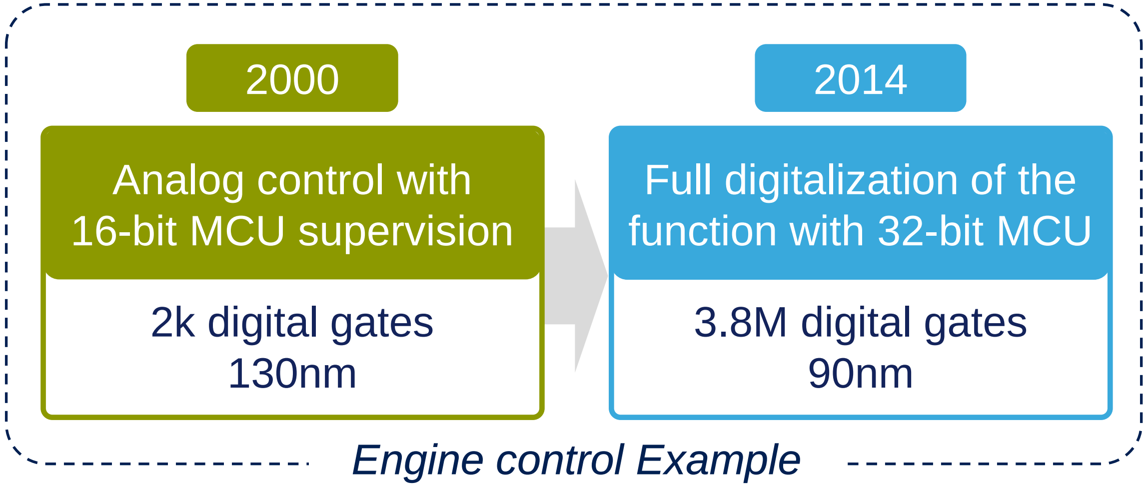
Fastest growing applications in the car have very high digital content



Source: Strategy Analytics, ST

Digital ICs in car rapidly growing
ST addressing large portion





2000

Analog control with 16-bit MCU supervision

2k digital gates
130nm

2014

Full digitalization of the function with 32-bit MCU

3.8M digital gates
90nm

Engine control Example

Conclusions

- AMS moving back to growth in 2Q15
    - Diversification strategy starting to bring results
- IPD targeting growing applications representing a TAM of about $23B
    - Clear opportunities to continue to grow especially with large accounts and in the mass market
- APG building on strong positions
    - Expanding and capturing opportunities also in digital, building revenues and profitability

Market Trends

Georges Penalver

Chief Strategy Officer

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Societal Trends driving Opportunities

In 2017

Societal trends

13% of the Population over 60 years old

55% of the Population living in cities

39% Global middle class

6% more energy required vs 2014

22 billion Connected Devices

Opportunities

20 sensors in a smartphone
40 billion sensors installed

65 Million new Smart Meters installed

95 million cars sold
$333 semiconductor content per car

24 billion microcontrollers sold

56 million UltraHD TVs sold

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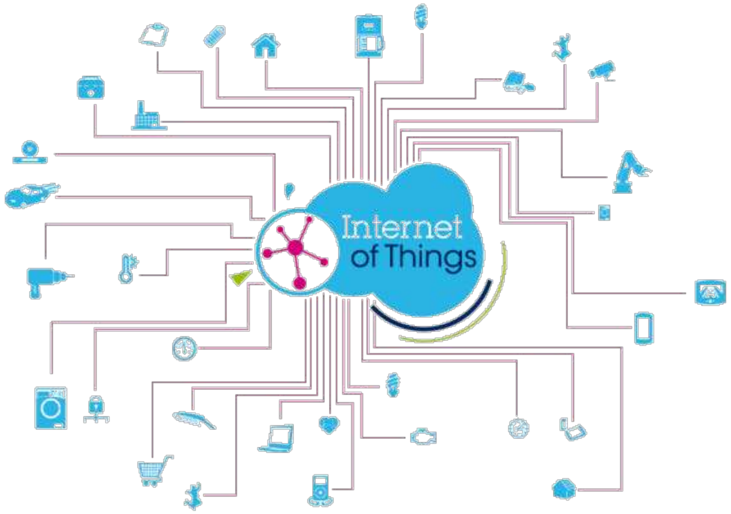
Three Domains of growth Opportunity for ST

Smart Driving

Smart Environments

Smart Things



Smart Driving

- Assisted and safer driving
- Green driving
- Connected driving

In 2015

88 million cars sold

$312 semiconductor content per car

9% of new cars equipped with active distance detection systems

50 Sensors per car

Source : Strategy Analytics, ST

ST Offering

Infotainment & Telematics
Radio/GNSS/Car2X

Vehicle Electrification
Power & Smart Power

Active Safety
Vision-based ASSP/Radar

Digital processing
8/32-bit MCU & Multicore

Sensors
Motion MEMS/Camera

#3 WW Automotive Supplier
#1 in Active Safety systems
#1 Engine control
#1 in Motion MEMS for Navigation

Smart Environments

- Addressing resource management challenges
- Managing energy throughout the production & consumption chain
- Technologies for the smart city and smart industry

In 2015

2.5 TWh more energy required vs 2014

65 million smart meters shipped

$55 billion Investment in the smart grid WW

Source : IHS, ST

ST Offering

- Smart Power
- Intelligent Power Modules
- Power Discrete
- Power Line connectivity
- Microcontrollers & Secure solutions
- Sensors Motion, environment, light

#1 in Industrial & ASIC
#1 High Voltage Power MOSFET
#1 Thyristors & Triacs

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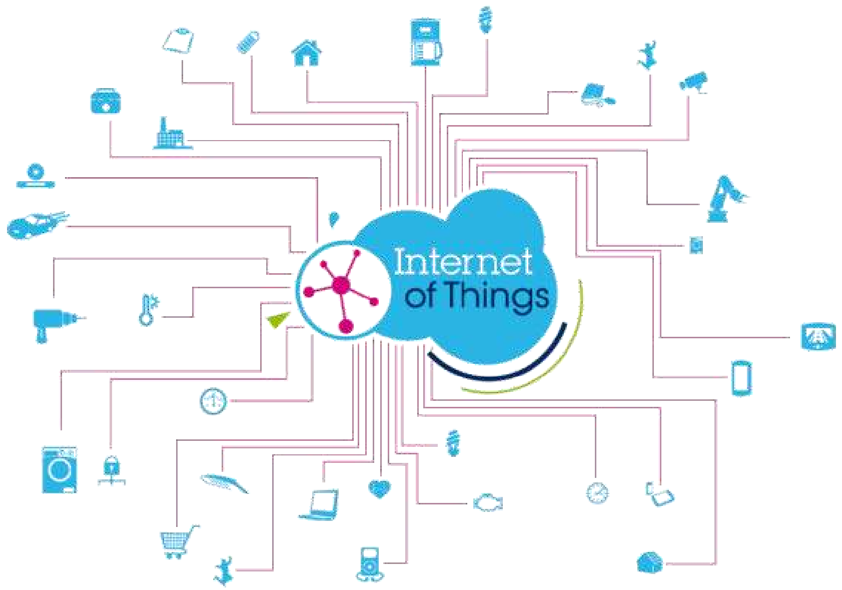
Smart Things

- Making new and old things smart and connected
- Building on mobile and the first wave of wearable
- New applications & business models



In 2015

15 billion
Connected Devices

1.55 billion
Smartphones sold

51 million
Wearable devices sold

Source : IHS, ST

ST Offering

Sensors
Motion, environment, light

Microcontrollers
Memories & Security

Ultra-low power (ULP) connectivity

Analog and mixed signal components

Power and energy management

STM32 Open Development Environment

#1 in MEMS for consumer and mobile
#1 in 32-bit ARM Cortex-M Microcontrollers

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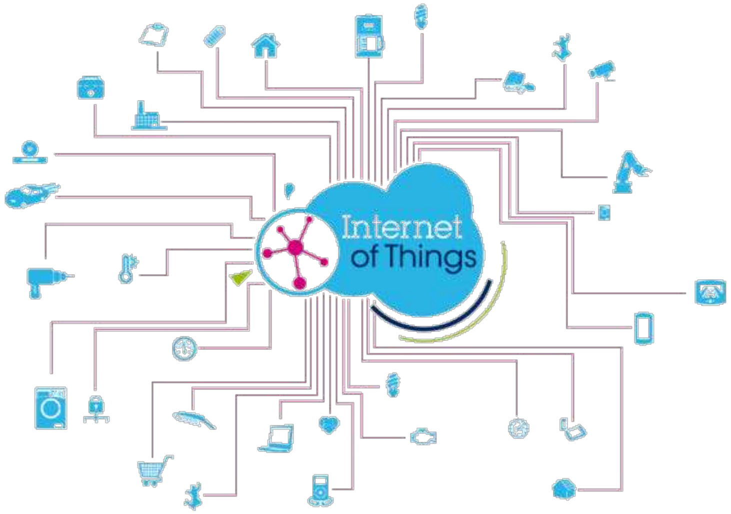
Panels

Smart Driving

Smart Environments

Smart Things



Smart Driving

Marco Cassis, Executive Vice President
President, Japan and Korea Region

Paul Cihak, Executive Vice President
General Manager, Sales & Marketing, EMEA

Marco Monti, Executive Vice President
General Manager, Automotive Product Group

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Smart Driving

#3 WW Automotive Supplier
#1 in Active Safety systems
#1 Engine control
#1 in Motion MEMS for Navigation

Source : Strategy Analytics, ST

In 2015

88 million cars sold
$312 semiconductor content per car

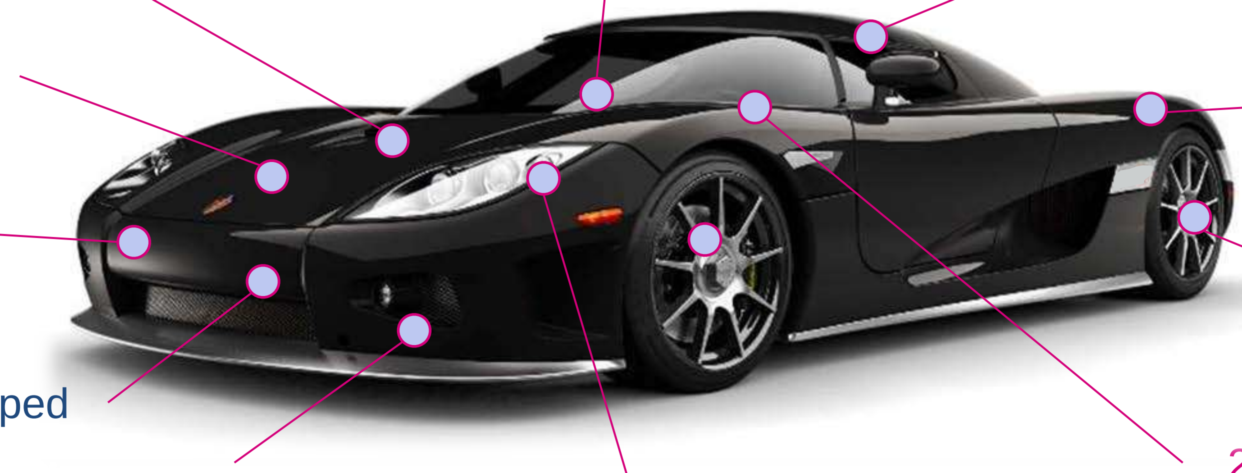
9% of new cars equipped with active distance detection systems

50
Sensors per car

ST Offering

- Infotainment & Telematics
  Radio/GNSS/Car2X
- Vehicle Electrification
  Power & Smart Power
- Active Safety
  Vision-based ASSP/Radar
- Digital processing
  8/32-bit MCU & Multicore
- Sensors
  Motion MEMS/Camera

In 2014…



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

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

About 30 ST components in each new vehicle

100% market share in US satellite radio (Sirius XM)

2.5 Million VIPower chips shipped every day

350 Million Power Transistors shipped

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

30 Million 32-bit MCUs shipped

2 out of 3 cars produced are equipped with an ST Sound System (excluding aftermarket)

1 out of 6 Infotainment & Navigation systems had ST Motion MEMS inside

850 Million Lamps (1 out of 2) driven by ST

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Smart Environments

Orio Bellezza, Executive Vice President
General Manager, Front-End Manufacturing & Technology R&D (SP&A)

Paul Grimme, Executive Vice President
Mass Market and Online Marketing Programs

Carmelo Papa, Executive Vice President
General Manager, Industrial & Power Discrete Group

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Smart Environments

#1 in Industrial & ASIC
#1 High Voltage Power MOSFET
#1 Thyristors & Triacs

Source : IHS, ST

In 2015

2.5 TWh more energy required vs 2014

65 million Smart meters shipped

$55 billion Investment in the smart grid WW

ST Offering

- Smart Power
- Intelligent Power Modules
- Power Discrete
- Power Line connectivity
- Microcontrollers & Secure solutions
- Sensors

Smart Power ICs

Power Line connectivity

Sensors

Microcontrollers & Secure solutions

Power Discrete and Intelligent Power Module

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Smart Things

Claude Dardanne, Executive Vice President
General Manager, Microcontroller, Memory & Secure MCU Group

Bob Krysiak, Executive Vice President
President, Region Americas

Benedetto Vigna, Executive Vice President
General Manager, Analog, MEMS & Sensors Group

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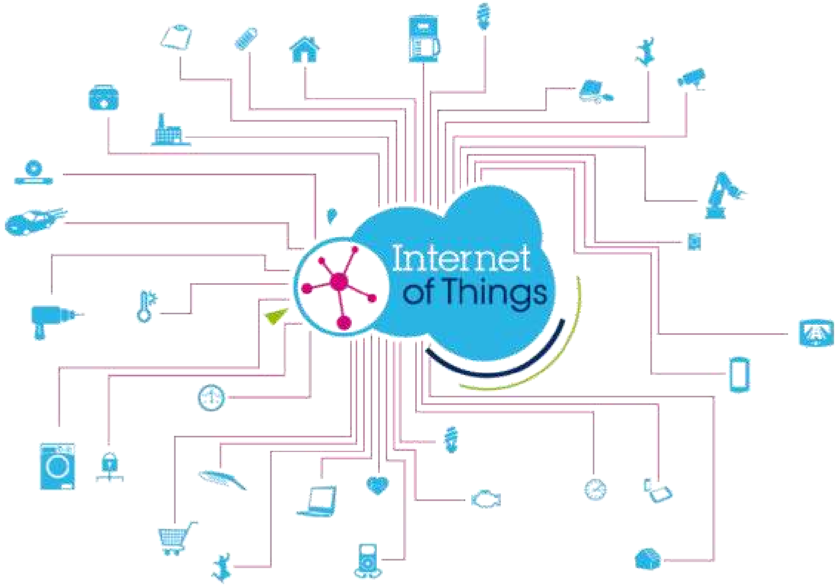
Smart Things

#1 in MEMS Sensors for consumer and Mobile

#1 in 32-bit ARM Cortex-M Microcontrollers



Source : IHS, ST

In 2015

15 billion Connected Devices

1.55 billion Smartphones sold

51 Million Wearable devices sold

ST Offering

- Sensors
- Microcontrollers Memories & Security
- Ultra-low power (ULP) connectivity
- Analog and mixed signal components
- Power and energy management
- **STM32 Open Development Environment**

Motion sensors

Environmental sensors

Microphones

FingerTip Touch

Ranging

µ-mirrors

General Purpose Microcontrollers

Secure MCU

Dynamic NFC tags

EEPROM

Sensor fusion

AMOLED power supply

Wireless charging

Energy harvesting

Power conversion

Thin film batteries

Ultra-Low Power connectivity

Long range connectivity

Positioning

Audio

Analog ICs

Protection & filtering

Digital Product Group (DPG)

Gian Luca Bertino

Executive Vice President
General Manager, Digital Product Group

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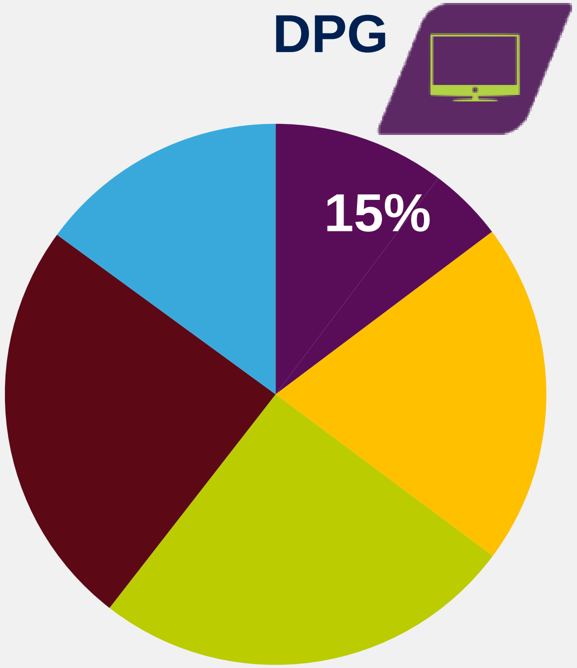
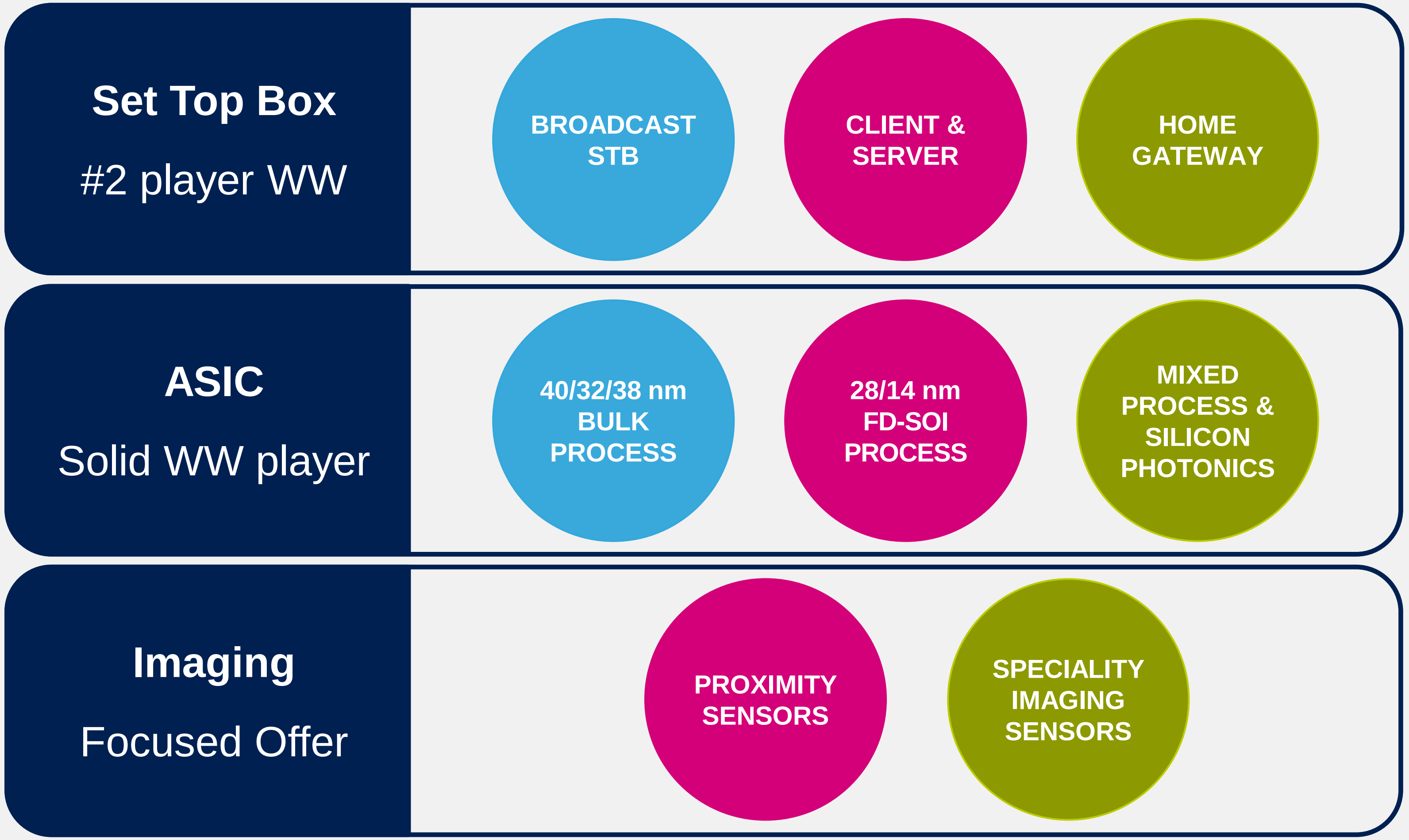
DPG – Digital Product Group

Contribution to ST revenues FY14





Set Top Box

#2 player WW

- BROADCAST STB
- CLIENT & SERVER
- HOME GATEWAY

ASIC

Solid WW player

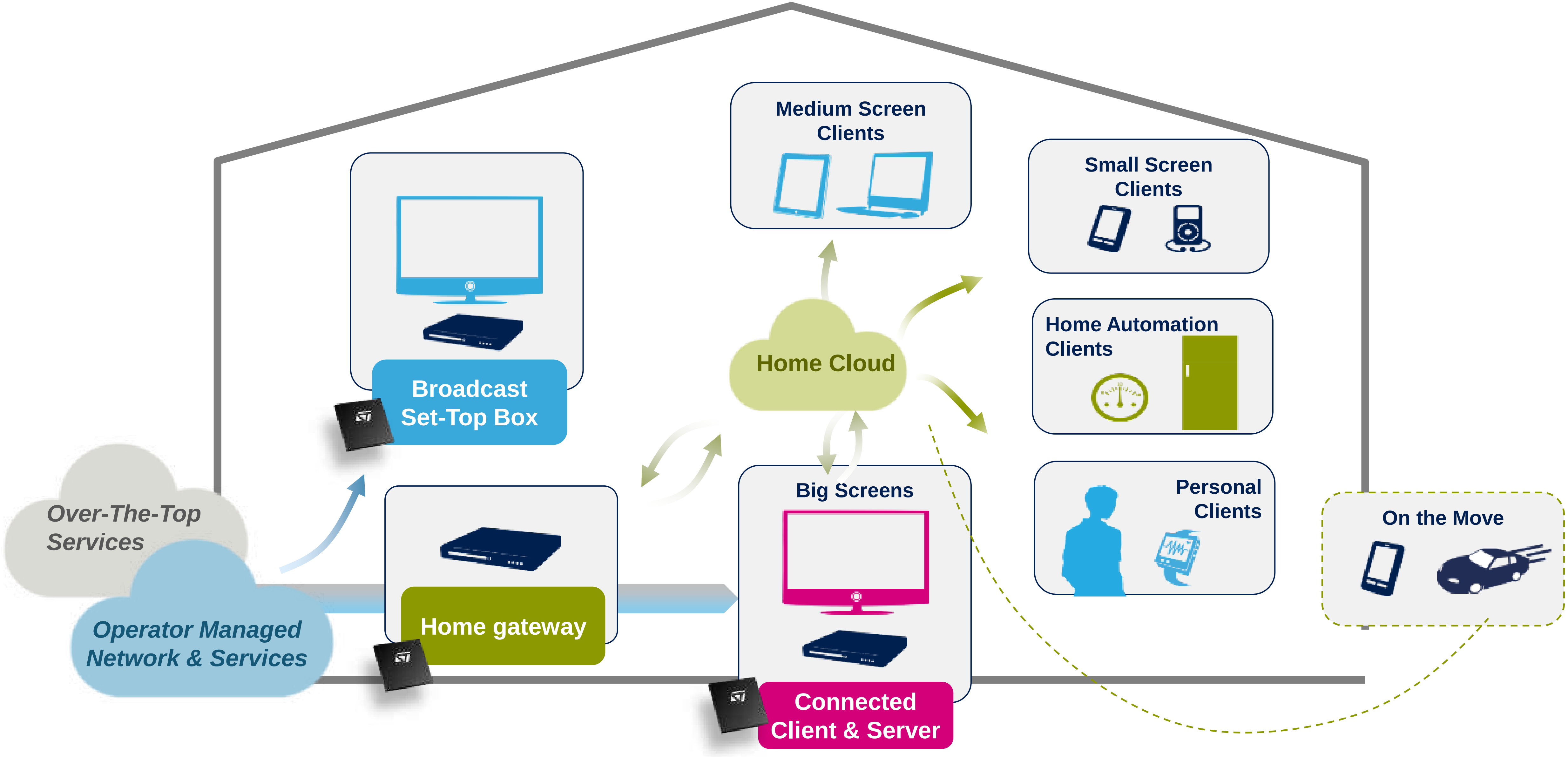
- 40/32/38 nm BULK PROCESS
- 28/14 nm FD-SOI PROCESS
- MIXED PROCESS & SILICON PHOTONICS

Imaging

Focused Offer

- PROXIMITY SENSORS
- SPECIALITY IMAGING SENSORS

STB: Towards the Home Cloud



STB & Home Gateway: Product Portfolio

HOME GATEWAY
Network Access
DOCSIS
Telephony
Routing

Alicante
STiD12x
DOCSIS 3.1

CableLabs CERTIFIED
MoCA

CLIENT & SERVER
Content Anywhere
High Multimedia performance
Ultra HD

Monaco
STiH4xx
Cannes
STiH3xx

ULTRA HD
HEVC
H.265 - HIGH EFFICIENCY VIDEO CODING
VP9
ARM Cortex

BROADCAST STB
Cost-effective multimarket solutions

Liege 2
STiH301
Liege
STiH2xx

HD TV 1080p

- Complete and cost-optimized HW/SW portfolio
- Ad-hoc devices for specific use cases
- HW/SW compatibility within each product family
- From entry broadcast to high-end HEVC on ARM

wyplay
cisco Technology
NAGRA KUDELSKI
soft at home
ARM
Linaro
RDK REFERENCE DESIGN KIT
android

Experience “Beyond HD” Viewing Experience
with STiH418

Multi 1080p60 decode + GFX display as UHD

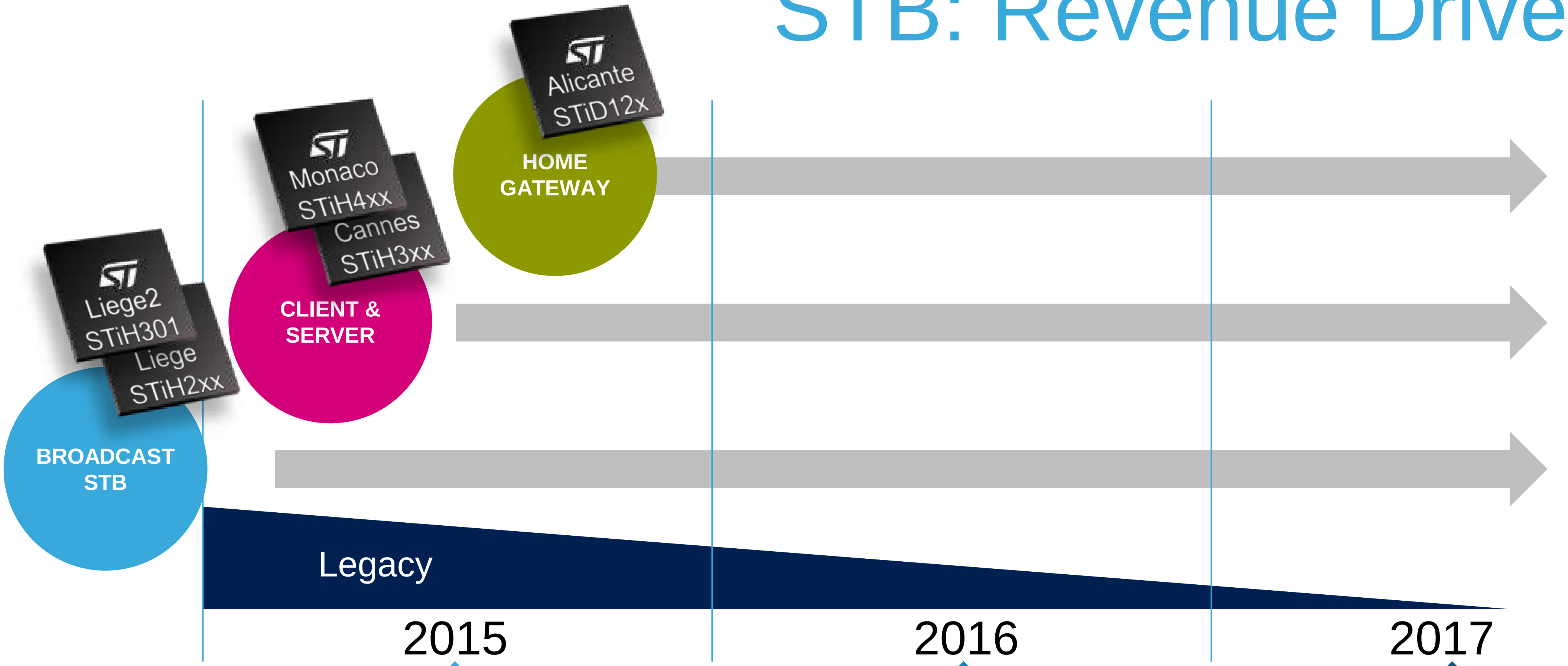
HDMI2
3840x2160 / 60Hz 16:9
HDCP 2/2

Original UHD HEVC or VP9 content full screen

Tested with
ELEMENTAL
harmonic
envivio
rovi
ateme

HEVC
VP9

STB: Revenue Drivers



HOME GATEWAY

CLIENT & SERVER

BROADCAST STB

Legacy

2015

2016

2017

Deployment of Liege/Liege2

Cannes/Monaco
Ramp production H2 15

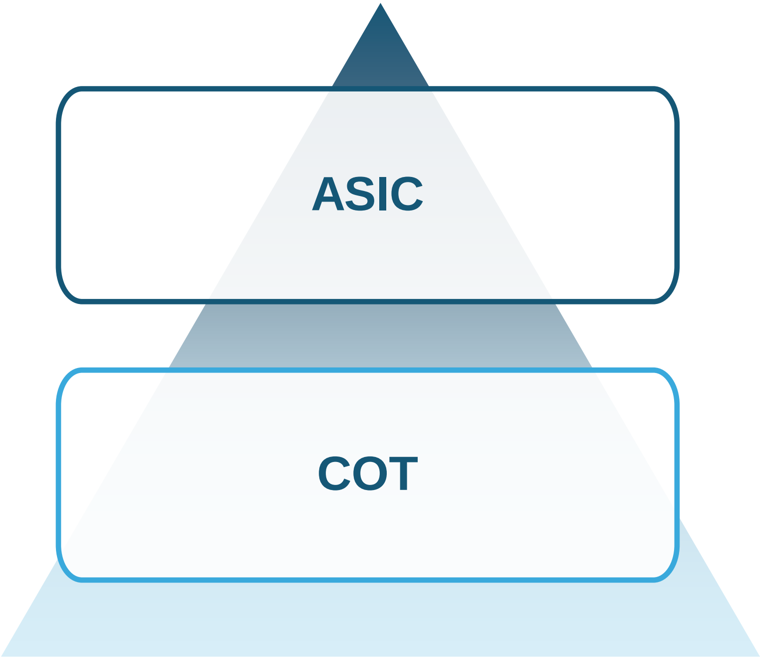
Deployment of Cannes/Monaco (UHD)

DOCSIS 3.1 solutions
Ramp production H2 16

Fully leverage major market transitions

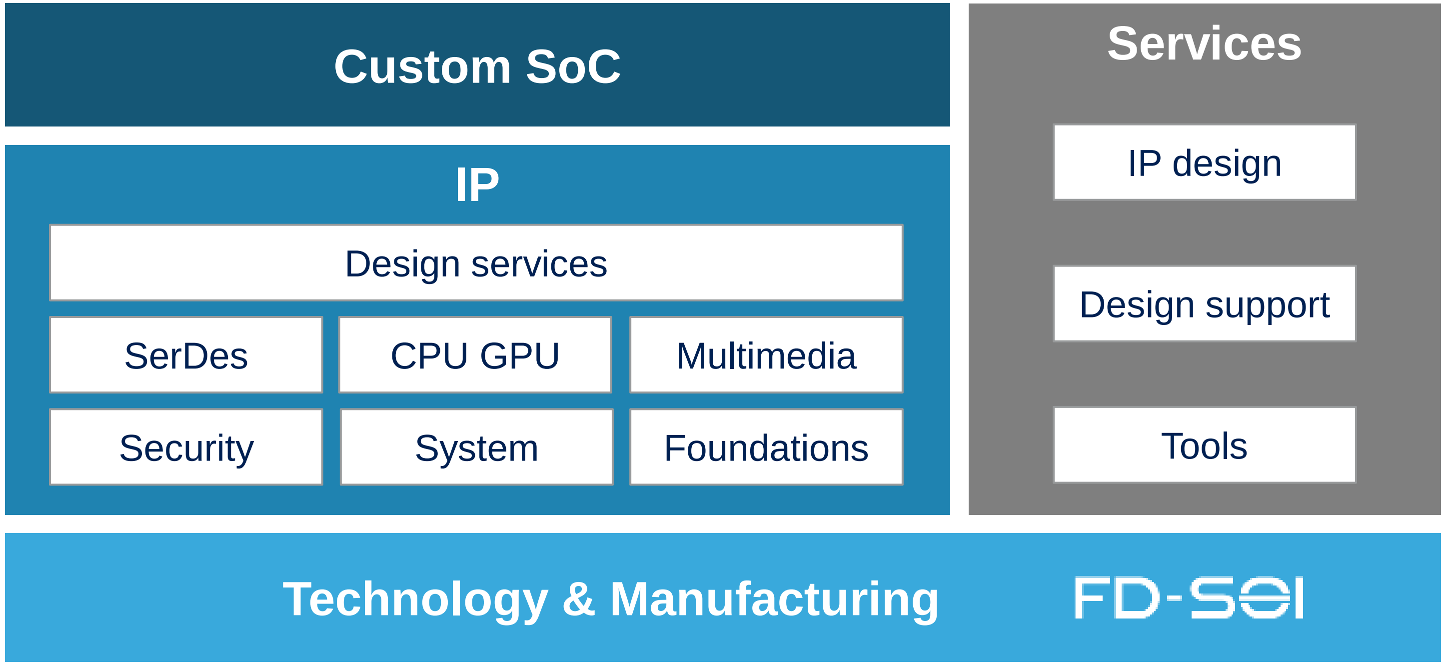
H.264/HD -> HEVC/UHD
DOCSIS 3.0 -> DOCSIS 3.1

ASIC: Flexible Business Model



ASIC

COT



Custom SoC

IP

- Design services
- SerDes
- CPU GPU
- Multimedia
- Security
- System
- Foundations

Services

- IP design
- Design support
- Tools

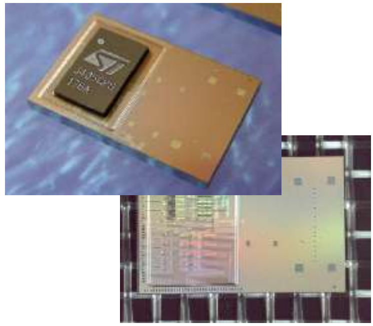
Technology & Manufacturing FD-SOI

Consumer

Networking

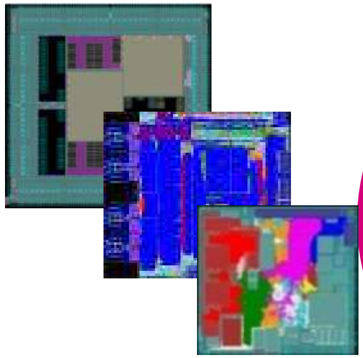
Computer Peripherals

ASIC: Complete Offer



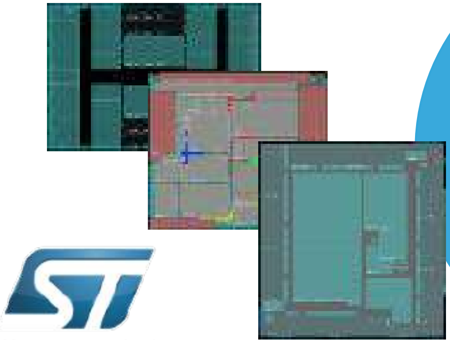
MIXED PROCESS & SILICON PHOTONICS

- Best in Class BiCMOS technology enables multiple applications, including ICs for fiber optic modules
- Fully integrated silicon photonics technology brings savings in bill of material, production throughput, power consumption and space



28/14nm FD-SOI PROCESS

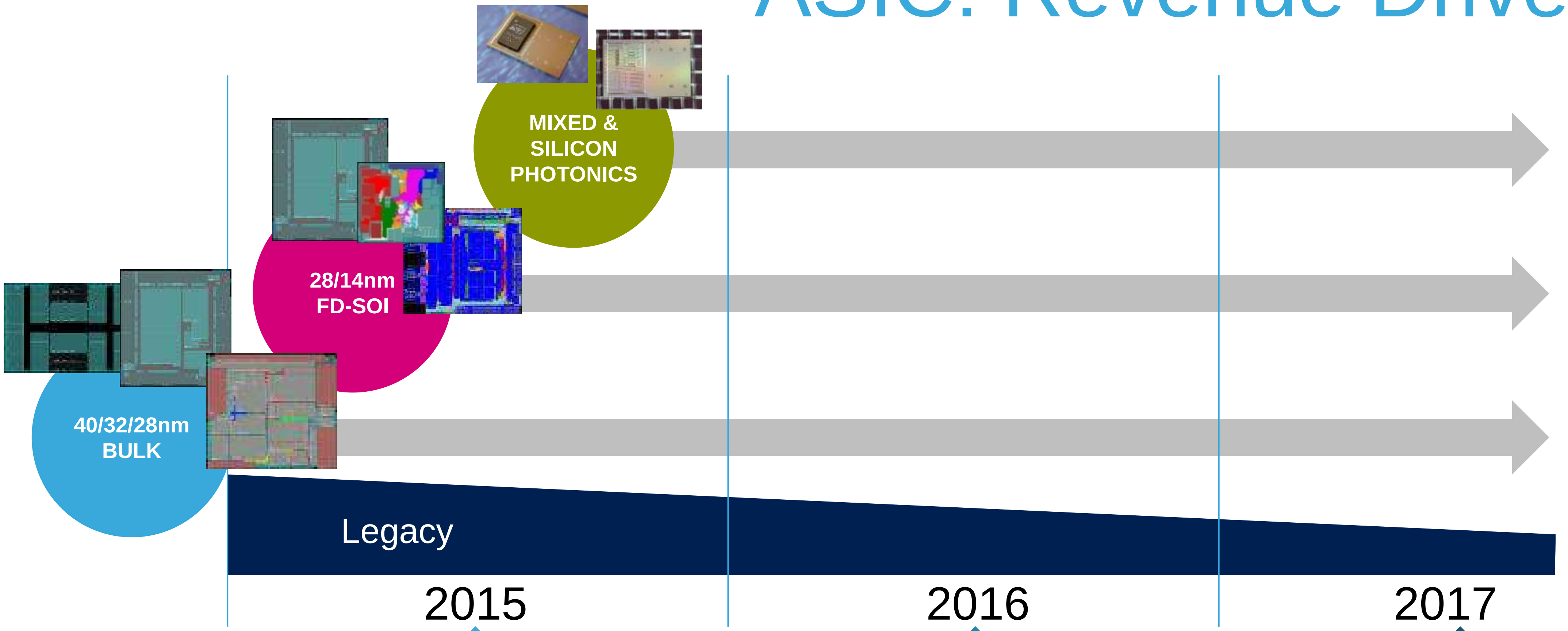
- FD-SOI technology enables mixed analog/digital ICs with high performance, ultra-low power and high resilience to space radiation
- Complete foundation IP, including High Speed SerDes (up to 28GBps) and special memories (TCAM)



40/32/28nm BULK PROCESS

- Bulk technology enables cost sensitive and high integration ICs
- Complete foundation IP, including High Speed SerDes (up to 14GBps) and special memories (TCAM)

ASIC: Revenue Drivers



Ramp in volume of **32/28nm Bulk ASIC** and initial ramp of **28nm FD-SOI**

Initial ramp of 100G solutions (Optical/Photonics)

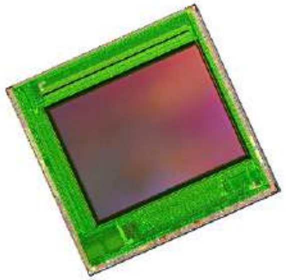
Ramp in volume of **28nm FD-SOI** For both networking and consumer

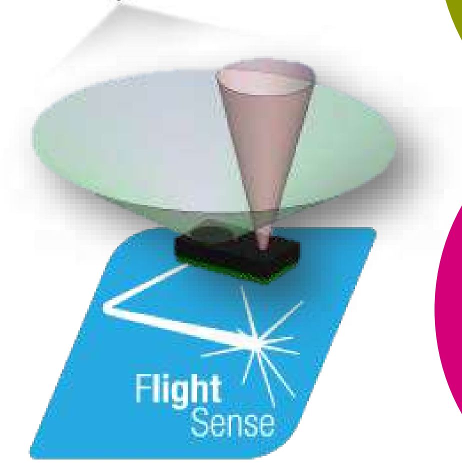
Expansion of Silicon Photonics and other Mixed Signal

Initial ramp of **14nm FD-SOI**

Fully leverage major market transition to optical connections (e.g. Data Centers)

Imaging: Focused Offer





SPECIALIZED IMAGING SENSORS

- Large Pixel sensors, Stitched large sensors, Medical Image sensors, Customs solutions
- Proprietary Pixel technology, Including Specialized Silicon Process and market proven IP

PROXIMITY SENSORS

- Photonic sensors for proximity,ranging gesture, depth map
- Flight Sense Proprietary Technology, including Specialized Silicon Process and market proven IP

Consumer

Automotive

Security, Medical

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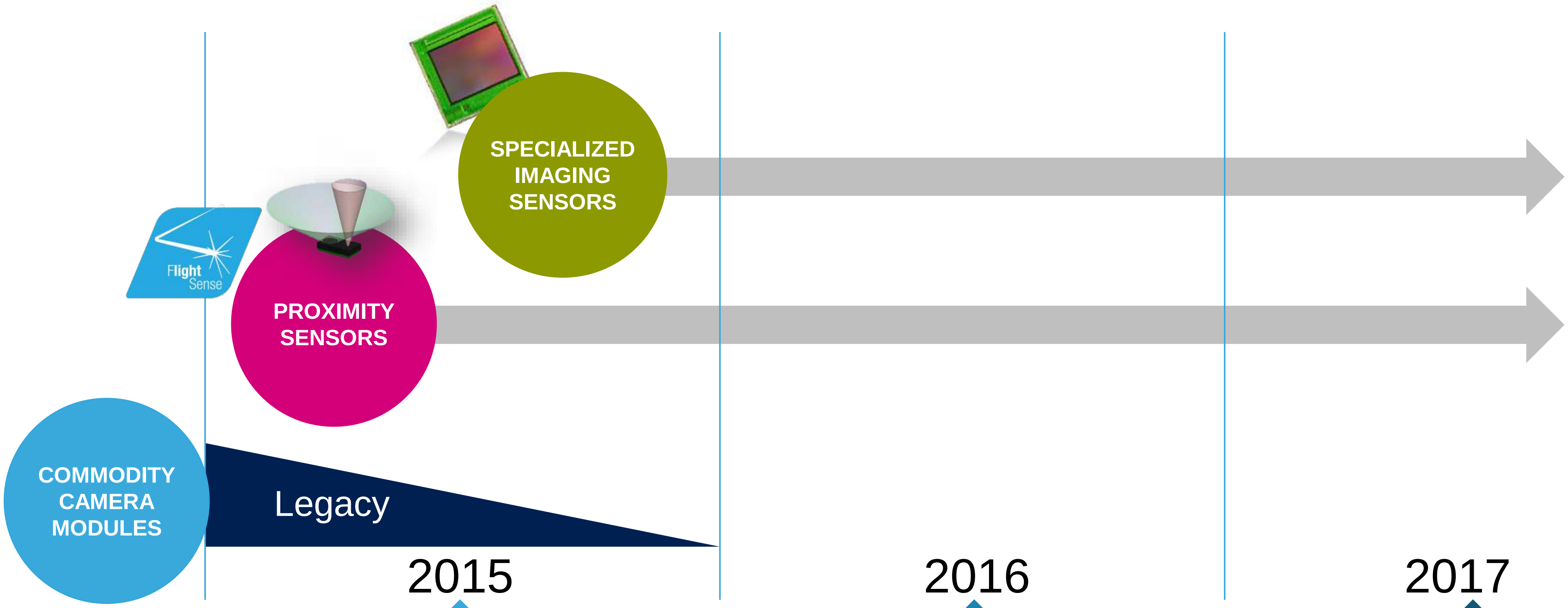
Imaging: Revenue Drivers



SPECIALIZED IMAGING SENSORS

PROXIMITY SENSORS

COMMODITY CAMERA MODULES

Legacy

2015

2016

2017

Strong ramp down of commodity Camera Module

Initial deployment of Proximity Sensors

Strong ramp of Proximity Sensors

Expansion of Specialized Imaging Sensors

Strong ramp of Specialized Imaging Sensors

Expansion toward new applications & usages

DPG Leadership

- Leadership in the transition to HEVC/UHD Set-top Box and DOCSIS 3.1 headless gateways and cable modems toward smart home
- Leadership in high speed, highly integrated devices for networking and the transition from copper to optical fiber
- Leadership in ultra low power & leakage embedded processing solutions
- Leadership in differentiated sensors through close cooperation with key players in consumer, automotive, hybrid auto focus and surveillance

Microcontroller, Memory & Secure MCU (MMS)

Claude Dardanne

Executive Vice President
General Manager MMS Group

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MMS Positioning in 2014

EEPROM memories

#1 worldwide supplier 2014

Secure Microcontrollers

#4 worldwide supplier 2014

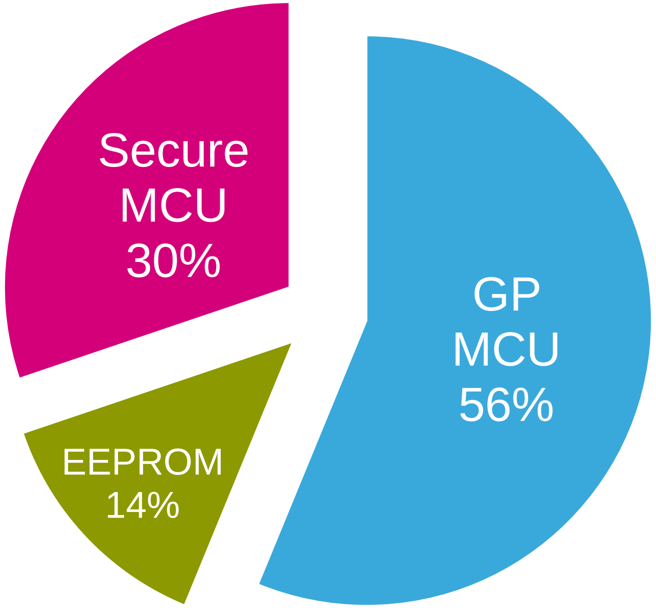
General Purpose Microcontrollers *

#4 worldwide supplier 2014

Consolidated MCU *

#2 worldwide supplier 2014

MMS 2014 Business by Activities



- MMS = 20% contribution to ST 2014 revenue
- Major growth opportunities :
  - ➢ General Purpose MCU
  - ➢ Secure MCU

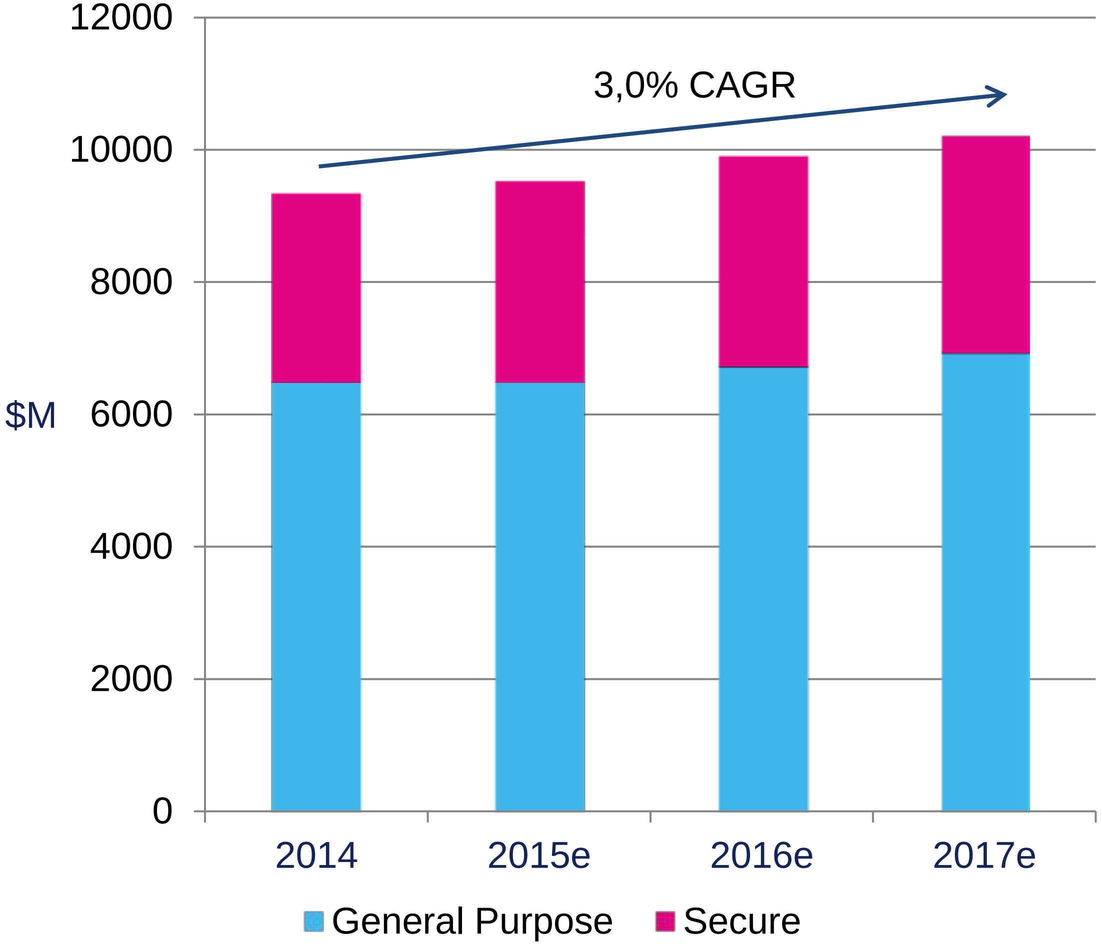
Source: IHS
* Without Automotive

Microcontroller Market Trend

Market Dynamics

- Traditional multi-market & application development still driving part of the General Purpose MCU growth
  - Industrial
  - Consumer
- Secure MCU growth driven by :
  - Secure Smartcard solutions : Banking, ID
  - Mobile transactions
  - Object authentication (Brand protection…)
- IoT providing additional growth:
  - Applications embedding GP MCU with various levels of security
  - Much higher growth expected from the Mass Market

General Purpose + Secure MCU TAM



Source: WSTS - excluding Automotive MCUs

Microcontrollers Enablers

STM32 Family	ST31/33 Families
State-of-the-art ecosystem	Turn-key solutions
Open Development Environment	Application software
High Performance to Ultra Low Power	Contactless, NFC
Advanced Analog Connectivity BTLE, Wi-Fi	State-of-the-Art Security
Focus on 32-bit ARM® Cortex™ M0, M3, M4, M7	Focus on 32-bit ARM® Cortex™ SC300 & SC000

In-house manufacturing capability ensuring security of supply and mastering quality

Advanced eNVM technologies

Volume production 80nm e-Flash moving to 40nm

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General Purpose MCU Market

- Addressing multi-application, multi-customer
- STM32 platform with added value

Performance
- Higher computing
- Advanced peripherals
- More connectivity

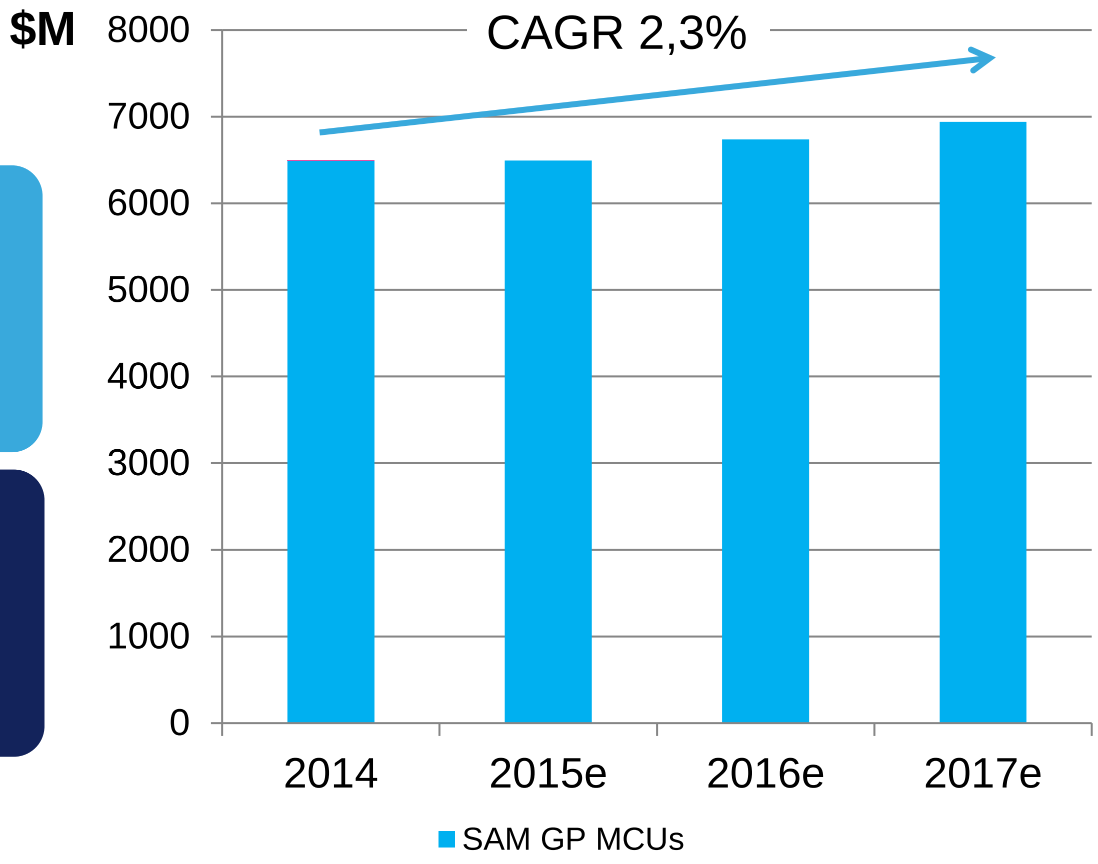
Ultra low power
- Low power consumption
- Optimized functional modes
- Smaller form factor

Easy development
- Extended ecosystem
- Low entry barrier
- Open development environment

Cost effective
- High level of integration
- Reduced development efforts
- Easy application upgrades

Above features fitting perfectly IoT needs

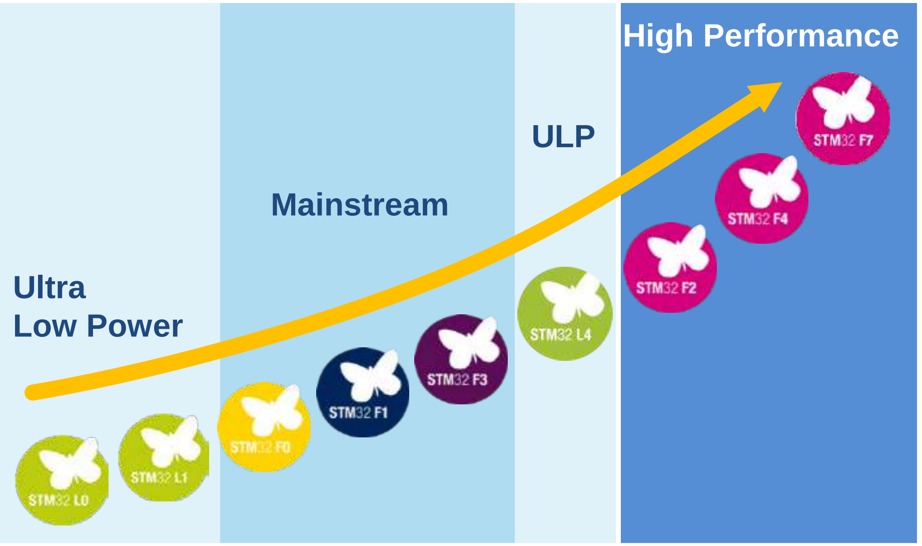
General Purpose MCU SAM*



Source: WSTS - excluding Automotive MCUs

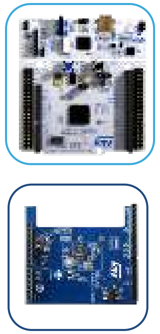
STM32 Solutions for Mass Market

Scalable



STM32 portfolio

Seamless



STM32 Nucleo development & expansion boards

STM32Cube software

Developer community and support

STM32 Open Development Environment

- STM32 Family ~ 600 part numbers available
- More than 30,000 customers worldwide
- Ready to support IoT growth

Secure MCU Market

- Secure Element & Contactless
- ST31 & ST33 platforms with added value :

State of the art security

- Certified HW solutions
- High performance crypto accelerators

Connectivity

- Best interoperability
- Highest robustness

Turn-key solutions

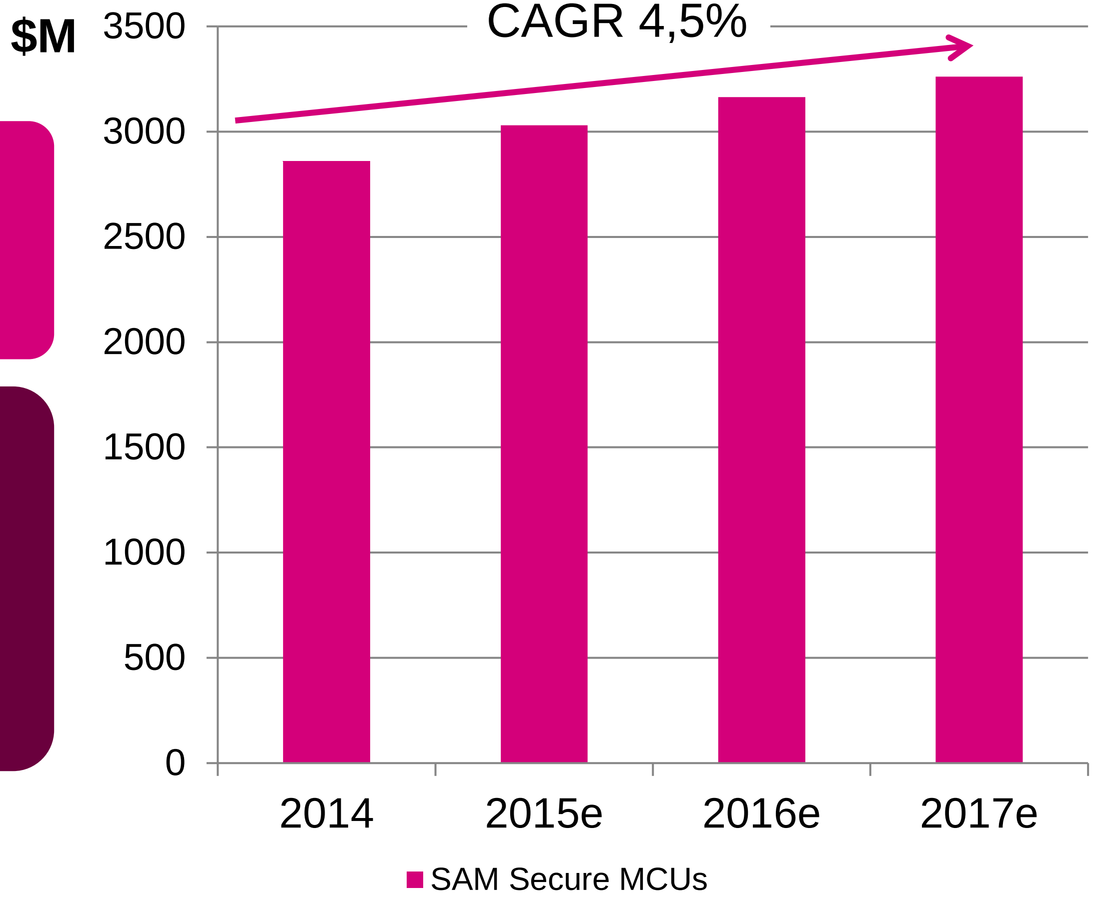
- Certified HW&SW solutions
- Dedicated development tools & support team
- Product customization and personalization services

Cost effective

- Products based onState-of-the-art flash process
- Reduced development effort
- Easy application upgrades
- Advanced packaging options

Above features fitting perfectly IoT needs

Secure MCU SAM



Source: WSTS

Banking & ID

Banking

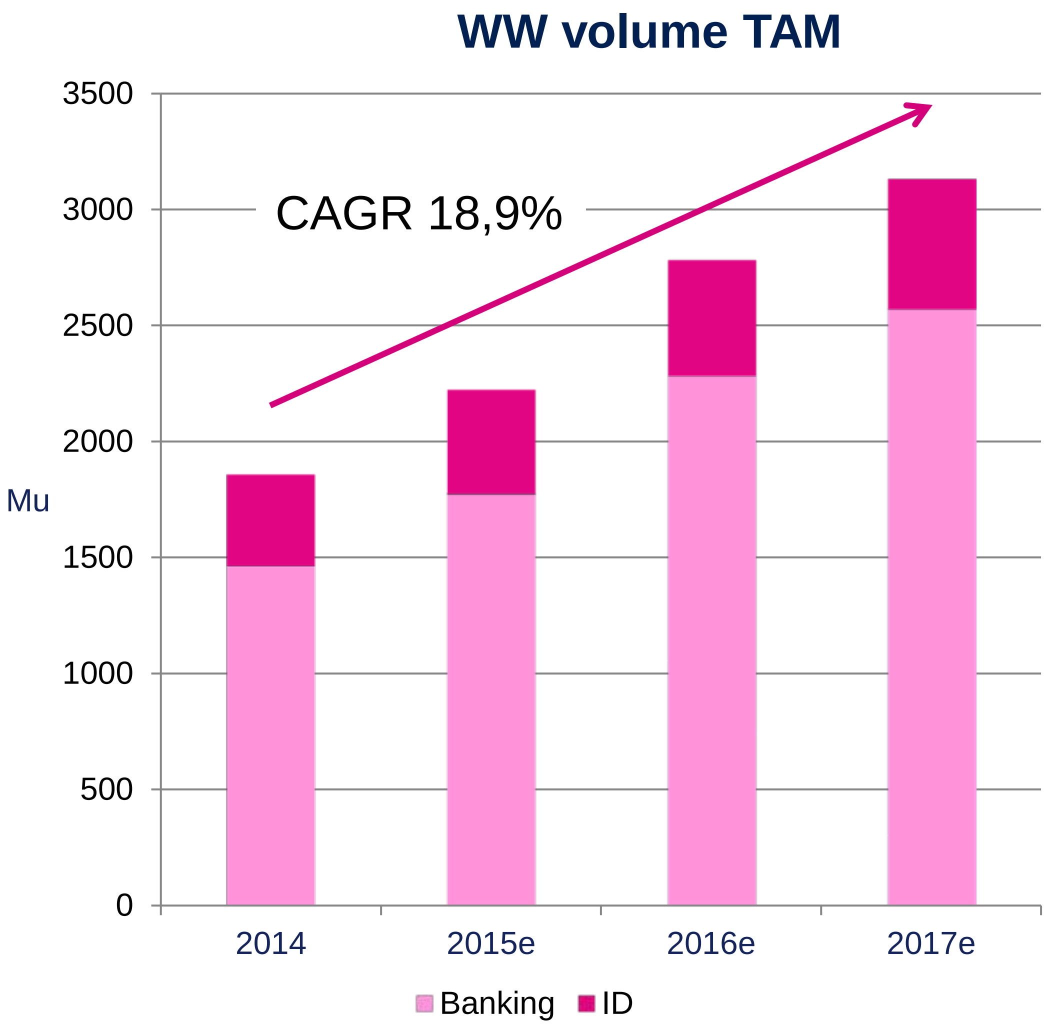
- Growth driven by china & US EMV contactless migration.
- Global market moving to dual interface & contactless

ID

- Growth driven by national ID programs
- Running deployment of ePassport

ST solution

ST31 series of highly secure 32-bit MCU - contact/contactless – flash-based platform embedding advanced software



Source : ST estimation + various sources including ABI, Eurosmart, Nilson Report,

Secure Mobile Transactions

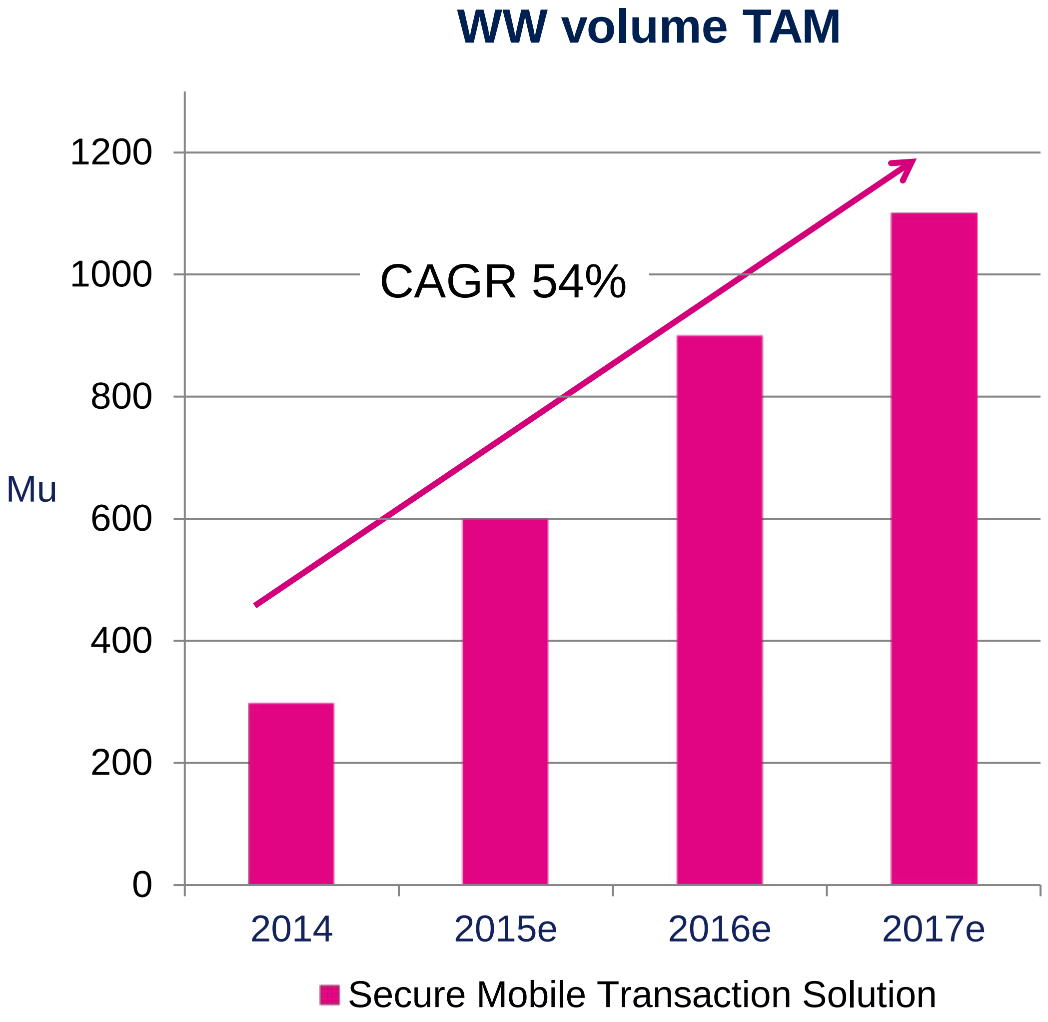
Market

- Strong growth expected in the next 3 years
- Smartphone pervasion generating need for secure mobile transaction functionalities

ST, complete solution provider

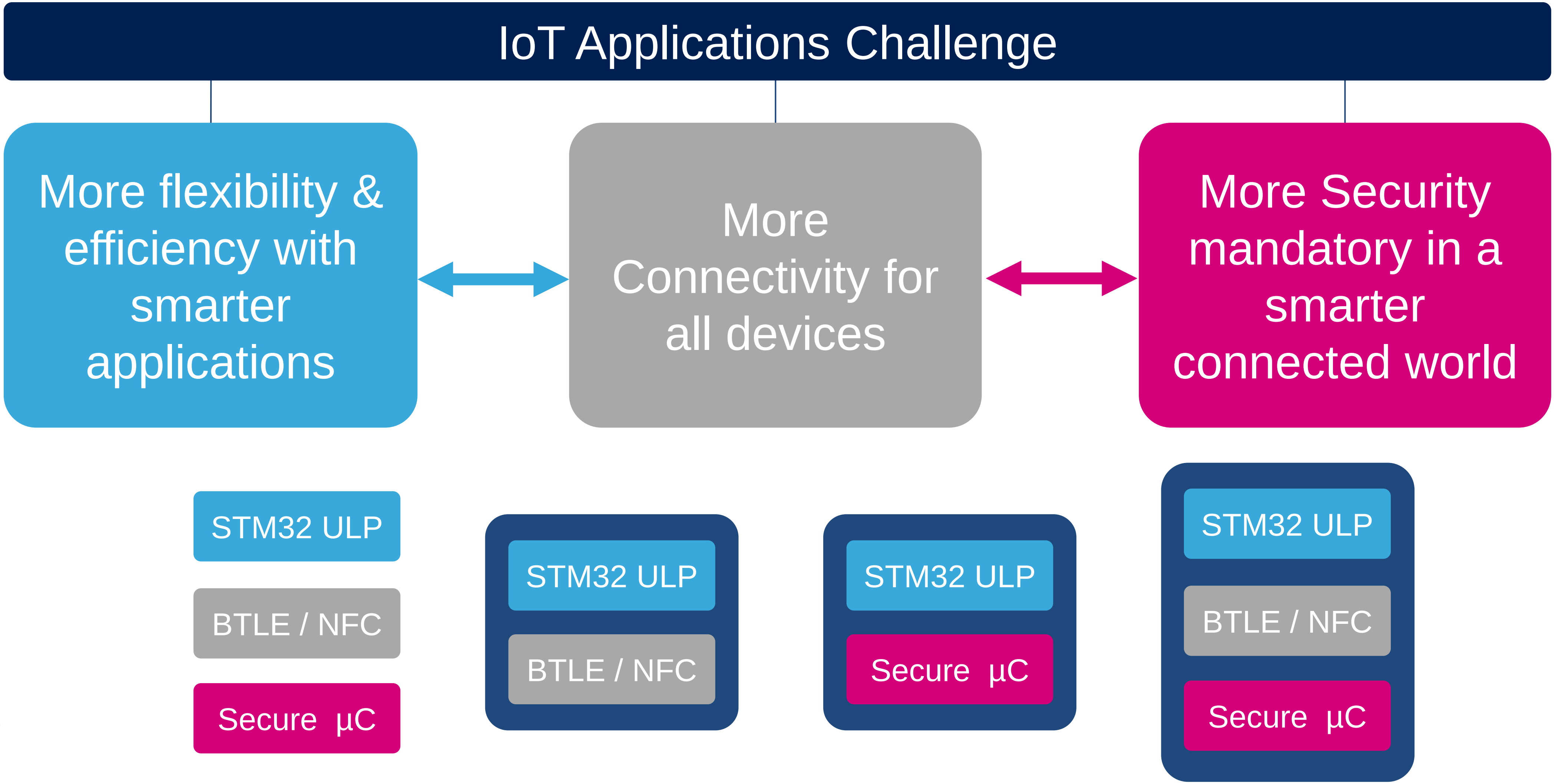
ST33 family : Best in Class Secure Element (SIM form factor or Embbeded)
ST #1 WW Supplier

ST21NFC Controllers



Source : ST estimation + various sources including ABI,

MMS enabling IoT



IoT Applications Challenge

More flexibility & efficiency with smarter applications

More Connectivity for all devices

More Security mandatory in a smarter connected world

STM32 ULP

BTLE / NFC

Secure µC

STM32 ULP

BTLE / NFC

STM32 ULP

Secure µC

STM32 ULP

BTLE / NFC

Secure µC

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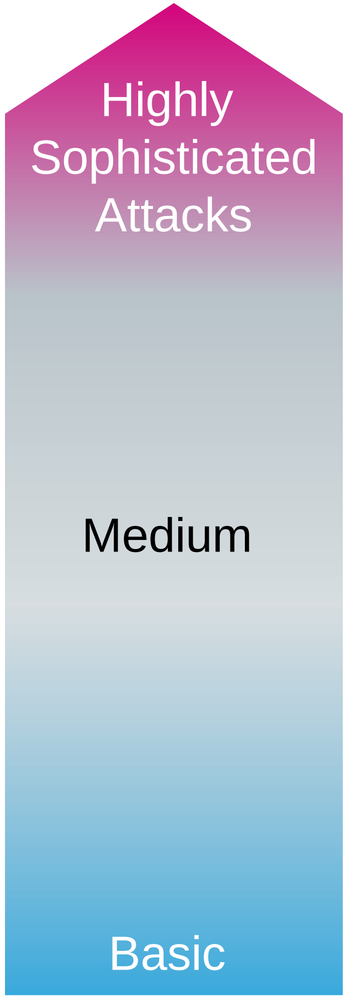
GP & Secure MCUs for IoT



Highly Sophisticated Attacks

Medium

Basic

Payment

Identification

Smart Grid, Industrial Gateways

Healthcare

Smart meter

Appliances

Smart home

Wearables

- Protection of critical assets
- Strong security for private data
- Resistance to attacks for connected devices
- Devices require different levels of Security, from General Purpose MCU to Secure MCU

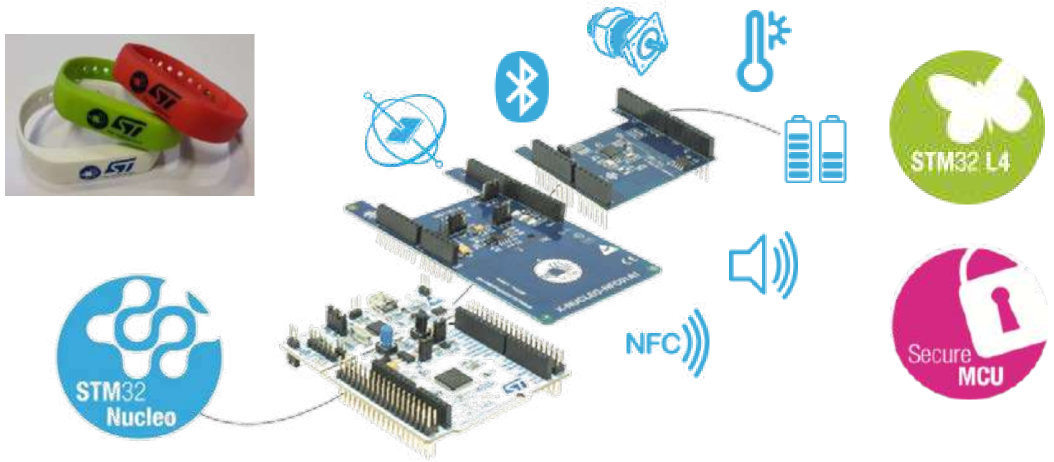
Wearable Market

The 1st wave of IoT products

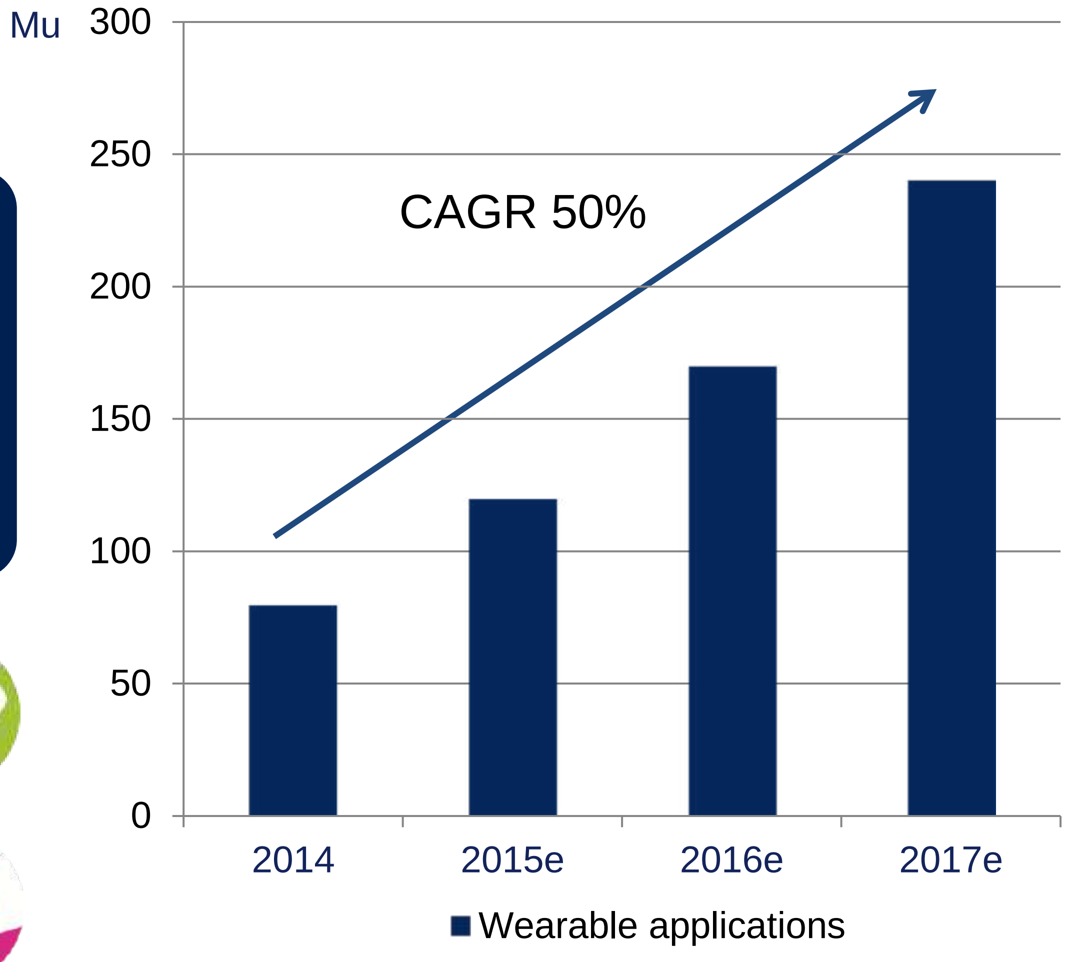
- Growth linked to smartphone business
- Smart watches, fitness, smart glasses, health…

ST solution

- Ultra-low power 32-bit MCU: sensor hub, application processor
- Connectivity : Bluetooth Low Energy
- Security : anti-counterfeiting & personal data protection
- Seamless development tool : STM32 Nucleo based



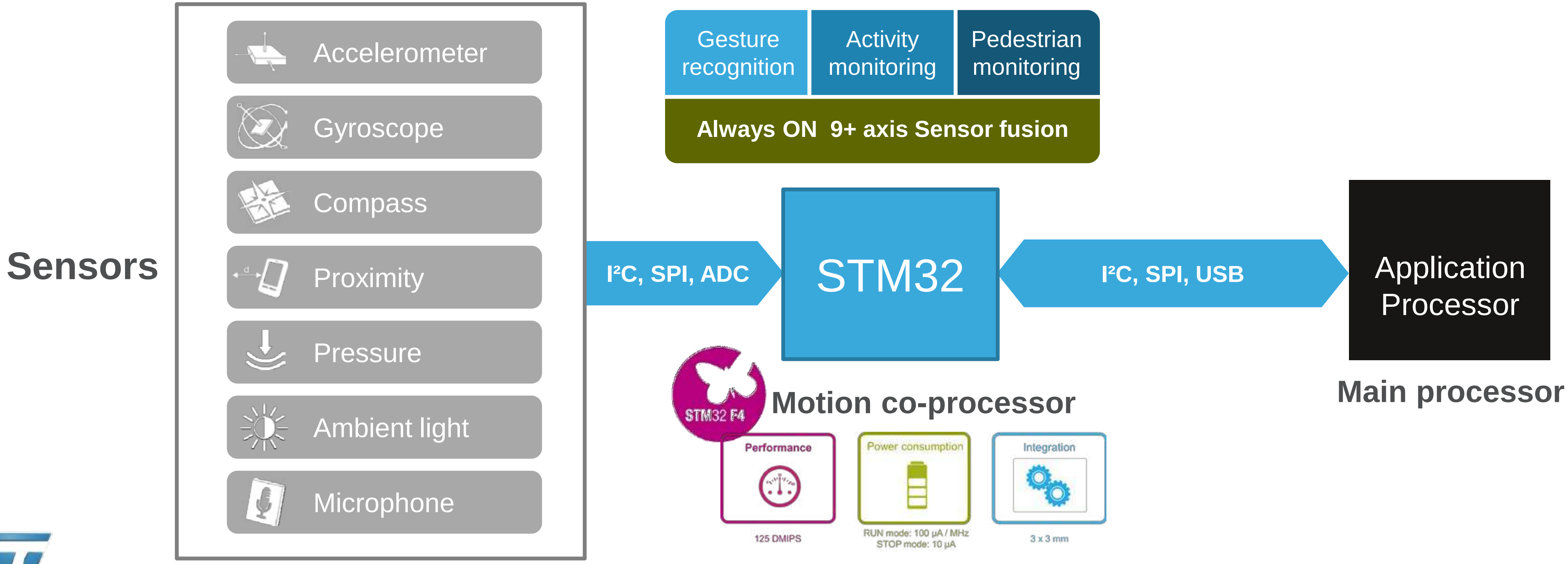
WW volume TAM



Source : ST estimation + various sources including ABI,

Sensor Hub Solutions

- Major success in smartphones and accessories
- Enable “always on” application improving dramatically battery life
- STM32F4 computing power allows to host gesture monitoring and pedestrian indoor navigation



Sensors

Accelerometer

Gyroscope

Compass

Proximity

Pressure

Ambient light

Microphone

Gesture recognition

Activity monitoring

Pedestrian monitoring

Always ON 9+ axis Sensor fusion

I^2C, SPI, ADC

STM32

I^2C, SPI, USB

Application Processor

Main processor

Motion co-processor

Performance

125 DMIPS

Power consumption

RUN mode: 100 µA / MHz
STOP mode: 10 µA

Integration

3 x 3 mm

Secure Transaction & Wearable

Wearable applications embedding Secure Transactions capabilities → mainly smartwatches

ST SOLUTION

Ultra low power 32-bit MCU : sensor Hub, application Processor → STM32L series

Connectivity :
- Bluetooth Low Energy
- NFC controller

Security : Secure Element

Smart metering

Running deployment

Gateway & Concentrators

Smart Meter

ST SOLUTION

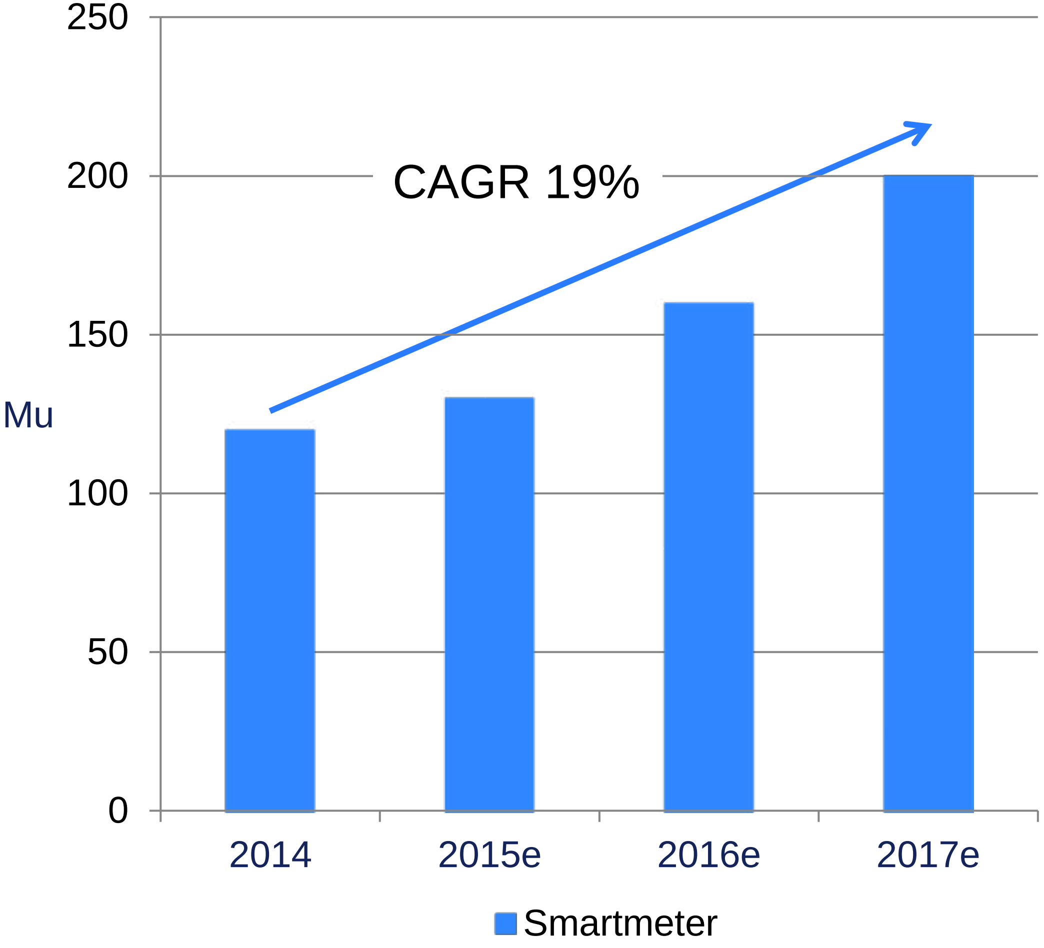
STM32 Family

- Very high performance & power efficiency
- Increased reliability / long life-time support
- Safety capable
- Powerline connectivity

ST31 & ST33 Embedded security solution

- Secure element for safety and security

WW volume TAM



Source : ST estimation + various sources including ABI,

Applications trend

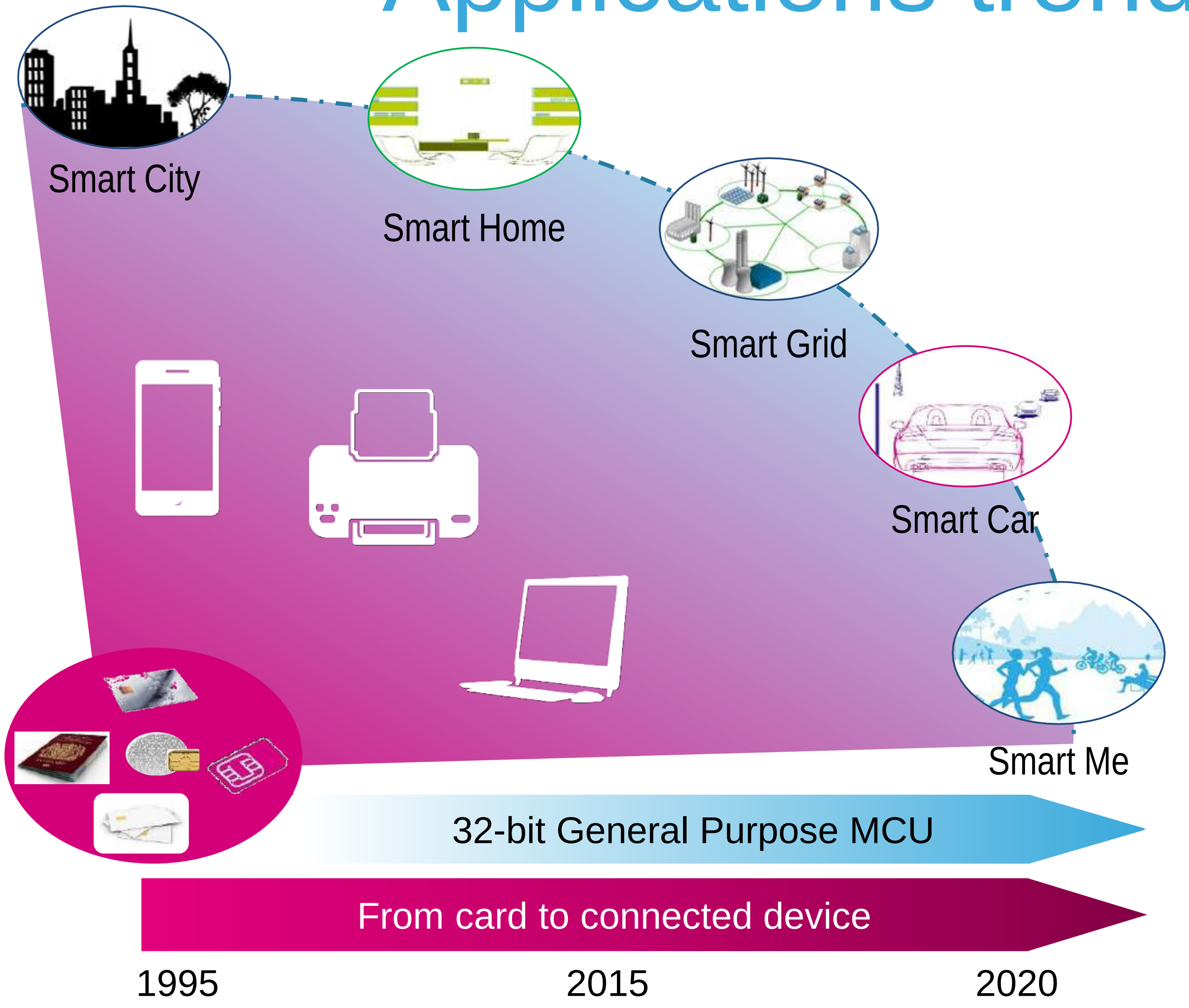
Authentication
Healthcare
Payment
Fitness

↑

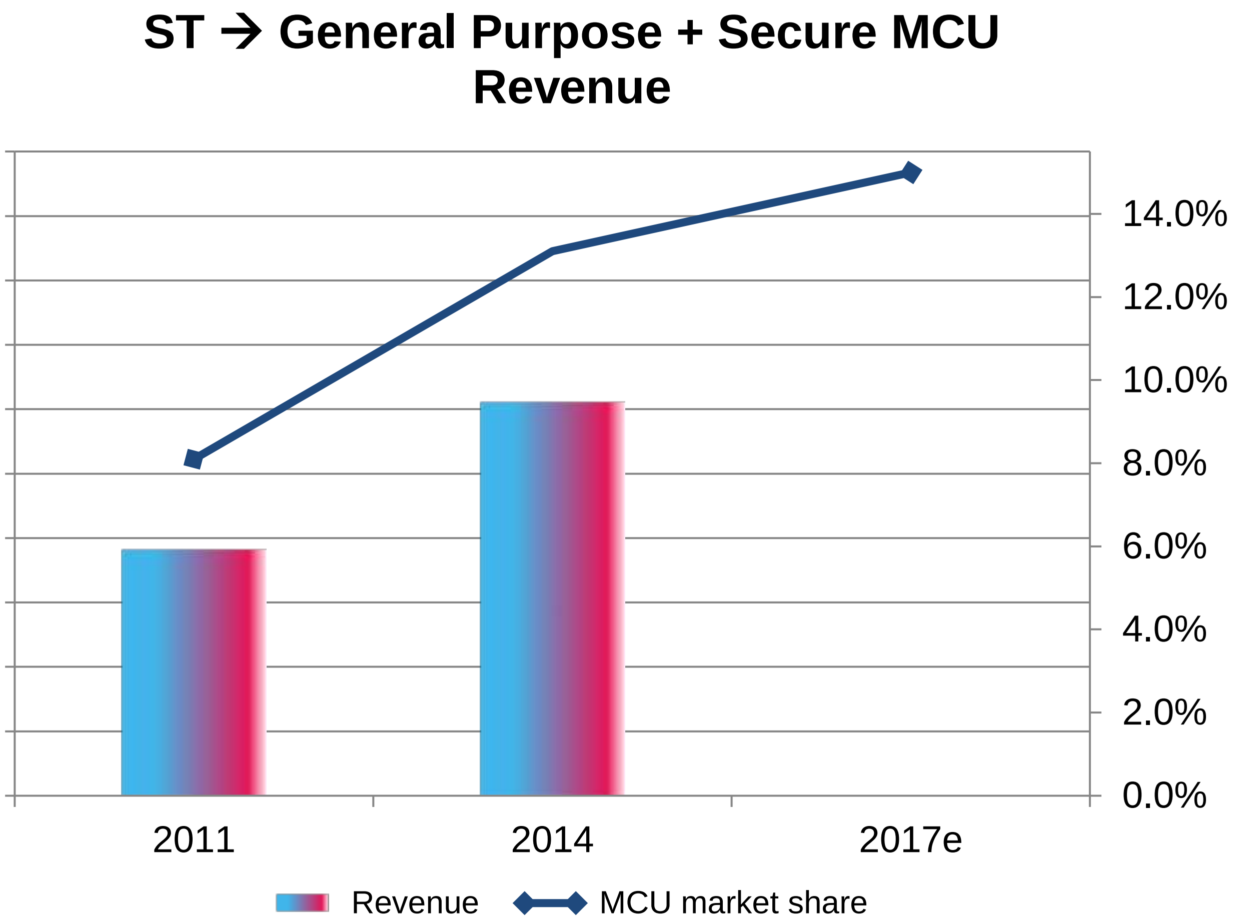
Banking contactless
Brand protection
NFC Mobile

↑

Transport
Banking
Pay TV
Mobile
TPM
ID



Key Messages



- MCU share % vs TAM (Source WSTS)
- Excluding Automotive MCUs

Pursue double digit profitable growth and market share gain capitalizing on solid foundation

Maintain WW leadership :
- 32-bit General Purpose MCU
- 32-bit Secure Element

Reinforce & proliferate advanced connectivity solutions : Bluetooth Low Energy, NFC…

Deploy secure software solutions dedicated to the Banking & ID markets

Drive evolution of IoT market embedding more connectivity and security on top of General Purpose MCU → become the #1 player

Q & A

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Analog, MEMS & Sensors (AMS)

Benedetto Vigna

Executive Vice President
General Manager, Analog, MEMS, Sensor Group

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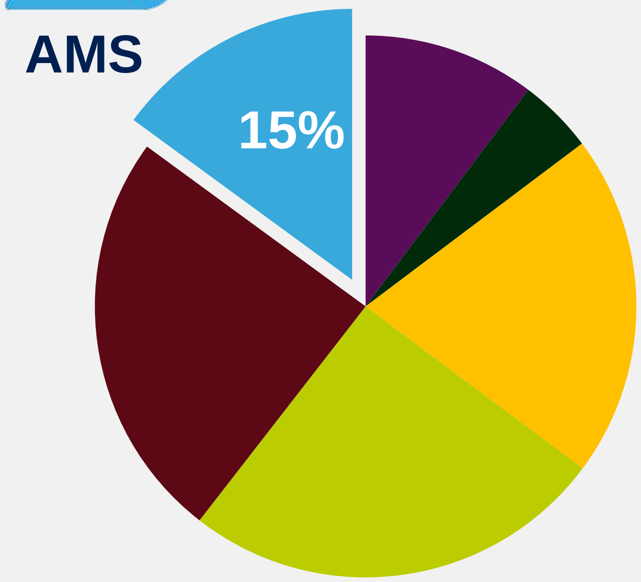
AMS – Analog, MEMS & Sensors

Contribution to ST revenues FY14



Portfolio

MOTION SENSORS
Accelerometer, gyroscope, Magnetic sensor

MICROPHONES
Analog & Digital

ENVIRONMENTAL SENSORS
Pressure, UV

ACTUATORS
Fluidics MEMS
Micro-Mirror

Sensor Hub & Sensor Fusion

TOUCH
FingerTip

LOW POWER ANALOG
Standard Analog
High-end Analog

RF
Bluetooth, SubGhz, Wi-Fi

#1 in MEMS Sensors for consumer and mobile
#2 in MEMS Sensors & Micro-actuators

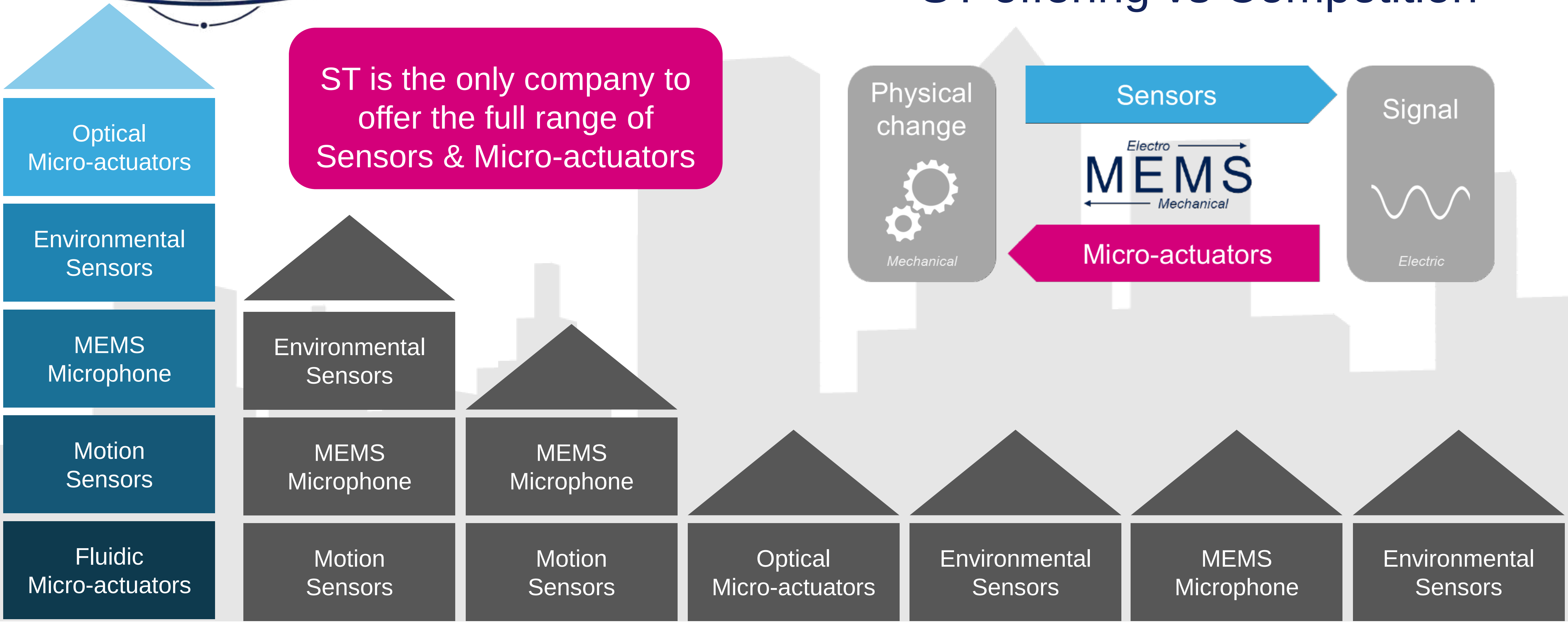
Source: IHS

MEMS Competitive Landscape

ST offering vs Competition

ST MEMS shipped
9
BILLION

ST is the only company to offer the full range of Sensors & Micro-actuators



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AMS Product & Market 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

AMS – Strategy Execution

2012-2015 Revenue evolution drivers

- ⬅ Consumer motion MEMS
- ⬅ Standard Analog & Logic (pruning)
- ⬅ Inkjet
- ➡ µMirrors
- ➡ Automotive/Industrial MEMS
- ➡ Touchscreen and High-End Analog
- ➡ MEMS Microphones

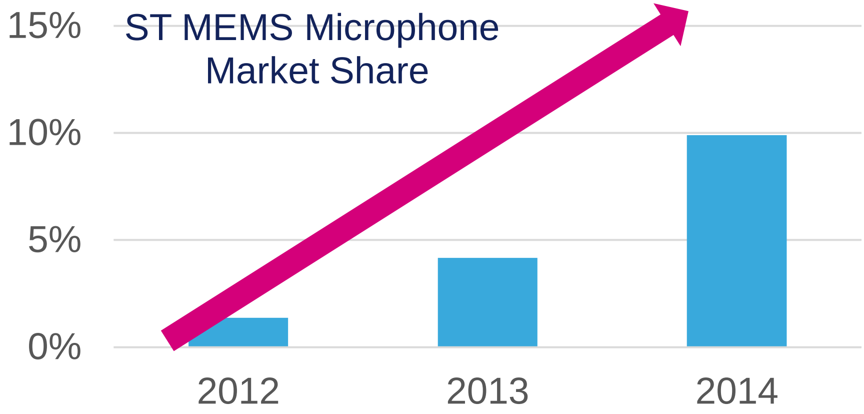
2015 Focus

- Grow **new generation 6-axis ultra-low power motion MEMS** with key customers
- Continued expansion of **touchscreen controllers** & **MEMS microphones** business
- Wider adoption of **environmental sensors**
- Broadening our **customer base in China**
- **MEMS micro Mirrors** in PC applications
- Addressing **Mass Market** through STM32 Open Development Environment and Open SW solutions
- **Automotive MEMS** ramp up
- **Bluetooth Low Energy** for Internet of Things

Back to year-over-year quarterly growth starting in 2Q15

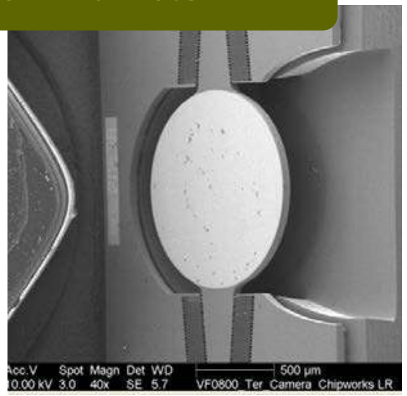
AMS - Strategy in Action

New products for traditional markets


ST MEMS Microphone Market Share

New products for new markets


Intel Realsense™



Traditional products for traditional markets

"Brand new STMicroelectronics 3mmx3mm LGA package featuring a 3D digital gyroscope and 3D digital accelerometer" Chipworks

New products for traditional markets

New Touchscreen technologies for flagship smartphones

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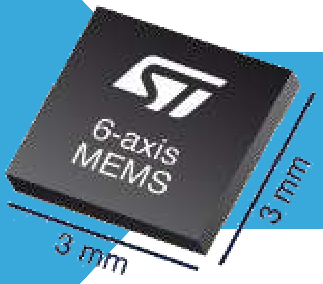
Source : IHS, ST

Consumer Motion MEMS Roadmap

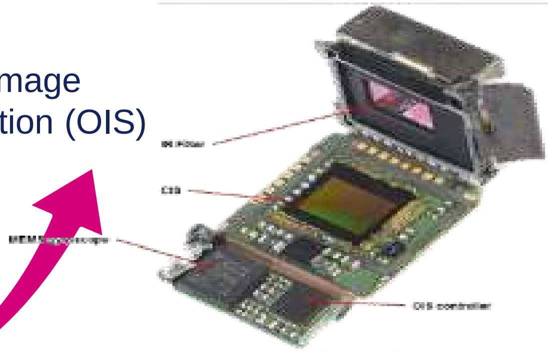
Ultra-low-power for the consumer Markets



Ultra-low-power, low-cost evolution

Low-noise
low-thickness

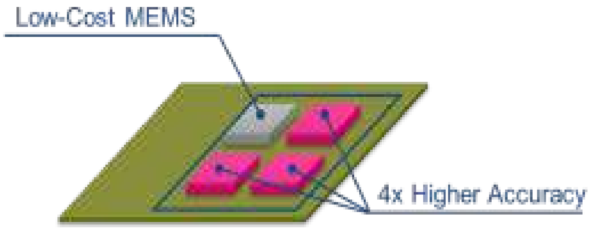
Optical Image
Stabilization (OIS)



New Markets penetration
Cost effectiveness

Toys and gaming
appliances

High Accuracy



Gaming and gesture
devices

Always-on
for tracking

Wearable

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Motion MEMS

Continued Innovation

- **Accelerometer**
- **Gyroscope**
- **Magnetometer**
- **6-Axis Inertial module**
- **6-Axis eCompass**
- **9-Axis Inertial module**
- **Optical Image Stabilization**

iNEMO Ultra - LSM6DS3

The 6X Ultra

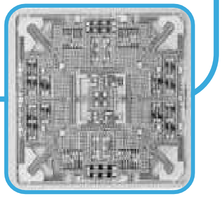
Ultra low power	**Ultra** small size
Ultra performing	**Ultra** capable
Ultra smart	**Ultra** scalable

>5 Billion motion MEMS shipped to date

Highlights

Renewal of product portfolio/continuing to lead innovation

- Launched new industry leading 6-axis sensor
- 3rd generation Gyroscope for Optical Image Stabilization <5mm2, thickness <0.75mm

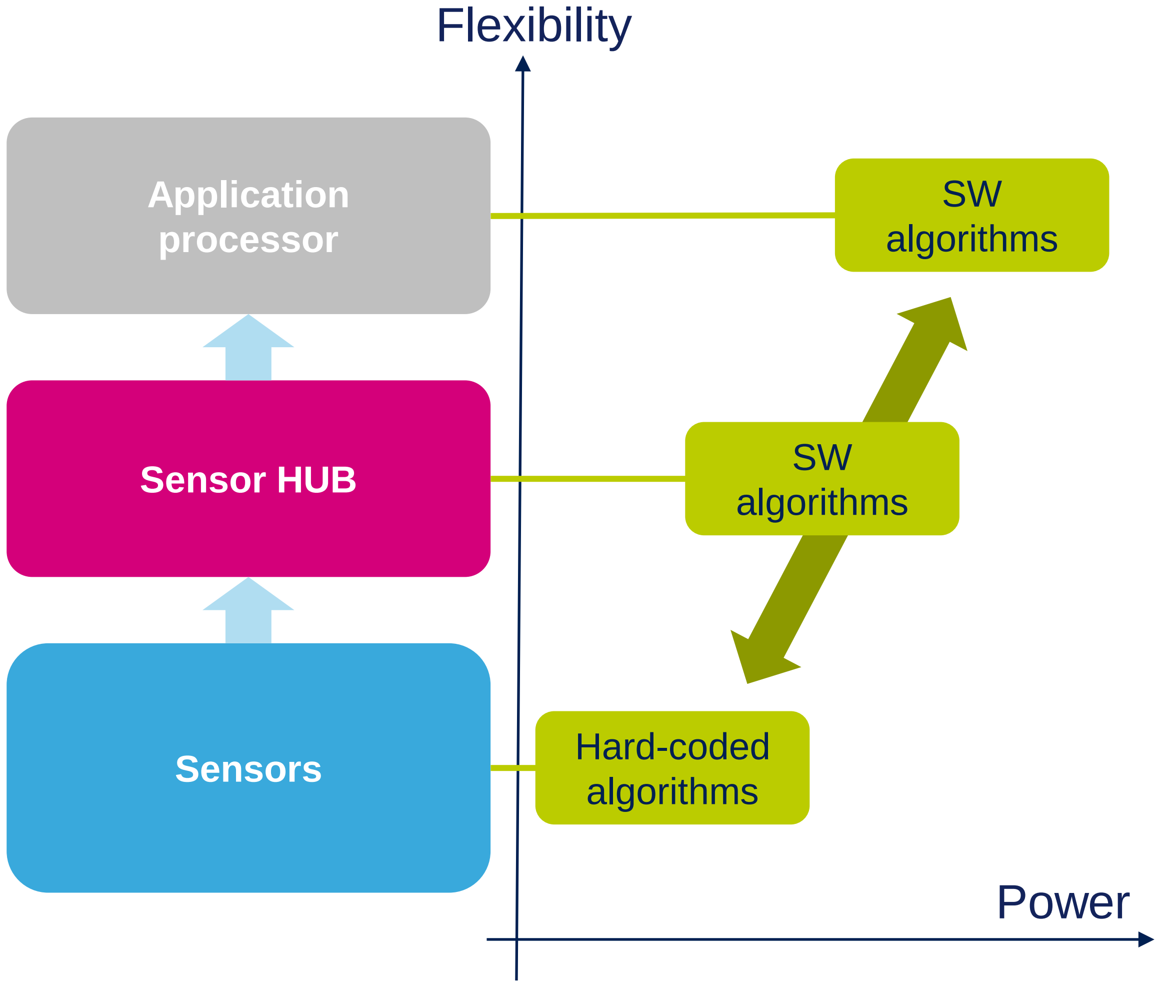


Brand new STMicroelectronics 3 mm x 3 mm LGA package featuring a 3D digital gyroscope and 3D digital accelerometer.

“This is the first time that we see **a true 6X sensor** in an Apple product that doesn’t require an external accelerometer.” Chipworks

Achieving lowest power Sensor Systems

Optimized for every Architecture

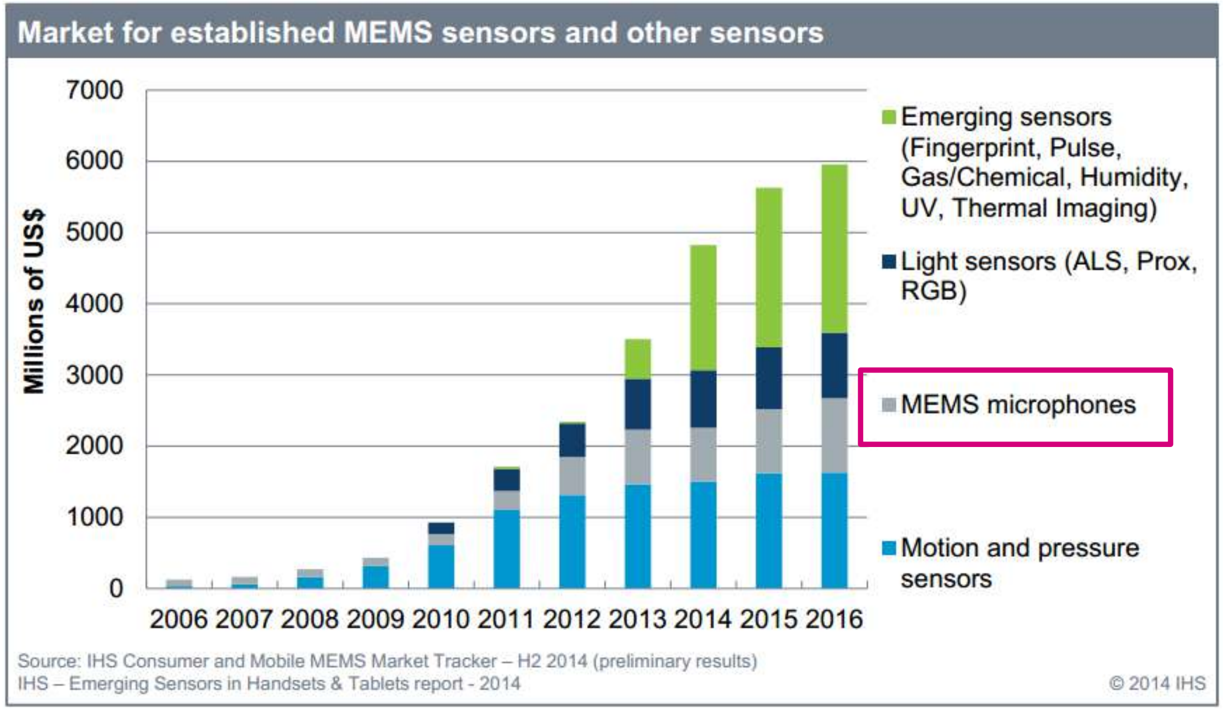


Always-on sensor systems must be ultra low power

- Hardware and Algorithms need to be individually optimized for ultra-low power
- Optimization at system level requires design that can be adapted to various architectures
- Building on ST’s Open Software for sensors

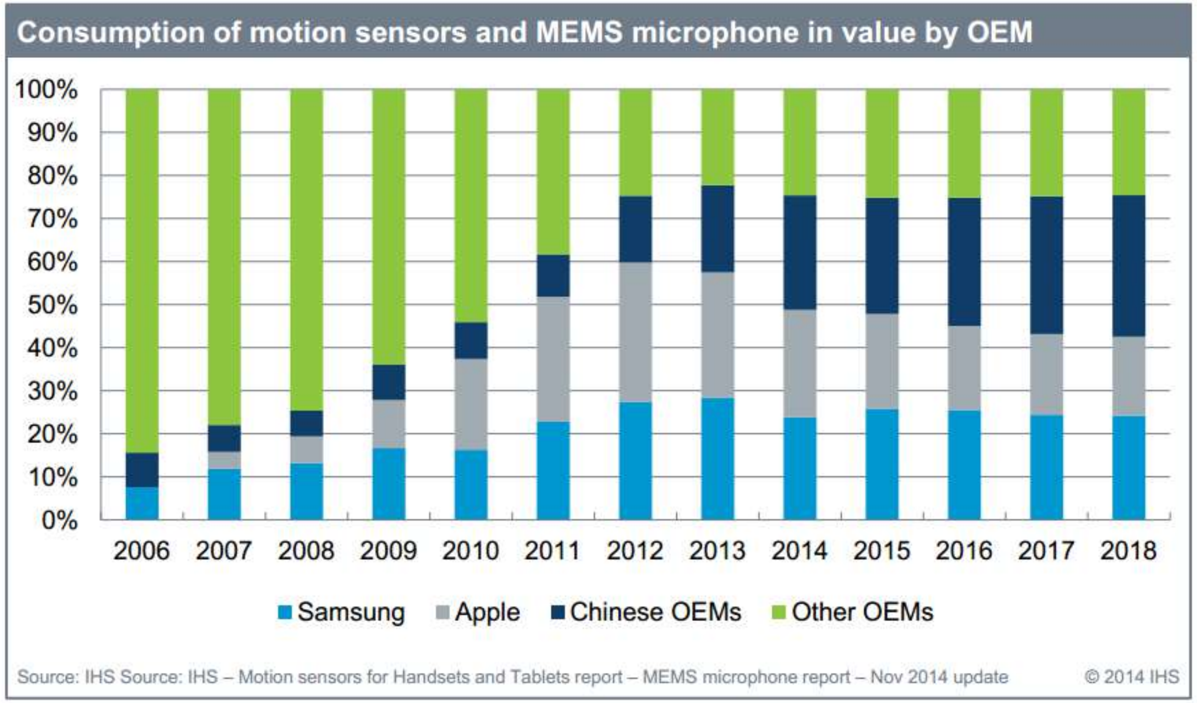
The Mobile Market Opportunity

Growth in sensors lies outside of motion



Source: IHS Consumer and Mobile MEMS Market Tracker – H2 2014 (preliminary results)
IHS – Emerging Sensors in Handsets & Tablets report - 2014

Chinese OEMs growing for motion and microphones



Source: IHS Source: IHS – Motion sensors for Handsets and Tablets report – MEMS microphone report – Nov 2014 update

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Motion MEMS wins in China

HUAWEI

Ascend Honor 4
Honor 4X

Ascend G7

Ascend GX1

Ascend Mate7

Ascend P7

Honor X1

Honor 6

Honor 3X

Honor 3C

G730

C199

Xiaomi

Redmi Note
W/C and LTE

Mi3
W/C and T

Mi4

Mi PAD

htc

One W8

One E8 vogue

One M8
M8 Lifestyle

One M8 Eye

Butterfly 2

CK Telecom

19 models

ZTE

V5 max

星星2号
Star 2

青漾2
Qingyang 2

Z max

小鲜
Xiaoxian

Blade Vec 4G

Q802C

Nubia X6

清漾
Qingyang

WATER WORLD

2 models

VIVO

Xplay3S

Xshot

X5

lenovo

Vibe Z2

Vibe X2 pro

Vibe X2

B8080-F

S810t

GiONEE

Elife E7

IUNI U2

MEIZU 魅族

MX4 Pro

ONEPLUS

ONEPLUS 1

Coolpad 酷派

大神 F1

oppo

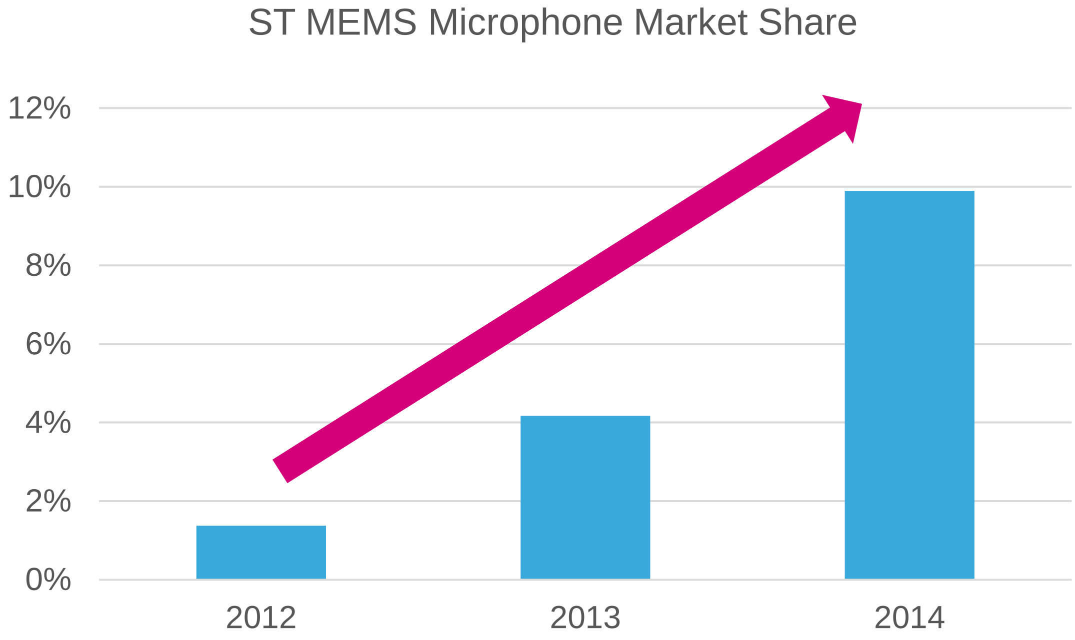
Find7

MEMS Microphones

Strong Market Share gain

Microphones

- Successful organic growth of business
- Over **260 million** MEMS microphones shipped in 2014
    - Market share from <2% in 2012 to **10%** in 2014
- Focus on High Performance Microphones
    - Always-on feature
    - Audio fidelity required by Social Media
- Proliferation of analog and digital microphones designs across the customer base in mobile and PC



Source:

Touchscreen

Winning most demanding Designs

FingerTip™ Touch-screen Controller

- Strong growth with touchscreen controllers
- High-profile wins beating out competition in some of the most demanding smartphones
- Winning value proposition
  - Very good high-end analog performance
  - Very low power consumption
  - High flexibility of solution and fast time to market
- FingerTip technology well positioned to address wearable, security and active pen applications

First to deliver a touchscreen controller for a curved smartphone display

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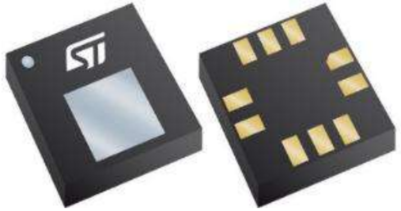
Environmental Sensors

Broadening the Portfolio

Pressure

- Around **65 million** Pressure sensors shipped in 2014
- Introduced world’s smallest pressure sensor in tiny package (2x2x0.76mm)
- Applications
  - Altimeter
  - Indoor navigation
  - Weather station



UV

- Introduced and ramped the world’s first sensor to provide a direct digital output of the Ultraviolet Index (UVI)

Humidity Temperature

- Combined temperature & humidity sensor in production

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Automotive MEMS

Strategy

Motion MEMS for Navigation & Telematics

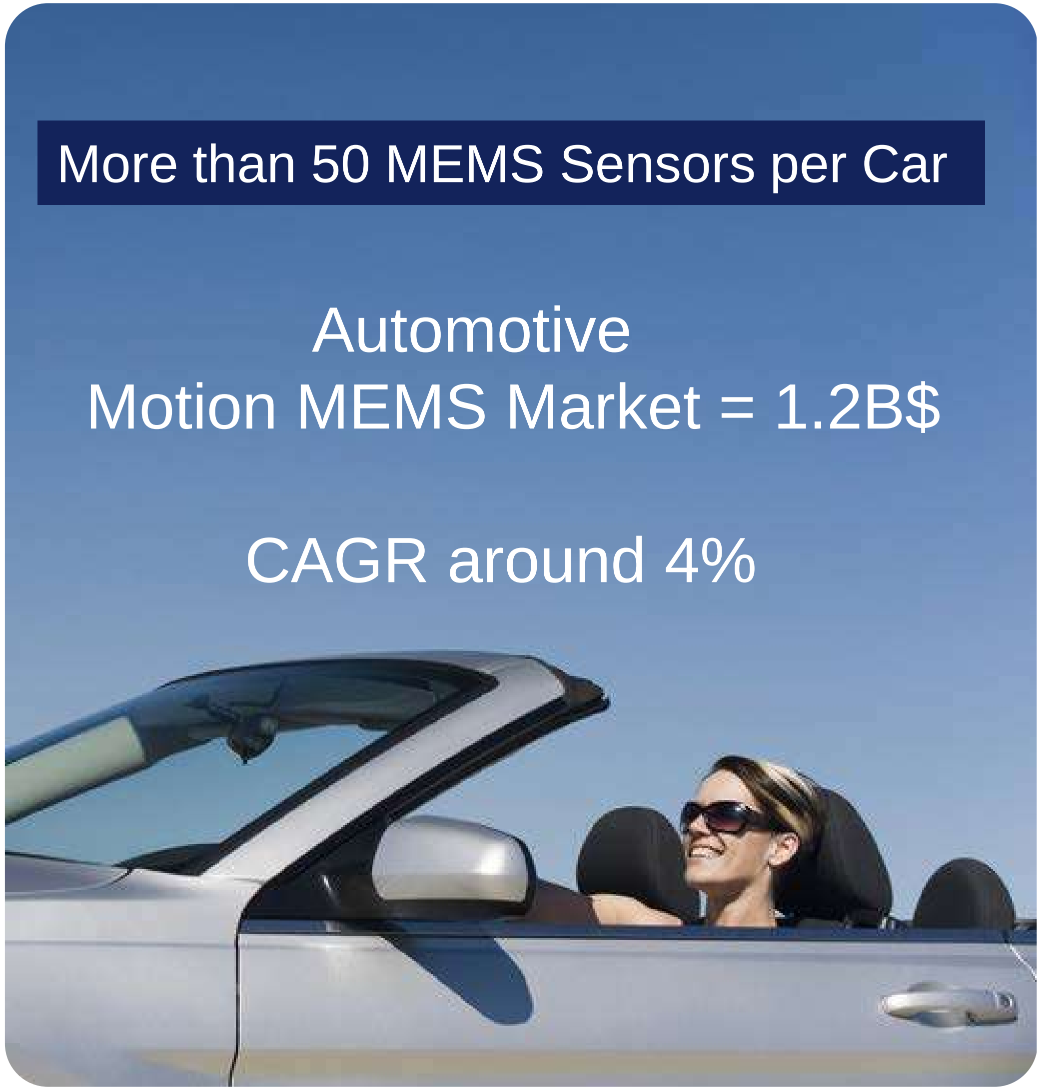
Step 1

- Number 1 today
- Expand customer base

Motion MEMS for Passive and Active Safety

Step 2

- First wins for passive safety
- Production started



More than 50 MEMS Sensors per Car

Automotive
Motion MEMS Market = 1.2B$

CAGR around 4%

Source: IHS, ST

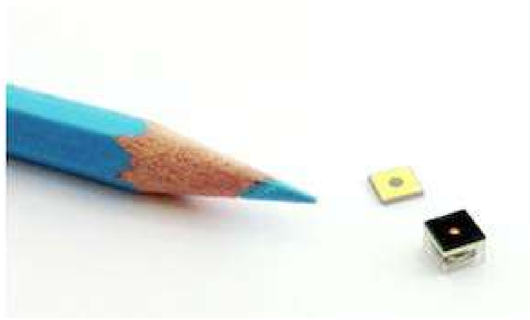
High Value Motion MEMS

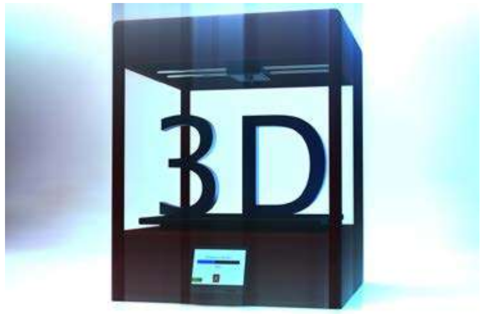
- Applications in Industrial, Medical, Aerospace & Defense
- Served by few major players and small MEMS specialists
- Growth is significant and opportunities for higher margins

Thin-film Piezo MEMS Actuators

New Technologies for the next Wave

- Camera Autofocus
  - Lower power consumption and higher speed versus Voice-Coil Motor (VCM) based solution
  - Working with innovative lens maker PoLight for autofocus actuator in smart phones
- High-speed inkjet print head for commercial and industrial applications
  - Enables printing with high-viscosity materials
  - Adaptable to different printing materials

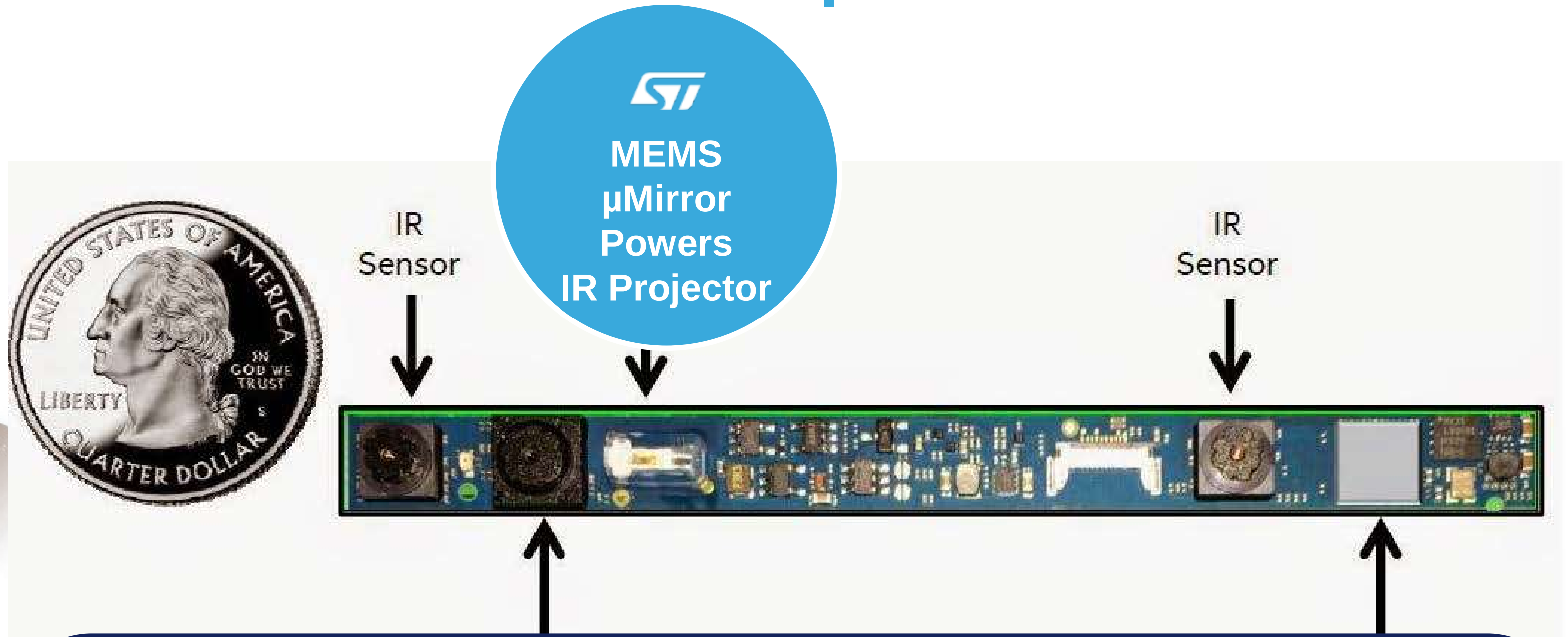




ST is the world leader with a Piezo MEMS technology on 8” silicon wafers

Intel RealSense™ Depth Camera

8 Products already on the market



(Some) Applications Examples

3D Scanning for 3D Printing,

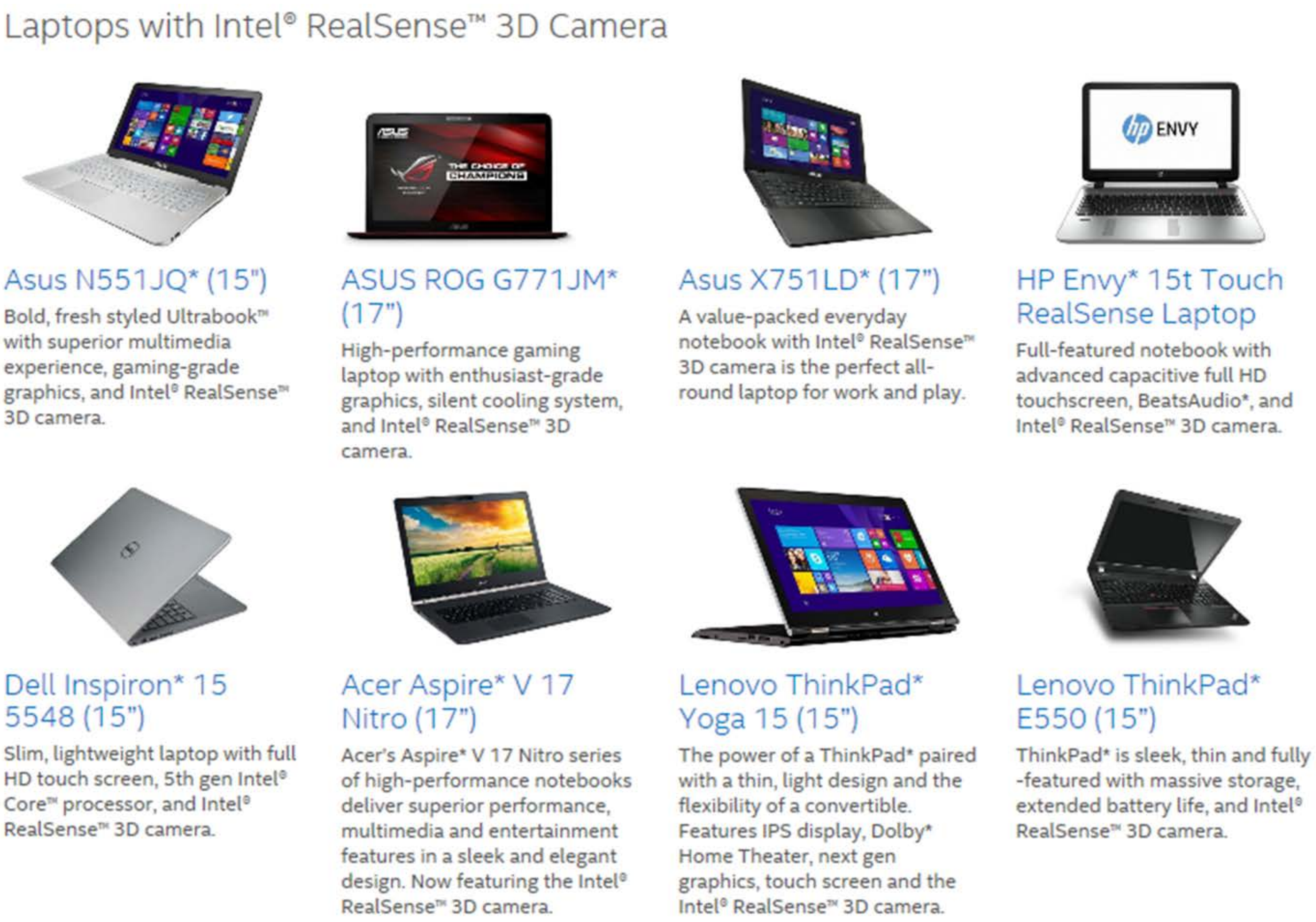
Accurate Gesture Control for Immersive Gaming

Face Recognition

Object Avoidance in autonomous devices

http://www.intel.com/content/www/us/en/architecture-and-technology/realsense-overview.html

Realsense™ Devices



Laptops with Intel® RealSense™ 3D Camera

Asus N551JQ* (15")

Bold, fresh styled Ultrabook™ with superior multimedia experience, gaming-grade graphics, and Intel® RealSense™ 3D camera.

ASUS ROG G771JM* (17")

High-performance gaming laptop with enthusiast-grade graphics, silent cooling system, and Intel® RealSense™ 3D camera.

Asus X751LD* (17")

A value-packed everyday notebook with Intel® RealSense™ 3D camera is the perfect all-round laptop for work and play.

HP Envy* 15t Touch RealSense Laptop

Full-featured notebook with advanced capacitive full HD touchscreen, BeatsAudio*, and Intel® RealSense™ 3D camera.

Dell Inspiron* 15 5548 (15")

Slim, lightweight laptop with full HD touch screen, 5th gen Intel® Core™ processor, and Intel® RealSense™ 3D camera.

Acer Aspire* V 17 Nitro (17")

Acer's Aspire* V 17 Nitro series of high-performance notebooks deliver superior performance, multimedia and entertainment features in a sleek and elegant design. Now featuring the Intel® RealSense™ 3D camera.

Lenovo ThinkPad* Yoga 15 (15")

The power of a ThinkPad* paired with a thin, light design and the flexibility of a convertible. Features IPS display, Dolby* Home Theater, next gen graphics, touch screen and the Intel® RealSense™ 3D camera.

Lenovo ThinkPad* E550 (15")

ThinkPad* is sleek, thin and fully -featured with massive storage, extended battery life, and Intel® RealSense™ 3D camera.

IoT: Wireless Opportunities

Investing in RF has significant potential for growth

Ultra-low power connectivity

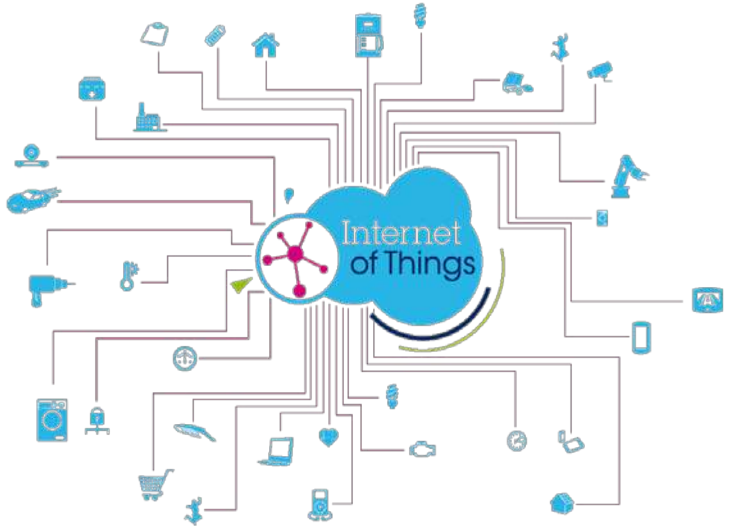
BlueNRG

- Introduced an upgrade to our energy-efficient Bluetooth Smart network processor running the Bluetooth 4.1 protocol stack

SPIRIT

- Very low power RF transceiver for SubGHz license-free ISM and SRD bands

IoT devices for **Smart Me** and **Smart Home** need both Bluetooth Smart and subGhz radio



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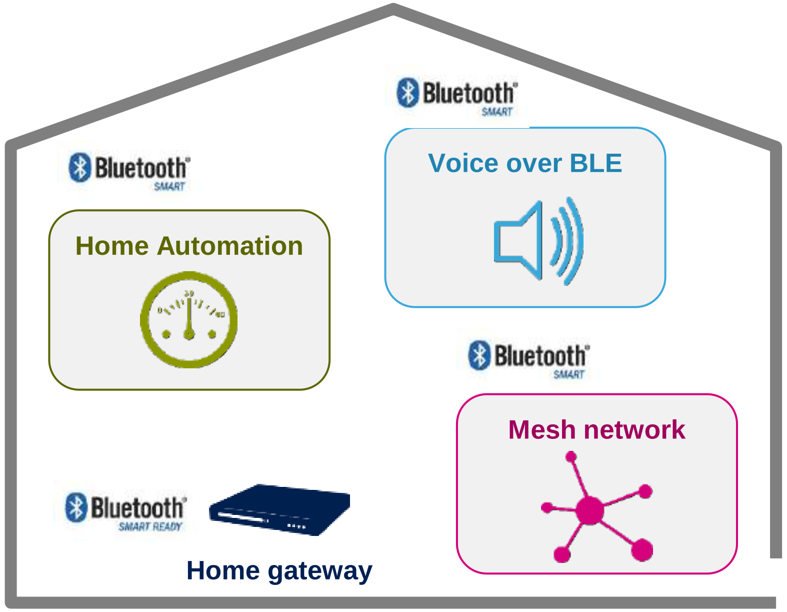
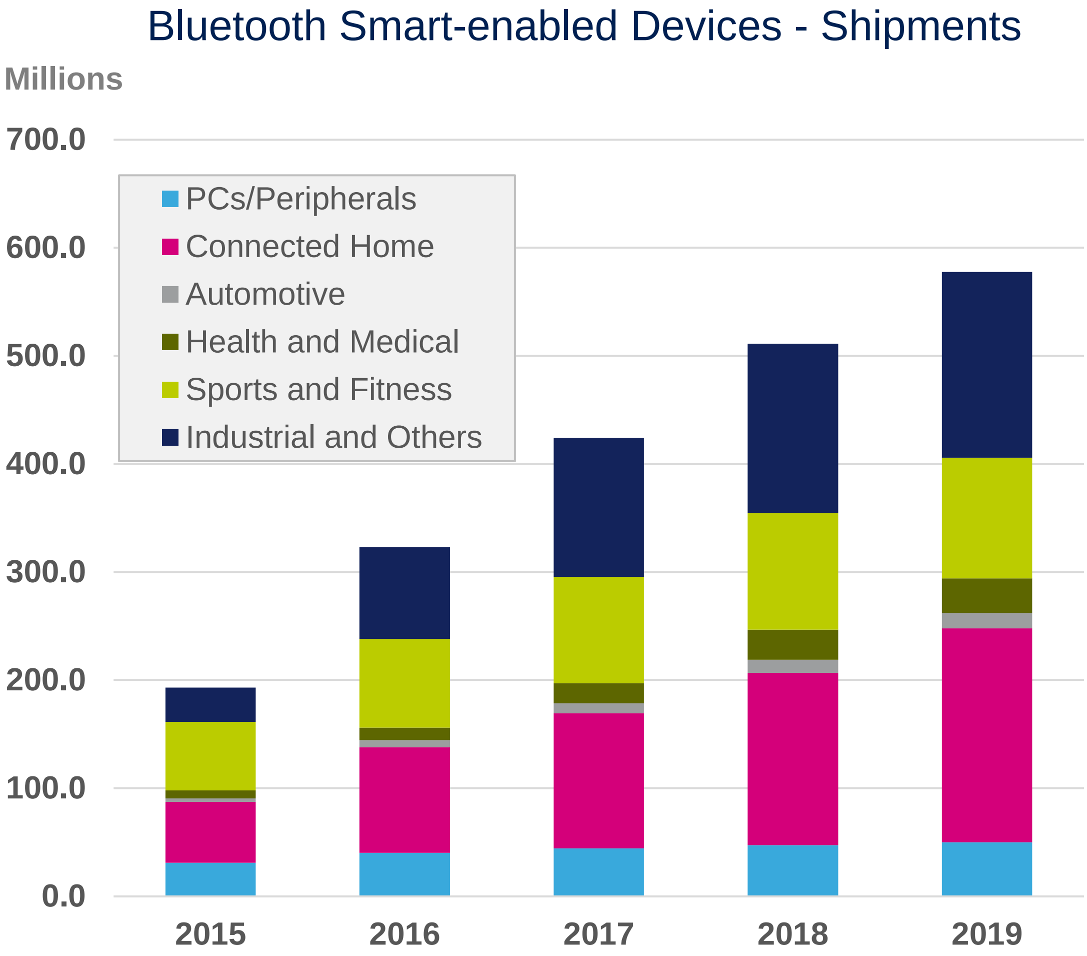
Bluetooth Smart Market

Smart home is forecasted to be the biggest market for Bluetooth Smart devices





Source: ABI research

Analog and RF for IoT

ST is investing in analog and RF and has significant potential for growth

- Wide range of analog products needed by our customers to complete product design
- Opportunities to design-in alongside flagship solutions
- Push through distribution and online channels to increase market reach
- Target application marketing for wearable devices

Analog

Operational amplifiers

Large portfolio of highly power-efficient op amp in tiny packages

Analog switches

Compact single and dual switches for audio and USB

Current sensors

High accuracy current measurement for contactless battery chargers

Battery gas gauges

Low-power gas gauge providing very accurate battery life indicators

Audio amplifiers

High-efficiency Class D and G amplifiers for headsets and speakers

Smart reset

Customizable products providing safe and convenient reset

Ultra-sound Pulsers

Highly-integrated ultrasound pulser ICs with four or eight independent channels.

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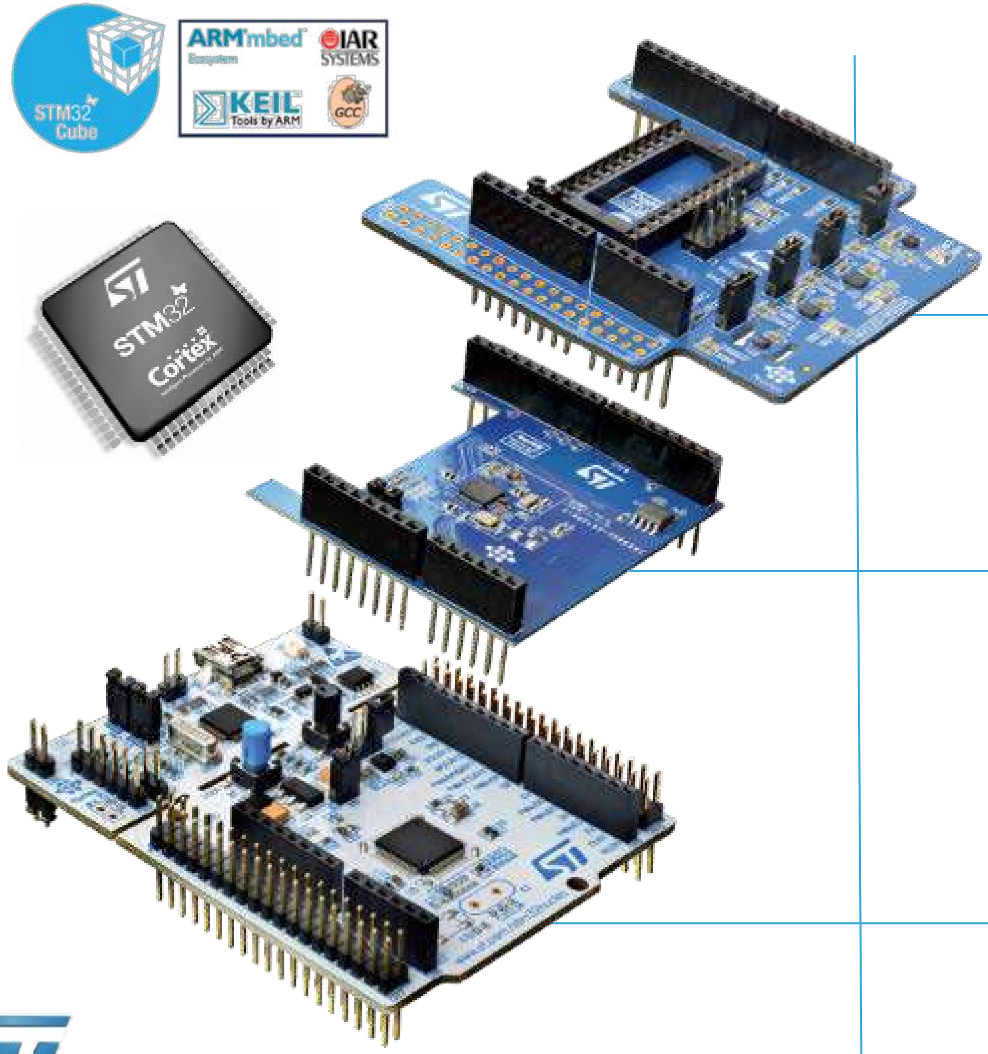
Easy access to portfolio for Developers

To increase our share in the mass market



Motion MEMS

Environmental Sensors

Ultra-low power connectivity

Algorithms

Sensor fusion

Open.Software

- License SW for single-use on specific target hardware (STM32 Nucleo Development Board)
- Click through license on website

Takeaways

- Product differentiation is key for sustainable growth in the field of sensors
- Today, much more than traditional motion MEMS
  - Diversification strategy initiated in 2012 starting to deliver results with strong momentum in microphone and touchscreen controller
- New generation motion MEMS shows a good traction both in the consumer and automotive market
- Partnership with market leaders and emerging startups is key to drive the creation of new markets
  - Example of Intel and world of perceptual computing
- BlueNRG and SPIRIT cutting the wire for IoT

Automotive Product Group (APG)

Marco Monti

Executive Vice President,
General Manager, Automotive Product Group

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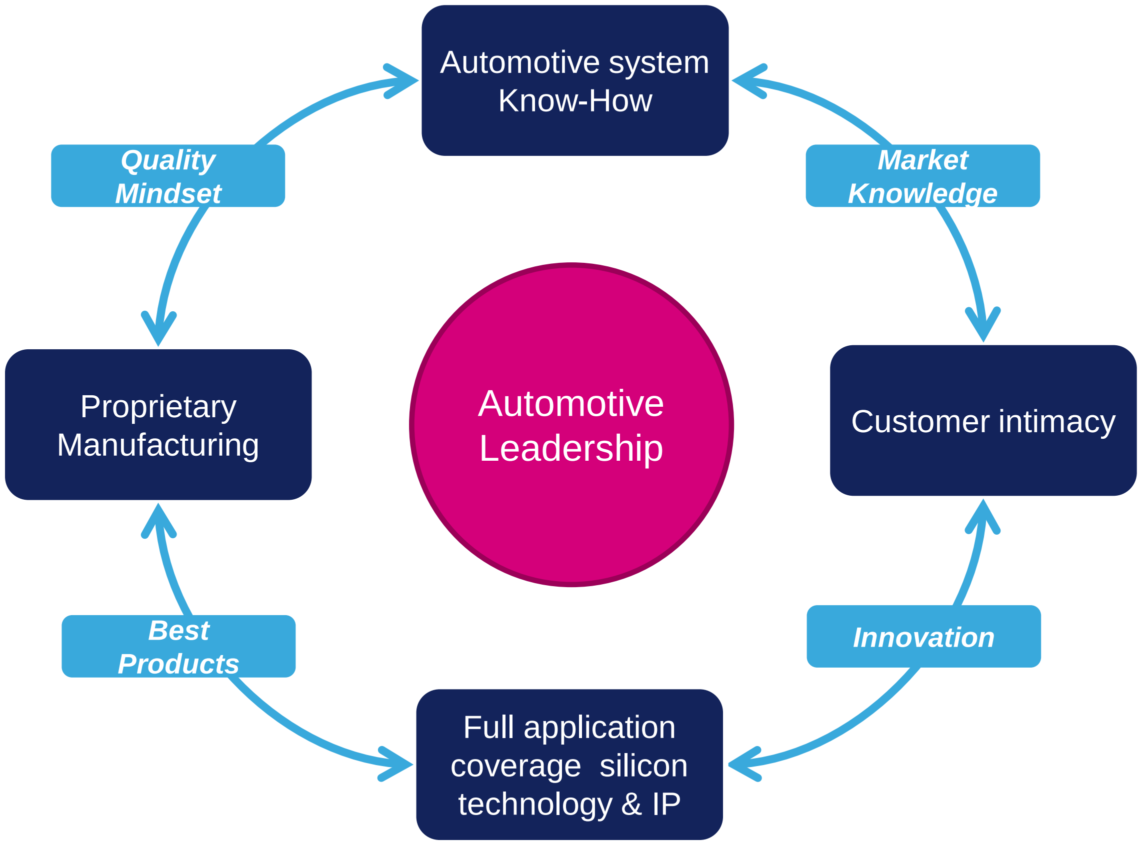
ST in Automotive Today

- 30+ years leadership in automotive
- Continuous growth in all regions
- Several partnerships with leading car makers and major OEMs
- Wide application coverage thanks to state of the art technology portfolio
- Proprietary and independent manufacturing mastering quality and automotive requirements
- Industrial / digital convergence IP reuse with a full automotive grade quality to support innovation



Well positioned in USA

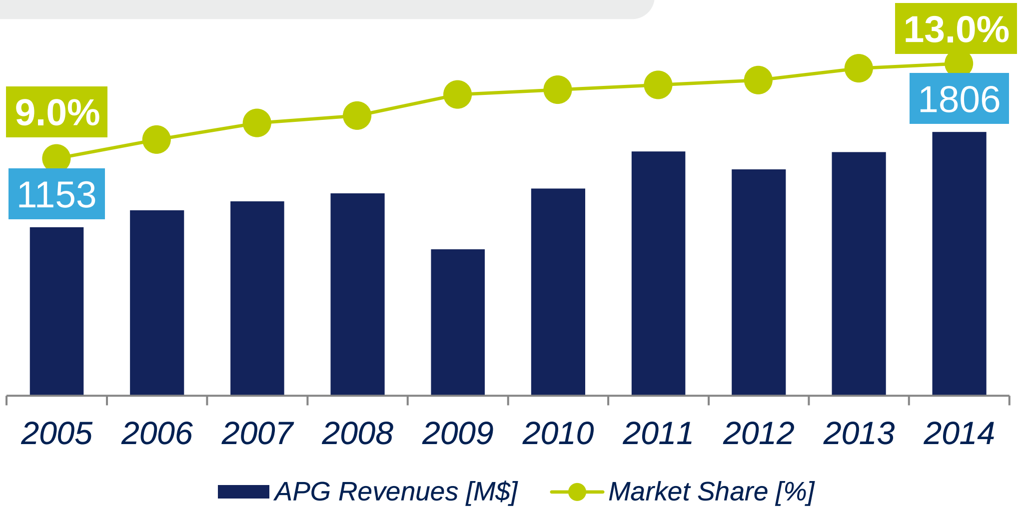
Solid link with European Industry Leaders

Steady Sales Growth in China

Historical presence in Japan and Korea

APG: Positioning

Continuous Steady Growth



Outperforming 2014 Market Growth	
EMEA	+9%
Americas	+8%
Japan & Korea	+7%
GCSA	+10%
Total	**+8.3%**

Market Leadership

Automotive Electronics
~12 B$ Serviceable Market
~11.8% Share

WW Rank	Domain	Share
1st	*Engine control*	*~32%*
1st	*Charging*	*~22%*
1st	*ADAS Systems*	*~70%*
1st	*Braking*	*~19%*
2nd	*Airbag*	*~14%*
1st	*Car Lighting*	*~45%*
1st	*Door Zone*	*~80%*

Car Infotainment
~2.0 B$ Serviceable Market
~20% Share

WW Rank	Domain	Share
2nd	*Positioning*	*~14%*
1st	*Digital Tuners*	*~50%*
2nd	*Infotainment*	*~13%*
1st	*Audio*	*~43%*

APG 2014 Revenue: 1.8B$

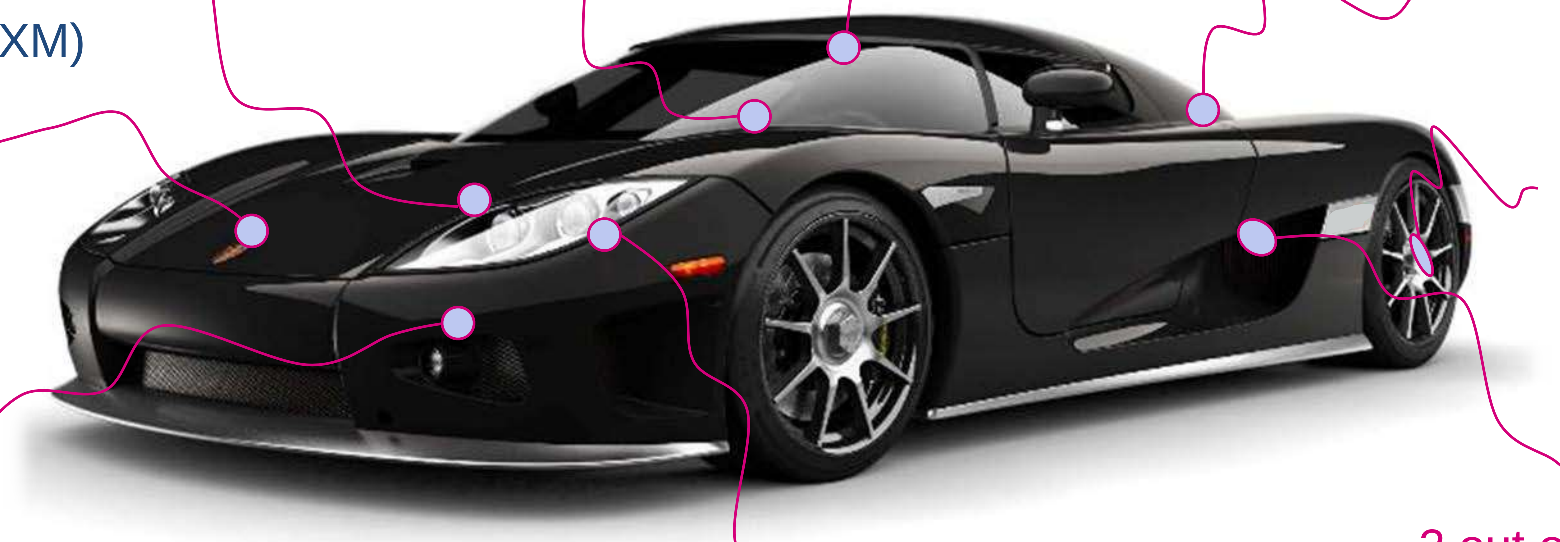
#3 WW Automotive Supplier

#2 WW Supplier On APG SAM (*)

All data bases on APG SAM in 2014. ADAS: video processing and radar Rx/Tx

Source: Strategy Analytics, ST

APG at a Glance in 2014



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

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

22 APG components in each new vehicle

2.5 Million VIPower chips shipped every day

100% market share in US satellite radio (Sirius XM)

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

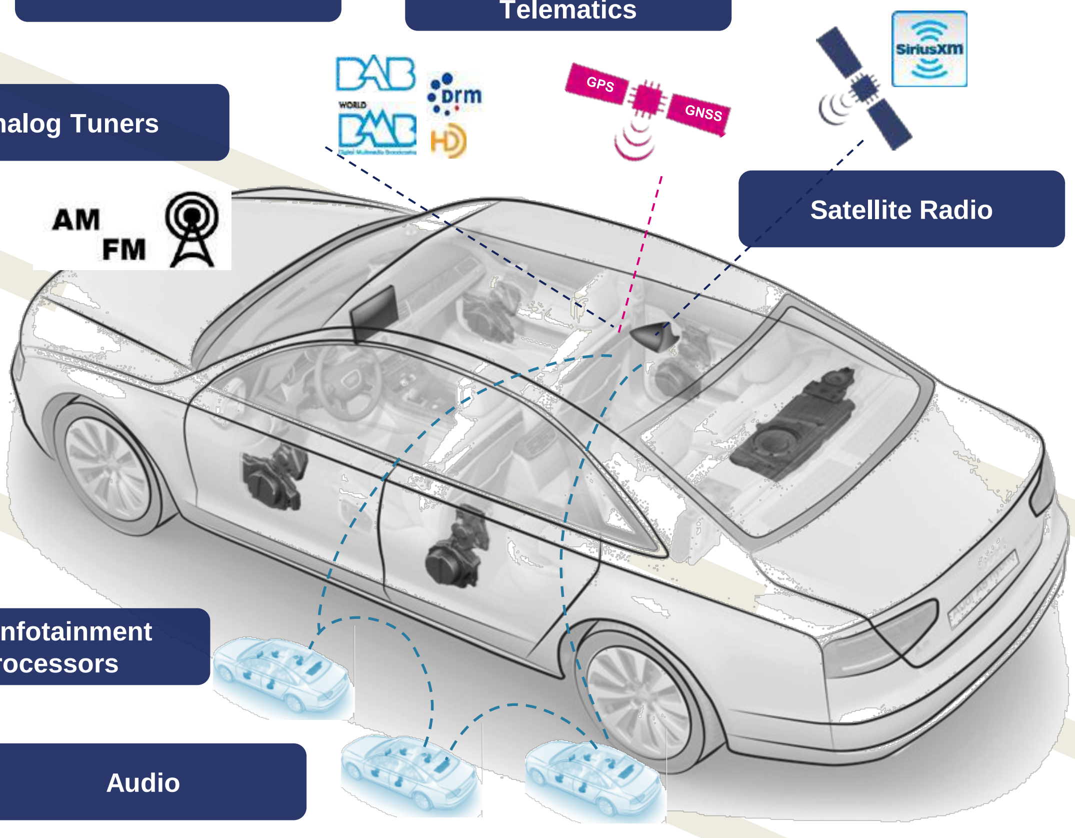
30 Million 32-bit MCUs shipped

2 out of 3 cars produced are equipped with an ST Sound System (excluding aftermarket)

850 Million Lamps (1 out of 2) driven by APG

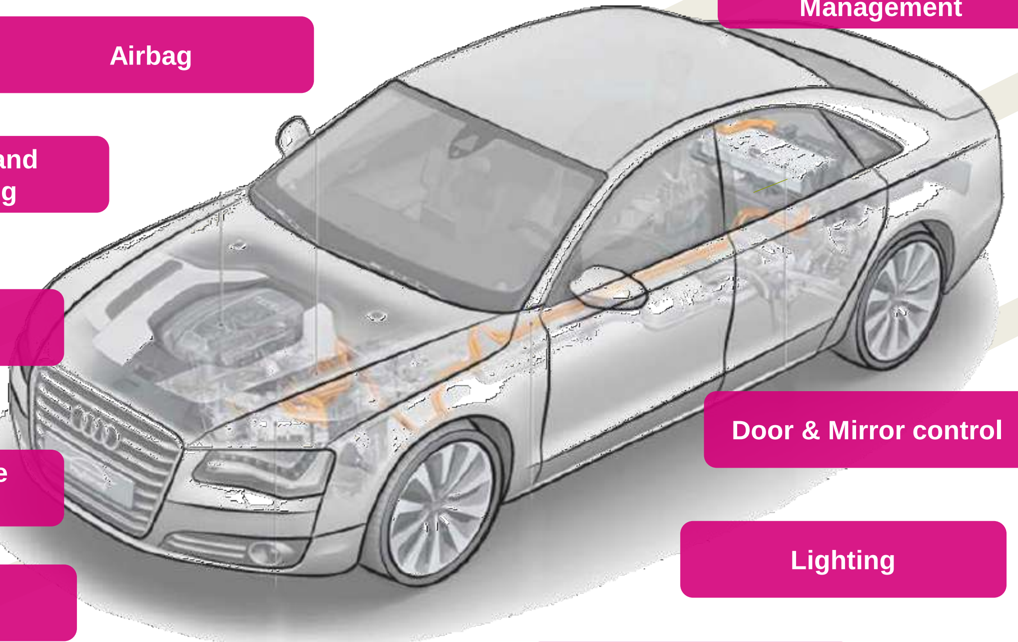
APG: Broad Coverage of Automotive Applications

Car Infotainment & Connectivity



- Digital Tuners
- Positioning & Telematics
- Analog Tuners
- Satellite Radio
- Car Infotainment Processors
- Audio
- Car Radio
- Vehicle to X (vehicle to vehicle vehicle to infrastructure)

Automotive Electronics



- Charging (12V)
- Active Safety
- EV Battery Management
- Airbag
- Car wiring and networking
- Thermal Engine Control
- Electrical Engine Control
- Automatic Transmission
- Door & Mirror control
- Lighting
- Braking (ABS, VDC)
- Steering (EPS)
- Suspension

A truly broad Range Product Portfolio

In all automotive Applications

Product Portfolio:
from Commodity to complex digital ASICs

Low

Complexity

High

- Driver & switches
- Voltage regulator
- Alternator regulator
- Bus transceiver
- Motor controller
- LED driver
- 8/16/32-bit Microcontrollers
- Analog & digital tuners
- 24/77 GHz Transceivers
- Super-integrated ASIC
- Vision based processor
- Multi-constellation GNSS

… in all automotive domains

Low

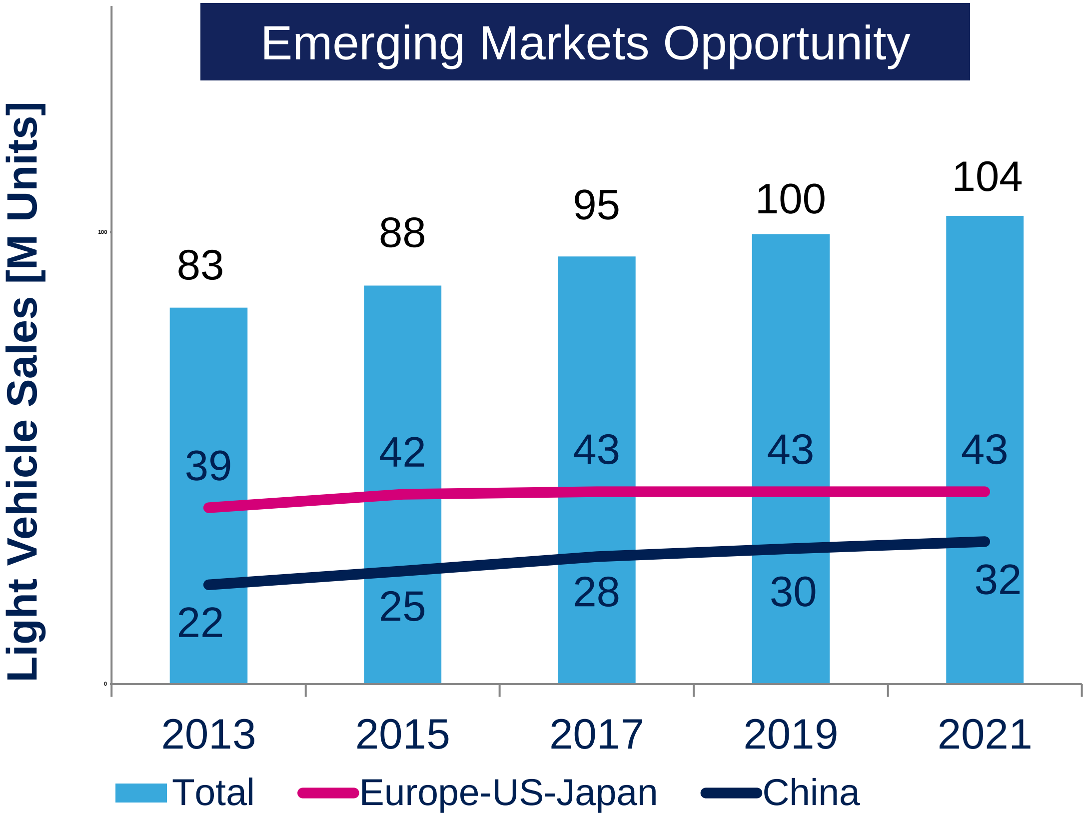
Complexity

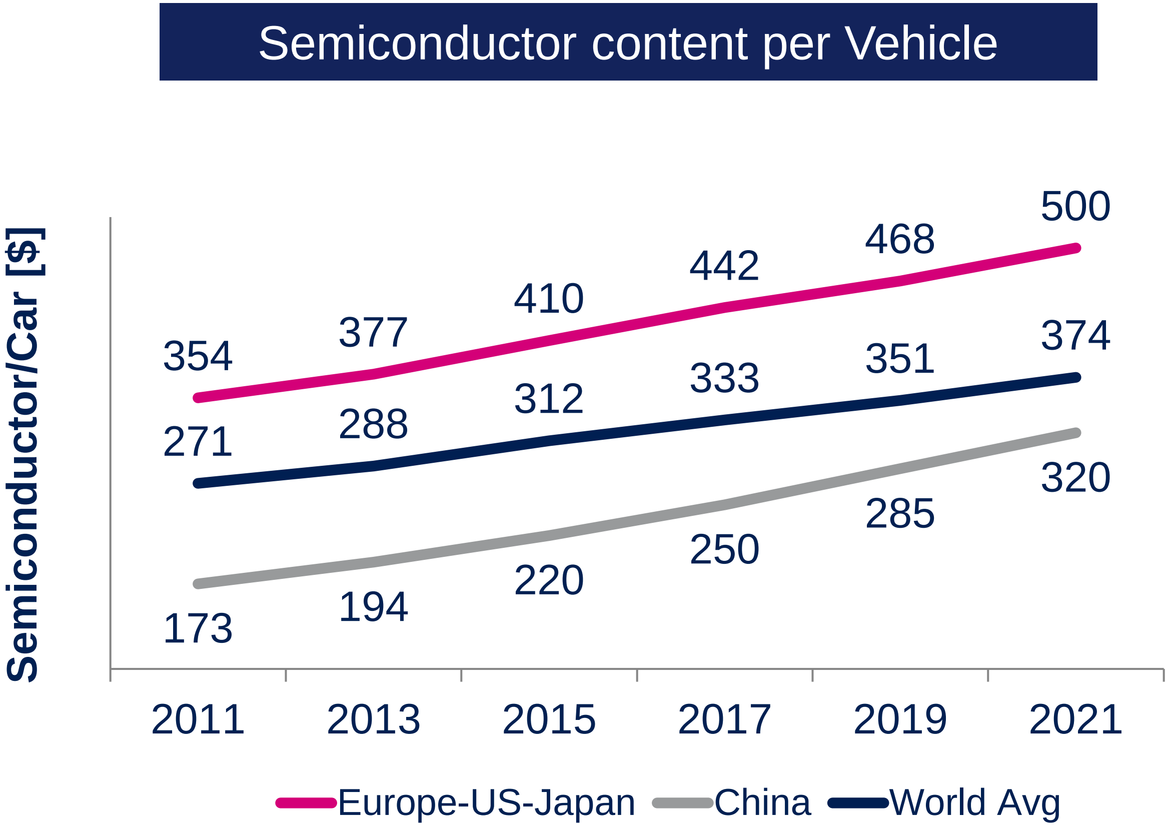
High

- Internal external light controller
- Door module
- Car power management
- Electrical engine
- Thermal engine
- Braking
- Steering
- Vehicle control
- Car networking
- Digital car radio infotainment
- Automatic gearbox
- ADAS Vision & Radar

Automotive Market: The Right Place to Be

Addressing a $26B market





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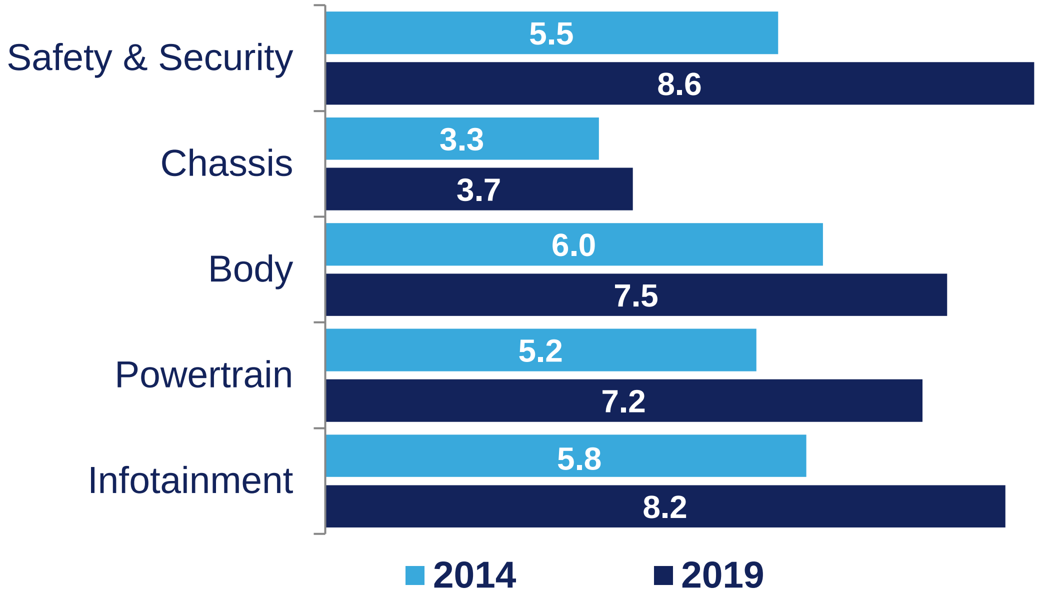
Source: Strategy Analytics, IHS, full market excluding sensors

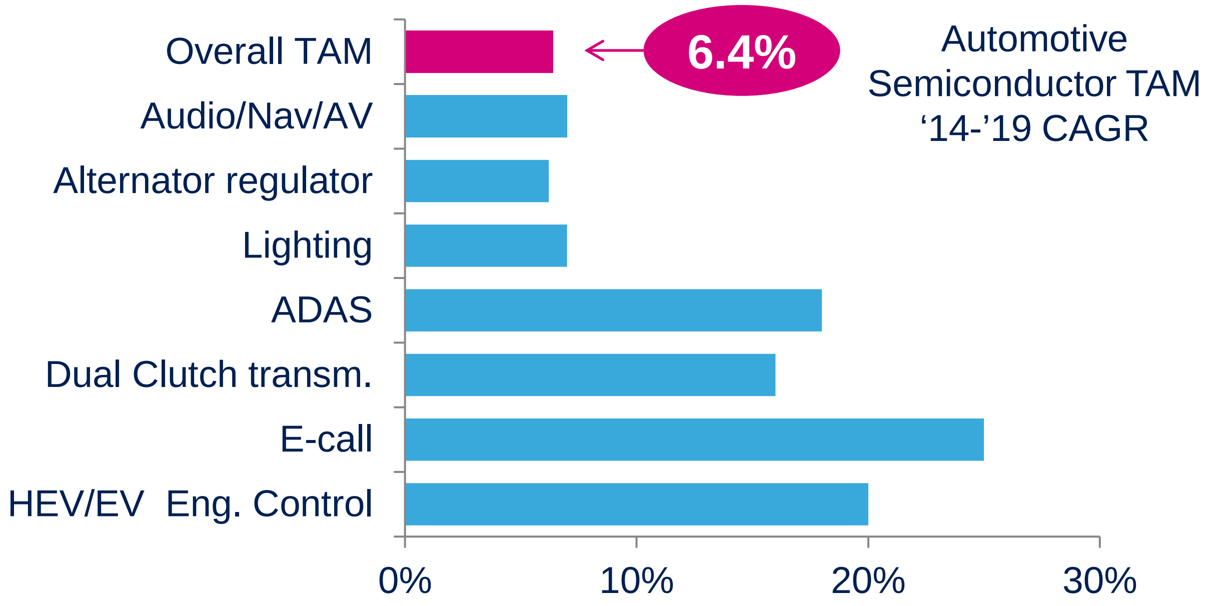
Automotive Market: The Right Place to Be

Addressing a $26B market

All Segments Growing $B



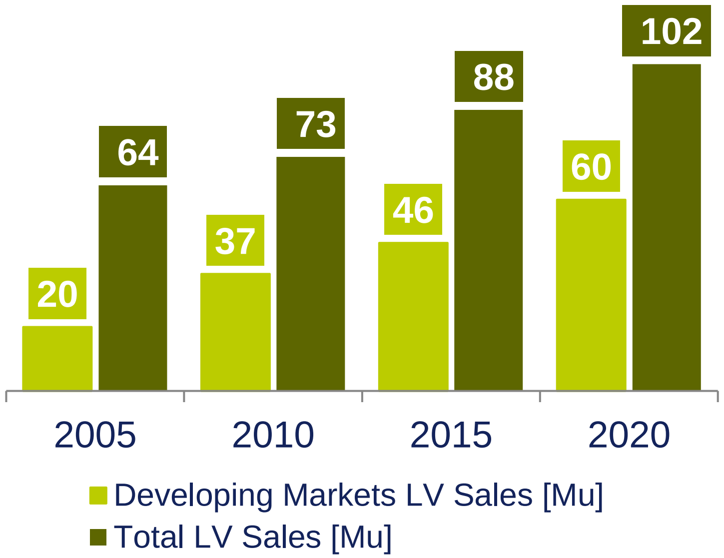
Emerging Applications

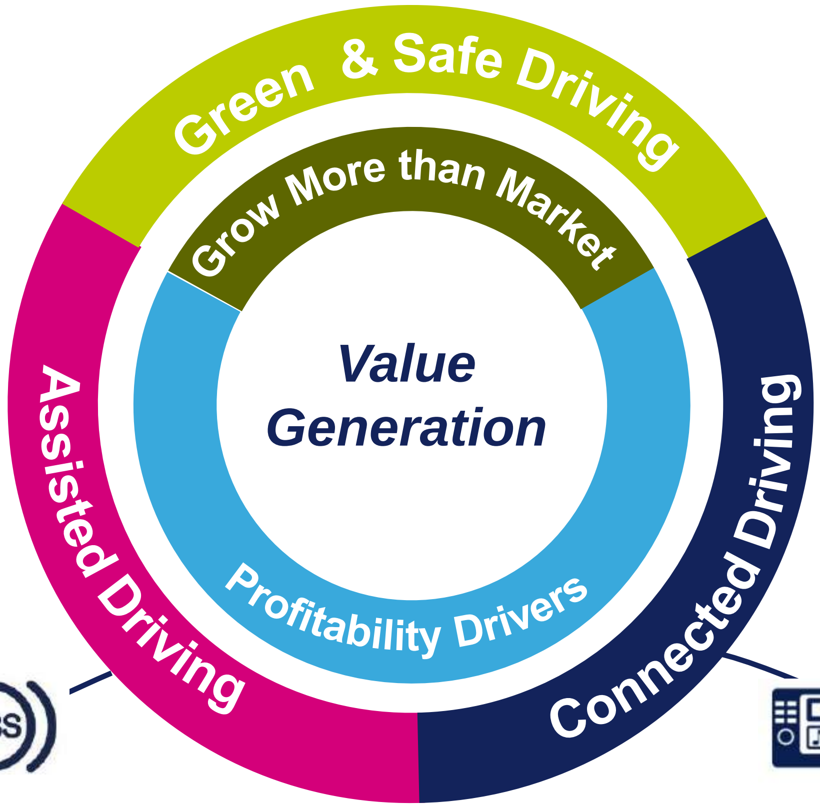


Source: Strategy Analytics, IHS, full market excluding sensors

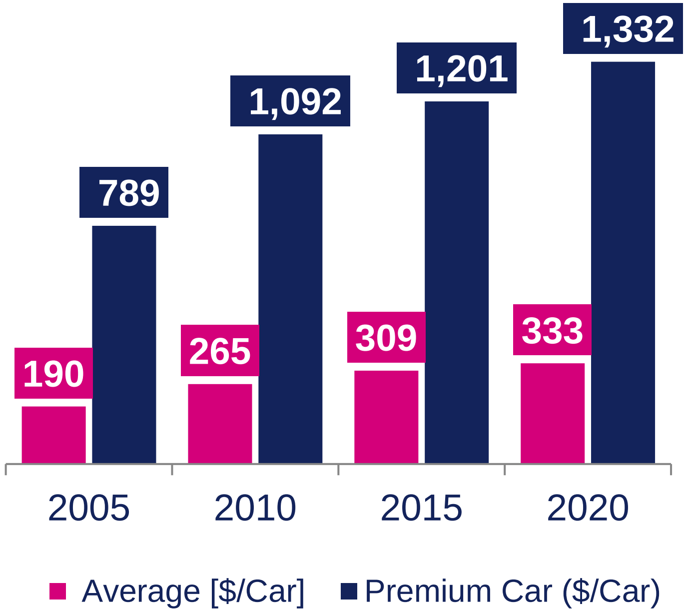
APG: Growth Driver

Volume Growth



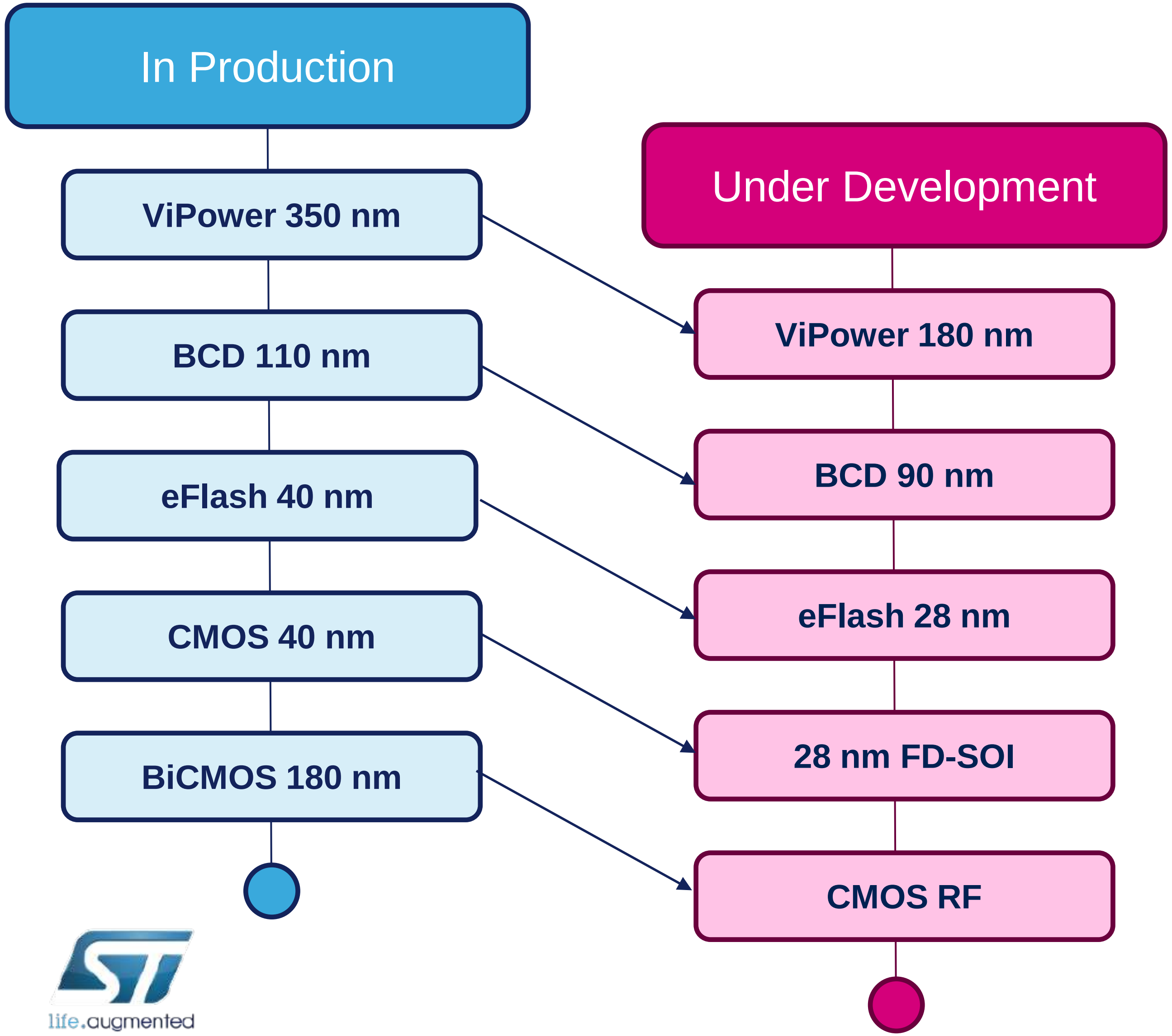


Innovation Pervasivness



Source: Strategy Analytics, IHS, full market excluding sensors

Leadership in Technology & Manufacturing



In Production

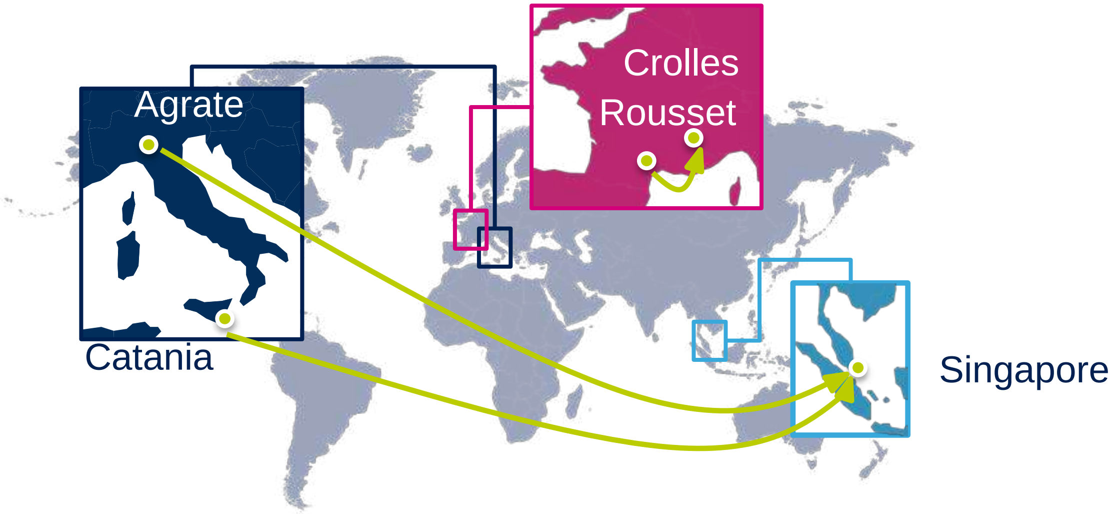
- ViPower 350 nm
- BCD 110 nm
- eFlash 40 nm
- CMOS 40 nm
- BiCMOS 180 nm

Under Development

- ViPower 180 nm
- BCD 90 nm
- eFlash 28 nm
- 28 nm FD-SOI
- CMOS RF

Tailored technology roadmap for automotive

With dedicated multi-site in-house manufacturing



Pervasiveness per Vehicle: Green and Safe Driving

Powertrain Smart Power

Direct Injection Engine

- New Award: driver family for Engine Control System for European market leader covering from Low to Hi-end
- New Award: System Chip for Engine Management for leading player in emerging markets

Automatic Gearbox

- In production with Integrated Market Solution for High-Precision Automatic Transmission for Japanese worldwide market leader
- New Award: new BLDC motor driver for Transmission worldwide market leader.

Charging

- New Programmable Solution dedicated to low-end Emerging Markets

Safety Smart Power

Airbag

- In production with new generation IC for worldwide restraint system leader
- New extension devices (up to 40 loops) under design to cover premium segment market
- Complete Product Offer for Low & Hi-End, in production with latest 160 nm Technology

Braking

- New Award: world first integrated solution for ESC and parking braking for Japanese worlwide market leader.
- Extending worldwide leadership (70% mkt share) in parking brake application

Steering

- New Award: new generation BLDC motor driver for European market leader

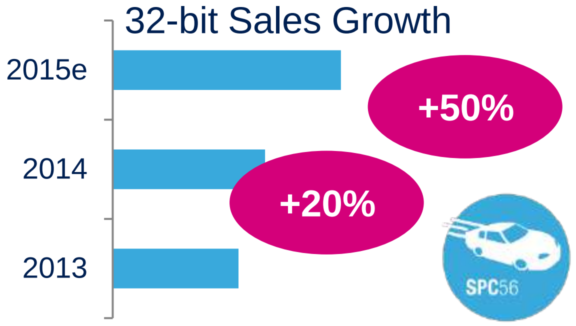
Pervasiveness per Vehicle: Key Opportunities

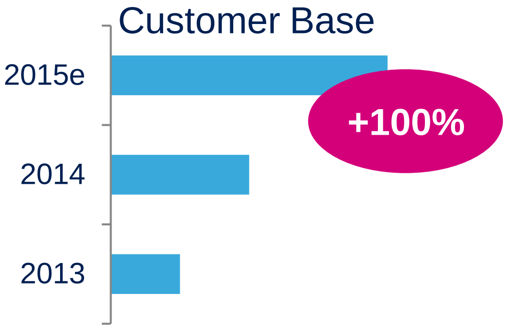
Body

- Market leadership in Lighting Reinforced
  - Clear Technology advantage vs. our competition
  - Product Portfolio extension with new high power solutions
  - Several Wins achieved to expand our customer base
  - More than 20 new part numbers entering in production in 2015
  - Complete solutions for LED front and rear lighting
- High efficiency motor drivers
  - New Door Zone ICs in volume ramp-up for several worldwide market leaders to reinforce our leadership

32-bit microcontroller for Automotive

- Announced first 40nm high performance product with multi-core safety architecture and advanced security ready to production
- Product line-up expansion with 50 new part numbers in 2015
- More then doubling our sales in 2015
- Continuing to report outstanding business awards in Power Train, Safety and Body applications with market leaders to sustain our growth





Emerging Markets: Kits & dedicated Products

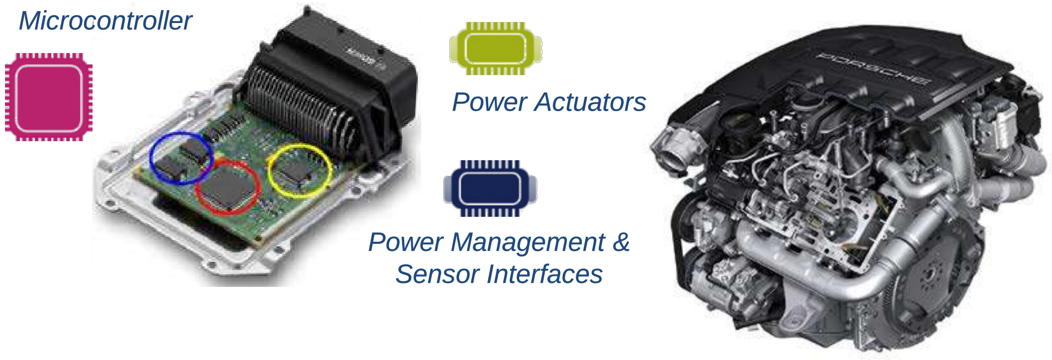
System Solutions

- 4-cycle engine control
- 1/2-cycle motorcycle engine control
- Entry level ABS
- Entry level stability control
- Low to mid-end airbag
- Body control module
- Digital tuners
- Entry level infotainment

Dedicated Roadmap for Mass Market

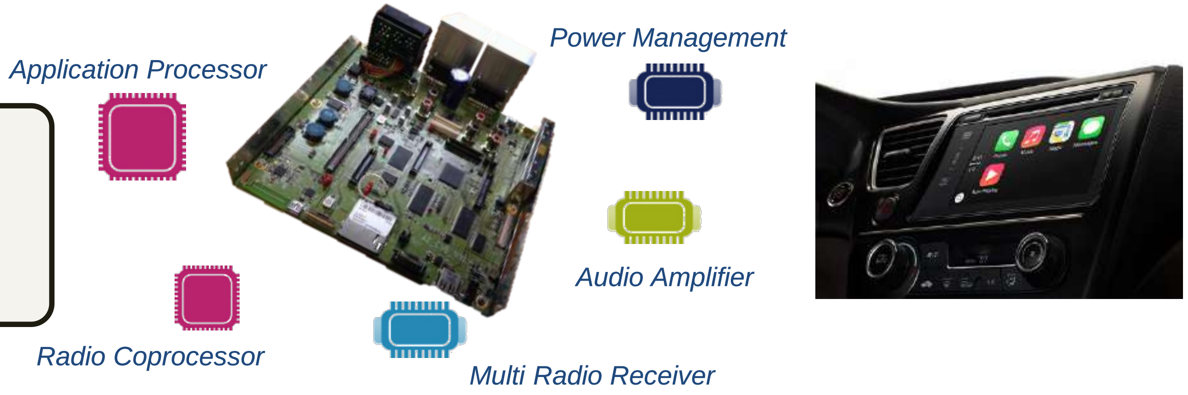
- Low-cost 4-cycle engine control compliant to the China-6 emission regulation
- 4 to 8 channel fully integrated airbag IC
- Alternator regulator for emerging market
- New 32-bit MCU For powertrain (electrical/combustion)

Full Kit Solution for
Engine Contol
Up to 6 ST ICs



Full Kit Solution for
Body Control
Up to 20 ST ICs

Full Kit Solution for
Infotainment
Up to 5 ST ICs



From Assisted to Autonomous Driving

- Market leader in **vision based solutions** with presence in more than 27 car brands** . More than 70% market share*
  - 4th generation under development exploiting full autonomous driving in cooperation with Mobileye leveraging on ST 28nm FD-SOI process
- Market Leader in **Short Range and Long Range Radar**
  - First 77GHz single chip RX-TX available
  - Expanded family of 24Ghz receivers with multiple RX/TX channel in a single package
- **V2X Communication**
  - New partnership with Autotalks to complement our IP portfolio (accurate positioning, processing platform and security solution) with Wi-Fi 802.11p Know-How

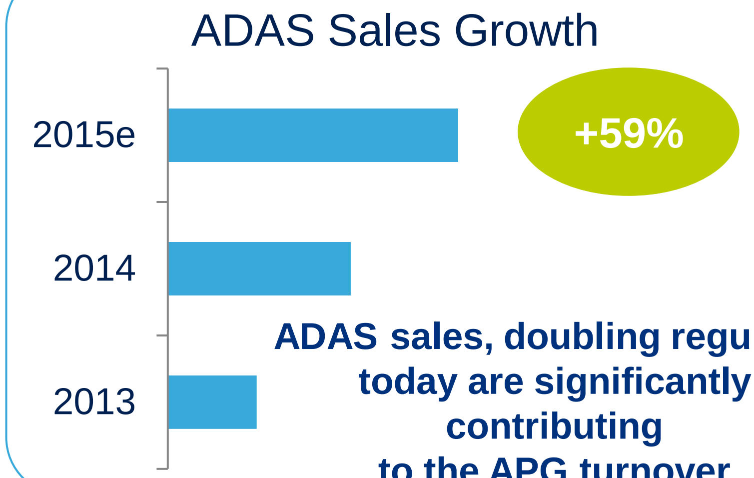
Endorsed by Audi

Video Processing **#1**

Radar RF **#1**

V2X Communication

New!



ADAS sales, doubling regularly, today are significantly contributing to the APG turnover

*Strategy Analytics
** ST

Key Profitability Drivers: Infotainment

Audio

- Long time leader in Audio Power Amplifiers with >45% market share*
- More than 10 new products in production in last two years including 6 new digital audio amplifiers
- Several wins for Class-D fully digital family

Infotainment Processors

- Best in class dual core Cortex-M with optimized audio subsystem to Address the high volume market of connected radio and phone duplication for OEM and Aftermarket
- Several wins with leading Japanese aftermarket Tier-1 and European, Chinese Tier-1

Terrestrial / Satellite Tuners

- More than 20 years presence in tuners for Automotive applications
- Consolidated leadership in Satellite Receivers thanks to long lasting partnership with SiriusXM (now 8th generation)
- Advanced multi-standard software defined radio ready for production

Receive + **Process** + **Sound**

Terrestrial & Satellite Tuners

Multicore Processors

Digital Audio Amplifier

Source: Strategy Analytics, IHS

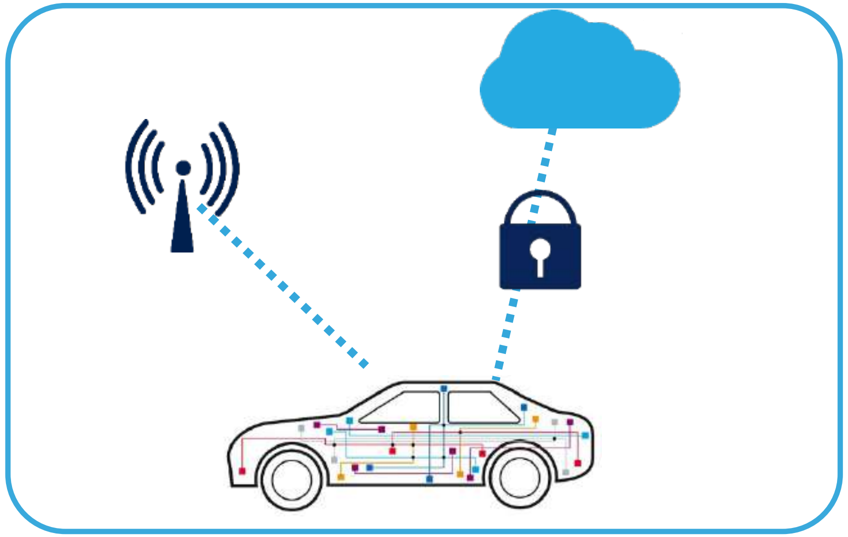
Key Profitability Drivers : Telematics

Positioning

- More than 15 years presence in automotive with leading-edge, proprietary solutions for positioning and telematics
- First on the market with a multi-constellation autonomous receiver covering GPS/USA, GALILEO/Europe, GLONASS/Russia, BEIDOU/China single chip solution (Teseo III)
- Multiple wins for navigation systems and entry level telematics box at major Tier-ones in Europe, China and Korea

In-vehicle Telematics

- Optimized 32-bit dual core Cortex-M connectivity processor with independent subsystem to access safely to car communication network
- Multiple win in telematics box with major European and Chinese telematics vendors



APG Main Growth Drivers & Expectations

- Growth above market
  - Keep our leadership position in power/smart power area
  - Gain market share in steering, transmission and LED domains
  - Double digit growth in 32-bit MCUs
  - Leadership in ARM Cortex processors for mid/low-end infotainment and telematics
  - Increased intimacy with Car makers and engagement on strategic programs
  - Customer base expansion initiatives in both emerging and mature markets

- New drivers for profitability
  - New 90nm BCD with eFlash option and 180nm VIPower technology in advanced development
  - 28nm e-FLASH to support our microcontroller growth
  - Leverage ST know how in security to address multiple aspects of security in ECU protection and data communication
  - Reinforced Leadership in Active Safety with addition of V2X communication solutions

The APG Value Proposition

A strong automotive commitment

- Automotive application leadership thanks to our system competence & products IP
- State of the art technology portfolio addressing automotive applications
- Proprietary manufacturing machine committed to Automotive
- Solid market growth and intimacy with key customers at WW level

Broad product portfolio for Automotive

- Smart Power
- 32-bit Microcontrollers dedicated to Automotive
- Infotainment and Advanced Safety

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Industrial & Power Discrete (IPD)

Carmelo Papa

Executive Vice President
General Manager, Industrial and Power Discrete Group

Matteo Lo Presti

IPD Group Vice President
General Manager, Industrial & Power Conversion Division

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A Leader in the Industrial Market

#2 in the Industrial Market

#1 Industrial & ASIC

#1 High voltage power MOSFET

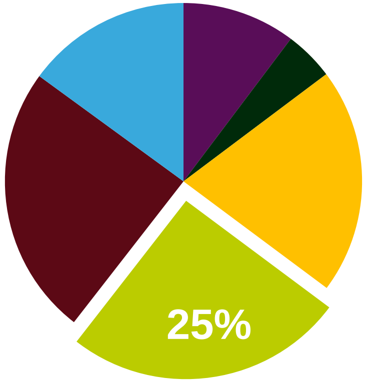
#1 Thyristors & Triacs

25% of ST Revenues in 2014

$1.87B revenues in 2014

More than **7300** available products

About **6000** served direct customers



Significant breakthroughs in Innovation

- **15%** of sales with products < 2 years old
- **70** new patents filed in 2014
- **> 240** new silicon lines introduced in 2014

Broad product portfolio

- Applications embedding power discrete, smart power and Analog ICs
- **World-class IP** for discrete and smart power
- High-performance and robust **power packages** for high-power applications with optimized power density
- Technologies: MOSFET IGBT, SiC, GaN, BCD, integrated passives

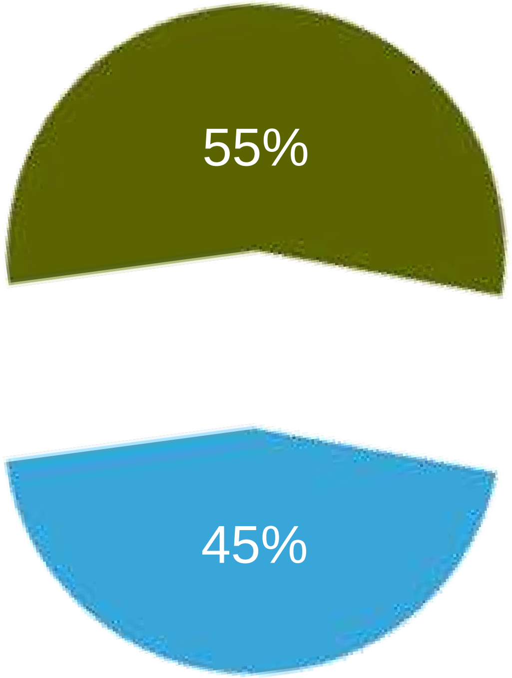
Established Worldwide Ecosystem for Mass Market

- Strong system **know-how** to support a global **customer base**
- **> 400** evaluation boards and associated development tools

Source: WSTS, IHS , ST

IPD – Industrial & Power Discrete

% of 2014 Revenues



A Complete Portfolio for Power Applications

Power Discrete and Intelligent Power Module

- Power Transistors
- Intelligent Power Module
- Thyristors & AC Switches
- Diodes & Rectifiers
- Protection Devices

Smart Power ICs

- Energy Management ICs
- Lighting ICs
- Industrial Analog ASSP
- Data Storage PCOMBO & PMIC
- Galvanic Isolation ICs
- Motor Control ICs
- AC/DC & Isolated DC/DC Power Supply
- EMI Filtering, Signal Conditioning
- Digital Power Conversion ICs
- Display PMIC

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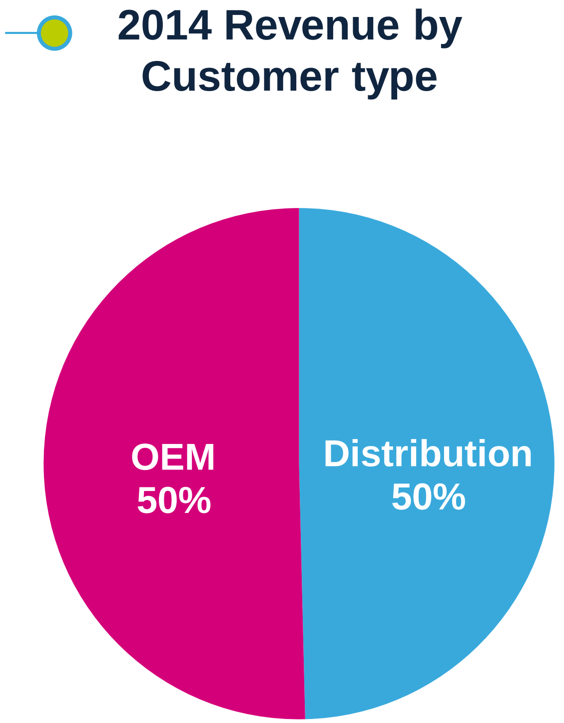
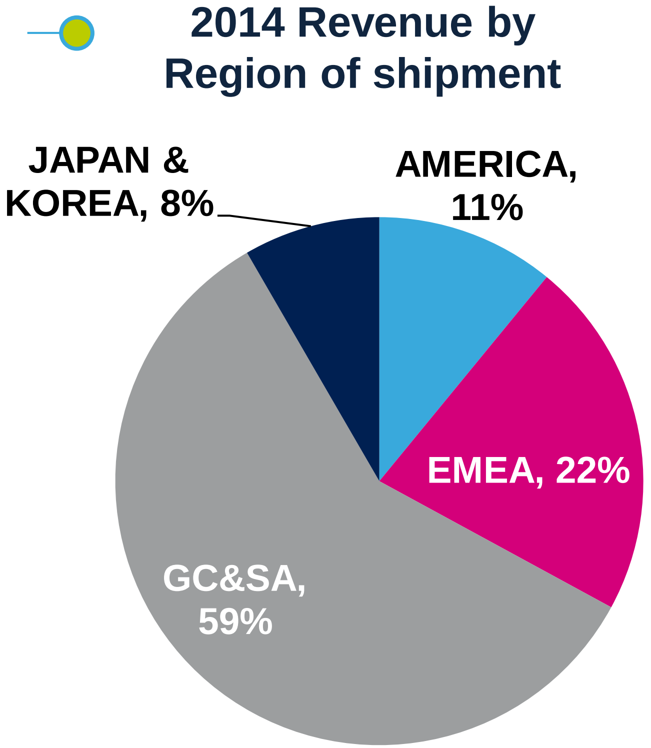
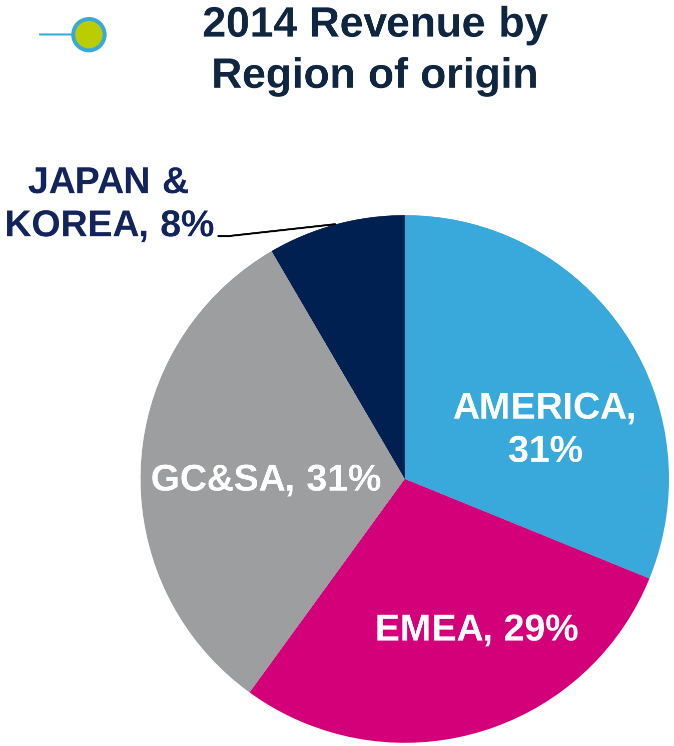
A large and diversified customer Base







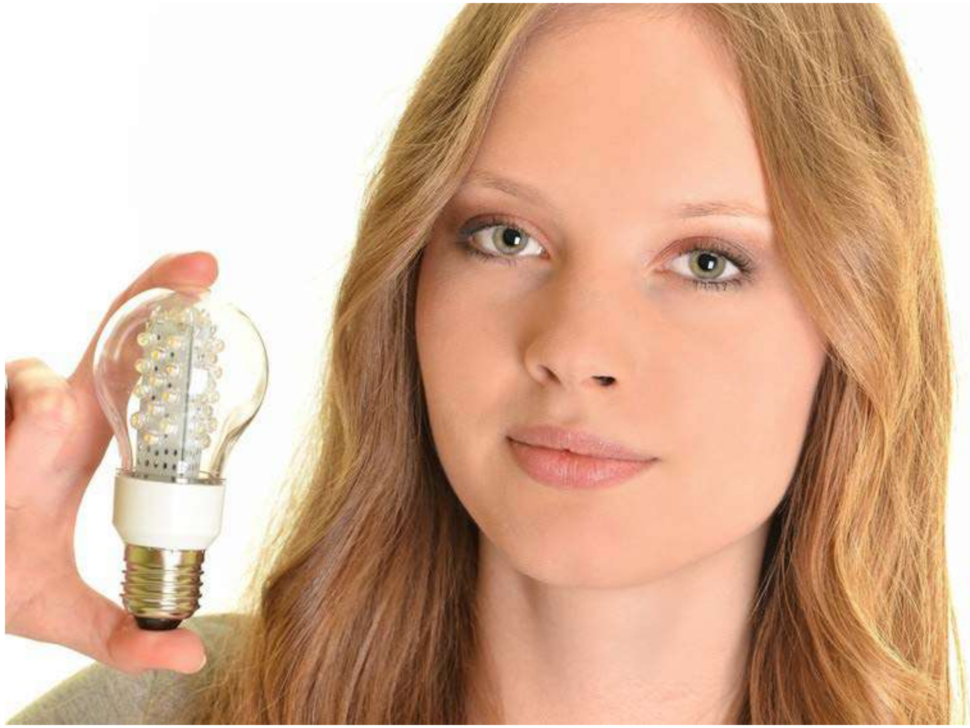
Well balanced across regions and customer types

Strategy and Market Approach

- Product & Market Leadership in:
  - Power conversion
  - Energy management
  - Automation
  - Portable and computer

- Expansion of the base of **major accounts**

- Strong foothold in the **mass market and distribution**
  - Significant expansion of our customer base, exploiting also new sales channel like on-line marketing with a focusing on :
    - Motion control
    - Digital power
    - LED lighting



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Targeting solid and growing Applications

Market Boosters

Cloud	Industry 4.0	IoT	Energy

Power Conversion	**Automation**	**Portable**	**Energy Management**
High-efficiency and power density	Efficient, safe, comfortable, secure	Miniaturized, ultra-low power & high-efficiency	Generation, Distribution, Storage and Control
Digital Power Supply	Motion Control	Display Power Management	Energy Monitoring & Harvesting
Server Power Supply	Factory Automation	Chargers	PLM Communication
LED Lighting	Home & Building Automation	Filtering & Protection	Electric and Hybrid Vehicle
		HDD and SSD	
$8.7B	**$7.1B**	**$4.7B**	**$2.2B**

2015 TAM

Source : IHS, ST

Key Power Products and Technologies

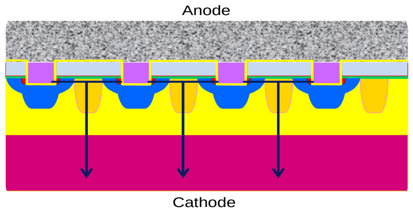
Energy Saving & Power Efficiency

Silicon Carbide (SiC)

- SiC MOSFET (1200V up to 3.3kV)
- SiC Diodes (600V, 650V, 1200V)
- High voltage and high frequency power conversion for automotive and high end industrial

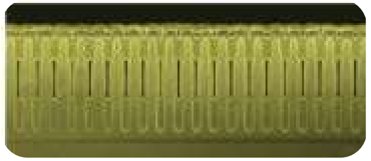
Gallium Nitride (GaN)

- GaN normally off transistor
- High switching frequency (up 20MHz) for high efficiency converters



FERD: Field Effect Rectifier Diode

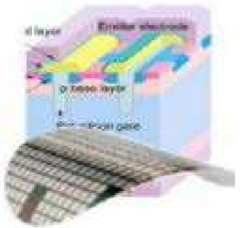
- Enhanced performance rectifier
- Higher efficiency



HV MOSFET

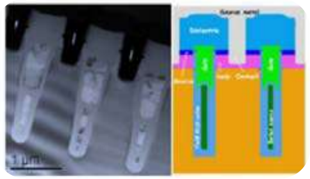
- Market leader on high voltage (> 400V)
- New high efficiency technology (up to 1500V) tailored for energy management and servers

IGBT



- Advanced trench field stop. higher current density tailored for motor control, electric vehicles
- Better reliability and higher operating temperature

LV MOSFET



- Advanced trench structure (30-150V) for high power motor control, synchronous rectification for industrial and automotive

Key Smart Power Products and Technologies

Flexible & Efficient Power Management

Digital Power Conversion

- Enables distributed power system architecture
- Remote diagnostic
- Programmability to increase system efficiency

Power Management for Portable & Servers

- Market leader in AMOLED power supply
- High efficiency solutions for energy management
- Innovative PMICs for servers achieving the highest efficiency in the market

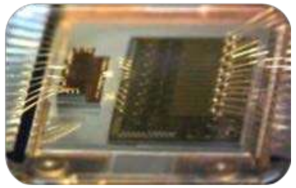
Motor Control

- Safe, easy to use, scalable solutions
- Supporting different motor types
- Industry 4.0 ready

Smart Grid & Metering

- Combining metrology and communication
- Multi-standard support

Enabling Technology



BCD with Galvanic Isolat

- System flexibility
- Safety (up to 10kV) and Immunity to magnetic fields

Winning with major Accounts

Industrial

- SIEMENS
- DELTA
- PHILIPS
- GREE
- Panasonic
- Whirlpool
- EMERSON
- ARTESYN EMBEDDED TECHNOLOGIES

Portable & Computer

- WD Western Digital
- CISCO
- Google
- SAMSUNG
- HUAWEI
- hp
- Seagate
- LG
- Microsoft

Automation

- SIEMENS
- Rockwell Automation
- Schneider Electric
- Dinemn
- BOSCH
- ABB
- Johnson & Johnson

Long-term relationships, deep customer intimacy, strong innovation pipeline with timely new product development execution, solid system and application know-how & support

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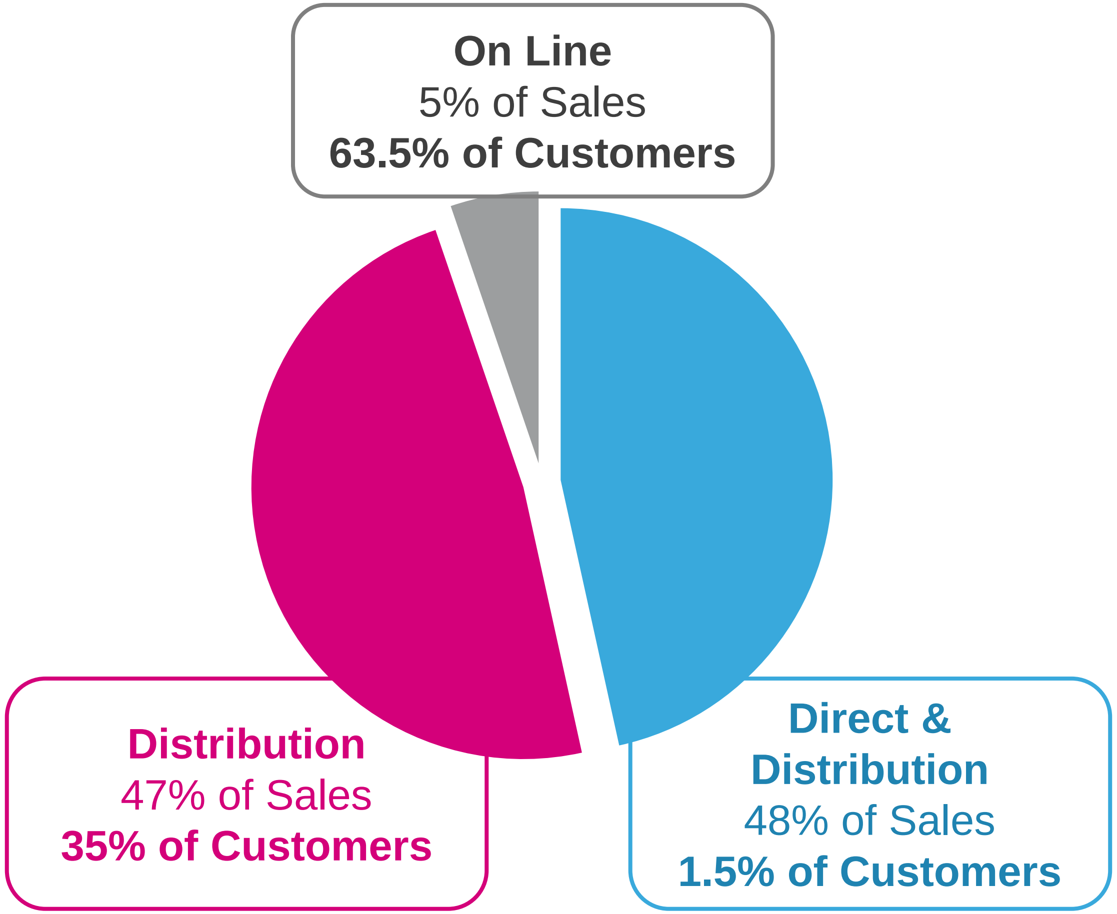
Mass Market of ST

- The market which encompasses **thousands of customers** of ST outside of our top accounts
  - A broad collection of markets served by ST
  - Different channels used for engagement
  - More than 70% of revenues through distribution
- Diversified customer base brings **higher stability**
  - Multiple market segment cycles
- **Higher margin** potential
  - Distribution margins approximately 5+% better than ST average
- A different method of product development and promotion

“Mass Market” >100,000 customers



On Line
5% of Sales
63.5% of Customers

Distribution
47% of Sales
35% of Customers

Direct & Distribution
48% of Sales
1.5% of Customers

IPD Mass Market Programs

Our objective is to increase the mass market revenues and continuously gain market share

Based on three pillars

Expand our customer base

- Core Key Accounts
- Channel Accounts
- Online Accounts

Promoting leading applications & products

Boost demand creation with full “go to market” series of actions

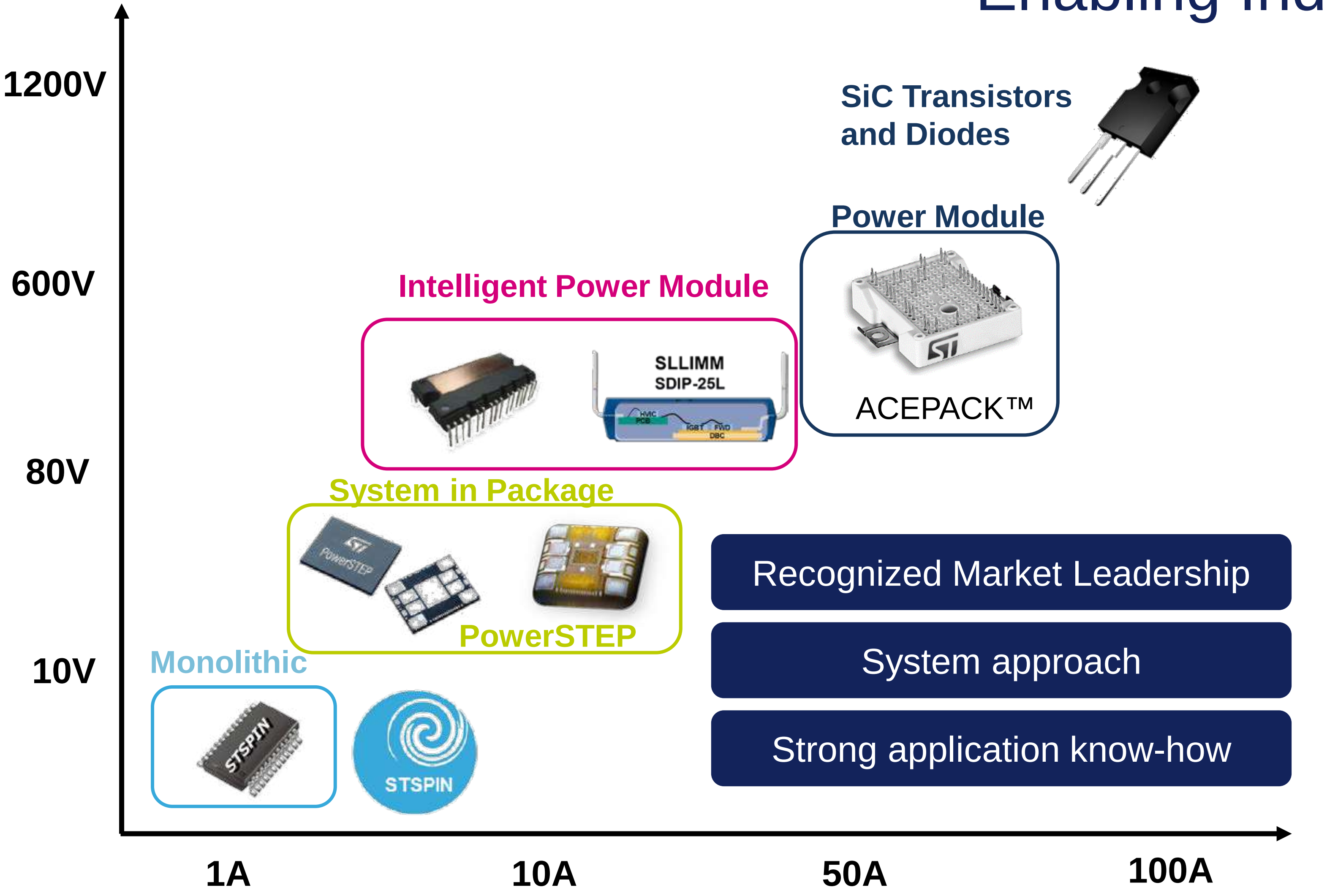
- Motion Control
- LED Lighting
- Digital Power

Stronger collaboration with channel partners

Intensify cooperation with our Distributors certified partners

Leading the Evolution of Motion Control

Enabling Industry 4.0/Smart Industry



- Recognized Market Leadership
- System approach
- Strong application know-how

Automation

$8B TAM in 2017

CAGR 2014-17: +6.3%

Source: IHS, ST

Driving the Evolution of Lighting

Mastering all lighting Technologies since the Beginning

1st Integrated Solution on the market

L657x
PFC + Half Bridge
in BCD offline
> 500MU sold

Fluorescent Lamp

2000

Most highly Integrated Solution

L656x/L638x
PFC + Half Bridge
+ fully integrated PMU
>1.5BU sold

Electric Discharge Lamp

2005

1st PMIC for LED

HVLED
Offline controller for
LED lighting
> 100MU sold

LED Lighting

2010

STLUX

INTERNATIONAL CES INNOVATIONS DESIGN AND ENGINEERING AWARDS 2014 HONOREE

1st Digital Solution
for LED
>20MU sold
in < 2 years

Smart Lighting

2015

Key Products

- Digital Controllers
- Power Discrete
- Connectivity ICs
- LED Driver ICs

LED Lighting

$2.4B TAM in 2017

CAGR 2014-17: +25.7%

Source: IHS, ST

Mastering the Evolution of Digital Power

From low to high power Applications

3kW

STNRG digital power controller

HV-DPS high power SMPS driver

1kW

STLUX digital lighting controller

200W

STNRG011 Digital PFC LLC combo

Digital controlled Power Factor Corrector

20W

VIPer Zero Stand By Off Line SMPS

5W

STWBC Tx/Rx for wireless charging

0.1W

SPV1050/40 for energy harvesting

Greater power density
Faster control loops

System-level reliability
monitoring, and safety

Higher system efficiency

Digital Power

$1.8B TAM in 2017

CAGR 2014-18: +46.2%

Source: IHS, ST

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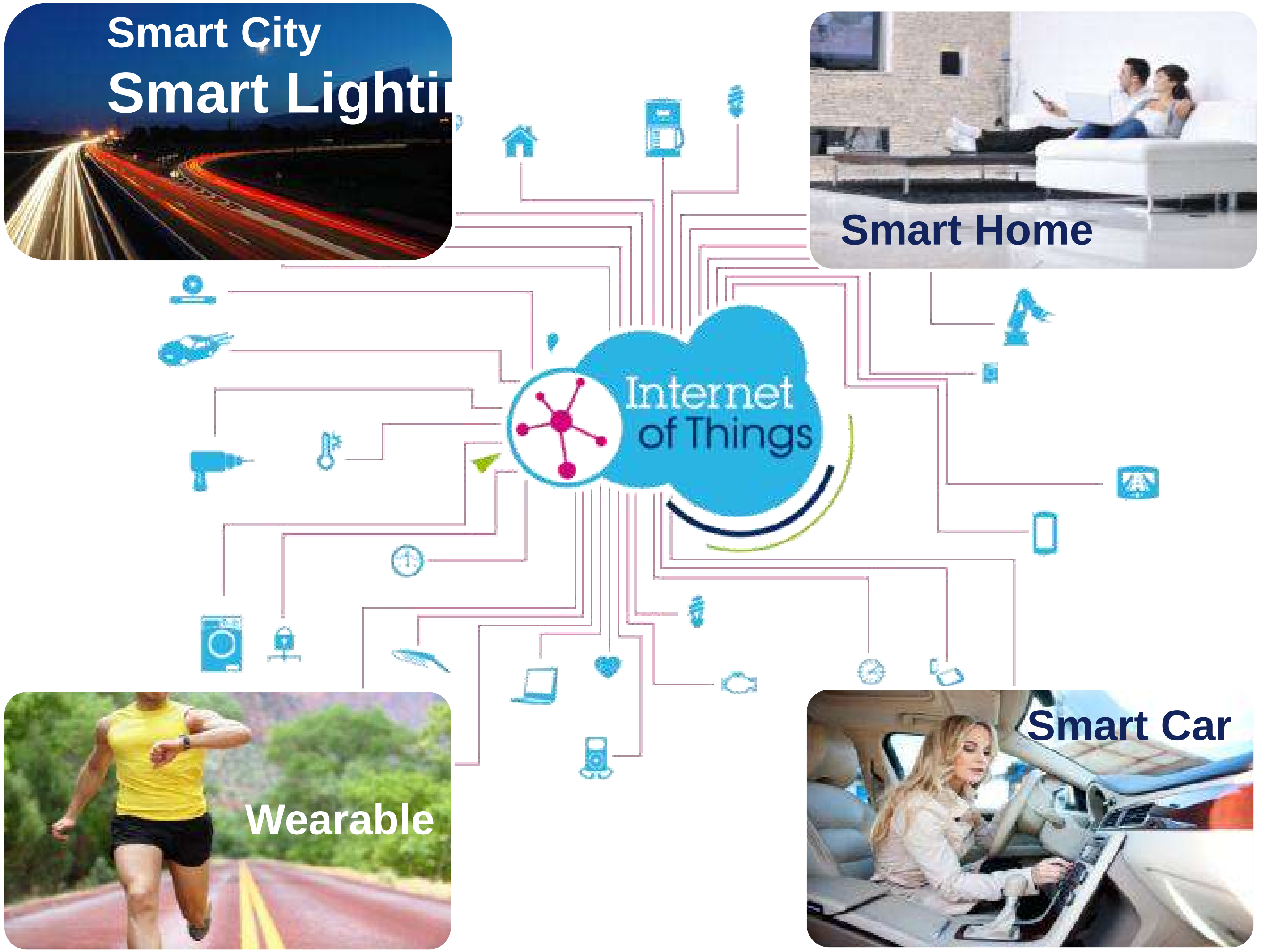
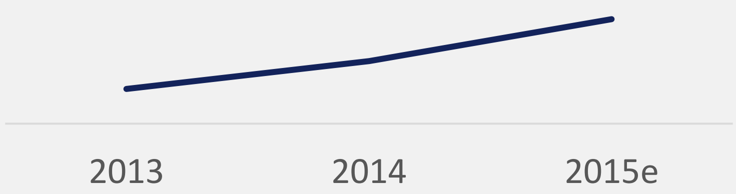
IPD powering the IoT

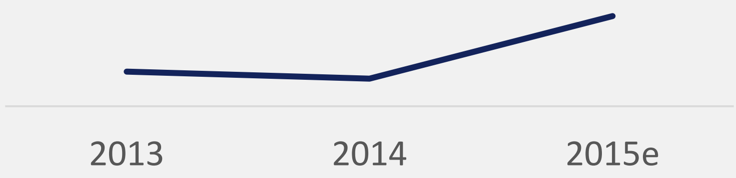
- Sensors
- Microcontrollers Memories & Security
- Ultra-low power connectivity
- Analog and mixed signal components
- **Power and energy management**



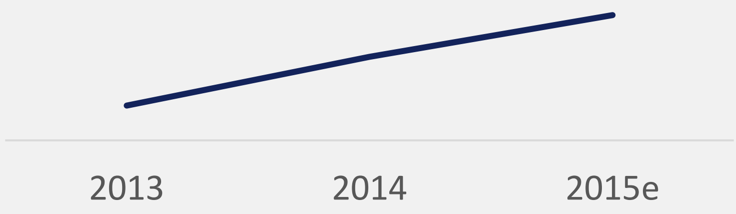
Growing across all Product Lines in 2015


Industrial and Power Conversion ICs

- PMICs for AMOLED in tablets and smartphones
- Digital controllers for lighting and power conversion
- PMICs for Servers
- Motion control and factory automation ICs


Discrete

- RF Modules with RF Couplers and Filters for mobile
- SiC Diodes in servers, telecom and automotive
- SCR and high performance rectifiers for energy management


Power Transistors

- Low Voltage Trench MOSFETs for industrial, servers and automotive
- IGBTs and Intelligent Power Modules
- High Voltage Super Junction and SiC Transistors for energy management and EHV

Takeaways

- Strong portfolio of Front-End Technologies, packages, IP and SW
- Manufacturing strategy aligned with growth opportunities
- Combining efficient and leading power technologies with digital and analog smart power ICs
- Strong system know-how enabling strategic relationship with distributors and mass market customers
- Diversified customer base for a balanced presence in the market
- Focusing on high growth markets with good margin and financial return

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EPS Manufacturing and Technology R&D

Joel Hartmann

Executive Vice President
General Manager, Front-End Manufacturing & Technology R&D
Embedded Processing Solutions (EPS)

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Manufacturing

Key Achievements

Our Achievements

- **Availability of a competitive RFSOI** technology platform, exploiting 200mm manufacturing capability
- **Adoption of 28nm FD-SOI** technology by key customers, with strong prototyping activity
- **Fostered FD-SOI ecosystem** across OEMs, design houses and IP suppliers
- **Risk production qualification of the 28nm FD-SOI** technology in Samsung
- **Volume ramp-up of 90nm eNVM** technology in Crolles-300
- **Volume manufacturing of Photonics sensors**
- Prototyping service with fast cycle time

2015 Priorities

- Full manufacturing qualification of 28nm FD-SOI in Samsung and product introduction
- Proliferation of all product families in 90nm eNVM technology (general purpose, automotive & secure MCUs)
- Volume ramp-up of automotive MCUs in 55nm eNVM technology
- Volume ramp-up of 90nm eNVM secure MCUs
- EEPROM volume manufacturing (130nm…)
- Diversified activity on specialized image sensors

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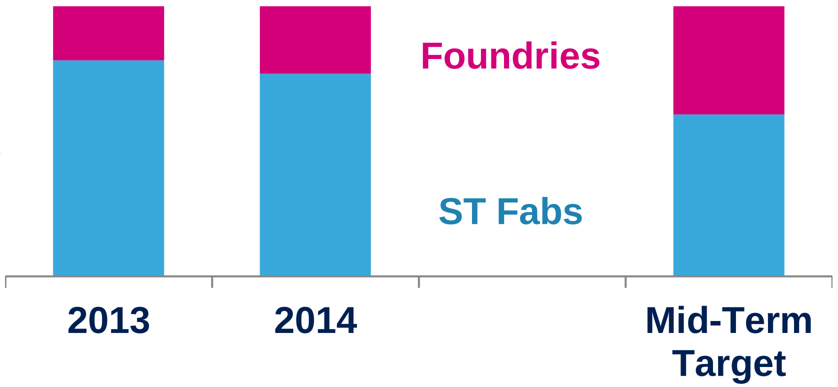
EPS Manufacturing Strategy

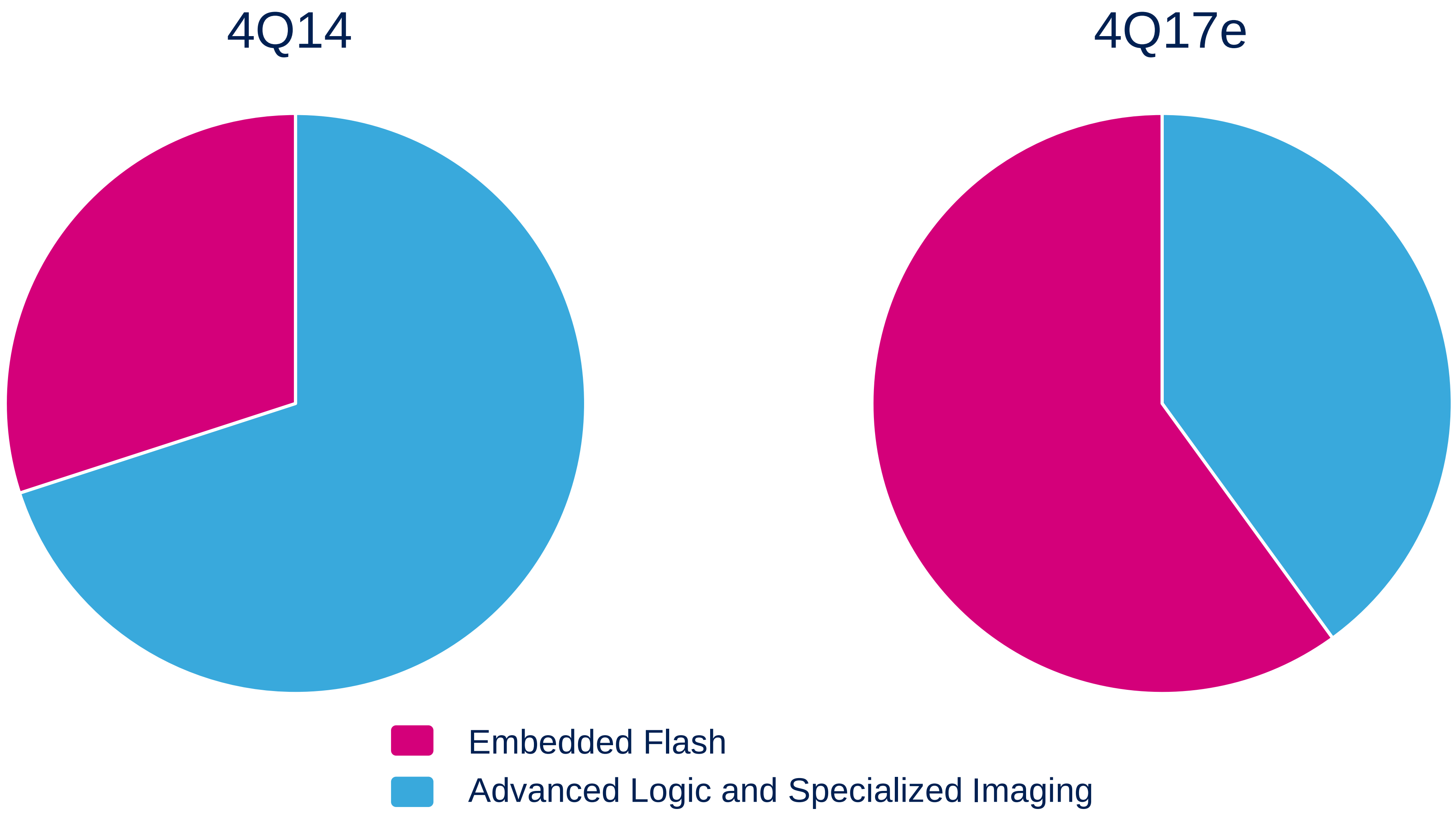
- Multiple sourcing through technology & manufacturing partnerships
- Rousset / Crolles clustering
- Crolles 300mm increase of scale on differentiated technologies according to demand

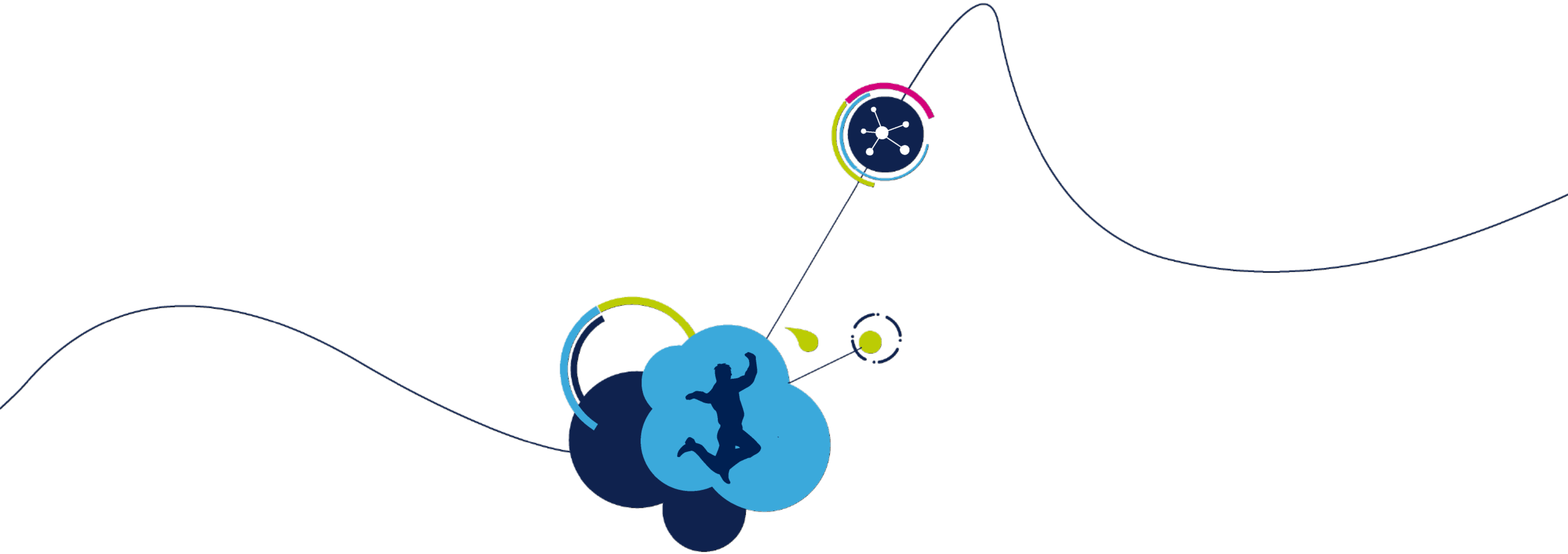
Targeting 40% outsourcing



Technology		Driver/First	Second
CMOS Bulk	≥40nm	Crolles 300	Foundry
	<40nm	Foundry	Crolles 300
CMOS FD-SOI	28nm	Crolles 300	Foundry
Differentiated Imaging		Crolles 300	
BiCMOS	≥90nm	Crolles 200	
	<90nm	Crolles 300	
Si Photonics		Crolles 300	
RF SOI		Crolles 200	Crolles 300
HCMOS9A		Crolles 200	Crolles 300
eNVM	≥90nm	Rousset 200	Foundry
	<90nm	Crolles 300	

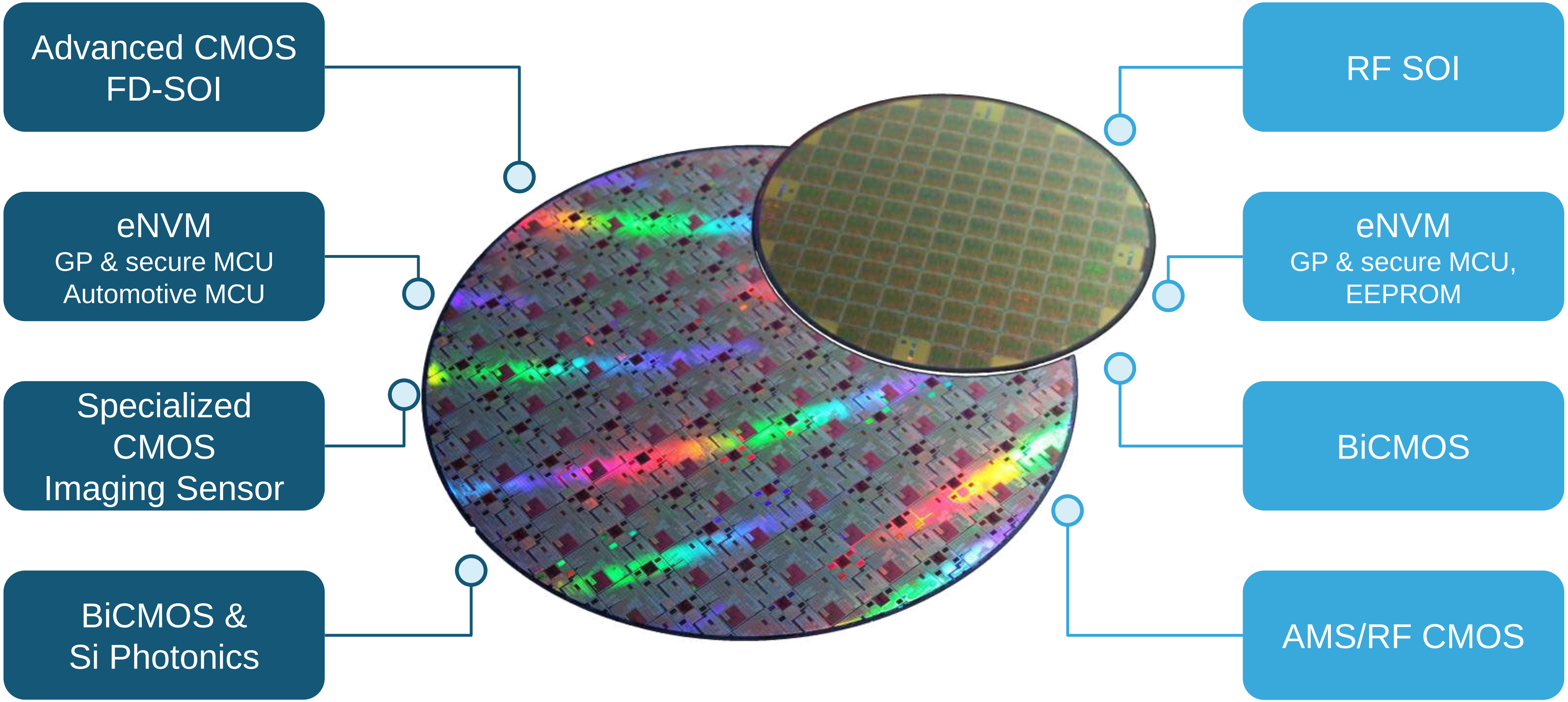
Crolles 300mm - Mix and Evolution





Technology R&D

Balanced 8/12” technology Portfolio



Advanced CMOS
FD-SOI

eNVM
GP & secure MCU
Automotive MCU

Specialized CMOS
Imaging Sensor

BiCMOS &
Si Photonics

RF SOI

eNVM
GP & secure MCU,
EEPROM

BiCMOS

AMS/RF CMOS

EPS Key R&D Achievements

Our Achievements

- **Risk Production qualification of 40nm eNVM** technology platform
- **Prototyping activity for 55nm BiCMOS & Silicon Photonics**
- **130nm HCMOSSOI RF** technology reached **110fs $R_{on}*C_{off}$** performance
- **Started the 1st MPW of 14nm FD-SOI** technology

2015 Priorities

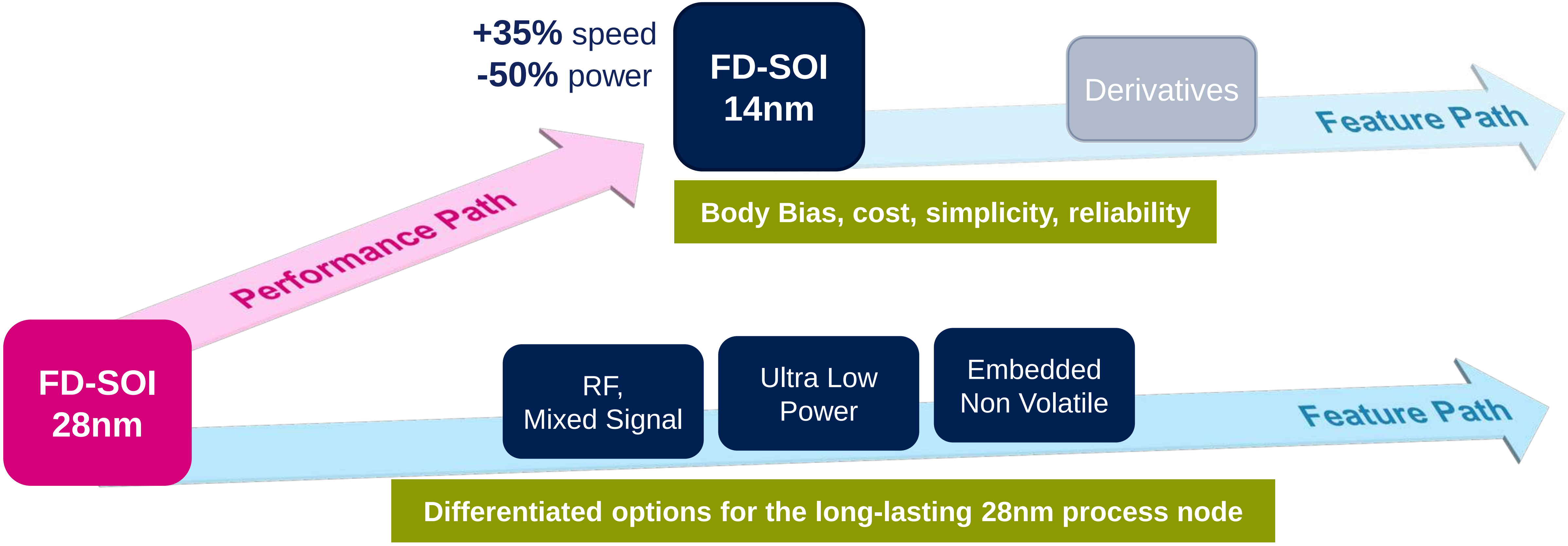
- Initiating prototyping of 14nm FD-SOI technology
- Development of 28nm FD-SOI ULP & RF derivatives
- Full manufacturing qualification of 40nm eNVM technology and early prototyping activity (GP, secure & automotive MCUs)
- 55nm BiCMOS and PIC55 Silicon Photonics risk production start
- Specialized Imaging Sensor technology process qualification

FD-SOI Roadmap

Mass Production

Development

Research



+35% speed
-50% power

FD-SOI
14nm

Derivatives

Feature Path

Body Bias, cost, simplicity, reliability

Performance Path

FD-SOI
28nm

RF,
Mixed Signal

Ultra Low
Power

Embedded
Non Volatile

Feature Path

Differentiated options for the long-lasting 28nm process node

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FD-SOI Application Benefits

per market segment

Infrastructure Networking

- Energy efficient **multi-core**
- **Adapt** performance & power **to workload** by FBB
- Excellent performance on **memories**

Consumer

- Optimized SoC integration (Mixed-signal & RF)
- Energy efficient SoC in **all thermal conditions**
- **Optimized leakage** in idle mode

Internet of Things, Wearable

- **Ultra-low voltage** operation
- FBB to solve the **power/performance** paradigm
- Efficient **RF and analog** integration

Automotive

- **Well-managed leakage** in high temperature environment
- **High reliability** thanks to highly efficient memories

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Differentiated Technology Roadmap

eNVM **CMOS**	**GP/secure** **Automotive**	40nm NOR	28nm FD-SOI
High-Speed **Mixed Signal**	**RF SOI foundry** **BiCMOS** **Integrated Photonics**	Ultra-Linear RF BiCMOS 55nm PIC 25G	Integrated RF FEM BiCMOS 28nm PIC 56G CWDM
Imagers	**Specialized Imaging**	Gen 1	Gen 2 3D

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CMOSM40

40nm eFLASH technology for advanced MCUs with NVM addressing a wide range of applications, fully compatible with 40nm logic platform

Consumer & Industrial

- **High performance** logic for **32-bit MCUs**
- **High performance** & **high density** FLASH
- **High reliability** with extended temperature

Secure

- **High performance page Flash erasable**
- **ROM-less**
- **High reliability & low cost**

Automotive

- **High performance** logic for **32-bit MCUs**
- **Highly reliable** with state of the art FLASH technology
- **Extended temperature** range

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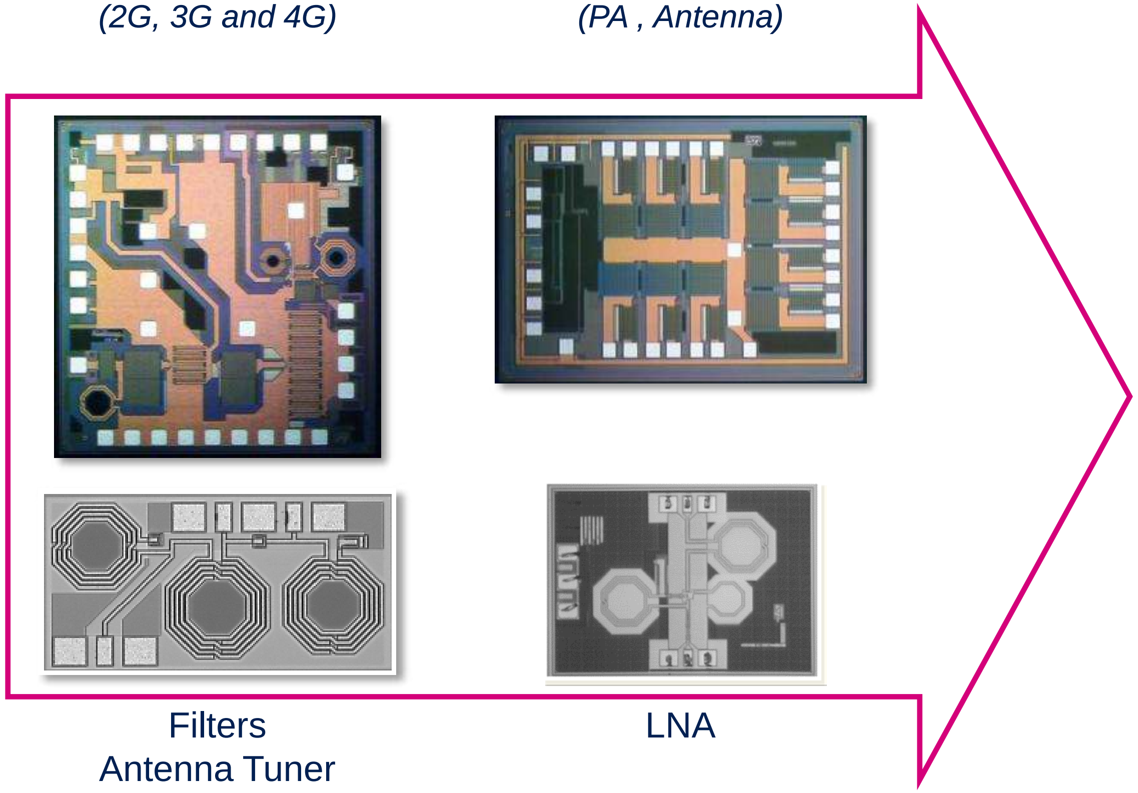
130nm RF SOI

Addressing Mobile FEM integration

Power Amplifier
(2G, 3G and 4G)

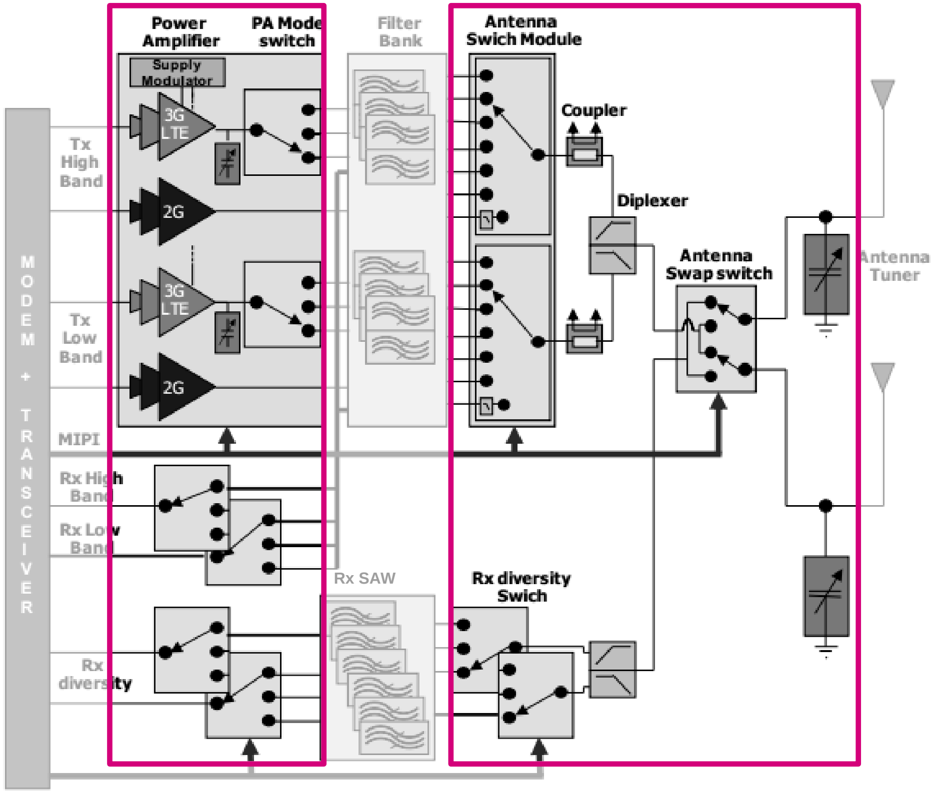
Switches
(PA , Antenna)



Filters
Antenna Tuner
Tunable Duplexer

LNA

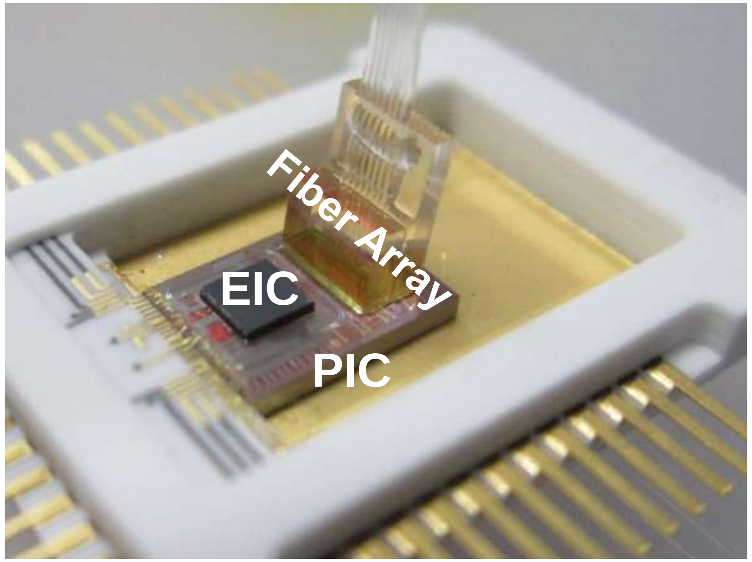
H9SOI_FEM



Long-term technology partnership

BiCMOS55 + SiPhotonics

- BiCMOS55
  - Continuous evolution of SiGe HBT architecture & CMOS node towards best performance vs. complexity trade-off
    - f_T > 300 GHz
    - f_{MAX} > 400 GHz
- Silicon Photonics
  - WAN
    - Transport, metro, access
  - Enterprise (rack to rack, board to board, chip to chip)
    - LAN, data centers, routers, switches, HPC
  - On-chip
    - Parallel processing, multi-core interconnect



FlightSense™

Communication & Consumer

Hybrid AF, proximity sensing, gesture…

Home Appliances

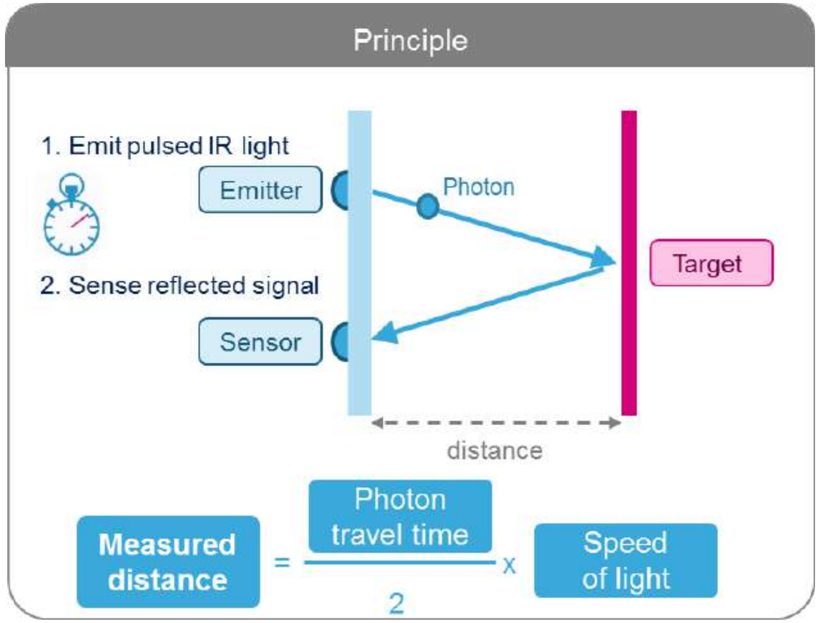
Robot cleaners, light control, toys…

Automotive

Infotainment system control

Industrial

Proximity detection, door control, robotics…



$$\text{Measured distance} = \frac{\text{Photon travel time}}{2} \times \text{Speed of light}$$

Distances are measured as the time light takes hitting an object and coming back to the sensor

Measuring true distance independently of target size and reflectance

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EPS Manufacturing and Technology Summary

- Differentiated and focused technology roadmap driving internal manufacturing volume
- Time-to-market and time-to-volume, driven by clusters of leadership Crolles / Rousset
- Cost efficiency driven by global lean internal manufacturing initiative and foundry partnership

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SP&A Manufacturing and Technology R&D

Orio Bellezza

Executive Vice President
General Manager, Front-End Manufacturing & Technology R&D
Sense and Power & Automotive (SP&A)

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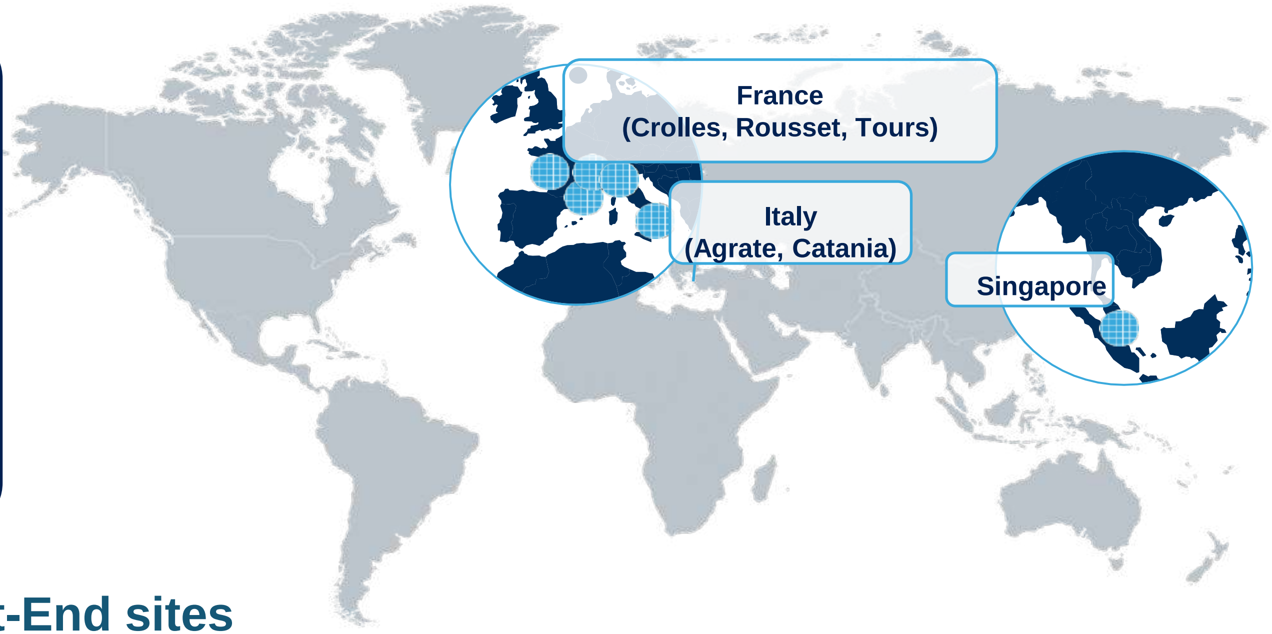
Manufacturing

Front-End Manufacturing: Unique Capability

Large technology portfolio

Clustering approach

Internal and external flexibility



6 Front-End sites

EPS		SP&A			
Crolles	Advanced Logic Image Sensors Embedded-NVM	**Tours**	Discretes	**Catania**	Advanced BCD Advanced PMOS
Rousset	Embedded-NVM Logic	**Agrate**	Advanced BCD MEMS	**Singapore**	Discretes Power BCD

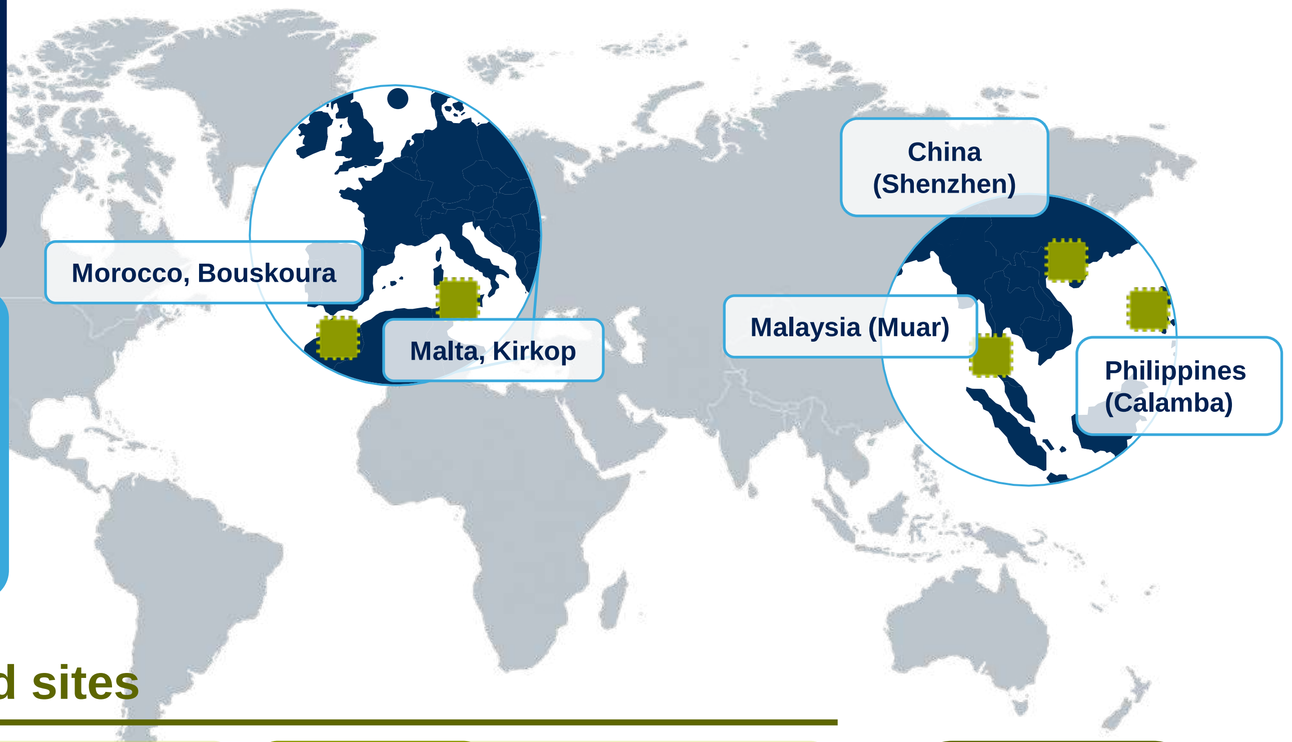
Foundry partners

Packaging & Testing Manufacturing

Consolidation of China operation for cost structure improvement

Longgang closure completed end of 2014

- Fast time to volume and competitive manufacturing
- Multipurpose sites serving both product sectors
- Relentless quality improvement

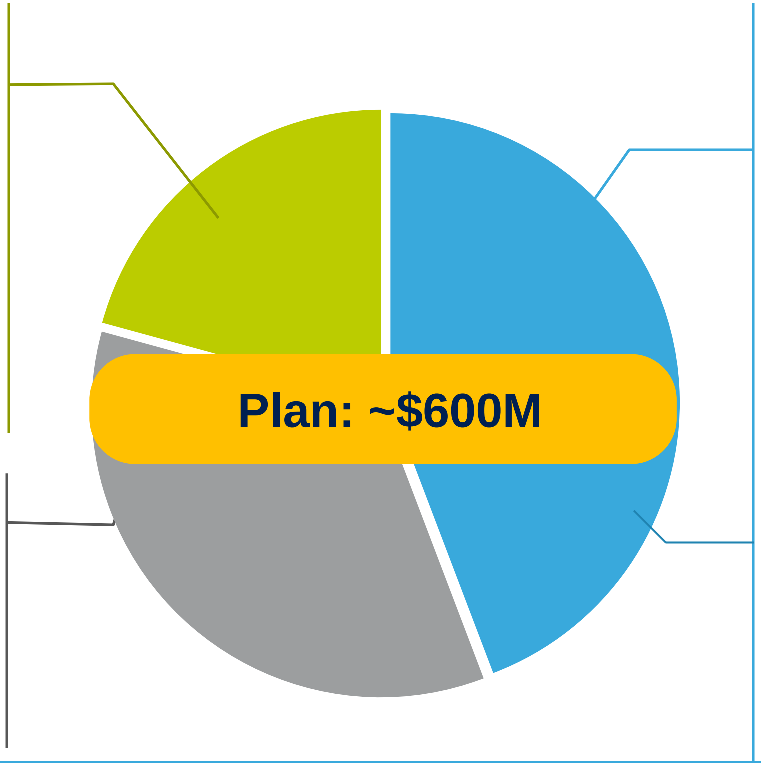


5 Back-End sites

Bouskoura	Embedded NVM PMOS BCD Bipolar, Discrete
Calamba	Embedded NVM BCD MEMS Discretes
Shenzhen	Embedded NVM Image Sensors, Logic Power, PMOS BiPolar, BCD
Kirkop	Embedded NVM Advanced Logic MEMS
Muar	Embedded NVM Power BCD

OSAT partners

2015 Capital Spending



Back-End Manufacturing

- Capacity increase and mix evolution at Asian plants
- Manufacturing automation and energy savings

Test & Others

- Testing capacity increase to meet demand, IT, quality & safety

Front-End Manufacturing/R&D

- Crolles 300mm technology development and mix change in MCU and automotive
- Ramp-up of 200mm in Singapore for Smart Power and Transistors
- Mix evolution to Advanced BCD and thick copper for automotive and industrial at European fabs

Investments focused on:

- Strategic business growth and key product ramps
- Proprietary technology and manufacturing

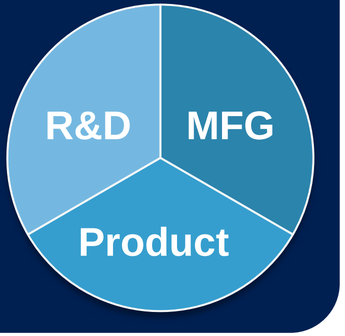
Sense & Power Manufacturing

Technology Differentiation

- Smart Power BCD9s for automotive and industrial
- MEMS: motion, microphone, micromirrors
- Trench Power MOSFET
- SiC and GaN

Integrated Manufacturing & R&D

- Time to market – time to volume
- Flexibility
- Clusters of leadership



4 Front-End sites

Tours	**Discretes**	**Catania**	**Advanced BCD** **Advanced PMOS**
Agrate	**Advanced BCD** **MEMS**	**Singapore**	**Discretes** **Power** **BCD**

Cost competitive and flexible high volume manufacturing

Roadmap, Achievements and Priorities

Roadmap

- Technology capability for **product differentiation**
- Improve mix toward **higher margin** product lines
- Progressive **conversion from 150mm to 200mm** in the Singapore & Catania fabs

Achievements

- **Volume production** of **BCD8 0.16µm** generation for HDD, PMIC and automotive applications in **Agrate** and **Catania** fabs
- **MEMS pressure sensors** ramp in Agrate
- **Volume** ramp of **MDMESH** in Singapore 200mm

2015 Priorities

Smart Power

- Volume growth of BCD6 Automotive in Agrate and qualification in Singapore 200mm
- BCD mix evolution to 0.16/0.11µm and thick Copper in Catania fab

Discretes

- Oxide Filled Trench qualification in Singapore 200mm
- New RF Integrate Passive Devices ramp in Tours in 200mm

MEMS

- Microphone capacity increase
- Micro-mirror ramp

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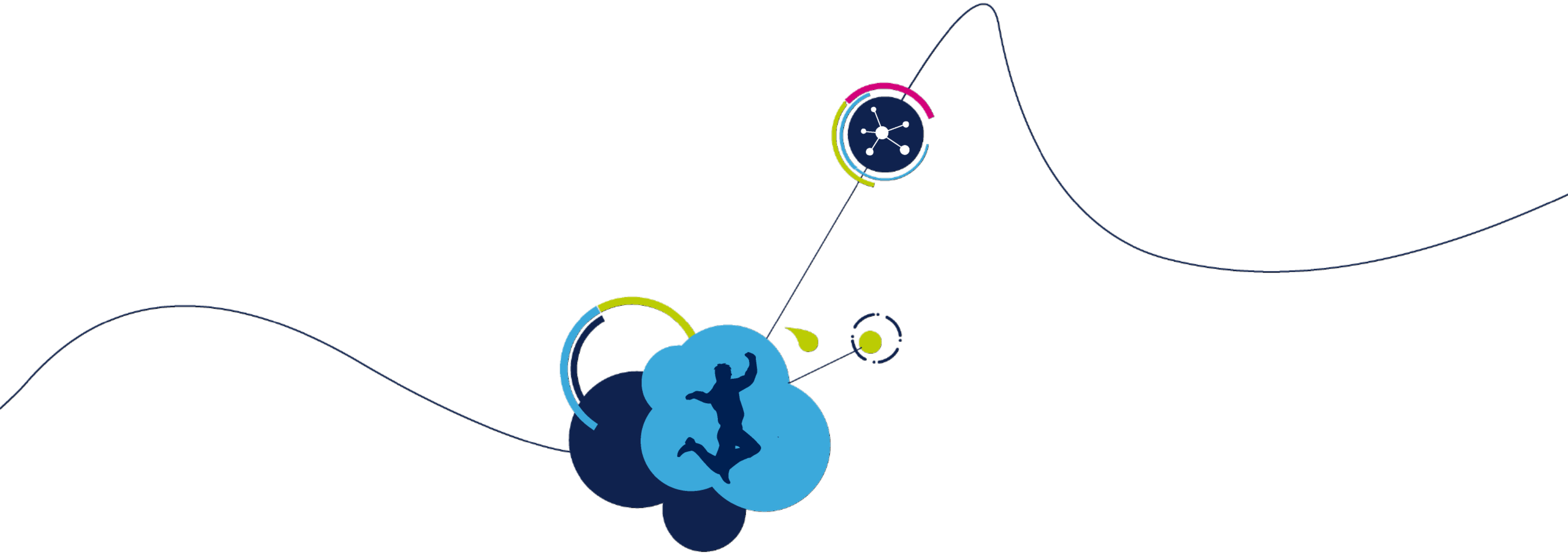

Technology R&D

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SP&A - Technology Roadmap

	Available	2015/16	2017/18
BIPOLAR CMOS DMOS	160nm / 110nm (7 - 100V) 160nm SOI (200V) 320nm (700V) / Galvanic Is. (4kV)	90nm / e-PCM (7 - 100V) 160nm SOI (300V) 320nm (1200V) / Galvanic Is. (6kV)	65nm New Materials Exploration / Integration
MEMS	Motion (6 axis, AMR, Hperf) Audio (Hperf Microphone) Actuators (micromirrors, piezo)	Motion (Automotive) Actuators (Piezo autofocus, inkjet)	Electromagnetic Actuators Passive IR Sensors
Power Transistors	0.35µm Oxide Filled Trench 1200V Superjunction 1200V Silicon Carbide (SiC)	0.2µm Oxide Filled Trench Gen2 New Trench IGBT 1700V Silicon Carbide (SiC) 600V Gallium Nitride (GaN)	New Superjunction structures High T IGBT 3300V Silicon Carbide (SiC) LV Gallium Nitride (GaN)
Other Discretes	HV Scr Triacs 1500V SiC Pschottky 650V	HV Scr Triacs 2000V SiC Pschottky1200V	HV Scr Triacs 2500V GaN Pschottky 600V

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BCD Technology Segmentation

SEGMENT	TECHNOLOGY PLATFORM	APPLICATION FIELDS
High Voltage BCD 700V – 6KV	**BCD6s Offline (0.32µm)**	**Lighting** **Motors** **Electrical Car**
	BCD6s HV Transformer (0.32µm)	
SOI BCD 190V – 300V	**SOI-BCD6s (0.32µm)**	**Full digital amplifier** **Echography** **AMOLED** **Pico-projector**
	SOI-BCD8s (0.16µm)	
	SOI-BCD9s (0.11µm)	
Advanced BCD 7V – 100V	**BCD8As (0.16µm)**	**HDD** **Airbag** **Audio amplifier** **ESP** **Printers** **Power Line modems** ABS **Power Supply** **Automotive** **Power Management for Mobile**
	BCD8sP (0.16µm)	
	BCD8sAUTO (0.16µm)	
	BCD9s (0.11µm)	
	BCD9sL (0.11µm)	
	BCD10 (90nm)	
	BCD11 (65nm)	
High Voltage CMOS 16V – 40V	**HVCMOS8 (0.18µm)**	**Bio Medical** **Advanced Analog**
	HVG8A (0.18µm)	
	HVCMOS9 (0.11µm)	

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e-PCM (Phase Change Memories)

in advanced BCD Technologies

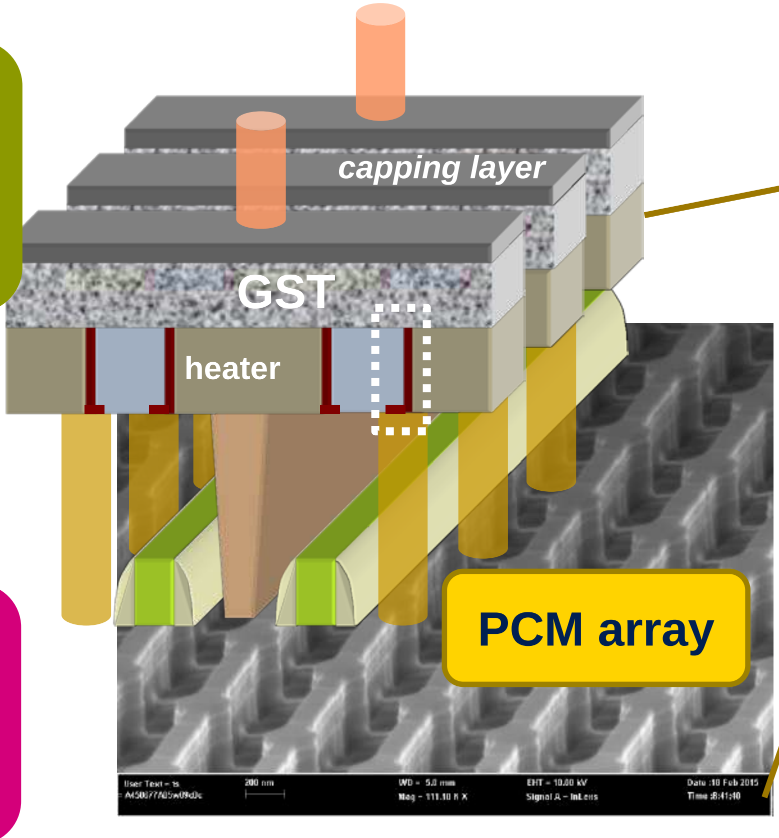
Motor Driver Application

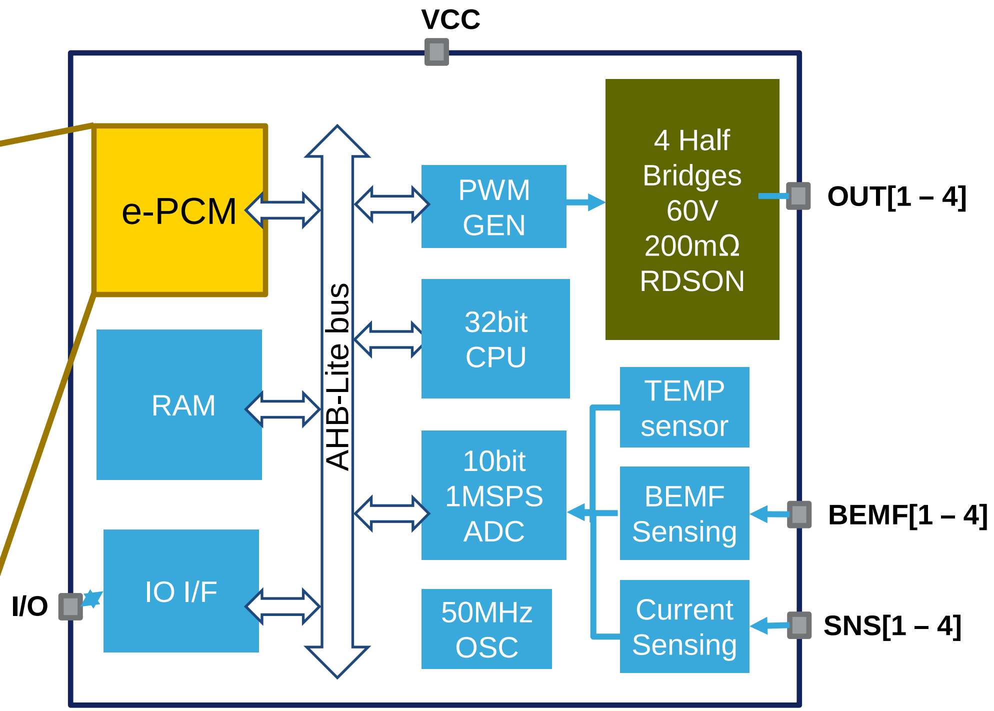
Cost effective

Few additional masks
Smaller cell vs. EEPROM
Smaller over-head vs. FLASH

Easy

Low voltage operation
Flexibility on MV transistor
No impact on CMOS

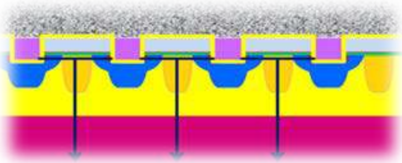




- **32-bit MCU**
- **Integrated PCM**
- **4 Half Bridges 60V, 200mΩ**

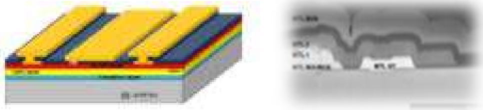
Power & Discrete Technologies

Silicon Carbide (SiC)
- SiC MOSFET (≥1200V up to 3.3kV)
- SiC Diode (≥ 600V)

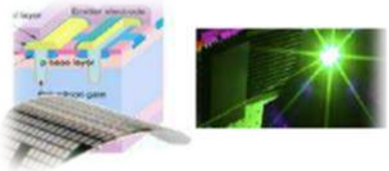


FERD: Field Effect Rectifier Diode
- Enhanced performance rectifier
- Smaller form factor than Schottky

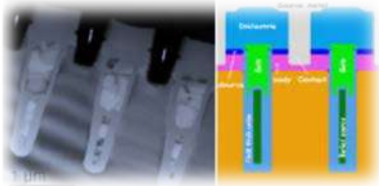
HV MOSFETs
- Market leader on High voltage (>400V)
- New high efficiency technology tailored for energy management and servers



Gallium Nitride (GaN)
- GaN normally off transistor
- Extremely high switching frequency



IGBT
- Advanced Trench Field Stop. Higher current density for Motor Control, Electric Vehicles
- Better reliability and higher operating temperature



LV MOSFETs
- Advanced Trench structure (120-150V) for High Power Motor Control and Synchronous Rectification
- Advanced Trench (40-100V) for low noise high current application also in automotive
- Integrated Schottky up to 60V for Server

Achievements and Priorities

Our Achievements

- High volume production and technology customization of **BCD8sP** for **power management** in consumer and industrial applications
- Release of **BCD9s** platform for production in **automotive** applications
- **Qualification** and volume start-up of **SOI-BCD8s** for high voltage Sensors
- **First Generation LV** trench transistors **(OFT) 40-60-80-100V**
- **SiC MOSFET 1200V** released to production

2015/16 Priorities

- **e-PCM** integration in **BCD9s** to provide cost effective e-NVM
- **BCD10** platform development
- **Next Gen LV** trench (OFT)
- New Trench Field Stop **IGBT**
- **SiC MOSFET 1700V**

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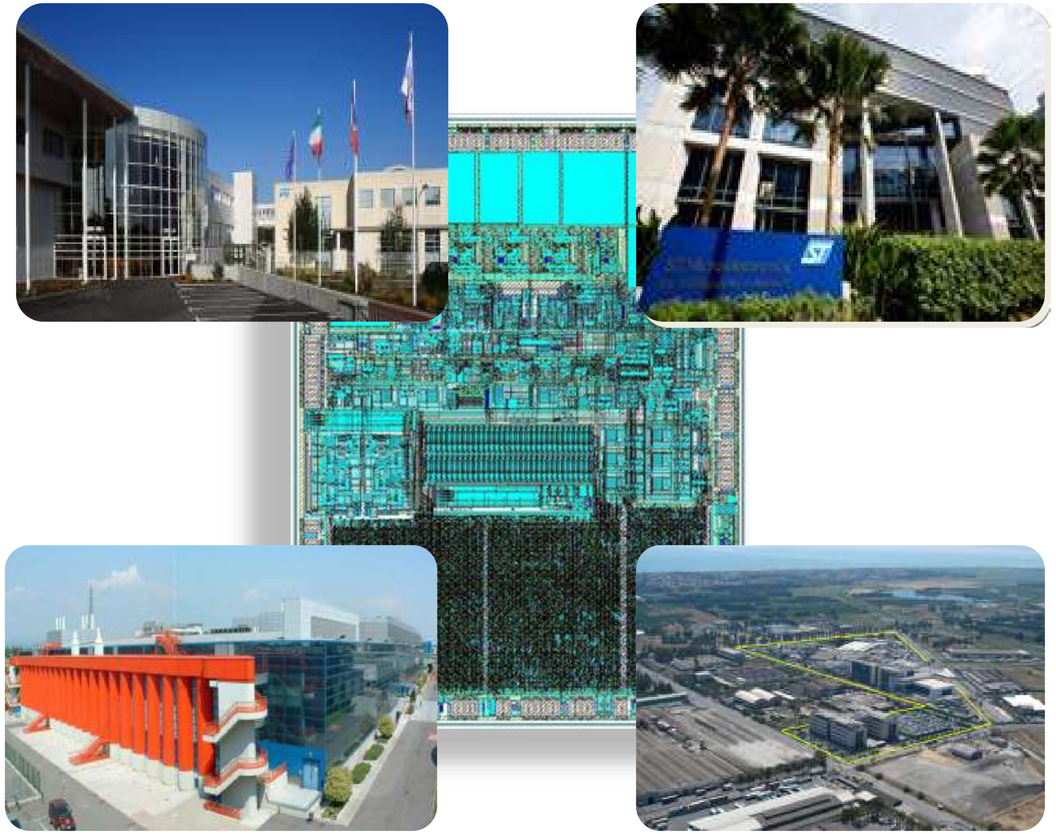
Manufacturing and Technology Summary

Sense & Power and Automotive

- Competitive technology road-map in the “More-than-Moore” supporting product portfolio differentiation
- Time-to-market and time-to-volume, driven by clusters of leadership
- Improving cost and efficiency by wafer diameter conversion in Singapore and Catania
- Global lean manufacturing culture, driving continuous efficiency improvement



Americas Region

Bob Krysiak

Executive Vice President
President, Americas Region

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Americas Region at a Glance

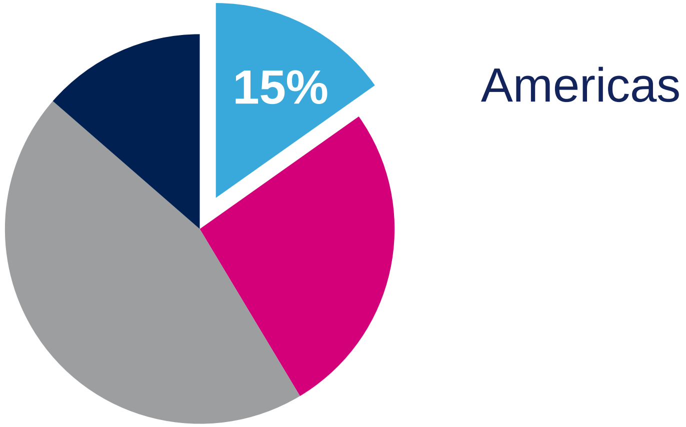
~900 Employees

5 Main Design Centers

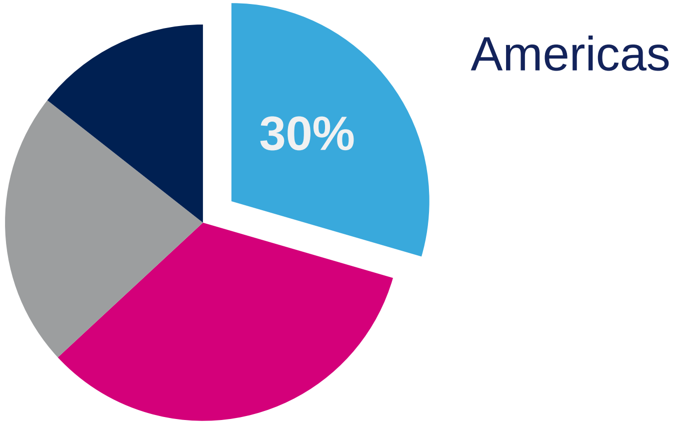
10 Sales Organizations

18 Sales Offices

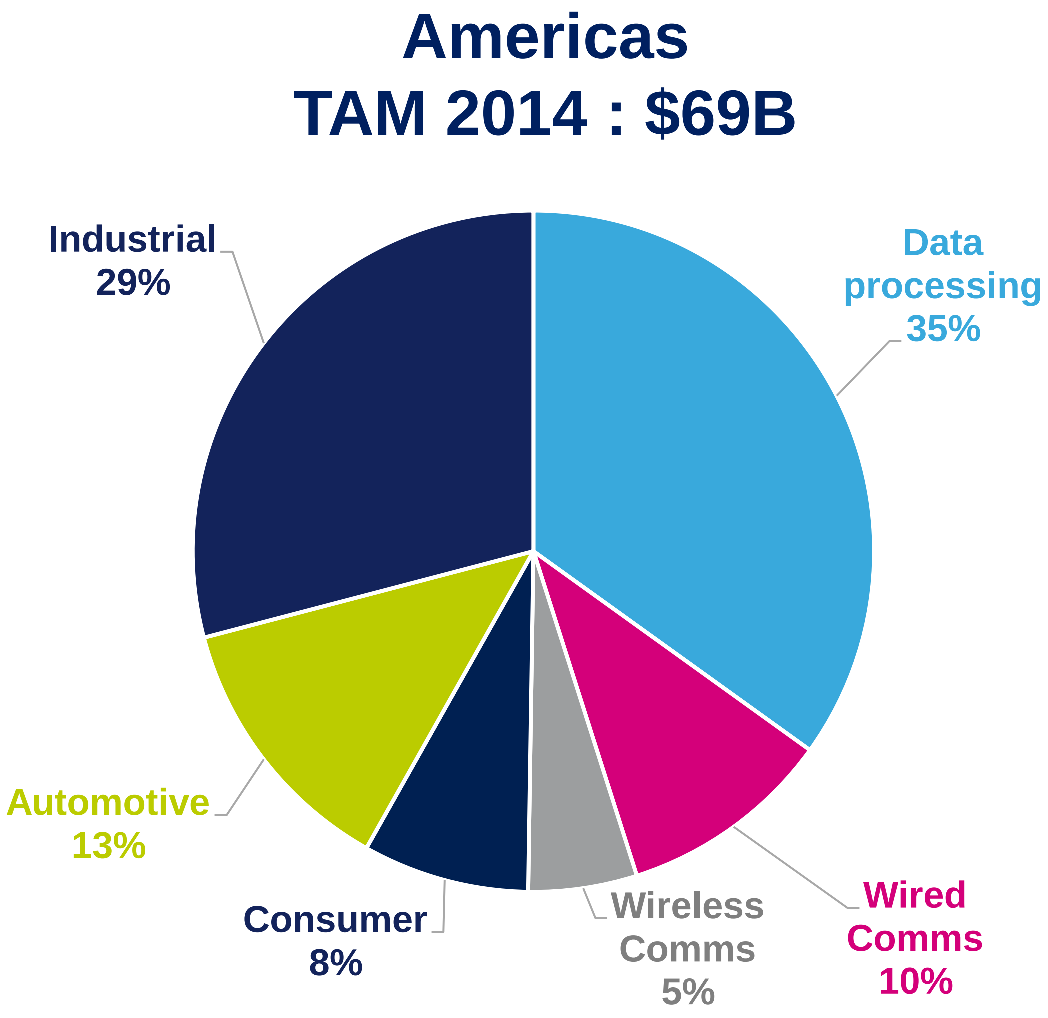
Sales by shipment location FY2014



Sales by customer origin FY2014



Americas Market



GDP Growth	North America	South America
2014	2.4%	0.7%
2015	3.0%	-0.2%

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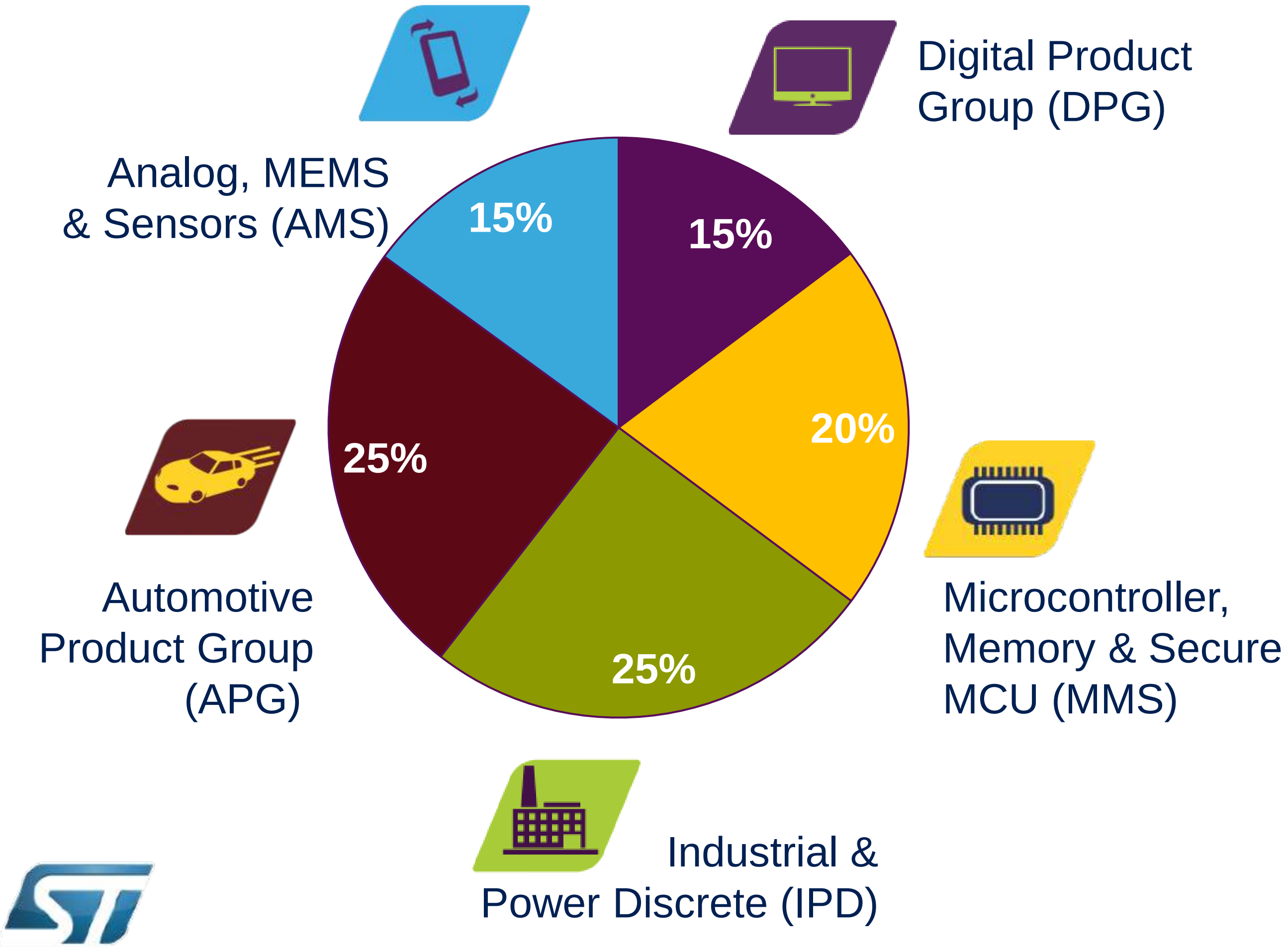
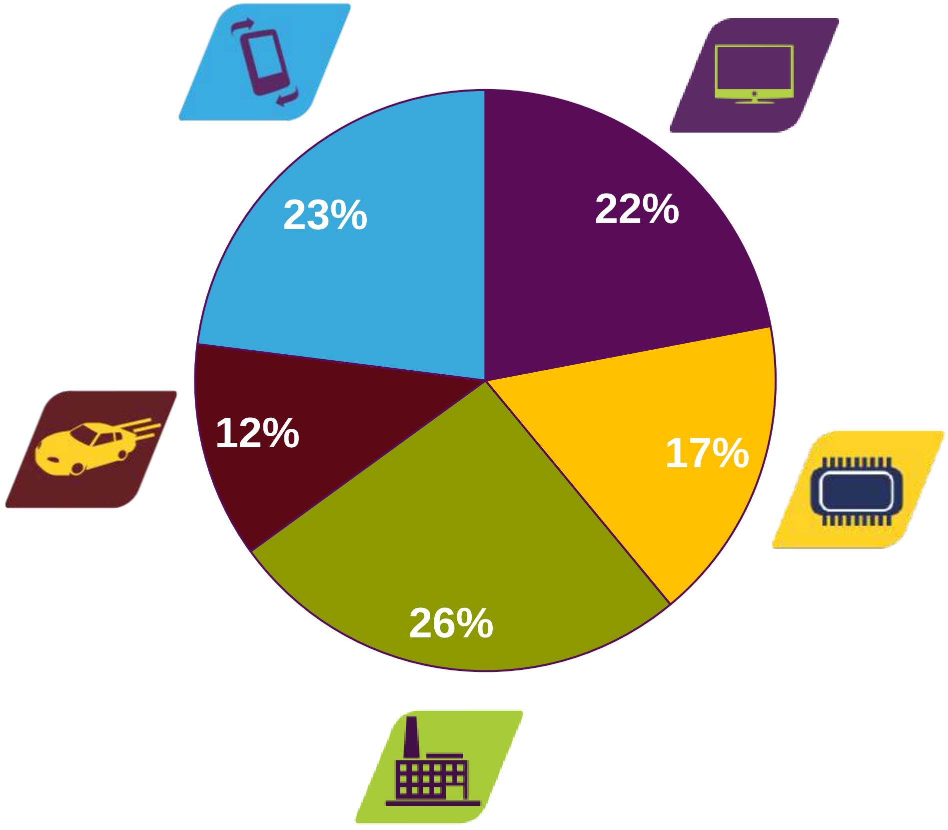
Source: IMF, IHS, WSTS

Sales by Product Group

ST Sales 2014
By Product Group



Americas Sales 2014
By Product Group
(customer origin)



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Americas Customers

Automotive

DELPHI
HARMAN
LEAR CORPORATION
BOSE
SIRIUS | ((XM)) SATELLITE RADIO

GM
Ford
FCA FIAT CHRYSLER AUTOMOBILES
TESLA

Consumer and PC

Google
nest
hp
DELL
fitbit
Microsoft

Storage and Networking

WD Western Digital
Seagate
Finisar
CISCO

Set-Top Box and Operators

CISCO
ECHOSTAR
ARRIS

verizon
DIRECTV
COMCAST
dish

Industrial

GE
Rockwell
TYCO
Honeywell
Whirlpool SENSING THE DIFFERENCE

Distributors and EMS

FUTURE ELECTRONICS
ARROW ELECTRONICS
AVNET

JABIL
FLEXTRONICS
Celestica
SANMINA

Enablement and Platform

intel
Google
QUALCOMM
Microsoft

Key Drivers

Automotive

Energy Efficiency

Infotainment

Safety (ADAS)

IoT

Processing

Power

Sense

Connect

Mass Market

Customer Base Expansion

Broad Ecosystem

System Push

Channel Engagement

Set-Top Box

HEVC
4K ULTRA HD

4K Video

DOCSIS 3.1

Broadband

WiFi

Connectivity

Mobile & Infrastructure

Cloud Computing

Mobile

Security

Platforms

Google

Microsoft

intel

QUALCOMM®

Expanding our Mobile Portfolio

Motion Sensors

Imaging Solutions

\+

Antenna Switching

Protection & EMI-Filtering Devices

EEPROM

Secure Microcontrollers

Backlight Driver

AMOLED Power Supply

\+

Antenna Tuning

Dynamic NFC Tags

Low-Power Microcontrollers

Energy Harvesting/ Management

FingerTip Touch Sensor

Environment (Pressure, UV Light) Sensors

MEMS Microphones

\+

Audio Processors
Audio Amplifiers

Ultra-Low Power Connectivity

Wireless Charging

Proximity & Ambient-Light Sensor

Micro-Mirrors and Controllers

Time

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Winning in Wearables

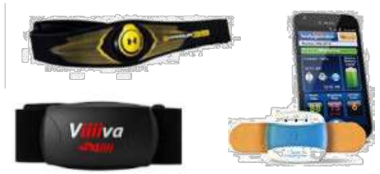
Leading with the right products

- The leader in MEMS & sensors for consumer & mobile
- Leading in 32-bit low power microcontrollers
- Complementary power management and connectivity solutions
- Custom ASICs

The right sales model

- Broad market coverage
- Systems approach

Activity Monitor



Heart Monitor

Sports

Smart Watch

Accessories

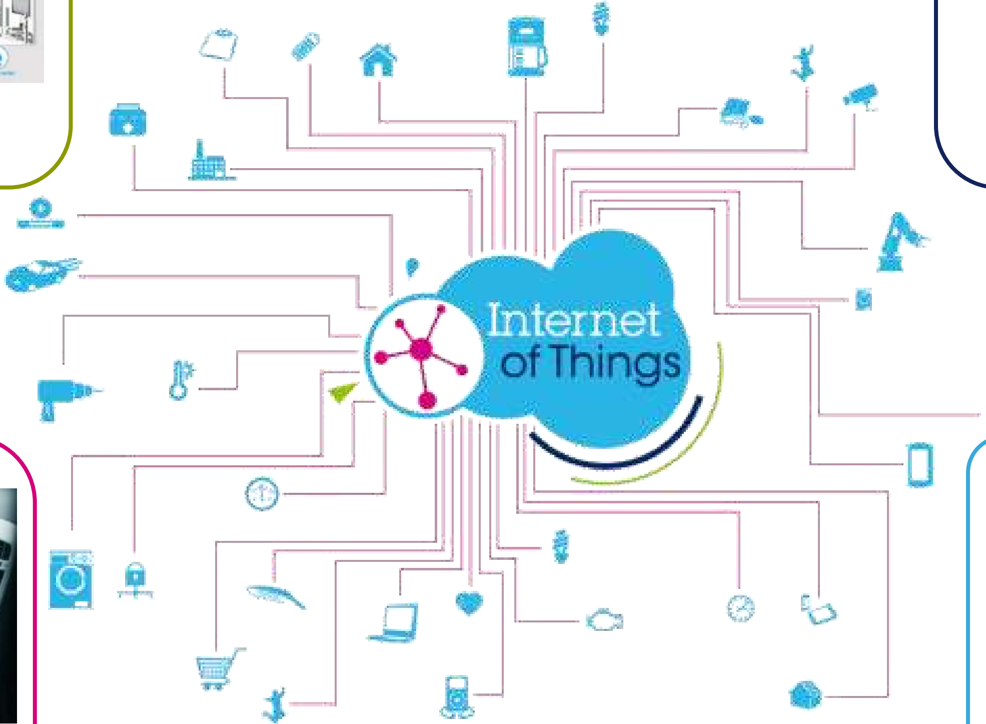
Glasses & Goggles

Growth Opportunities beyond 2015

Connected Home

Infrastructure Connectivity

Payment



Connected and Safer Cars

Cloud Computing

EMEA Region

Europe, Middle East, Africa

Paul Cihak

Executive Vice President, EMEA

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EMEA Region at a Glance

~25,400 Employees

5 Front-End manufacturing sites

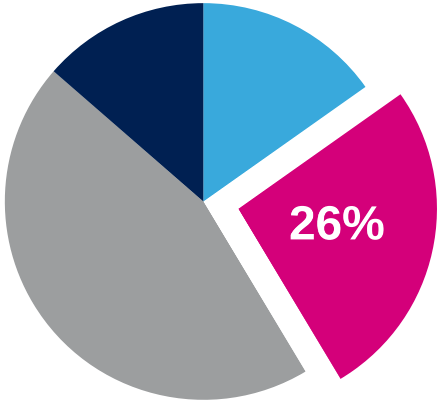
2 Back-End plants

Main design centers in 3 countries

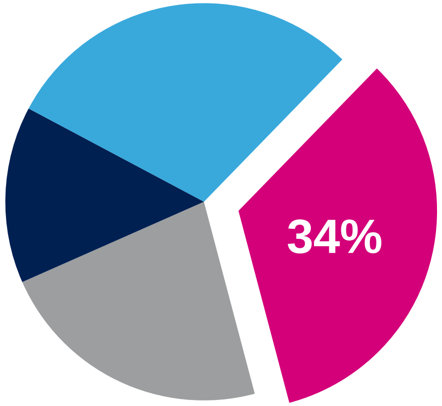
7 Sales Organizations

18 Sales Offices

Sales by location of order shipment FY2014

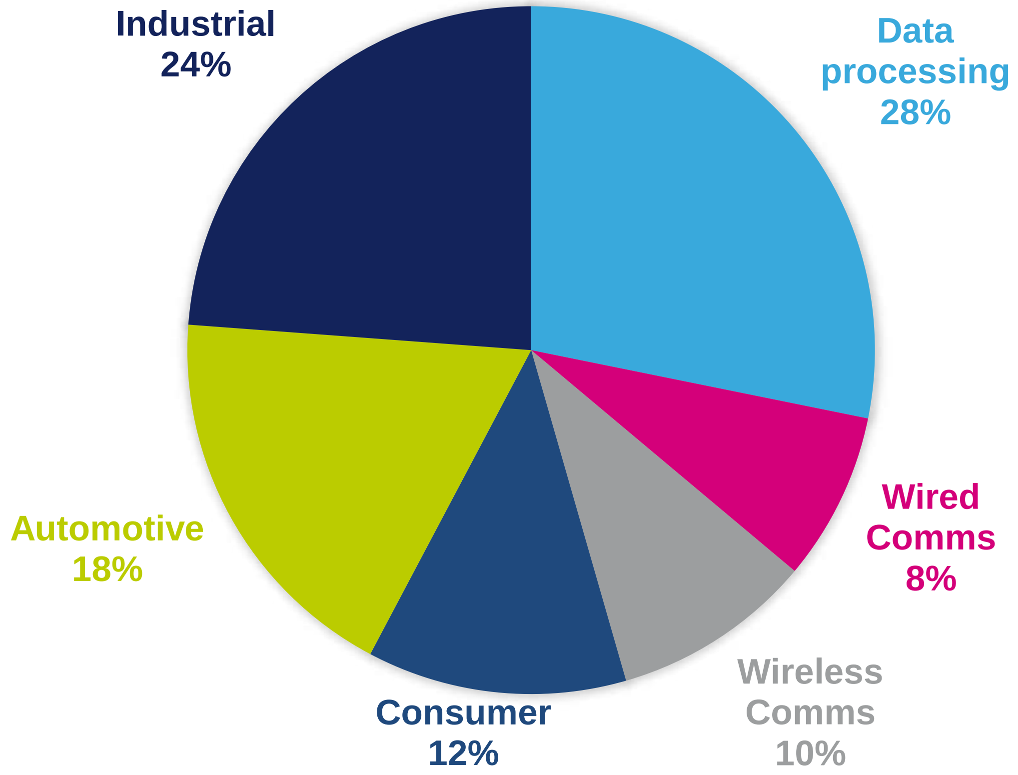


Sales by customer origin FY2014



EMEA Market

EMEA
TAM 2014: $37B



EUROPE

GDP Growth	2014	2015
	1.5%	1.9%

- Advanced Europe: Recovery in process
- Emerging and developing Europe: slower growth amid weak external demand

CIS

GDP Growth	2014	2015
	1.0%	-2.6%

- Geopolitical risks worsens outlook

MENA

GDP Growth	2014	2015
	2.4%	2.7%

- Growth still tepid across the Middle East & North Africa amid declining oil prices and continued policy uncertainty

Source: IMF, iHS, WSTS

Focus Applications

Automotive

- Connected driving
- Assisted driving
- Green & safe driving

Secure Transactions

- SWP-SIM & eSE
- Banking & ID
- M2M

Industrial

- Smart home & building
- Industry 4.0
- Infrastructure

Set-Top Box

- UHD Servers & Clients
- Optimized HD HEVC STBs
- DOCSIS 3.x gateways

EMEA Customers

Automotive

- BOSCH
- Continental
- HELLA
- MAGNETI MARELLI
- Valeo
- ZF
- Autoliv
- KOSTAL

Industrial

- BOSCH
- Electrolux
  Thinking of you
- OSRAM
- PHILIPS
- Schneider Electric
- SIEMENS

Secure Transactions

- gemalto
  security to be free
- Giesecke & Devrient
- oberthur TECHNOLOGIES
  THE M COMPANY
- SAFRAN Morpho

Set-Top Box & Operators

- ALTECH UEC
  Leading Technologies: Touching Lives
- GENERAL SATELLITE
- Pace
- SAGEMCOM
- technicolor

- CANAL+
- MULTICHOICE
  ENRICHING LIVES
- SFR
- sky
- ТРИКОЛОР ТВ

Wireless Infrastructure

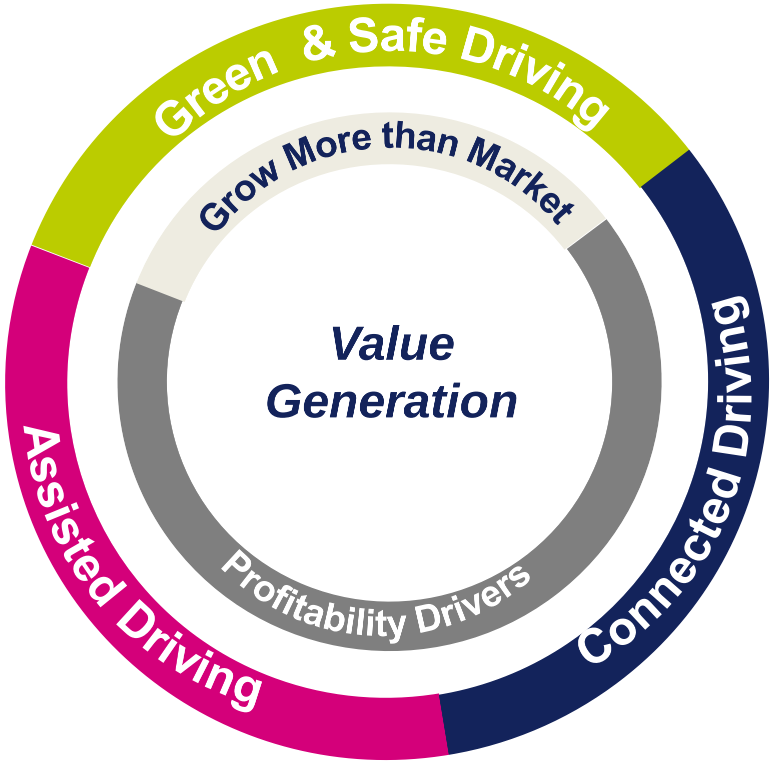
- Alcatel·Lucent
- ERICSSON
- Mellanox TECHNOLOGIES
- NOKIA

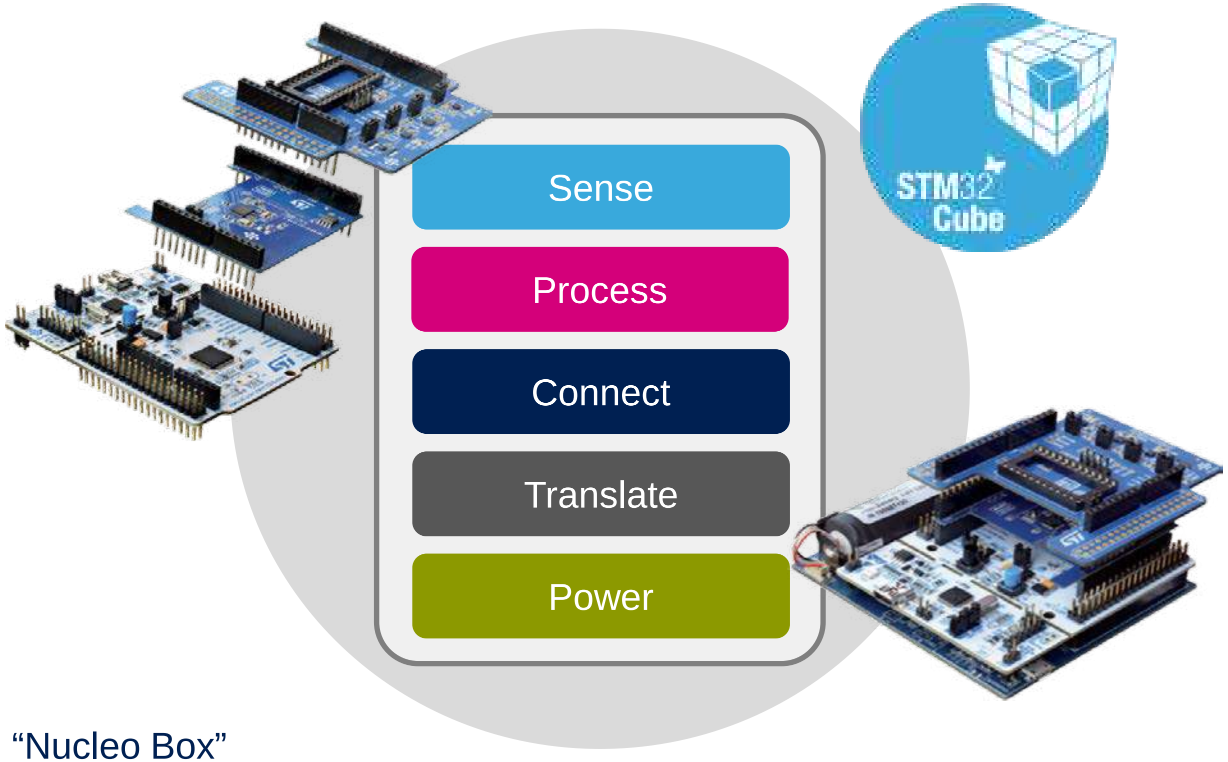
Distributors & EMS

- anglia
- ARROW ELECTRONICS
- EBV Elektronik
  An Avnet Company
- FUTURE ELECTRONICS
- RUTRONIK
  ELECTRONICS WORLDWIDE
- SILICA
  An Avnet Company

- Celestica
- FLEXTRONICS
- IMI
- JABIL
- SANMINA

Sales & Marketing Initiatives





Drive with our **lead customers** and **key carmakers** on mega trends and innovation

New opportunities for **MEMs and SiC/GaN** in Automotive

Enlarge customer base via the **mass market** to increase profitability

“Nucleo Box” for mass market in collaboration with **Distribution partners**

“Go to Market” with key products in **core verticals**

Partnership with **emerging customers** in IOT and Automotive

STM32 Open Development Environment

Growth Drivers 2015

AUTOMOTIVE	SET-TOP BOX	HOME	WEARABLE
			
ASIC, ASSP, MCU, MEMS, LV MOS, IGBT	DOCSIS, HD HEVC, UHD	STM32, SPIRIT, BlueNRG, MEMS	STM32, MEMS, BlueNRG, NFC

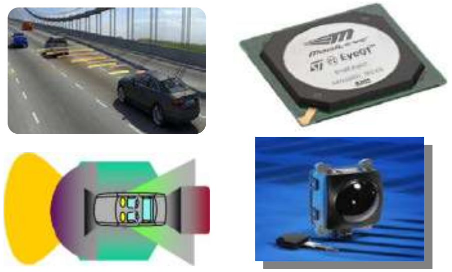
AUTOMATION	METERING	LIGHTING	APPLIANCES
			
STM32, HV MOS, IGBT, IPS	STM32, STCOMET, STPM3 SPIRIT, BlueNRG, NFC	NFC EEPROM, STLUX, STLED	STM32, IGBT, IPM, VIPER, DRIVER MEMS

Growth Opportunities beyond 2015

Automotive

Green & Safe Driving

- Latest product offering for efficient engine management, transmission, charging
- Gaining share in steering, transmission, suspension by complete portfolio
- Full system offering for LED lighting, motor control, power management



Assisted Driving

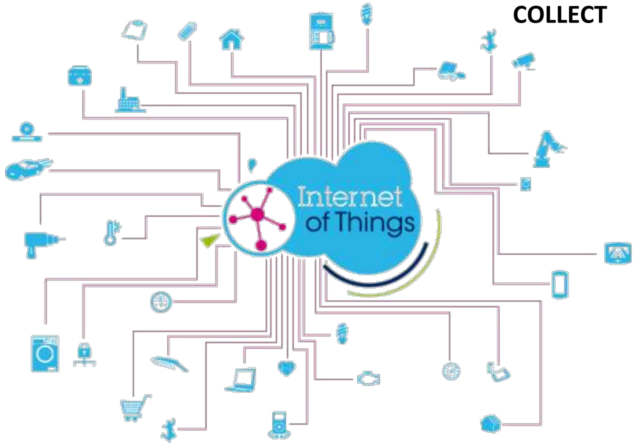
- Extended offer on 24GHz and new 77/79GHz radar solutions for MMIC & BB
- Launch of next generation vision processing platform EyeQx with partner ME
- Launch of next generation camera sensor, ISP and MEMS for Automotive

Connected Driving

- Unique offer for positioning with Teseo family and secure element solutions
- Connected car radio & telematics solutions with Accordo2 & Telemaco2 family
- Launch of unmatched V2X system solution co-developed with partner Autotalks

Growth Opportunities beyond 2015

Internet of Things



1

DATA COLLECT

MEMS & Sensors

- Motion Sensors
- Environmental Sensors
- MEMS microphones
- Ranging & ambient light sensor
- FingerTip Touch Sensor
- MEMS mirrors

2

DATA TRANSMIT

Connectivity, Audio and Interfaces

- Audio processors Audio amplifiers
- Ultra-low power connectivity
- Long Range connectivity
- Analog ICs
- Protection & EMI-filtering devices
- Positioning Systems

3

DATA PROCESS

Microcontrollers & NFC

- Low-power microcontrollers
- Secure microcontrollers
- Sensor fusion
- Dynamic NFC tags
- EEPROM

4

DATA POWER

Power Management

- AMOLED power supply
- Backlight driver
- Power conversion
- Wireless charging
- Energy harvesting
- Thin film batteries

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GC&SA Region

Greater China & South Asia

Solomon Ng

Regional Director, Strategic Business Development
Greater China & South Asia Region

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GC&SA Region at a glance

~17,000 employees

1 Front-End Fab

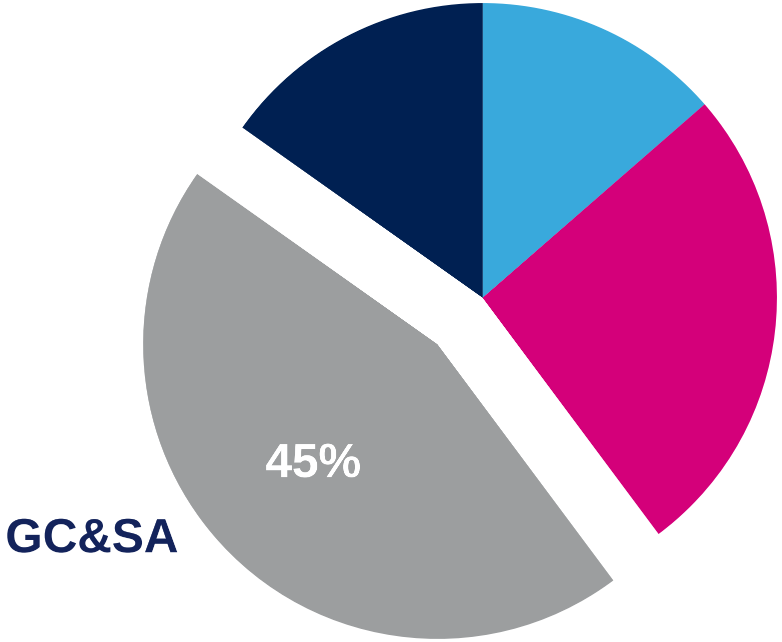
3 Back-End Plants

8 Sales Organizations

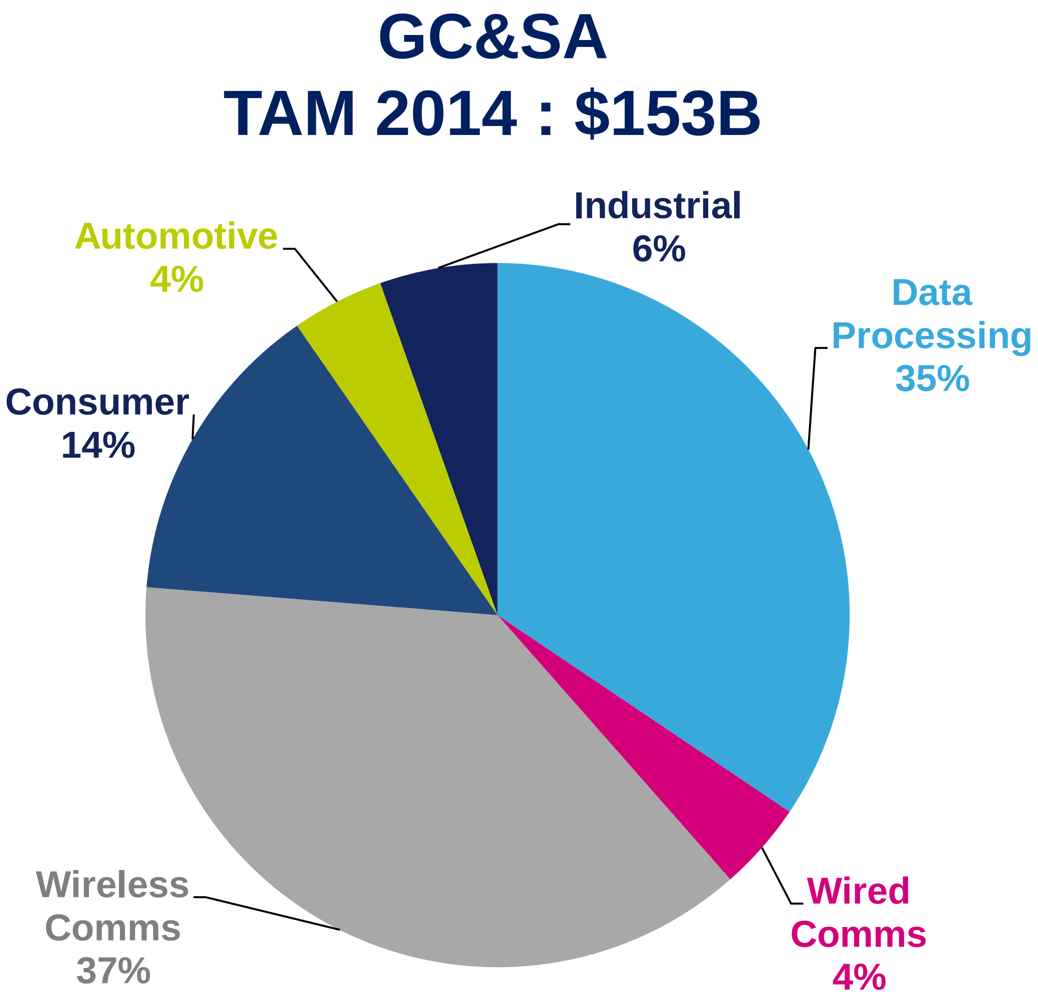
25 Sales Offices

4 R&D / IC Design Centers

Sales by location of order shipment FY2014



GC&SA Market



- 2015 GDP Growth Forecast : +6.1%
  - China +6.8% (2015F), +7.4% (2014)
  - Taiwan +3.8% (2015F), +3.7% (2014)
  - India +7.5% (2015F), +7.2% (2014)
  - ASEAN +4.9% (2015F), +4.6% (2014)
  - ANZ +2.8% (2015F), +2.9% (2014)
- Mostly emerging economies with increasing middle class
- For the electronic industry, some big corporations but mostly SMEs

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Source: IMF, IHS, WSTS

GC&SA focus Applications

Industrial

- Power supply
- Home appliances
- Lighting
- E-metering
- Welding

Smartphone

- User experience
- Secure payment
- Power management

Automotive

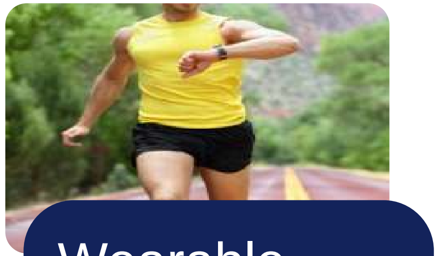
- Infotainment & telematics
- Body & comfort
- Powertrain & safety

Secure Transaction

- Banking card
- Mobile payment

Telecom Infrastructure

- Power supply
- COT (RFSOI, FD-SOI)



Wearable

- Fitness
- Wellness
- E-payment

Smart Home

- Set-Top Box & gateway
- Network attached storage
- Surveillance
- Home plug

GC&SA Customers

Smartphone

HUAWEI
mi
ZTE
htc
lenovo
MEIZU
Coolpad
GiONEE
TCL
BBK
TIANYU
oppo

Distributors

WT GROUP
wpg
WILLAS-ARRAY
EDOM TECHNOLOGY CO., LTD.
FUTURE ELECTRONICS
ARROW ELECTRONICS
AVNET

EMS & ODM

FOXCONN
wistron
Quanta Computer
PEGATRON

Automotive

Visteon
BYD Build Your Dreams
Coagent 好帮手电子
USI Realizing IDEAS Together
FORYOU
DESAY

Industrial

DELTA
LITEON
EMERSON
Chicony
Haier
Hisense
GREE
Midea
RESMED

Computer

lenovo
ASUS
acer
GIGABYTE

Secure Transactions

IRIS Bringing Solutions to Life
永新视博 NOVEL SUPERTV
东信和平 EASTCOMPEACE
天喻信息
融通高科 RT-HITECH

Box & Gateway

Skyworth
JIUZHOU
COSHIP
CHANGHONG
alhua
VIDEOCON

2014 Success in Smartphones

HUAWEI


Ascend Honor 4
Honor 4X
Ascend G7
Ascend GX1
Ascend Mate7
Ascend P7
Honor X1
Honor 6
Honor 3X
Honor 3C
G730
C199

Xiaomi


Redmi Note
W/C and LTE
Mi3
W/C and T
Mi4
Mi PAD

htc


One W8
One E8 vogue
One M8
M8 Lifestyle
One M8 Eye
Butterfly 2

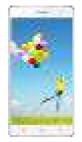
CK Telecom


19 models

ZTE


V5 max
星星2号
Star 2
青漾2
Qingyang 2
Z max
小鲜
Xiaoxian
Blade Vec 4G
Q802C
Nubia X6
清漾
Qingyang

WATER WORLD


2 models

VIVO


Xplay3S
Xshot
X5

lenovo


Vibe Z2
Vibe X2 pro
Vibe X2
B8080-F
S810t

GiONEE


Elife E7
IUNI U2

MEIZU 魅族


MX4 Pro

ONEPLUS


ONEPLUS 1

Coolpad 酷派


大神 F1

oppo


Find7

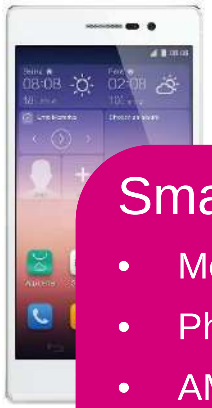
Sales & Marketing Initiatives

- Stronger Sales & Marketing organization
  - Created dedicated sales teams for key mobile customers and power customers
  - Added 7 sales offices in Greater China
  - Created an IoT excellence center in China

- Partnerships with key customers in mobile, power and automotive markets
  - Introduction of latest ST innovative solutions and roadmaps through dedicated technology days
  - Leveraging ST’s global engineering resources to provide close support
  - Synergizing efforts from the various key programs to deliver complete customer solutions

- Mass Market through Distribution partners
  - STM32 Open Development Environment workshops with all distributors
  - Demand creation programs for motor control, lighting, power system, and wearable
  - Specific incentive programs for selected ST products

Growth Opportunities 2015



Smartphone

- Motion MEMS
- Photonic sensor
- AMOLED driver
- Touch controller
- MEMS microphone
- Sensor hub
- 4G/LTE RF tuner

Home Appliances

- Motor control
- Power management
- Sensors

Automotive

- Audio
- Positioning
- Telematics
- Airbag

Power Supply

- Server
- Data center
- Gaming
- Telecom

Wearable

- MCU
- Sensors

Drone

- Motor control
- Sensors

Secure Transactions

- Secure solutions

LED Lighting

- Power devices
- Protection
- STLUX

Welding

- IGBT
- MCU

Growth Opportunities beyond 2015

Smart Me

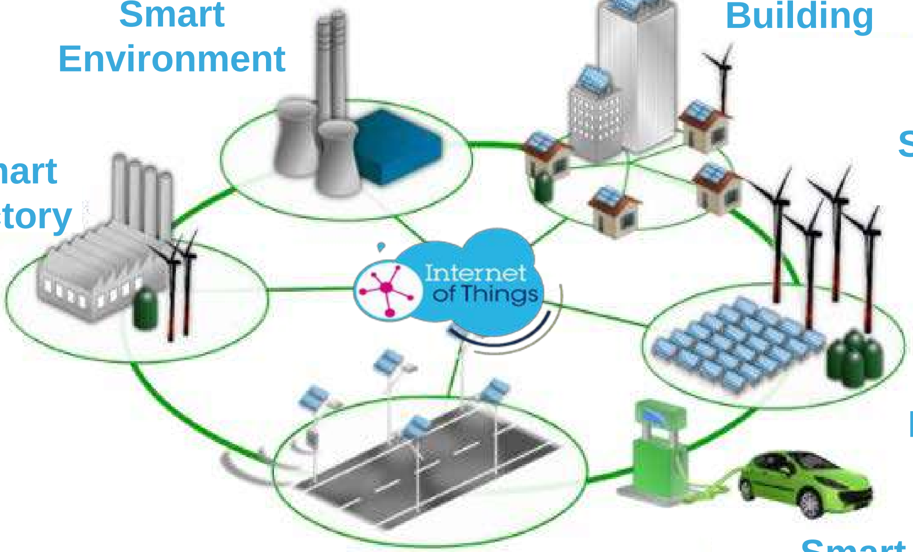
Smart Phone

Smart Payment

Smart Home

Smart Appliances

Smart Car



Smart Environment

Smart Building

Smart Factory

Smart Grid

Smart Energy

Smart Lighting

Smart Transportation

Smart City

Connecting machines, processes and people to make **me**, **my family**, **my work** and **my city** smarter

Japan & Korea Region

Marco Cassis

Executive Vice President
President, Japan and Korea Region

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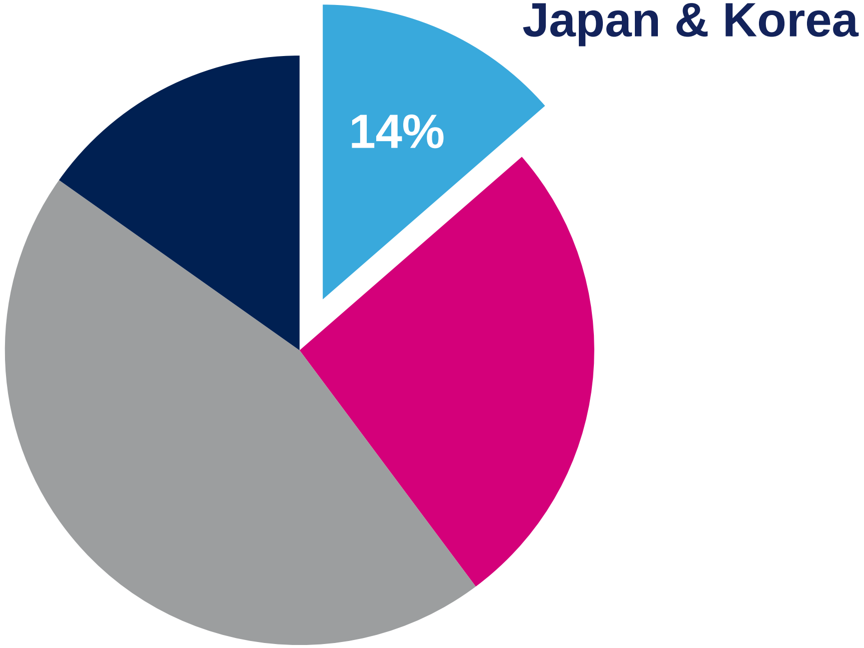
Japan & Korea Region at a glance

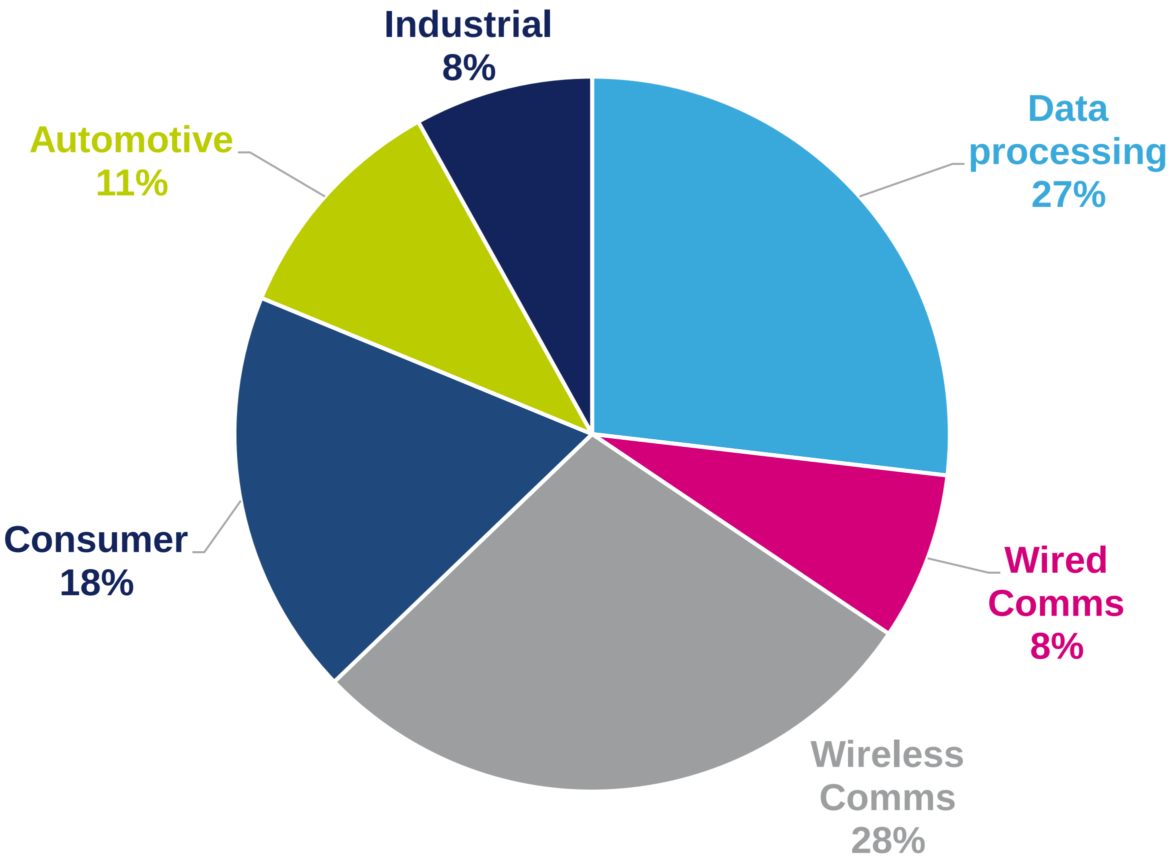
- ~ 370 Employees
- 7 Sales Organizations
- 4 Sales Offices

Sales by location of order shipment FY2014



Japan & Korea Market

Japan & Korea TAM 2014: $76B



Japan

GDP growth (%) in 2015 : +1.0%
in 2014 : -0.1%

- Slow growth but on moderate recovery path through improved domestic demand
- Electronics industry reorienting more towards automotive & industrial markets

South Korea

GDP growth (%) in 2015 : +3.3%
in 2014 : +3.3%

- Moderate growth anticipated for the export-driven economy with challenges of foreign currency exchange

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Source: IMF, IHS, WSTS

Japan & Korea focus Applications

Automotive

- Fuel efficiency
- Active safety
- Car infotainment

Mobile & Wearable

- Smartphone
- Tablet
- Smartwatch
- Glasses
- Secure element

Industrial

- Home appliance
- SMPS & motors
- Lighting
- Secure solutions

Consumer

- Set-Top Box & TV
- Gaming
- Printer
- Digital still camera

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Expanding our Mobile Portfolio

Motion Sensors

Imaging Solutions

+

Antenna Switching

Protection & EMI-Filtering Devices

EEPROM

Secure Microcontrollers

Backlight Driver

AMOLED Power Supply

+

Antenna Tuning

Dynamic NFC Tags

Low-Power Microcontrollers

Energy Harvesting/ Management

FingerTip Touch Sensor

Environment (Pressure, UV Light) Sensors

MEMS Microphones

+

Audio Processors Audio Amplifiers

Ultra-Low Power Connectivity

Wireless Charging

Proximity & Ambient-Light Sensor

Micro-Mirrors and Controllers

Time

Japan & Korea Customers

Automotive

AISIN
DAESUNG
ALPINE
HYUNDAI
DENSO
HYUNDAI AUTRON
HITACHI Inspire the Next
HYUNDAI MOBIS
MITSUBISHI ELECTRIC
kyungshin
Nidec
LG
OMRON
Mando
Panasonic
SONY
SAMSUNG

Mobile & Wearable

LG
SAMSUNG
SONY

Consumer

Canon
HUMAX
EPSON
INTEK DIGITAL
Nintendo
KAON
Panasonic
LG
SONY
SAMSUNG

Industrial

DNP
DONG YANG E&P energy + power solution
MITSUMI
Hansol
muRata INNOVATOR IN ELECTRONICS
LG
Nidec
SAMSUNG
Panasonic
TOSHIBA Leading Innovation
YUYANG DNU

Distributors & EMS

Japan : Sanshin (Axis), Chronix, Hakuto, Macnica, Tomen Electronics, Vitec

Korea : Arrow Electronics, Future Electronics, INSEM, WT(BSI) Microelectronics

Sales & Marketing Initiatives

- Strategic relationships with world leading customers in mobile, automotive and consumer markets delivering innovative solutions
  - Orchestrating ST’s global engineering resources to provide close support

- Customer base expansion through mass market initiatives and strengthened sales channel
  - Offering ST solutions for wide range applications in “IoT”
  - Expanded distribution network by adding a new major distributor
  - Started on-line sales for mass market through Chip-One-Stop (Arrow subsidiary)

- New business development through collaboration with leading device manufacturers in the region to launch innovative solutions
  - Modules and COT

Growth Opportunities 2015

Mobile & Wearable

Motion Sensors

Touch Sensor

Proximity & ambient light sensor

Environmental Sensors

AMOLED power supply

Low-power 32-bit MCU

Expanding opportunities for sensor, sensor fusion, power management and display

Automotive

Powertrain, Body, Safety, Infotainment

Power devices

BCD Products (Drivers,System Power supply)

Audio Amplifier
Audio Processor
Satellite Receiver

32-bit MCU

Sensors

Enhancing presence of automotive products at leading customers

Mass Market

32-bit MCU

Sensors

Power devices

Advanced Analog

Expanding access to customers in mass market through distribution channels

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Growth Opportunities beyond 2015

- **Assisted Driving** (ADAS and safety)
- **Connected driving** (infotainment and telematics)
- **Green driving** (engine management, fuel efficiency, electrification)

Smart Driving

- **Mesh network**
- **Smart environments** (solar, energy harvesting, smart lighting, smart grid, smart waste)
- **Smart factory, robot, agriculture**
- **Smart money, finance**

Smart City

- **Energy management** (smart meter, lighting, energy monitoring, solar)
- **Connected house** (home gateway, STB, smart home appliances)
- **Smart healthcare**

Smart Home

Internet of Things

Smart Things

- Mobile
- Tablet
- Wearable
- Terminals
- Nodes

Key Components

- Sensors
- Microcontrollers, Memories & Security
- Ultra-low power connectivity
- Analog and mixed signal components
- Power and energy management

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Mass Market

Paul Grimme

Executive Vice President,
Mass Market and Online Marketing Programs

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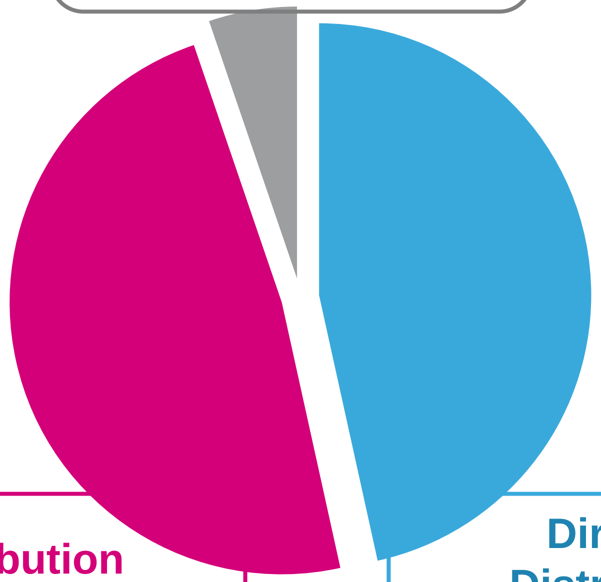
Mass Market of ST

- The market which encompasses **thousands of customers** of ST outside of our top accounts
  - A broad collection of markets served by ST
  - Different channels used for engagement
  - More than 70% of revenues through distribution
- Diversified customer base brings **higher stability**
  - Multiple market segment cycles
- **Higher margin** potential
  - Distribution margins approximately 5+% better than ST average
- A different method of product development and promotion

"Mass Market" >100,000 customers



On Line
5% of Sales
63.5% of Customers

Distribution
47% of Sales
35% of Customers

Direct & Distribution
48% of Sales
1.5% of Customers

2014 Mass Market for ST

Revenue: $2.4B | **Year over Year growth: +5%** | **% of ST Revenue: ~33%**

Expand our customer base

Core Key Accounts
Channel Accounts
Online Accounts

- >1600 Core Key Accounts (CKA)
  - CKA revenue growth: +9% YoY
- Channel accounts
  - ~1000 new accounts to ST
- ~$40M in business identified from online leads
- Design win funnel growth >+50%

Promoting leading applications & products

Boost demand creation with full "Go to Market" series of actions

- STM32 Open Development Environment Launched
  - ~105k STM32 Nucleo developer boards shipped
  - ~14k STM32 Nucleo Expansion boards shipped in 4Q
- >800 new products released for Mass Market

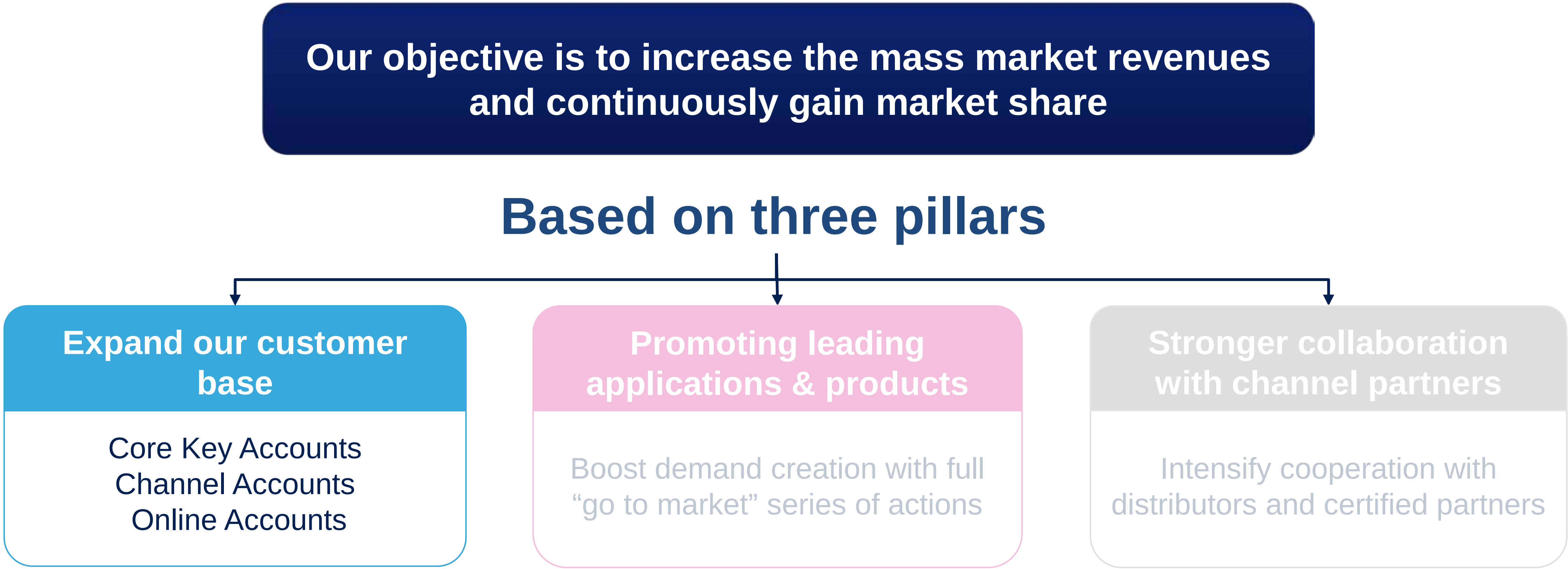
Stronger collaboration with channel partners

Intensified cooperation with distributors and certified partners

- Distribution: 31% of ST total revenues for 2014 (32% in Q4)
- 2014 POS* increased by +6%

*Point of Sales (POS) : Final point of billing from ST to the final customers via distribution

Mass Market Programs



Our objective is to increase the mass market revenues and continuously gain market share

Based on three pillars

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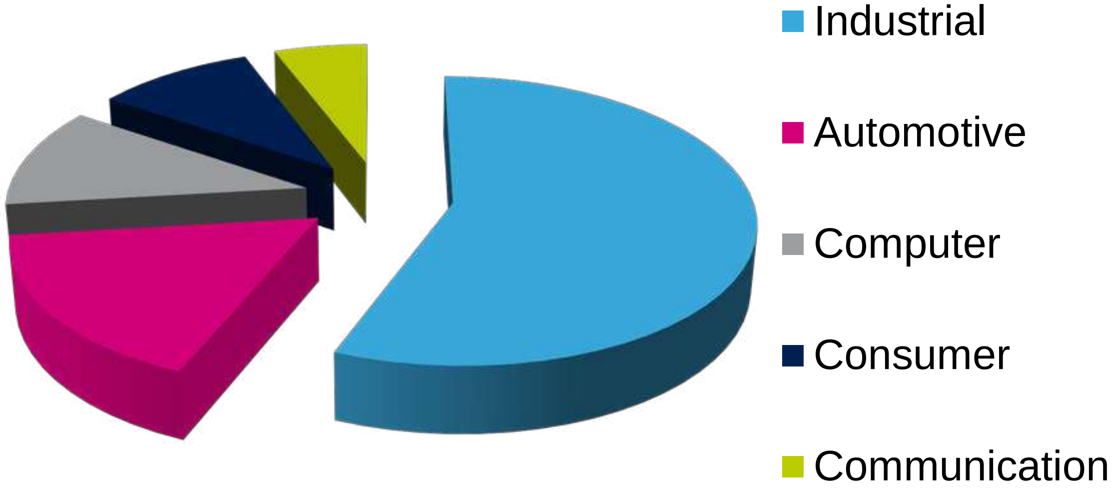
Core Key Account Segments

Number of Customers by Application

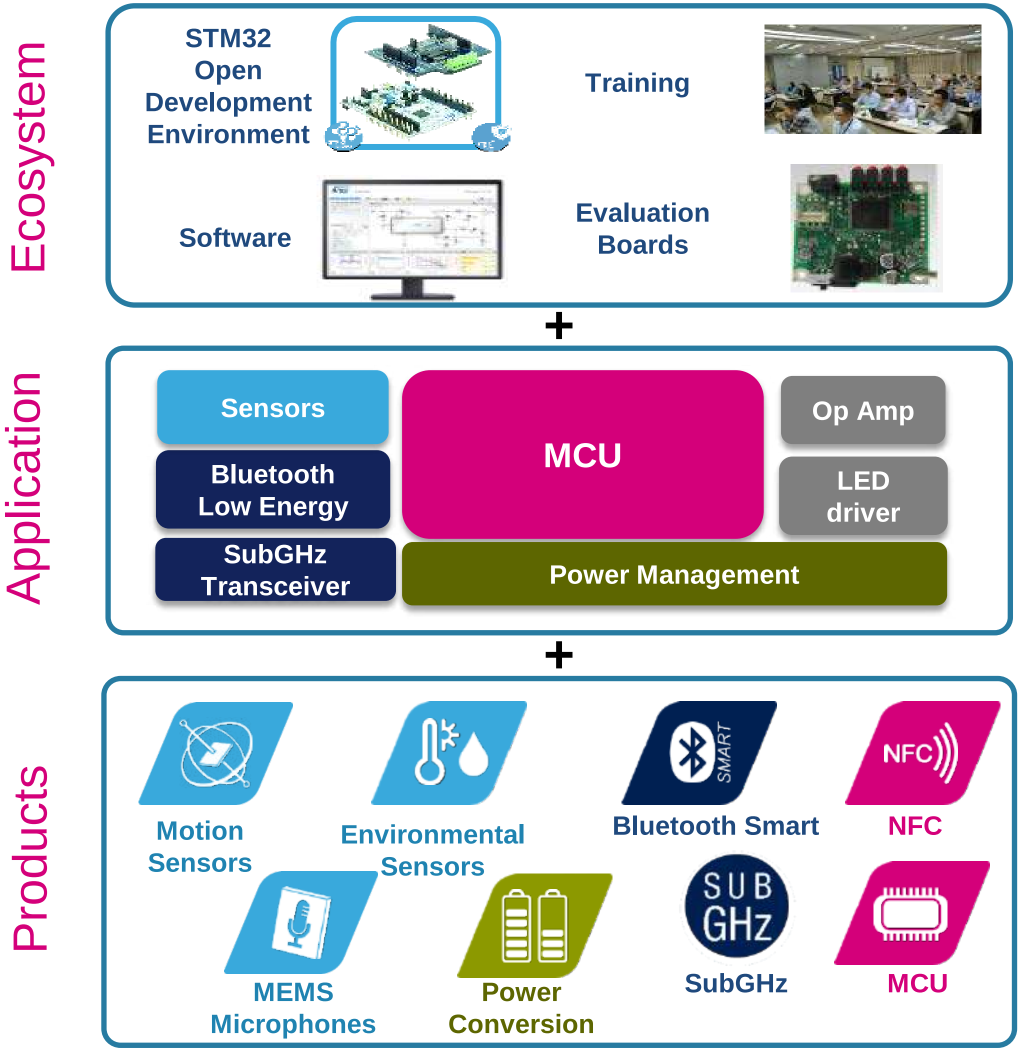


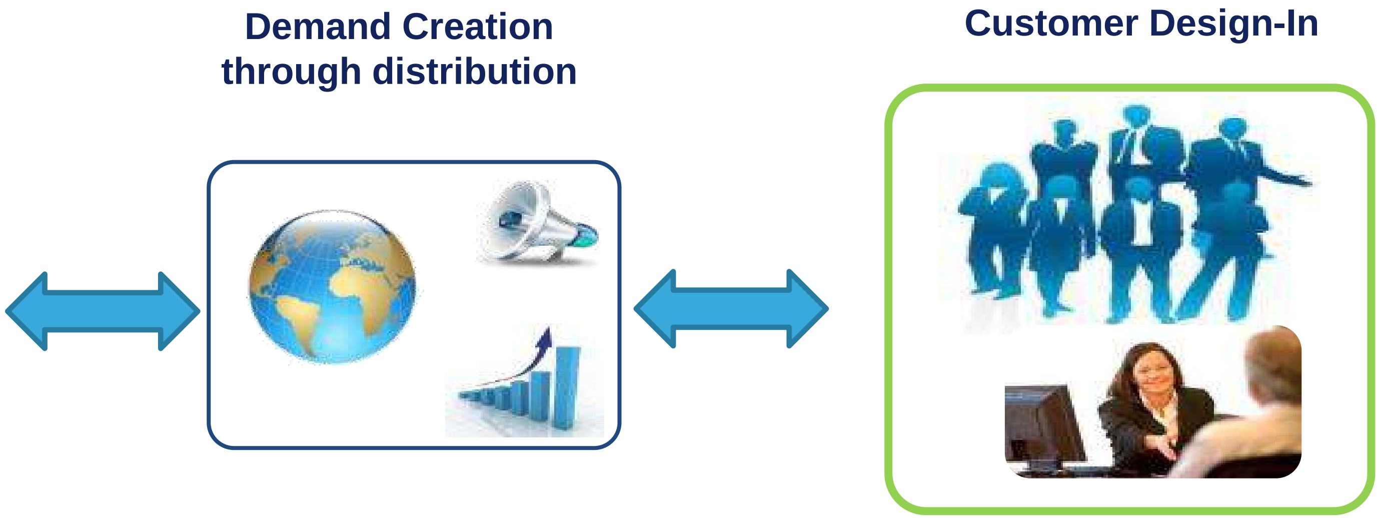
Total Number of Core Key Accounts: >1600

Americas:	~400
EMEA:	~600
Japan & Korea:	~200
Greater China & South Asia:	~400

- >1600 accounts with dedicated ST resource coverage regardless of channel
- Regular business plan reviews and monitored results
- Judged to be relevant to ST and capable of producing new design wins to grow
- 2014 Core Key Accounts grew +9%

Channel Account Development





- 35,000 accounts served entirely through distribution
- Programs deployed at distributors
  - Designed to create additional market share in distribution TAM by 2016
  - ~1000 new customers in 2014
  - Global deployment of ST/Distributor engagement to grow the channel accounts

Online Account Development

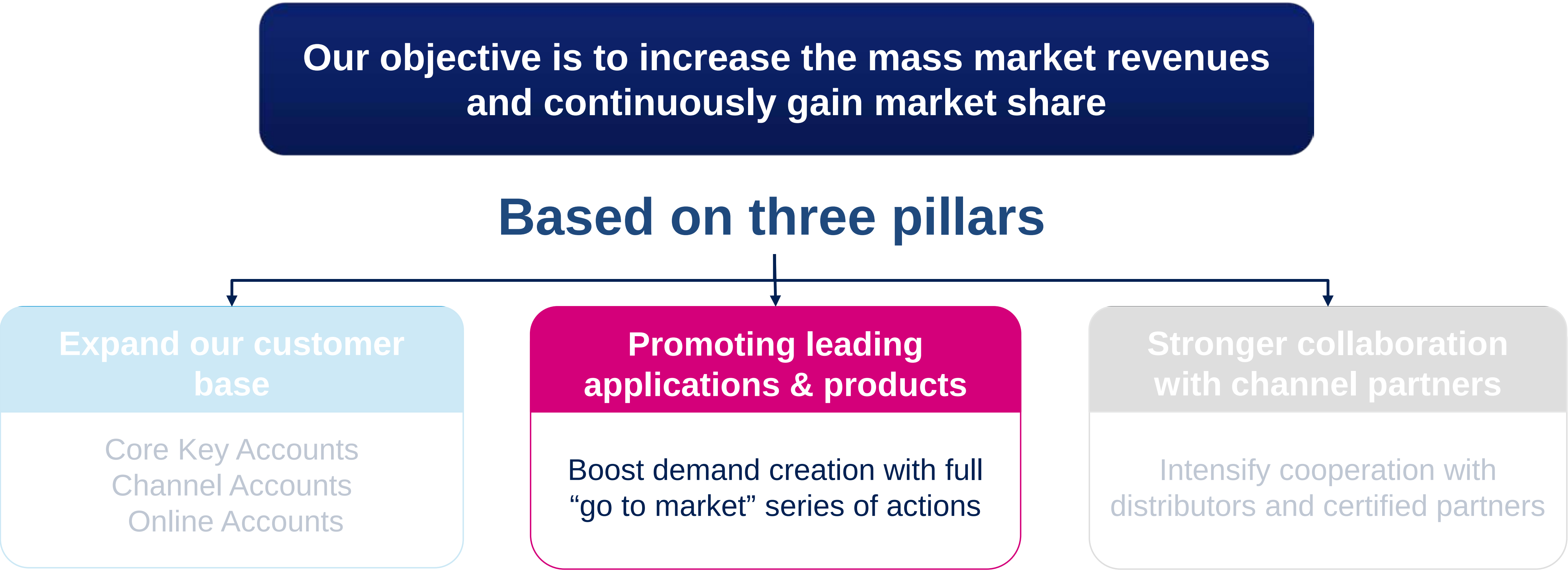
st.com

- More than 100k registered users of catalog and ST sites
- Marketing information push and customization
- Lead generation capture and new account/new business follow-up engine

Sales Leads From:
Download software (downloaded)
Online Free/Paid Samples (shipped)
eDesign Studio (project saved)
Purchase Tools & Boards (shipped)
Other interest expressed and approved

Through 1Q15: Business opportunity valued at ~$47M

Mass Market Programs



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Expertise in Key Functions for Applications

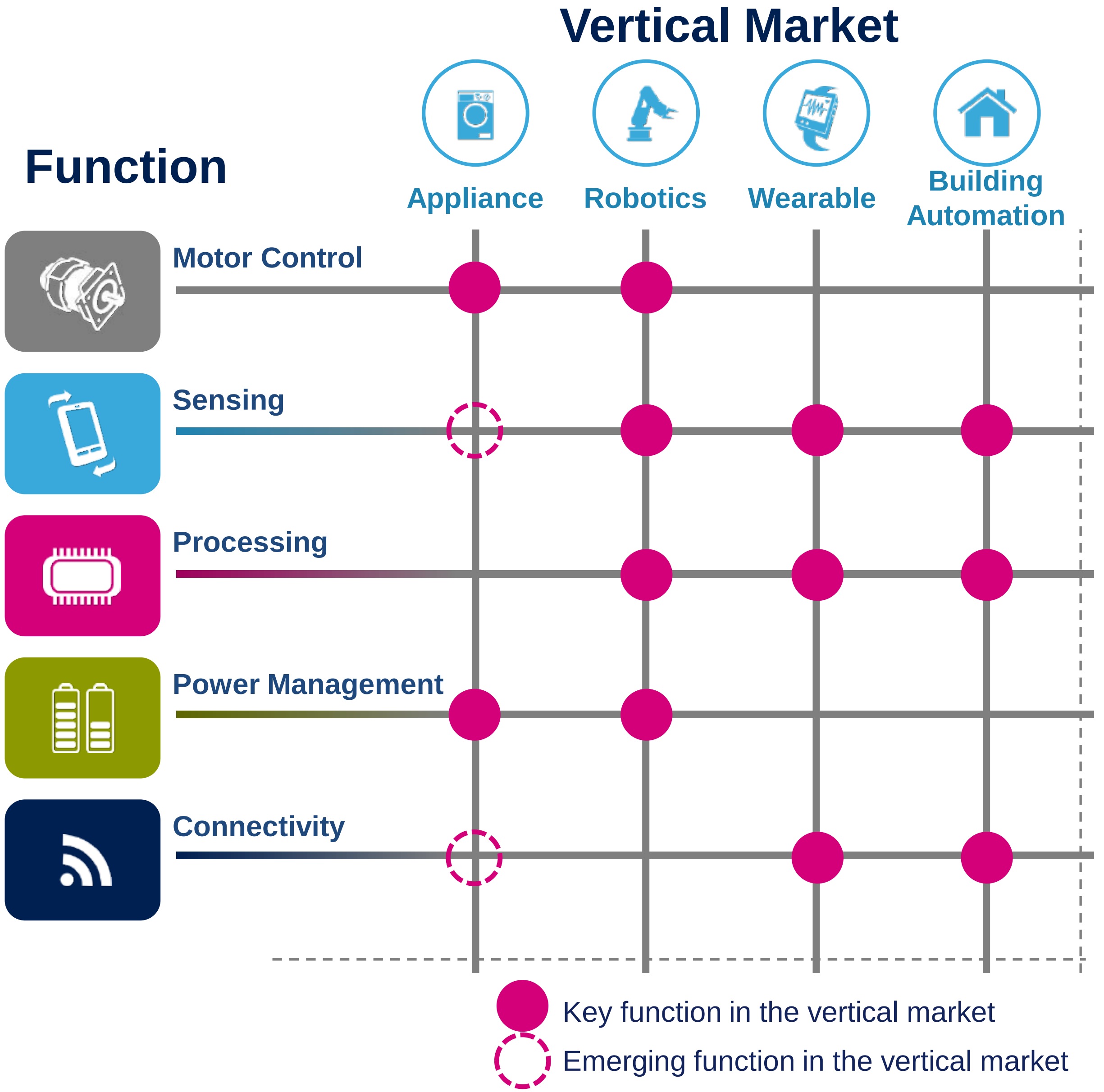
Strong expertise in key functions

  - Motor control, sensing, processing, power management, connectivity, …

- **A network of development resources**
  - Central coordination of Central Labs experts
  - Regional resources developing further applications expertise for geographic needs
  - Partnership with third parties
    - Distributors
    - Design Houses

Access to a fast and easy application development environment

  - A wide range of platforms and reference designs
  - Accelerate product development with the STM32 Open Development Environment

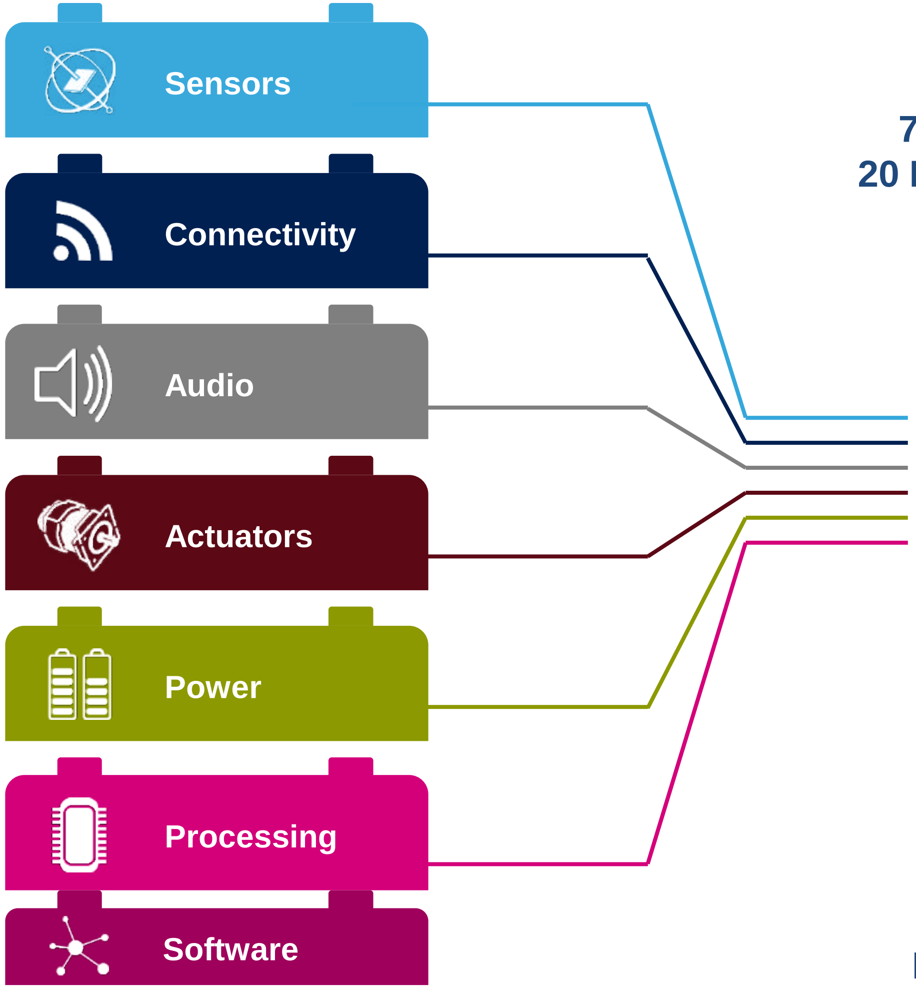


Vertical Market

Function	Appliance	Robotics	Wearable	Building Automation
Motor Control	●	●		
Sensing	◌	●	●	●
Processing		●	●	●
Power Management	●	●		
Connectivity	◌		●	●

● Key function in the vertical market
◌ Emerging function in the vertical market

STM32 Open Development Environment



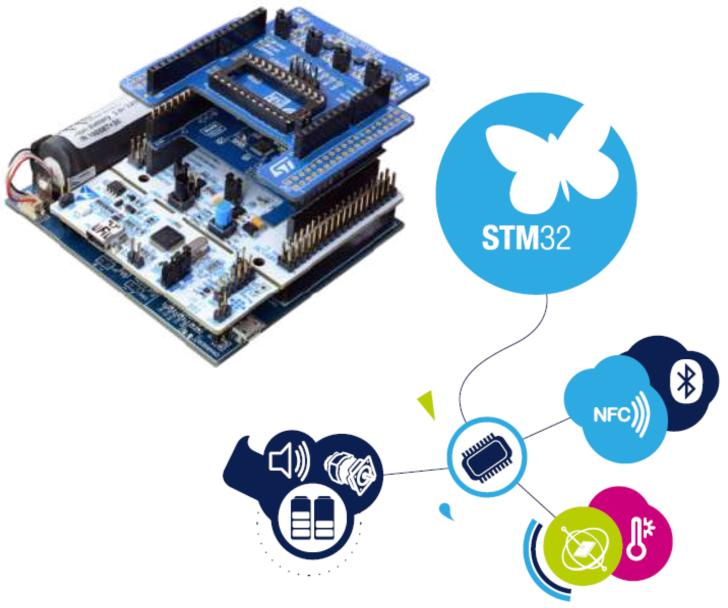
- **Sensors**
- **Connectivity**
- **Audio**
- **Actuators**
- **Power**
- **Processing**
- **Software**

12 Processor Boards
7 Expansion Boards now,
20 Expansion Boards by 4Q15

- Motion & Environ. Sensors
- Bluetooth Low Energy
- Sub-GHZ
- NFC
- Microphone
- Motor control
- Microcontroller

Integrated Development Environment and Middleware

STM32 Open
Development Environment



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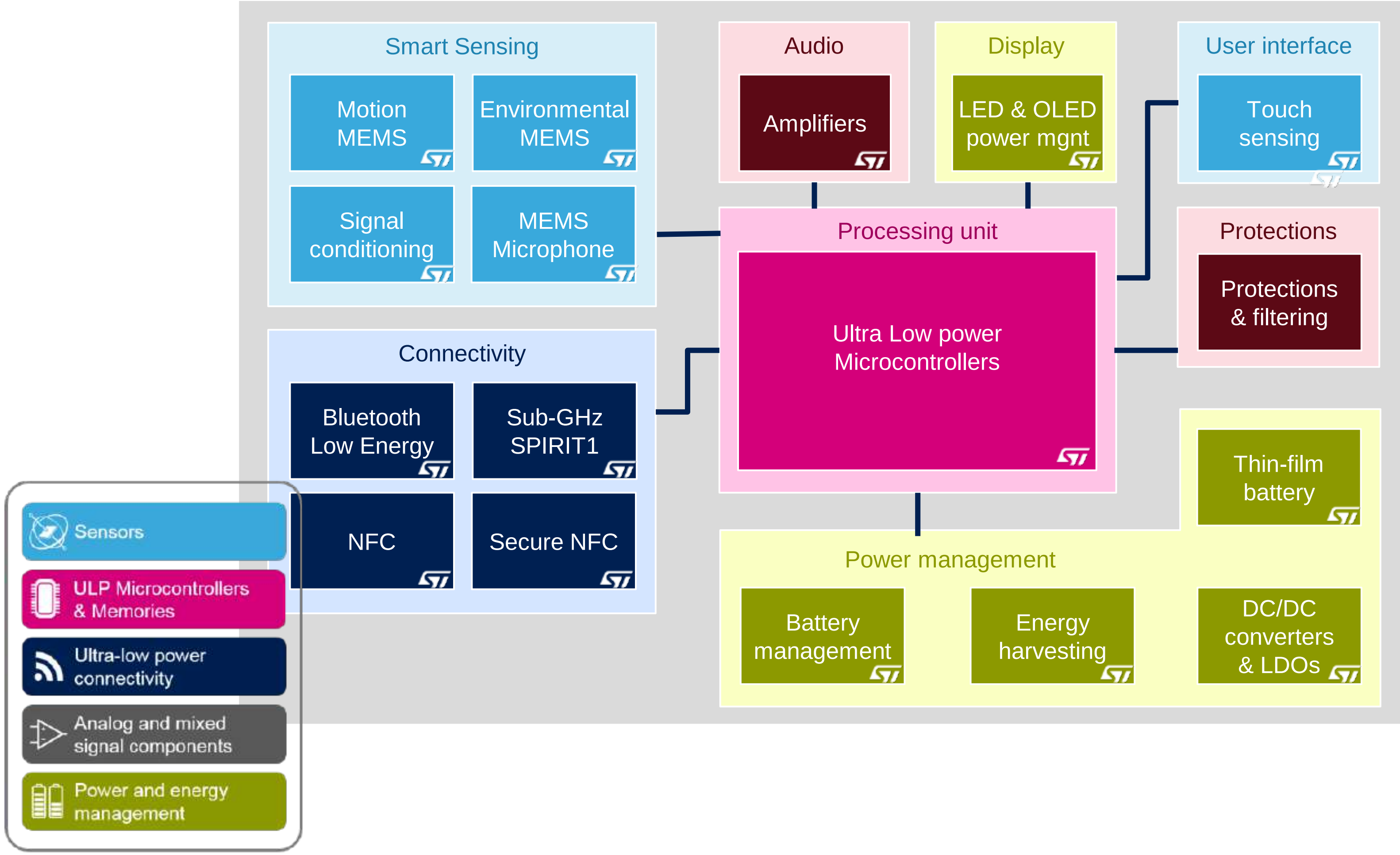
IoT

Home & Building Automation	Command and control, security, video surveillance, home appliance, energy monitoring…
Smart Grid	Smart metering, photovoltaic, e-mobility…
eHealth	Patient monitoring, fall detection, heart rate monitoring…
Industrial Control	M2M application, indoor location, smart agriculture…
Wearable	Smart watch, pedometer, smart glasses…

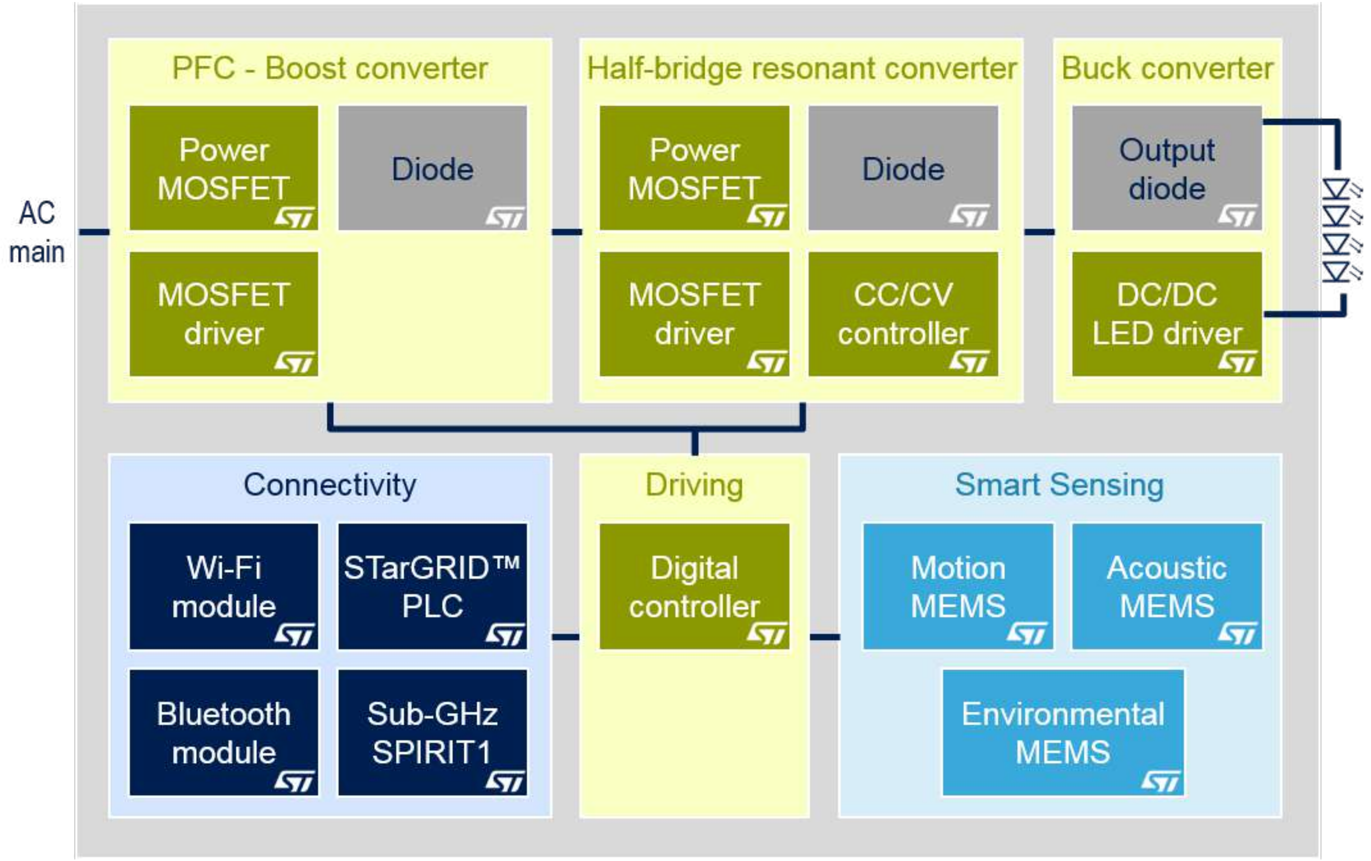
A complete offer of ST devices for wearable applications



Lighting

Smart street lighting	Networked architectures for smart cities
LED display and signage	Tight LED current regulation accompanied with dimming and diagnostic
LED general illumination	Compact and efficient solution
LED backlighting	Superior brightness control

A complete offer of ST devices for Smart LED Lighting



AC main

PFC - Boost converter
- Power MOSFET
- Diode
- MOSFET driver

Half-bridge resonant converter
- Power MOSFET
- Diode
- MOSFET driver
- CC/CV controller

Buck converter
- Output diode
- DC/DC LED driver

Connectivity
- Wi-Fi module
- STarGRID™ PLC
- Bluetooth module
- Sub-GHz SPIRIT1

Driving
- Digital controller

Smart Sensing
- Motion MEMS
- Acoustic MEMS
- Environmental MEMS

Mass Market Programs

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Distribution – Vital to Mass Market Success

- Global network of Distributors and Value Added Resellers
  - Extended marketing reach via joint promotion programs
  - Leverage Distribution field resources to engage new customers
  - Stronger technical support from distributor teams thanks to increased knowledge of ST products and application solutions
- Enhanced design support through collaboration with third parties (design houses, training centers, …)
- Improved collaboration and expanded relationships with online Distributors to acquire interest and design-in activity during sample and low volume phases of customer projects
- Improved technical support by ST to the Mass Market including Distribution field resources

54 distribution partners worldwide covering **150 countries**

31% of ST total revenues for 2014

Catalog Distributors

Digi-Key Corporation

Farnell element14

Mouser Electronics

RS

Top 4 Distributors*

Avnet

WT Microelectronics

Yosun Group

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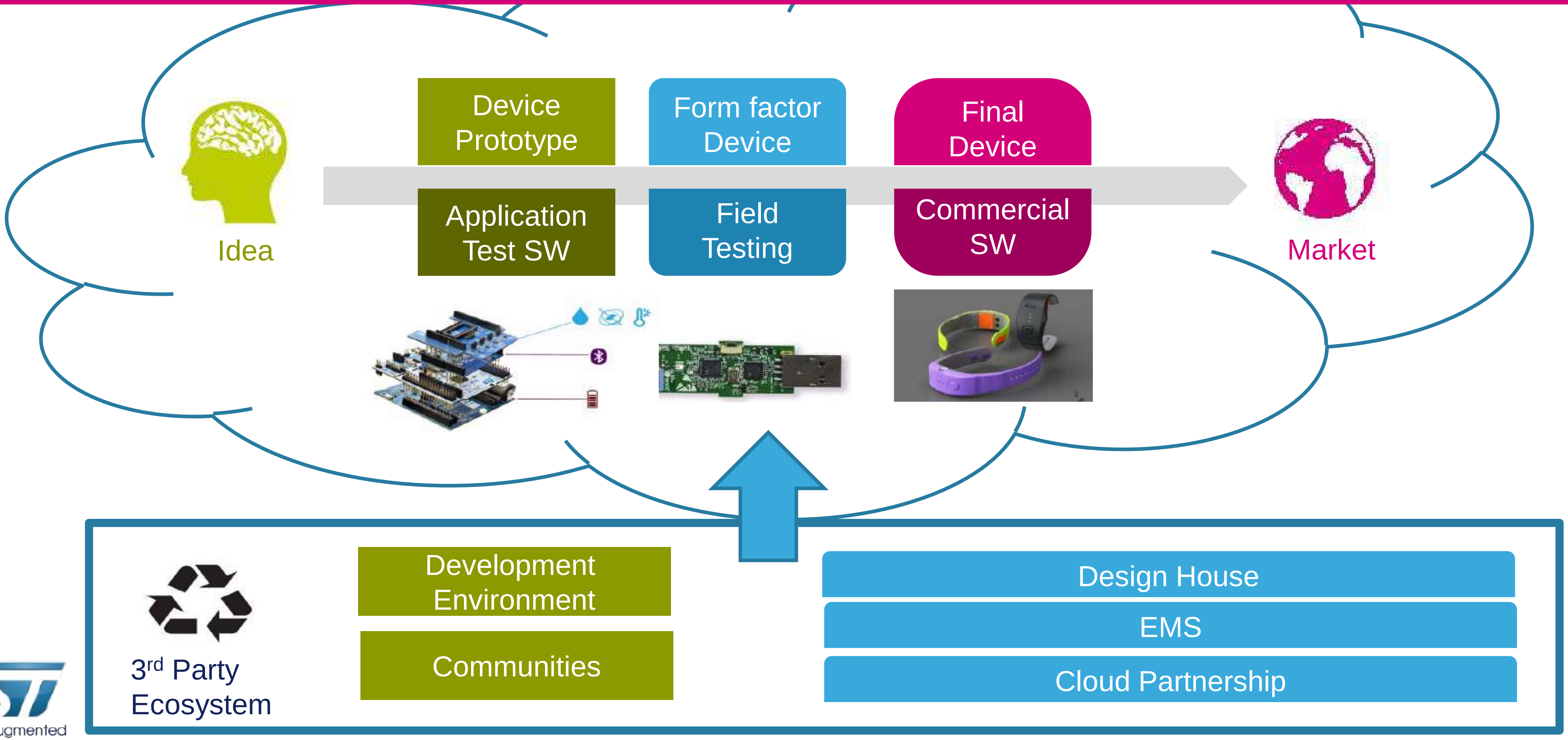
*Listed alphabetically

3rd Party Driven Ecosystem

>100 3rd Party Relationships



Idea

Device Prototype

Application Test SW

Form factor Device

Field Testing

Final Device

Commercial SW

Market

3rd Party Ecosystem

Development Environment

Communities

Design House

EMS

Cloud Partnership

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Takeaways

- Mass Market offers a great opportunity to grow
  - **Largest Market** of ST – Over 100,000 customers
  - **Stability of demand** across multiple market segments
  - Ability to generate **better margins**
  - **Targeted to grow** faster than the company average
- Unique position to win in the Mass Market
  - Breadth and depth of **product portfolio**
  - **Expertise** in multiple key functions and application **know-how**
  - **Development environment** allowing faster prototyping and **time to market**
  - **Strong partnership focus** with distribution and 3rd parties
- Focus on Mass Market across all businesses
  - Structure and process with uniform practices
  - Strong global coordination to drive growth

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