Agenda

Time	Presentation	Speaker
9:00 - 9:10	Introduction	Tait Sorensen
9:10 - 9:40	Company Transformation & Financial Roadmap	Carlo Ferro
9:40 - 10:00	Market Trends & ST Growth Drivers	Georges Penalver
10:00 - 10:30	Home and Digital	Jean-Marc Chery
10:30 - 10:50	BREAK	
10:50 - 11:10	Leadership in the Automotive Industry	Marco Monti
11:10 - 11:40	Internet of Things	Bob Krysiak
11:40 - 12:05	Strategy & Vision	Carlo Bozotti
12:05 - 13:00	Q&A Panel	Carlo Bozotti / Jean-Marc Chery / Carlo Ferro / Georges Penalver / Carmelo Papa
13:00 – 14:00	Lunch	
14:00 – 17:00	Breakout Sessions	
17:00 – 18:30	Reception	

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Agenda – Breakout Sessions

Breakout Rooms	Versailles	Louis XVI B	Library	Fontainebleau	Louis XVI A
14:00 – 14:30	AMS		DCG / IBP	Mass Market	MMS
14:30 – 15:00	IPD	APG		Mass Market	
15:00 – 15:30	IPD	APG		Manufacturing & Technology R&D	
15:30 – 16:00	AMS		DCG / IBP	Manufacturing & Technology R&D	MMS
16:00 – 16:30	IPD	APG		Mass Market	
16:30 – 17:00	AMS		DCG / IBP	Manufacturing & Technology R&D	MMS
17:00 – 18:30	Reception – Fontainebleau Foyer				

▪ Analog, MEMS & Sensors (AMS)	Benedetto Vigna, Marco Cassis
▪ Automotive (APG)	Marco Monti, Kevin Gagnon
▪ Digital Convergence (DCG) & Imaging, BiCMOS ASIC & Silicon Photonics (IBP)	Gian Luca Bertino, Eric Aussedat,
▪ Industrial & Power Discrete (IPD)	Carmelo Papa, Matteo Lo Presti
▪ Manufacturing & Technology R&D	Jean-Marc Chery, Orio Bellezza
▪ Mass Market	Paul Grimme, Bob Krysiak
▪ Microcontrollers (MMS)	Claude Dardanne, Francois Guibert

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Forward Looking Statements

Some of the statements contained in this release that are not historical facts are statements of future expectations and other forward-looking statements (within the meaning of Section 27A of the Securities Act of 1933 or Section 21E of the Securities Exchange Act of 1934, each as amended) that are based on management's current views and assumptions, and are conditioned upon and also involve known and unknown risks and uncertainties that could cause actual results, performance, or events to differ materially from those anticipated by such statements, due to, among other factors:

- *Uncertain macro-economic and industry trends;*
- *Customer demand and acceptance for the products which we design, manufacture and sell;*
- *Unanticipated events or circumstances, which may either impact our ability to execute the planned reductions in our net operating expenses and / or meet the objectives of our R&D Programs, which benefit from public funding;*
- *The loading and the manufacturing performance of our production facilities;*
- *The functionalities and performance of our IT systems, which support our critical operational activities including manufacturing, finance and sales;*
- *Variations in the foreign exchange markets and, more particularly, the U.S. dollar exchange rate as compared to the Euro and the other major currencies we use for our operations;*
- *The impact of intellectual property ("IP") claims by our competitors or other third parties, and our ability to obtain required licenses on reasonable terms and conditions;*
- *Restructuring charges and associated cost savings that differ in amount or timing from our estimates;*
- *Changes in our overall tax position as a result of changes in tax laws, the outcome of tax audits or changes in international tax treaties which may impact our results of operations as well as our ability to accurately estimate tax credits, benefits, deductions and provisions and to realize deferred tax assets;*
- *The outcome of ongoing litigation as well as the impact of any new litigation to which we may become a defendant;*
- *Natural events such as severe weather, earthquakes, tsunami, volcano eruptions or other acts of nature, health risks and epidemics in locations where we, our customers or our suppliers operate;*
- *Changes in economic, social, political, or infrastructure conditions in the locations where we, our customers, or our suppliers operate, including as a result of macro-economic or regional events, military conflict, social unrest, or terrorist activities; and*
- *Availability and costs of raw materials, utilities, third-party manufacturing services, or other supplies required by our operations.*

Such forward-looking statements are subject to various risks and uncertainties, which may cause actual results and performance of our business to differ materially and adversely from the forward-looking statements. Certain forward-looking statements can be identified by the use of forward looking terminology, such as "believes," "expects," "may," "are expected to," "should," "would be," "seeks" or "anticipates" or similar expressions or the negative thereof or other variations thereof or comparable terminology, or by discussions of strategy, plans or intentions.

Some of these risk factors are set forth and are discussed in more detail in "Item 3. Key Information — Risk Factors" included in our Annual Report on Form 20-F for the year ended December 31, 2013, as filed with the SEC on March 5, 2014. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this release as anticipated, believed, or expected. We do not intend, and do not assume any obligation, to update any industry information or forward-looking statements set forth in this release to reflect subsequent events or circumstances.

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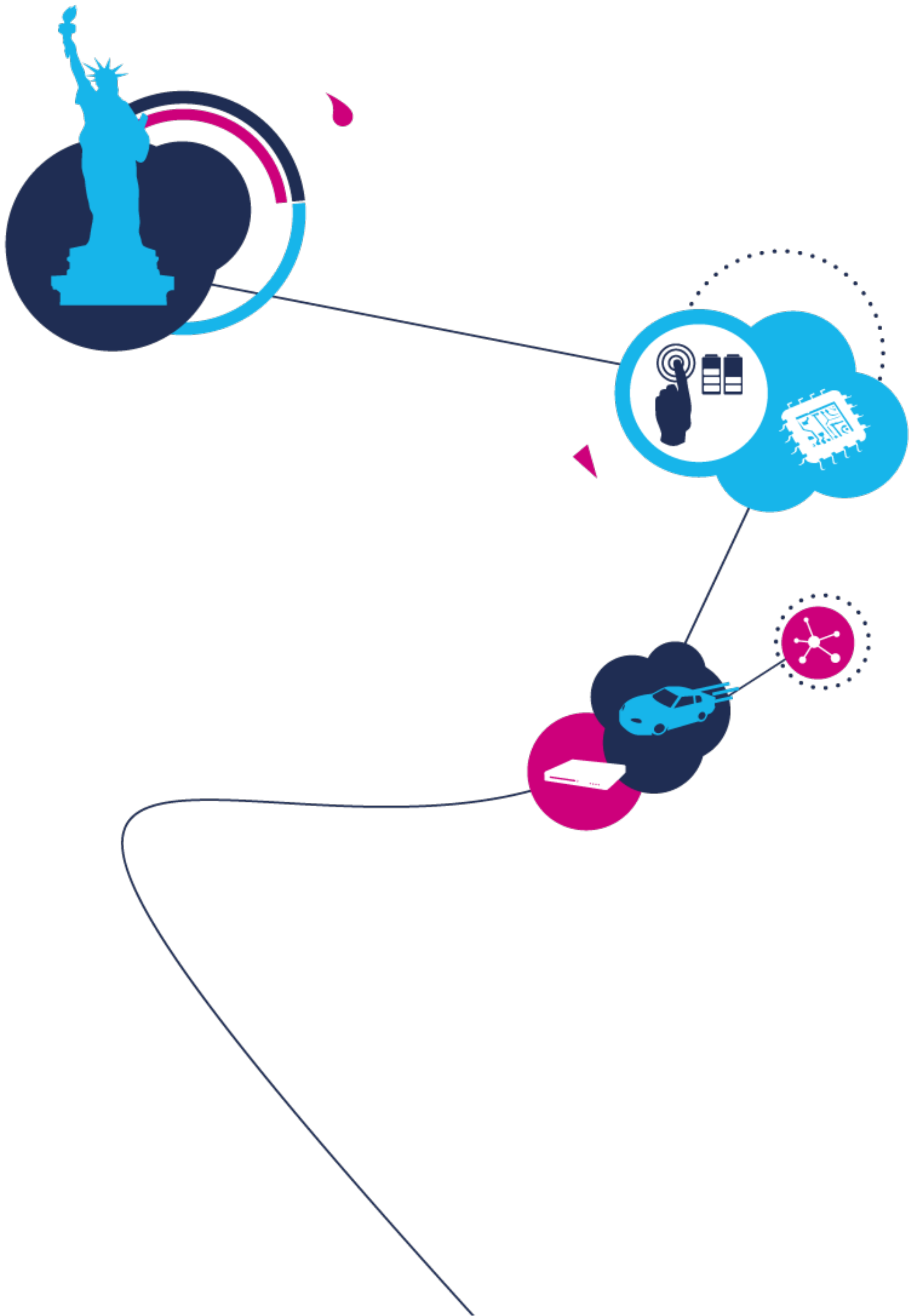
Company Transformation and Financial Roadmap

Carlo Ferro

Chief Financial Officer



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Agenda

- ST Overview
- Company Transformation
- Our Business Portfolio
- Financial Performance
- Towards Our Financial Model

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Who We Are

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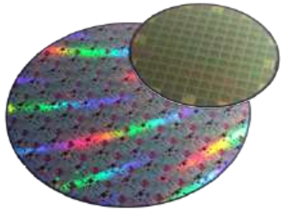
- A global semiconductor leader
- The largest European semiconductor company
- 2013 revenues of **$8.08B**
- Approximately **45,000** employees worldwide
- Approximately **9,000** people working in R&D
- **12** manufacturing sites
- Listed on New York Stock Exchange, Euronext Paris and Borsa Italiana, Milano

As of December 31, 2013

ST’s Solid Foundation

World-class Technology

- 28nm FD-SOI agreement with top-tier foundry
- Embedded flash for MCU in 300mm
- BCD9S for power applications



Unique Set of R&D and Design Competences

- 9,000 people working in R&D and product design
- Strengthening capabilities in application processors, RF, analog and power technologies, software and complex system integration

Intellectual Property

- 16,000 owned patents corresponding to 9,000 patent families
- 598 new patent applications filed in 2013

Independent Manufacturing

- Supply flexibility and asset-lighter model provided by foundries

Worldwide Sales & Marketing Network

- 79 sales offices in 35 countries
- Global coverage with 54 associated distributors in over 150 countries

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Where You Find Us

Our MEMS & Sensors
are augmenting the consumer experience

Our digital consumer products
are powering the augmented digital lifestyle

Our automotive products
are making driving safer, greener and more entertaining

Our smart power products
are making more of our energy resources

Our Microcontrollers
are everywhere making everything smarter and more secure

Agenda

- ST Overview
- Company Transformation
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Transforming the Company

Towards the Industry Megatrends

	2005	2009	December 2012 ST Strategic Plan	Today
Expanding Customer Base				
	• #1 customer = 22% of total revenues • 9% distribution revenues • 50% revenues from Asia	• #1 customer = 16% of total revenues • 16% distribution revenues • 60% revenues from Asia	**New Sales & Marketing organization**	• No customer exceeding 10% of total revenues • 30% distribution revenues • 59% revenues from Asia
Adapting Product Portfolio				
	• Solid positions in Automotive, Industrial & Power Conversion, Telecom and Set-Top Boxes	• Re-design MCU offering based on 32-bit ARM-core • Beginning of expansion of MEMS • Exited Flash memories	Focus on 5 product growth drivers **with broader market applicability** Target **sustainable profitability** in each business	• Leadership positions across 5 growth drivers • Wider portfolio for emerging consumer apps and mobile • Exited ST-Ericsson

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Financial, Manufacturing & Technology Transformation

	2005*	2009*	December 2012 ST Strategic Plan	Today*
Financial	• 3Y Capex/sales: 19% • Quarterly Opex: $664M • Quarterly adjusted OI: $93M • Dividend (LTM) $0.12 per share • Net financial position: $225M	• 3Y Capex/sales: 9% • Quarterly Opex: $881M • Quarterly adjusted OI: $(183)M • Dividend (LTM) $0.18 per share • Net financial position: $420M	**New financial target model**	• 3Y Capex/sales: 7% • 1Q14 Opex: $606M • 1Q14 adjusted OI: $8M • Dividend (LTM) $0.40 per share • Net financial position: $612M
Manufacturing & Technology	• 17 Front-end Fabs • Fully IDM • Joint Technology R&D	• 8 Front-End Fabs • Flexible IDM • Technology R&D co-operative model	**Stabilization of the manufacturing tool & refined foundry strategy**	• 6” to 8” conversion plans ongoing • Back-End plants consolidation • Extended Technology R&D co-operative model

* Net Financial Position at December 31, 2005 and 2009 and March 29, 2014. Opex (i.e. SG&A + R&D) and adjusted OI (i.e. Operating Income before impairment, restructuring and other related closure charges) based on quarterly average of 2005 and 2009 or 1Q14.

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Recent Achievements

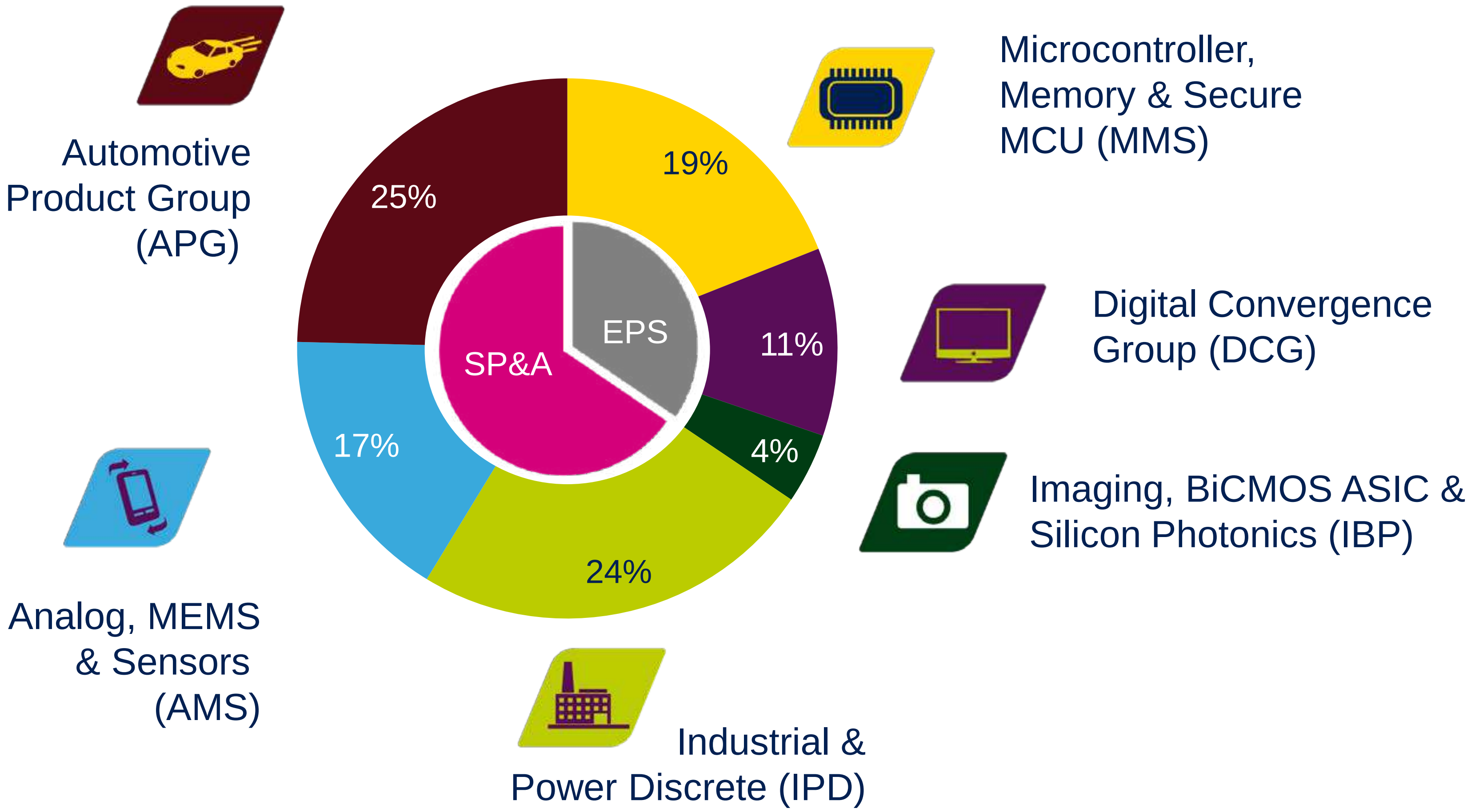
Outperformed served market (SAM) in 2013	ST revenues +3.2% vs SAM -1.6%
Completed exit of ST-Ericsson	Timely manner and at lower than estimated cost
Product innovation	First to market with products across our 5 growth drivers in 2013
Customer expansion	Sales through distribution increased to 30% of total revenues
Core competences reinforced	Redeployed 1,000 ST-Ericsson engineers to high growth areas
Strategic agreement for 28nm FD-SOI	Ensuring high-volume production at top-tier foundry
Steady progress in financial performance	$108M Y-o-Y improvement in operating income attributable to ST before impairment and restructuring charges
Keeping a high dividend yield in semiconductors	Proposal to AGM for stable dividend of $0.10 per share in each of 2Q14 and 3Q14

Agenda

- ST Overview
- Company Transformation
- **Our Business Portfolio**
- Financial Performance
- Towards Our Financial Model

Well Balanced Product Portfolio

Revenues by Product Group 1Q14



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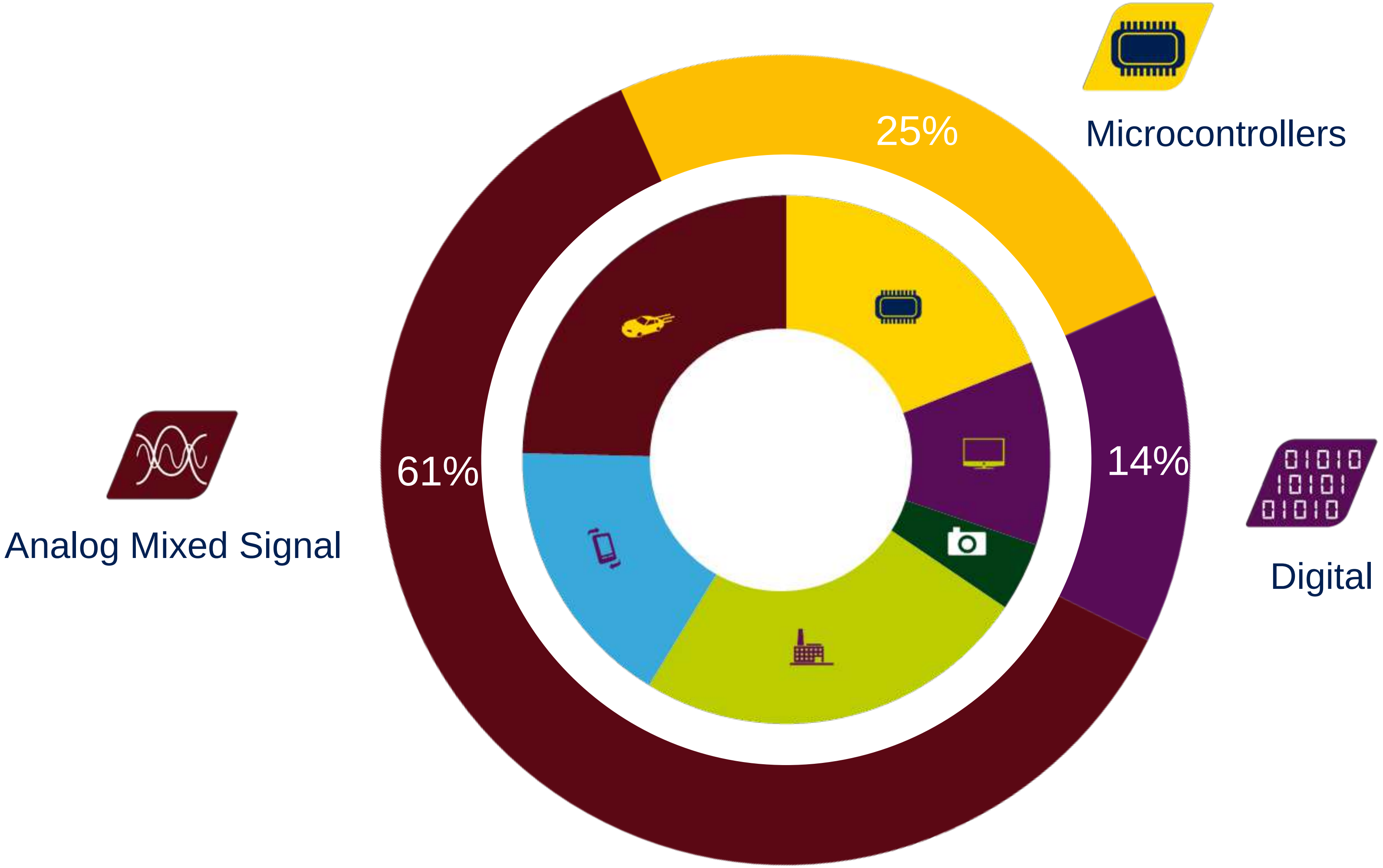
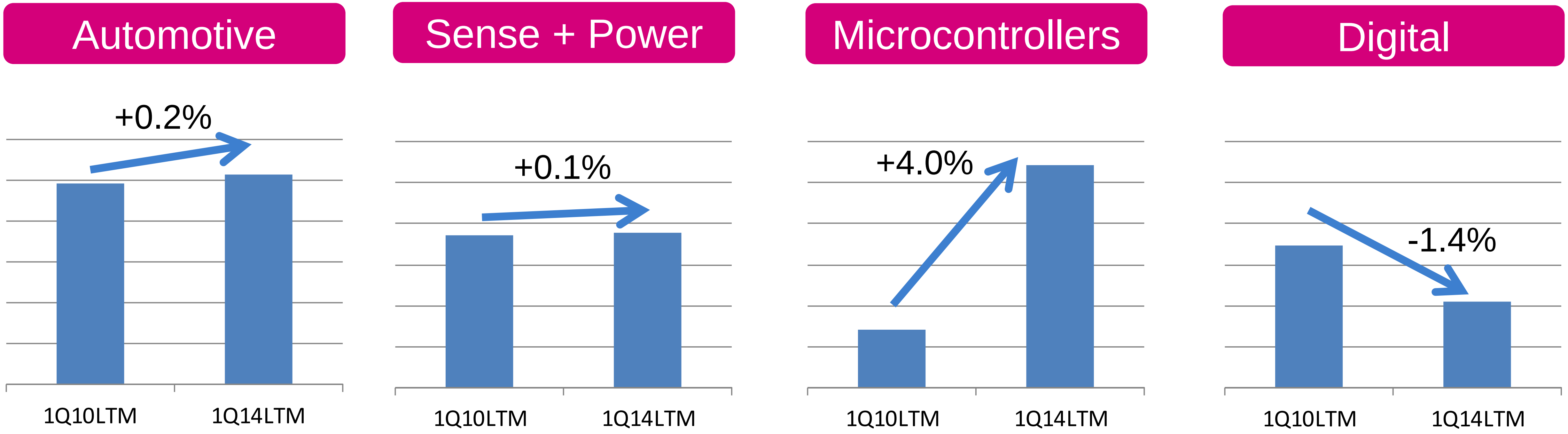
High Value Technology Portfolio

Revenues by Silicon Technology 1Q14



Gaining Market Share

Market Share Performance
1Q14 LTM vs. 1Q10 LTM



1) Source: WSTS, ST
2) LTM Periods: 1Q14 LTM = 2Q13 – 1Q14 and 1Q10 LTM = 2Q09 – 1Q10

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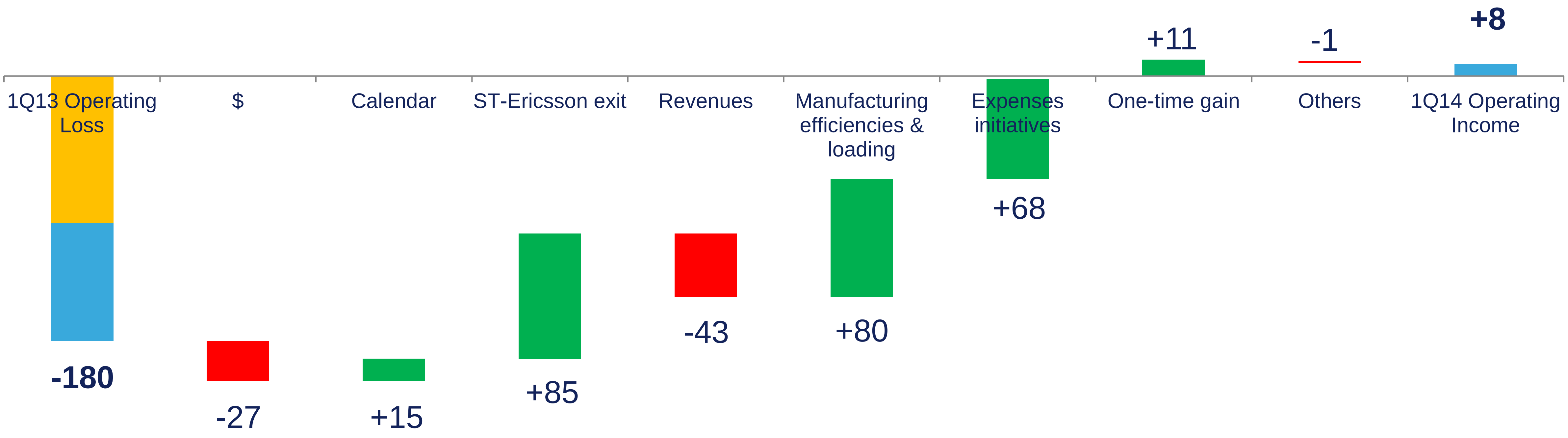
Financial Performance

In US$M, except EPS	1Q13	4Q13	1Q14	FY13	FY12
Net Revenues	2,009	2,015	1,825	8,082	8,493
Gross Margin	31.3%	32.9%	32.8%	32.3%	32.8%
Operating Income (Loss) before impairment & restructuring	(180)	18	8	(173)	(705)
Net Income – Reported	(171)	(36)	(24)	(500)	(1,158)
EPS Diluted	(0.19)	(0.04)	(0.03)	(0.56)	(1.31)
Adjusted EPS Diluted*	(0.13)	(0.01)	(0.01)	(0.23)	(0.33)
Free Cash Flow*	(65)	91	(51)	(179)	33
Net Financial Position	1,013	741	612	741	1,192
Effective Exchange Rate €/$	1.31	1.34	1.35	1.31	1.31

*See appendix

Operating Income Y-o-Y Improvement

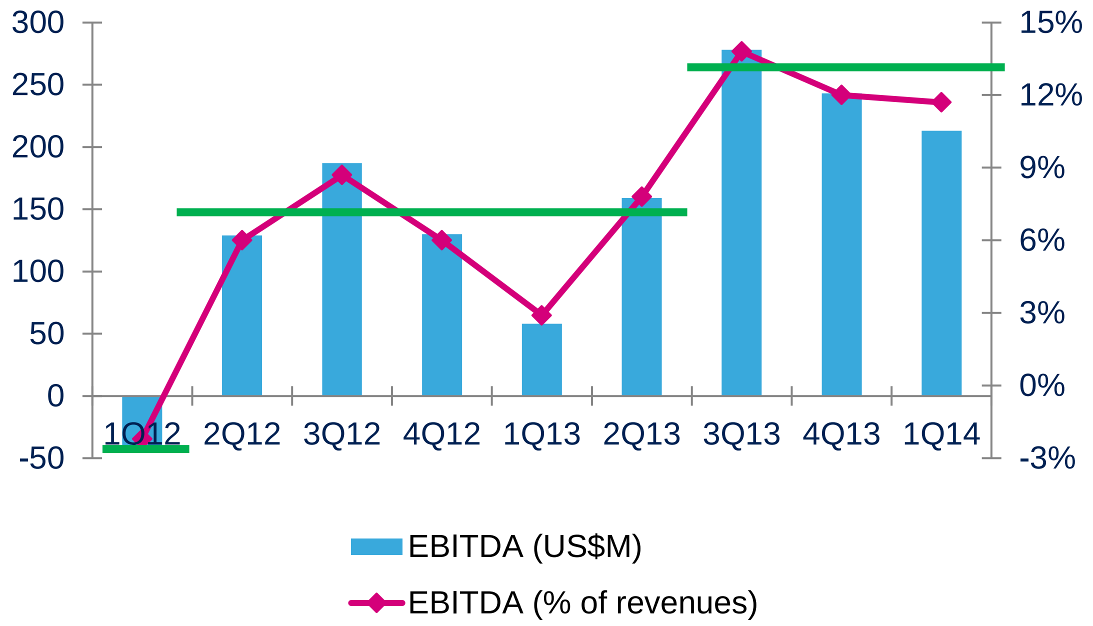
Operating Income Evolution (US$M): 1Q13 to 1Q14



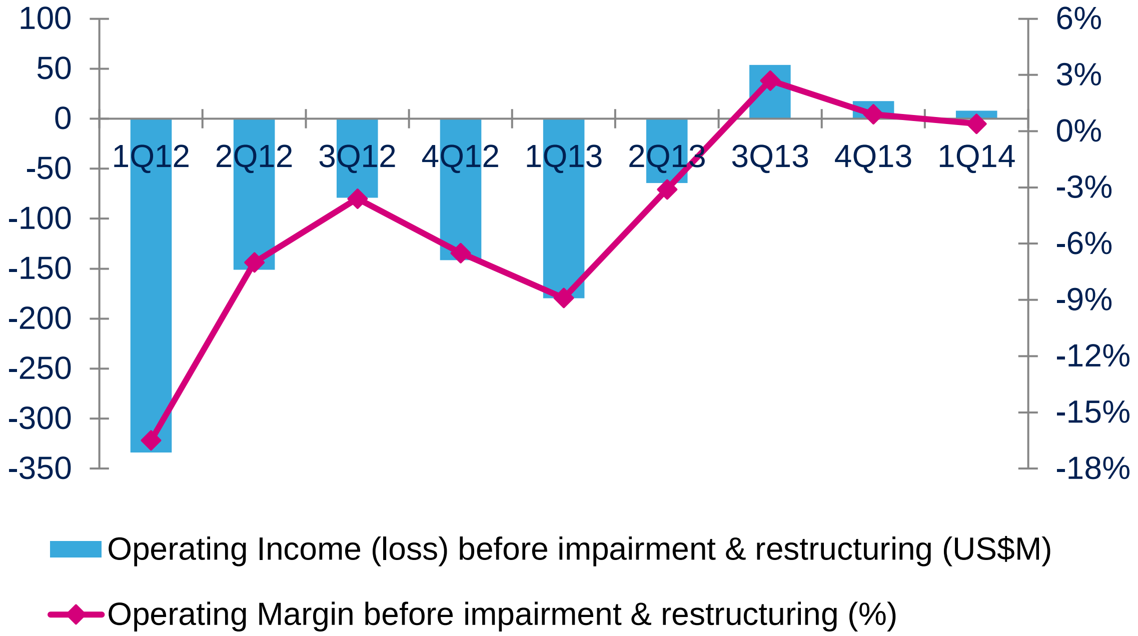
🟨 Operating Loss Attributable to ST excluding 50% of ST-Ericsson in 1Q13 was $100M.

Financial Progress

EBITDA

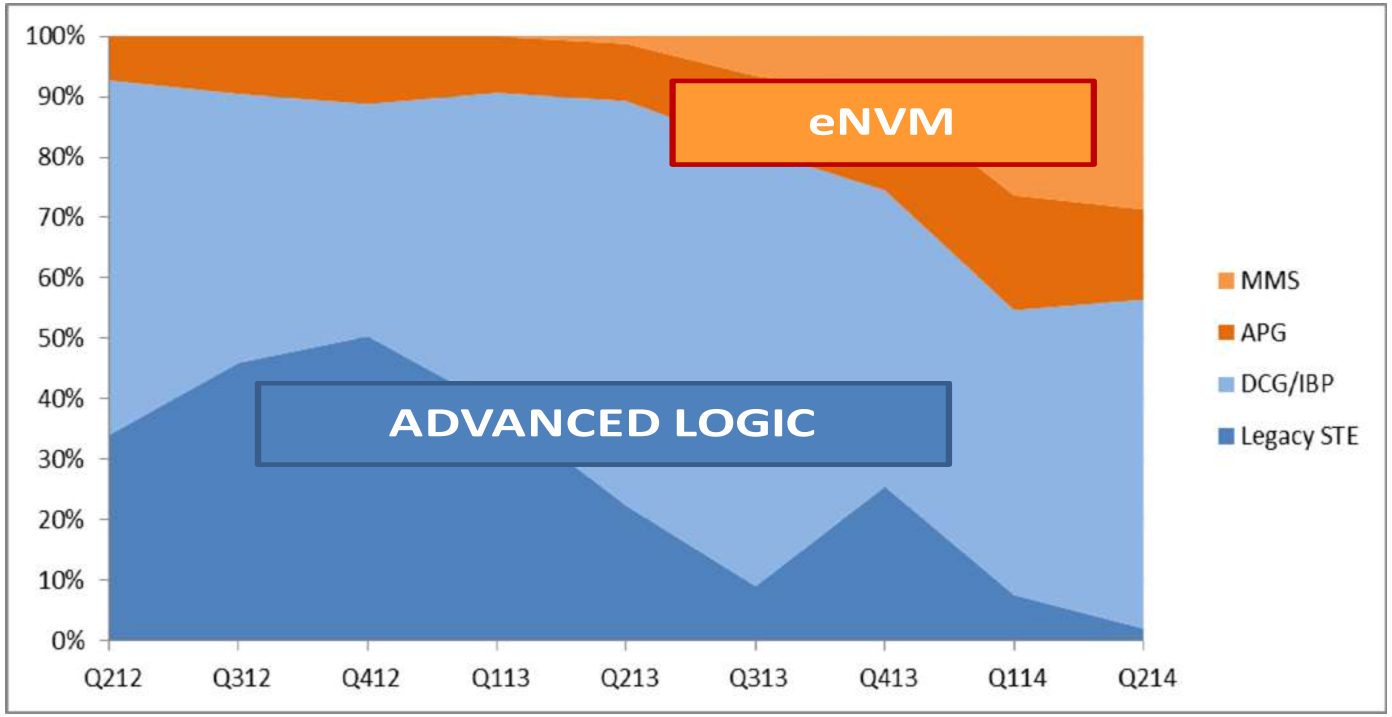


Operating Income



Crolles300 Technology Mix Evolution

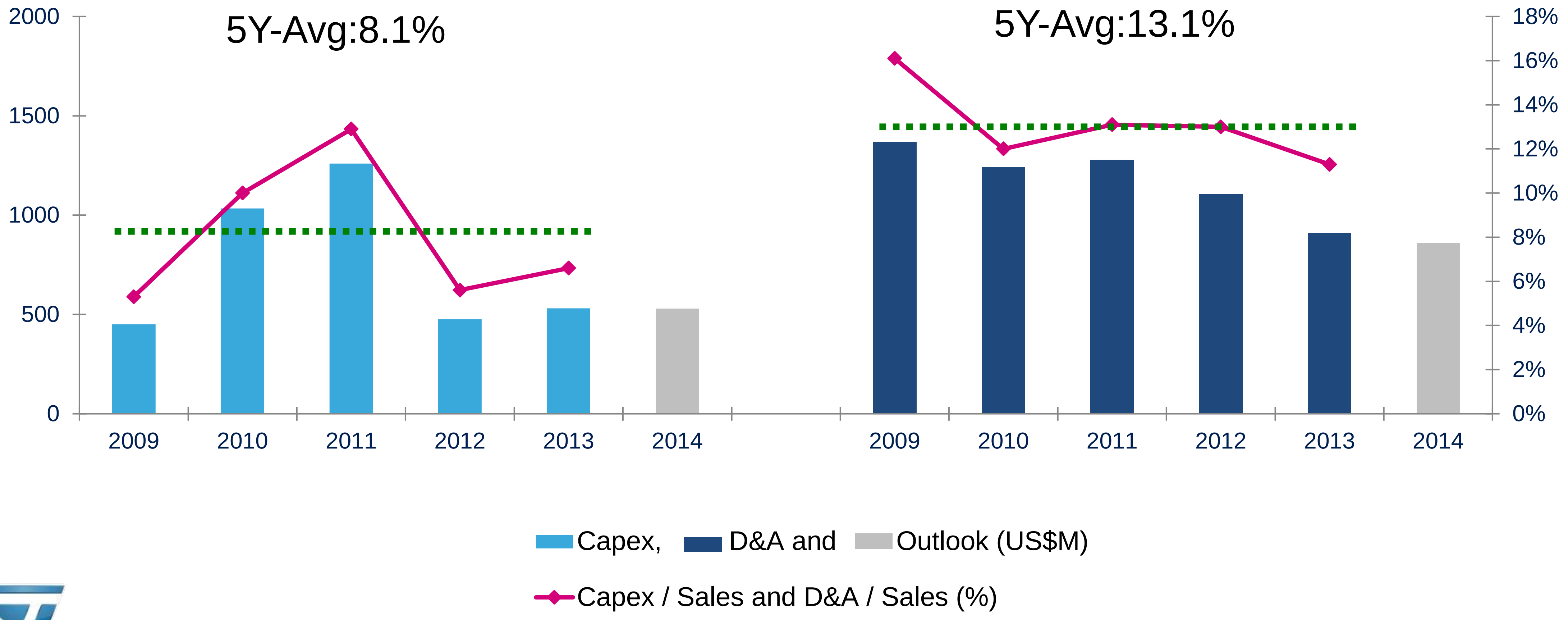
- **Embedded Flash for Microcontrollers and Automotive qualified and started in production**
- **Reduced exposure to Advanced Logic**
- **Advanced Logic for Set-Top Box and Digital ASICs applications**



Reducing Capital Intensity

Capital Expenditures

Depreciation & Amortization



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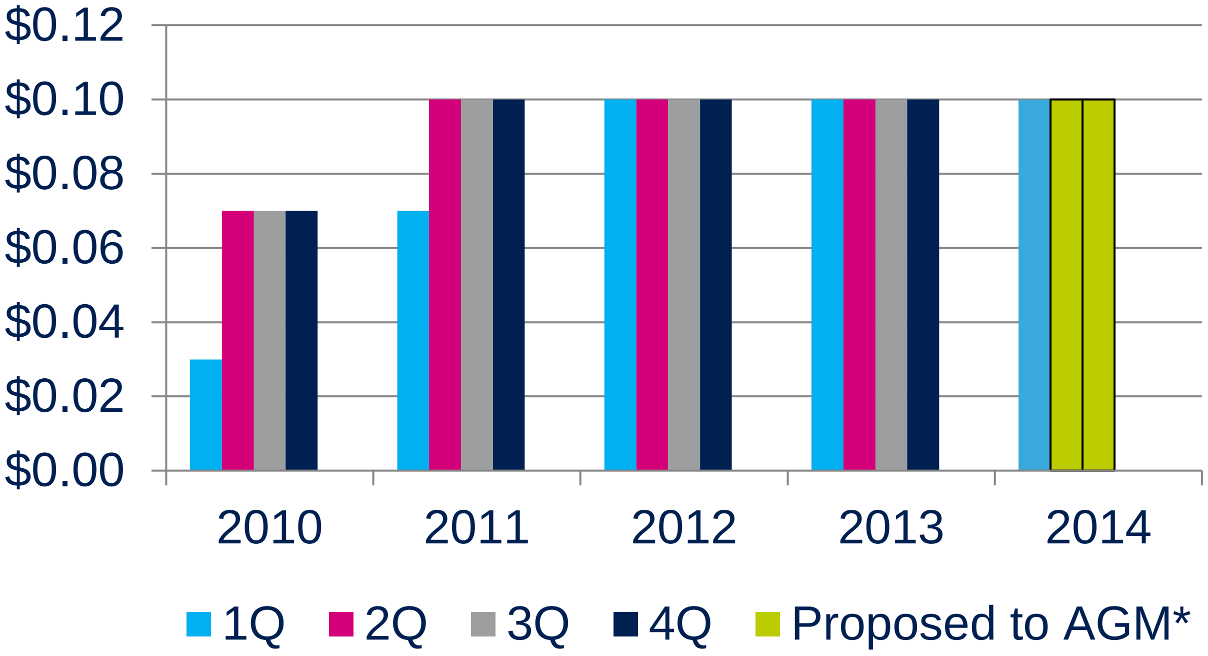
Dividend Evolution

Yield (%) *	Semiconductor Companies
4.5	US PEER 1
4.1	**STMICROELECTRONICS**
3.5	US PEER 2
3.4	US PEER 3
3.2	US PEER 4
2.5	US PEER 5
2.4	ASIA PEER 1
2.3	US PEER 6
1.5	US PEER 7
1.4	EUROPEAN PEER 1
1.3	US PEER 8
0.9	EUROPEAN PEER 2
0.0	US PEER 9
0.0	US PEER 10
0.0	US PEER 11
0.0	US PEER 12
0.0	US PEER 13

*Source: Bloomberg as of May 12, 2014



*2Q14 and 3Q14 dividend proposed to the AGM

Continuing to Reward Shareholders

Stable cash dividend of $0.10 per share for each of the 2nd and 3rd quarter of 2014 to be proposed to the 2014 AGM

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ST Financial Model*

- Quarterly revenues of $2.15 to $2.25 billion
- Gross margin in the range of 36% to 38%
- Quarterly net operating expenses in the range of $600 million to $650 million**
- Targeting about 10% operating margin starting mid-2015

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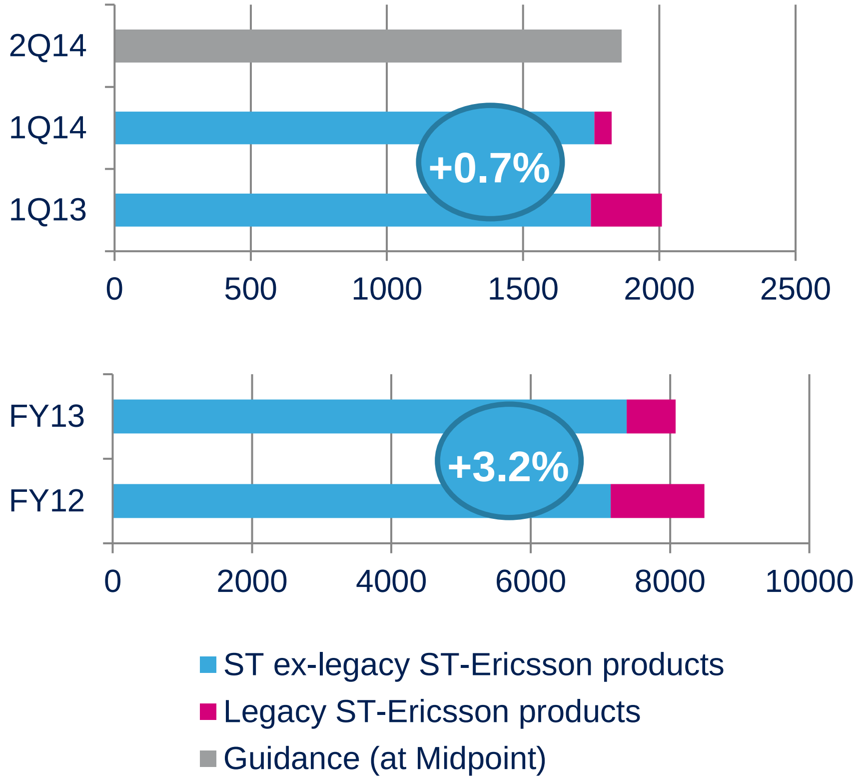
*Based on an average effective exchange rate of 1.35 Euro/dollar

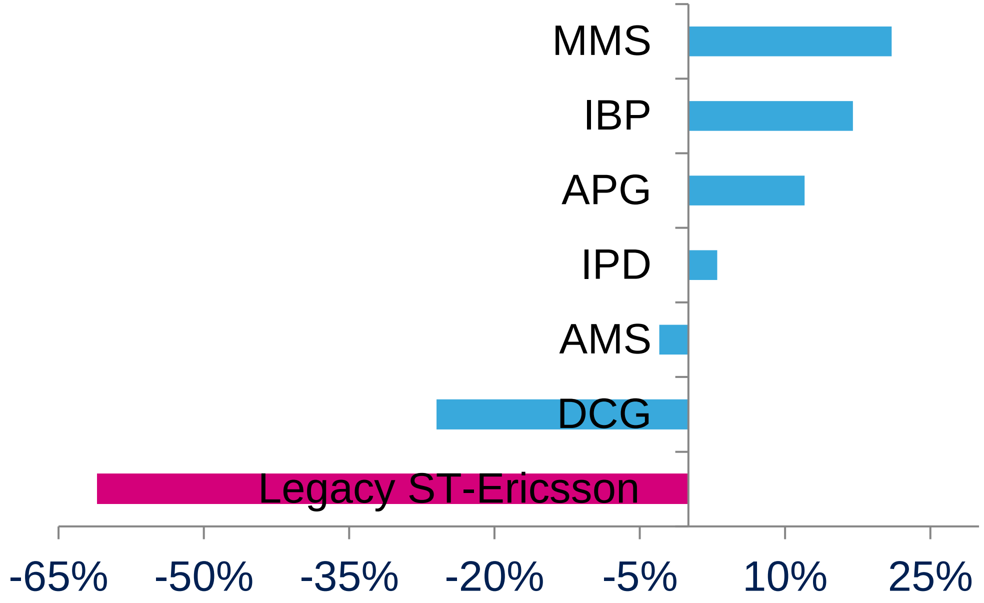
**Including SG&A and R&D expenses net of R&D grants

ST Revenues

Revenues (US$M)



Revenue Evolution by Product Group 1Q14 LTM vs. 1Q13 LTM (%)



Product Innovation Driving Growth Perspective

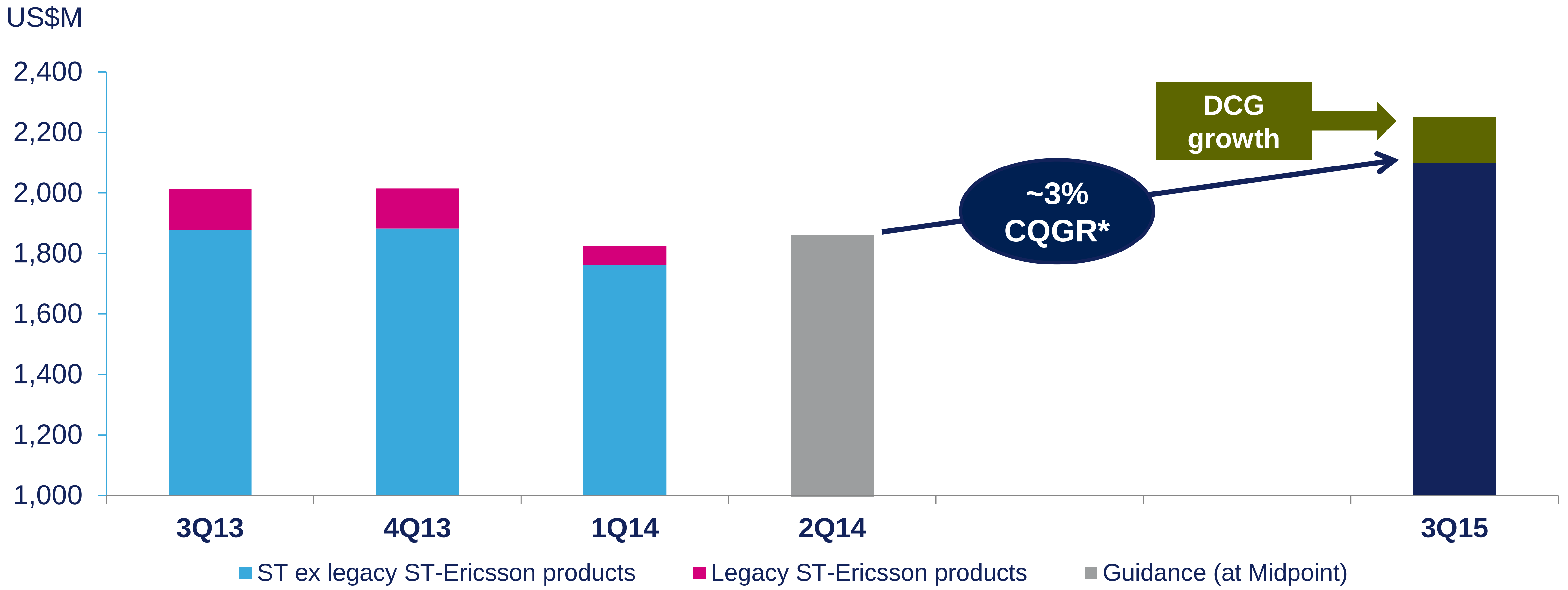
~15% of total revenues in 4Q14 are expected to be generated from products not existing in 4Q13

New product revenues expected in 4Q14:

- ~17% of Embedded Processing Solutions
- ~14% of Sense and Power & Automotive

Revenue Growth Path

Solid revenue growth in all businesses including significant growth in DCG



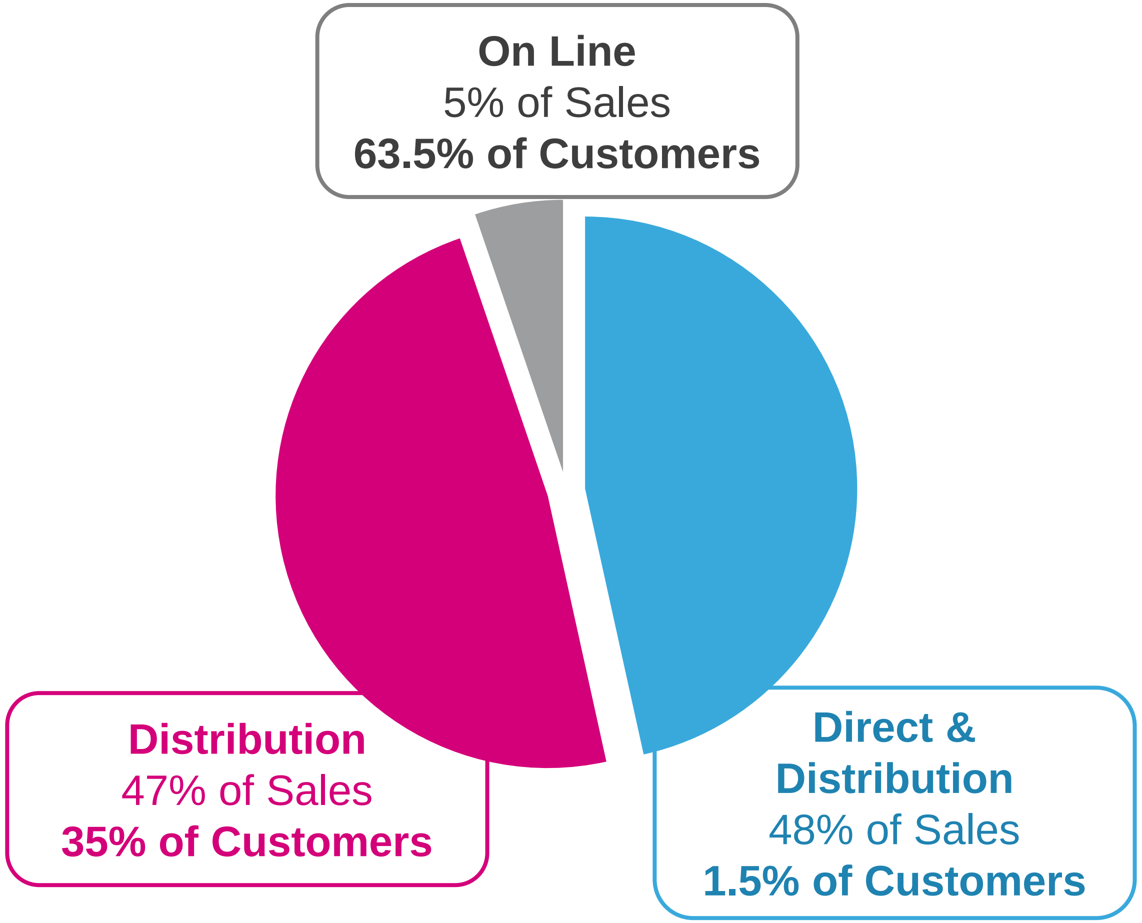
* CQGR: Compounded Quarterly Growth Rate

Revenue Expansion via the Mass Market

Mass Market at ST

- Encompasses thousands of customers of ST outside of the top accounts
  - The largest market served by ST
  - Different engagement dynamics of the channels
- Diversified customer base brings higher stability
  - Multiple market segment cycles
- Higher margin potential
- A new, focused structure in place to keep on winning in this market

“Mass Market” >100,000 customers

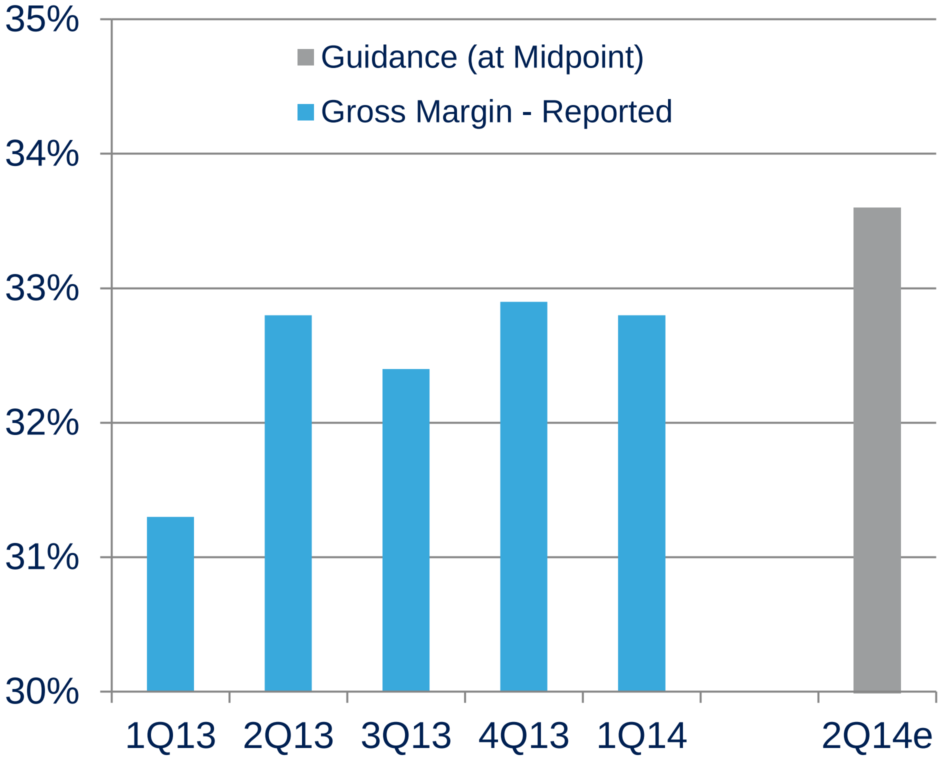


Source: IHS, ST

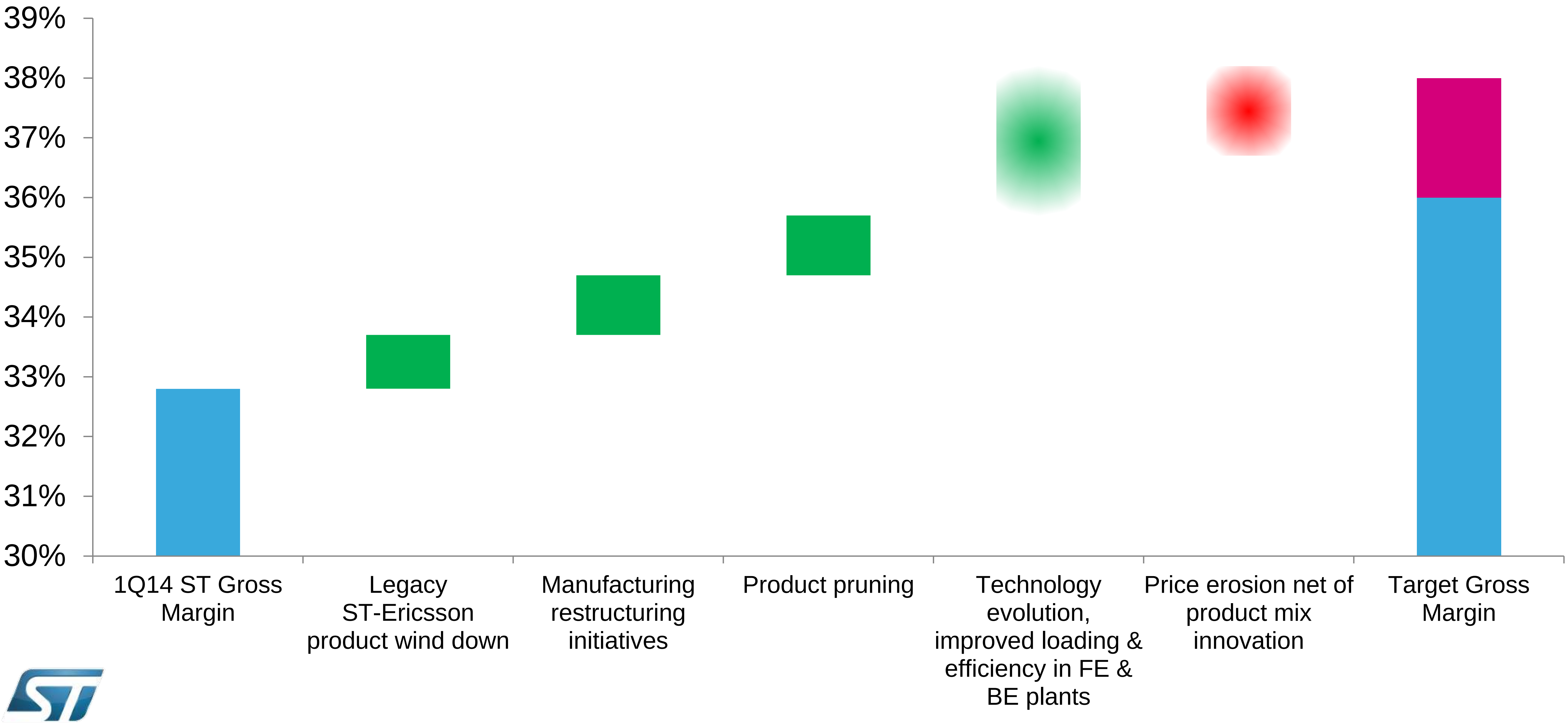
ST Gross Margin

Key Initiatives to Increase Gross Margin to Target Range of 36% to 38%

- Wind down of ST-Ericsson products
- Manufacturing restructuring initiatives
  - Singapore (AMKJ9) wind down and conversion to 8” by mid-2015
  - Longgang, China phase-out by end of 2014
  - Catania 6” phase-out and 8” expansion in 2015/16
- Pruning of low margin products
- Technology evolution, improved loading and efficiencies in Front & Back-End Plants



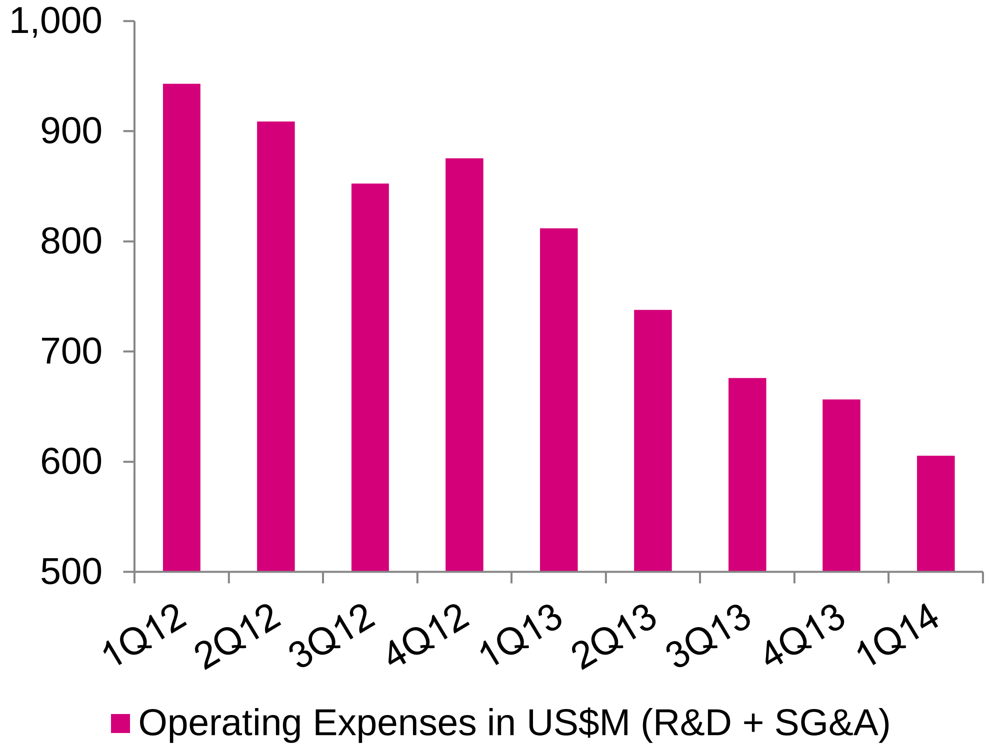
Key Initiatives to Increase Gross Margin



ST Operating Expenses

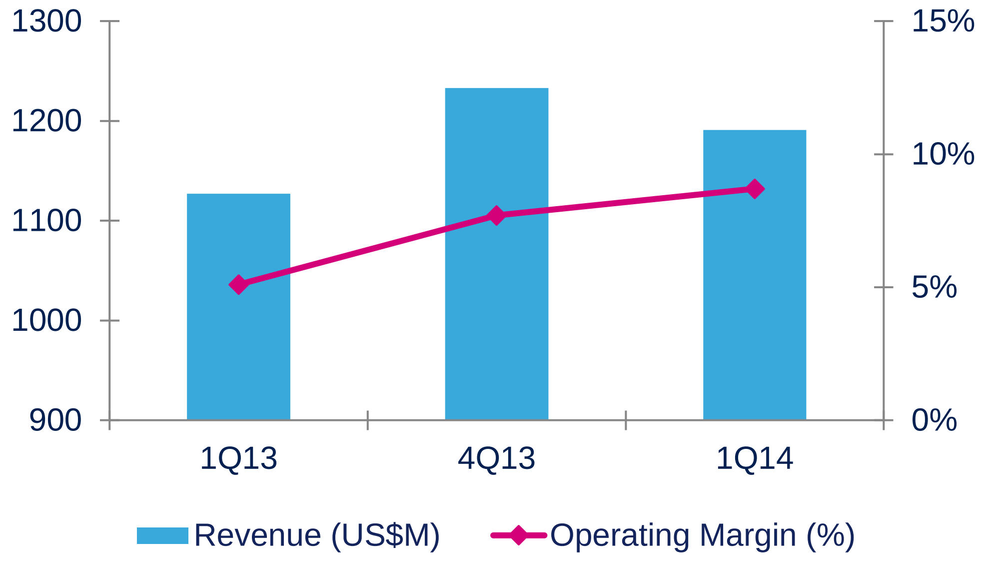
Net Operating Expense

- Targeting $600M to $650M average per quarter
- Includes SG&A and R&D expenses net of R&D grants
- Modularity within the range in respect to revenue growth:
  - Targeting to stay at the low end of the range in 2014
- R&D grants expected to be about $30M per quarter, after approval of the Nano 2017 grants, expected in 2Q14



Sense & Power and Automotive

Operating Margin*



Operating Margin Mid-term Target: 10%-15%

Operating Margin Boosters

Revenue boosters in 2014:

- New MEMS & sensors
- 32-bit microcontrollers for automotive
- Power/Smart Power products for industrial and automotive
- Overall macro-economic improvement in the housing and industrial markets
- Major efforts in Distribution and Mass Market

Margin improvement drivers:

- Product mix improvement and pruning
- Manufacturing restructuring
- Manufacturing efficiencies
- Expense leverage on higher revenues

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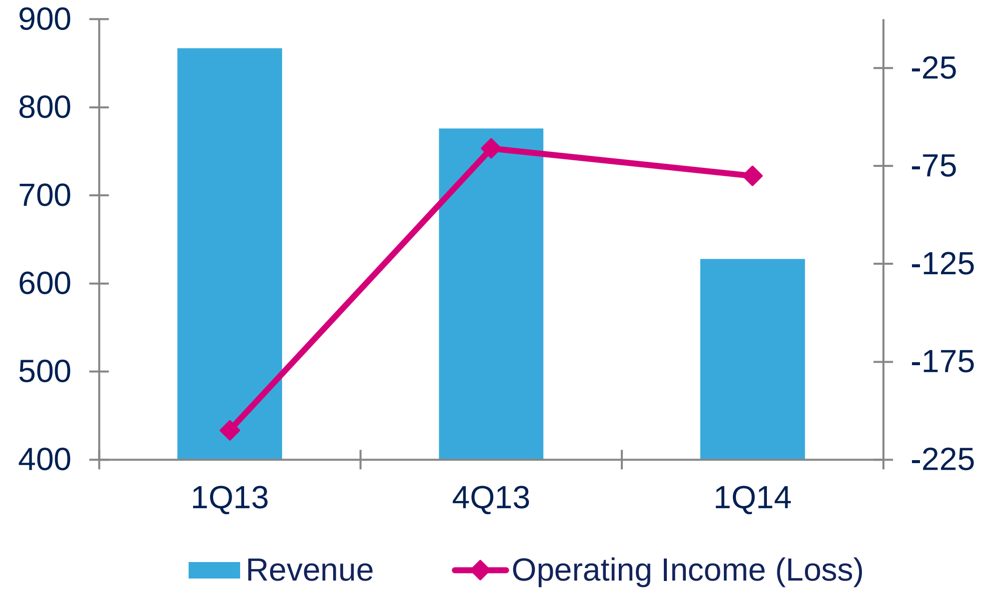
* Operating Margin before impairment, restructuring charges. Unused capacity charges are reported in the Group “Others”

Embedded Processing Solutions

Operating Income (Loss)* in US$M



Operating Margin Mid-term Target: About 5%

Operating Margin Boosters

Revenue boosters in 2014:

- Continued expansion of General Purpose MCUs
- Ramp-up of secure MCUs in banking in Asia
- New generation of Set-Top-Box / Home Gateway products
- ASICs for networking
- Imaging signal processors and proximity sensors
- RF-SOI technology

Additional Revenue booster in 2H15

- 28nm FD-SOI ASICs

Margin improvement drivers:

- Expense leverage on higher revenues
- Improved product mix in Set-Top-Box / Home Gateway
- Optimize fab loading
- Manufacturing performance
- Opex reduction
- Nano 2017 R&D grants

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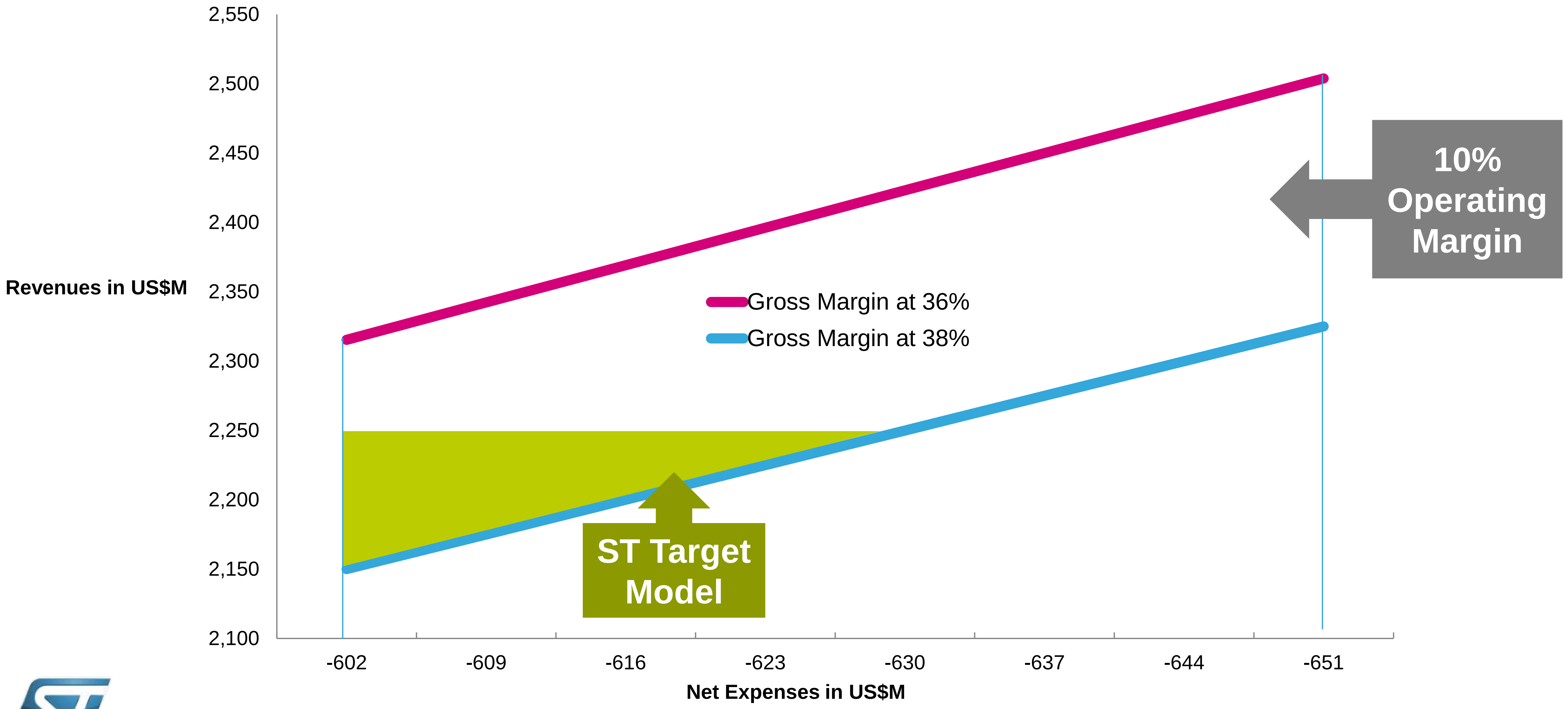
* Operating Income (loss) before impairment and restructuring charges. Unused capacity charges are reported in the Group "Others". EPS also reflects the transfer of Wireless (legacy ST-Ericsson products) and the Image Signal Processor business unit from IBP to DCG as of January 1, 2014.

Towards our Financial Model



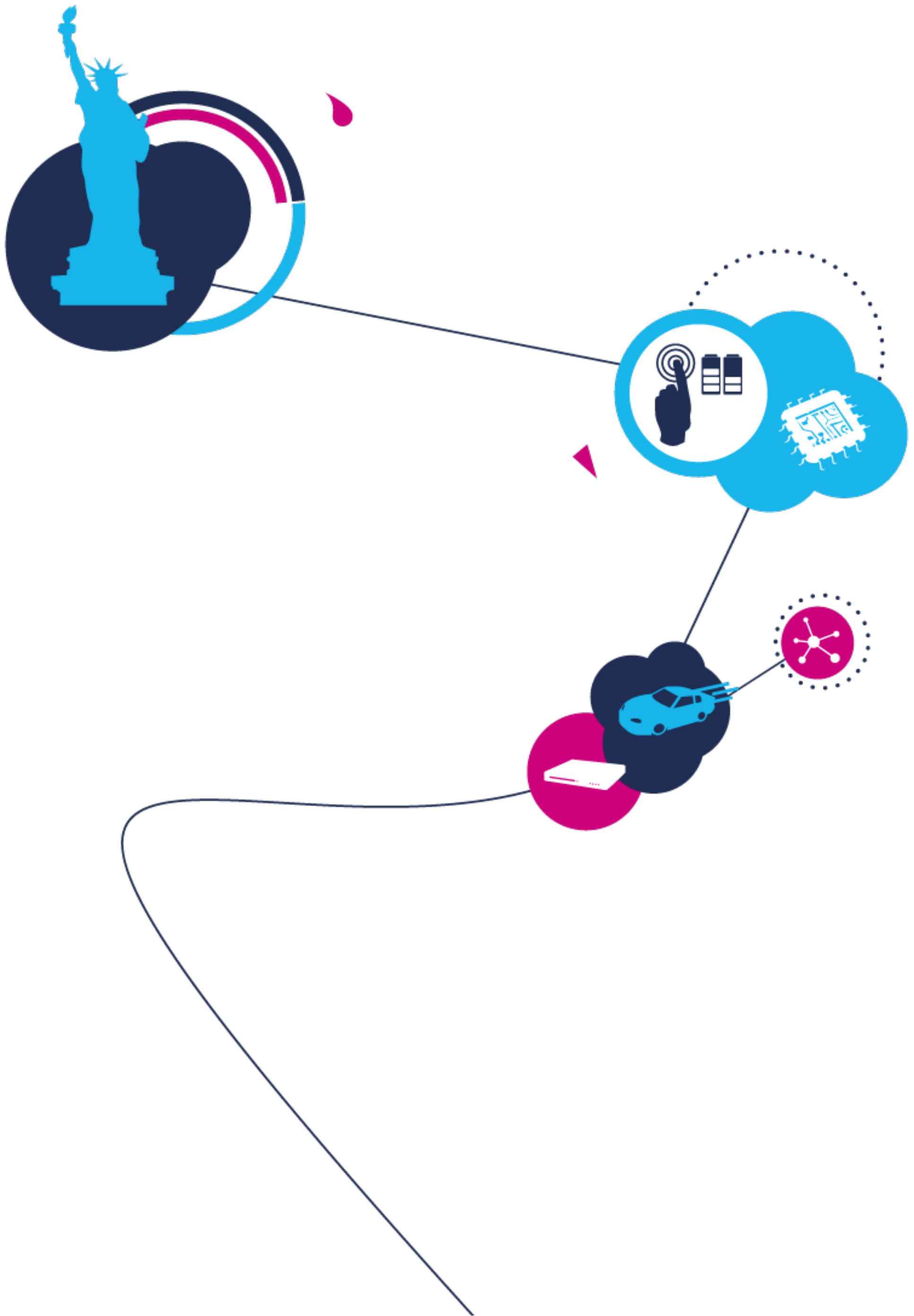
Towards our Financial Model

- **Progress made on transformation**
- **Initiatives launched and ongoing**
- **Financial improvement started**
- **Focus on execution while more is still to come**
- **Management commitment**

Market Trends and ST Growth Drivers

Georges Penalver

Corporate Strategy Officer



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Key Industry Trends

Smart energy usage

Humanization of Technology

Embedded intelligence

Smart Energy Usage

Underlying trends and challenges

- Increasing demand for energy
- Increasing use of renewable energy sources
- Evolution in environmental regulation

What ST brings

- Solutions to reduce fuel consumption and emissions in cars
- Efficient power conversion, smart metering and battery charging for the Smart Grid
- Digital power management for data center & internet infrastructure
- Motor control for improved factory automation, power management and industrial internet
- Solutions for Lighting systems (LED, smart lighting, etc)
- Energy-friendly solutions for goods and appliances

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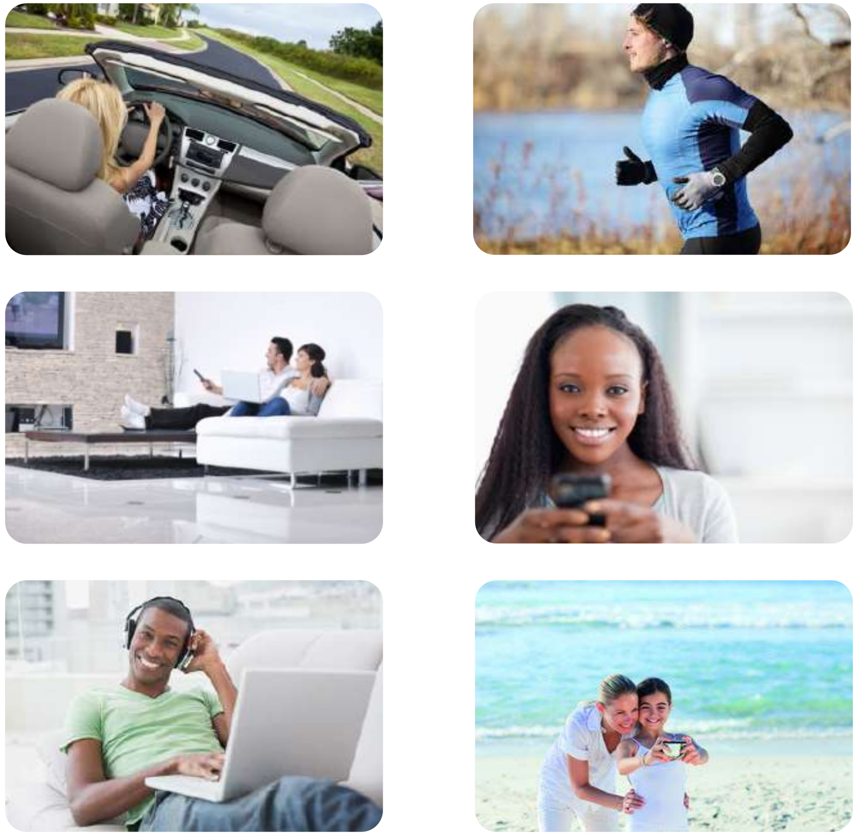
Humanization of Technology

Underlying trends and challenges

- Explosion of mobile internet and “Big data”
- Wellness aspiration - Quantified self
- Aging population and associated living, and healthcare challenges
- Professional IoT to drive efficiency in vertical sectors

What ST brings

- Rich portfolio of motion, optical, environmental and acoustic sensors
- Ultra low power connectivity to connect everything to the network
- Range of ultra low power microcontrollers for every application
- Advanced touchscreen solutions with hovering
- Solutions for active safety and assisted driving in cars
- Immersive and interactive solutions for home entertainment



Embedded Intelligence

Underlying trends and challenges

- The Smart World (smart cities, homes, buildings, cars, ….)
- Exponential data traffic growth from mobile, social networks & video
- Securing individual and professional data, including transactions

What ST brings

- Solutions for embedded processing from the smallest to the largest “augmented things”
- Broad range of microcontrollers, supported by a large ecosystem
- Security solutions
- High performance and low consumption data processing technologies (FD-SOI)

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Our Strategic Growth Drivers

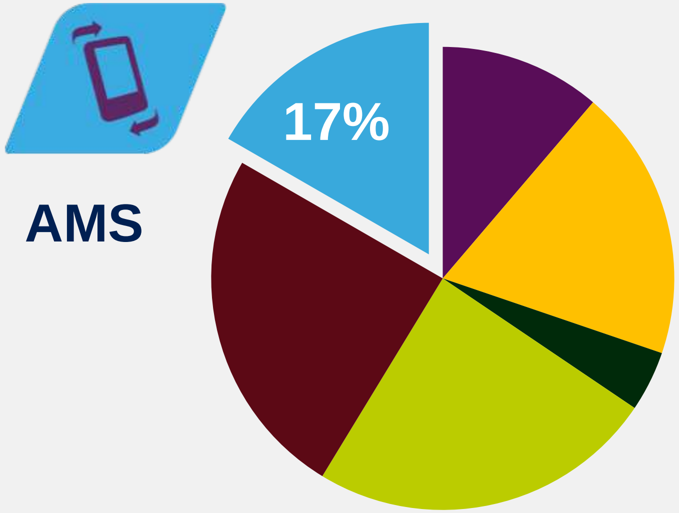
Leading Positions

MEMS and Sensors	Smart Power	Automotive	Microcontrollers	Digital Consumer & ASICs
#1 MEMS & Micro-actuators	#1 Industrial Analog ASSP #1 High voltage Power MOSFET #1 Thyristors & Triacs	#1 Automotive Analog application specific #1 in Safety #1 in China	#2 32-bit MCU #2 GP and Secure MCU #1 EEPROM	#2 Set-top box

Source : IHS, CLT March 2014

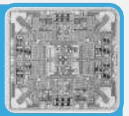
AMS – Analog, MEMS & Sensors

Contribution to ST revenues 1Q14



Portfolio

MOTION MEMS
Accelerometers
Compass
Gyroscopes



ACOUSTIC MEMS
Microphones

ENVIRONMENTAL SENSORS
Humidity / Chemical
Pressure / Temperature
Infrared / Gas Flow
Light / Proximity

Sensor Hub & Sensor Fusion

MICRO-ACTUATORS
Electrostatic: Mirrors for Portable Projector
Thermal / Piezoelectric: InkJet Drug Dispensing

TOUCH SENSORS
Touch Screen
Active Pen

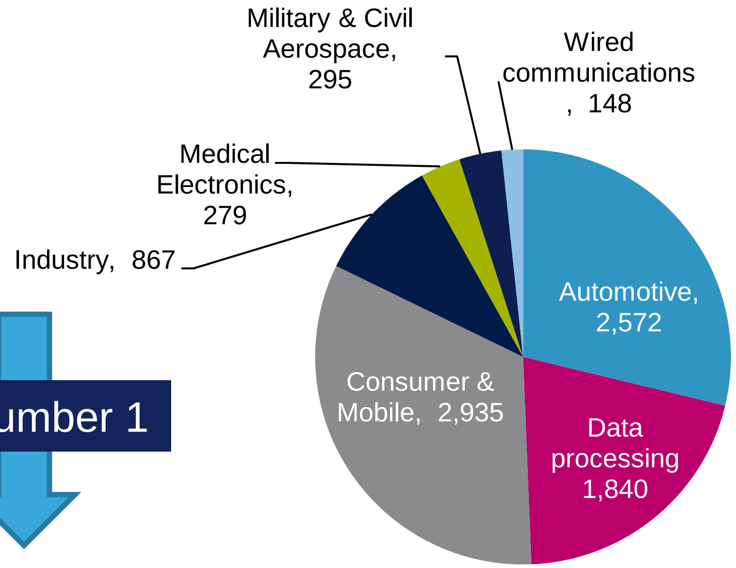
ANALOG
OpAmps, Comparators
Low-power electronics
Bluetooth Low Energy
Advanced Audio Solutions

#1 in MEMS for Consumer and Mobile
#1 in MEMS & Micro-actuators

Source: IHS MEMS Market Tracker - Consumer and Mobile - H2 2013, ST

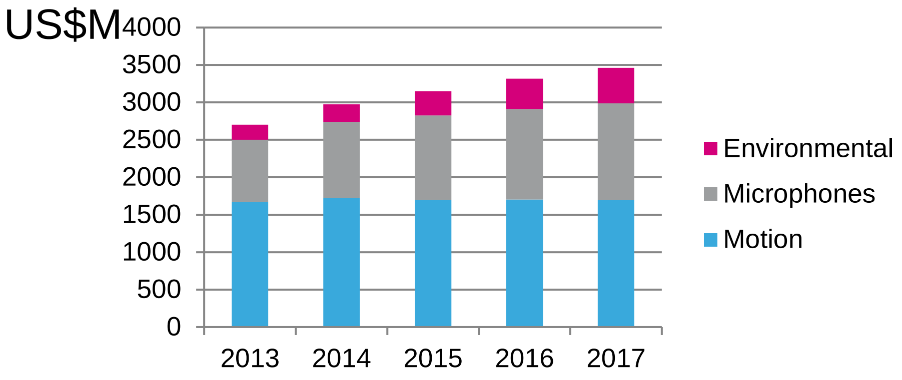
MEMS & Sensors Market

MEMS/Actuator Market 2013



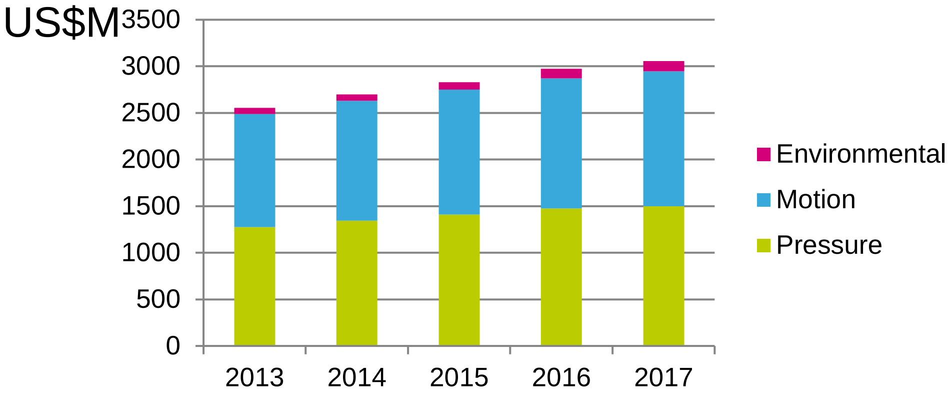
ST Number 1

Consumer & Mobile



ST shipping now

Automotive MEMS



Key Trends

- Increasing content in current key applications
- Sensor Fusion
- A new wave of connected things - IoT and Wearables

Source:Source: IHS, MEMS Market Tracker Q3 2013

MEMS & Sensors Growth Drivers

Growing MEMS Microphones

- Fast growing - multiple microphones in devices

- ➢ Large growth opportunity building on first successes
- ➢ Range of top and bottom, analog and digital microphones

Consolidating in Motion MEMS

- Opportunity in mobile MEMS remains
- Proliferation in wearable devices and IoT markets

- ➢ New ultra-low power smart 6-axis family
- ➢ Gyroscope for Optical Image Stabilisation

Growing Environmental Sensors

- Mobile, wearable and IoT devices becoming environmental hubs

- ➢ Deploying - Temperature, Pressure, Humidity, UV sensors

Growing in Automotive

- New solutions based on existing technologies developed for consumer and mobile

- ➢ In production with motion MEMS today
- ➢ Ongoing qualification of pressure and other sensors at multiple automotive players

Opportunities in Analog

Grow Touchscreen Controllers

- Touchscreen is the dominant technology in smartphones
- Mastering advanced touchscreen technology

➢ Started shipments to major mobile manufacturers
➢ Started production of high-performance touch screen controllers with hovering function

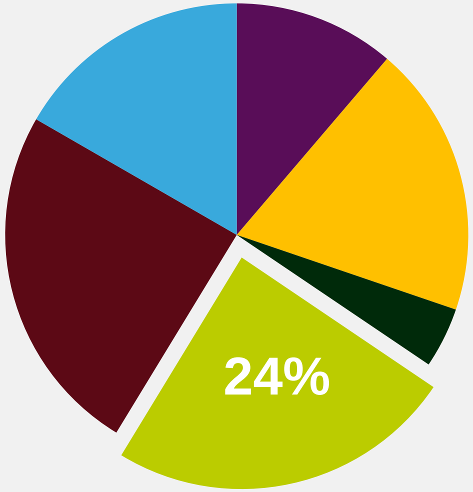
Broad deployment of Analog

- Our customers need a wide range of general purpose analog products to complete product design in a broad range of applications
- Opportunities to design-in alongside ST’s leading microcontrollers

➢ Low-power connectivity
➢ High-end audio solutions
➢ Distribution and online channel programs to increase market reach

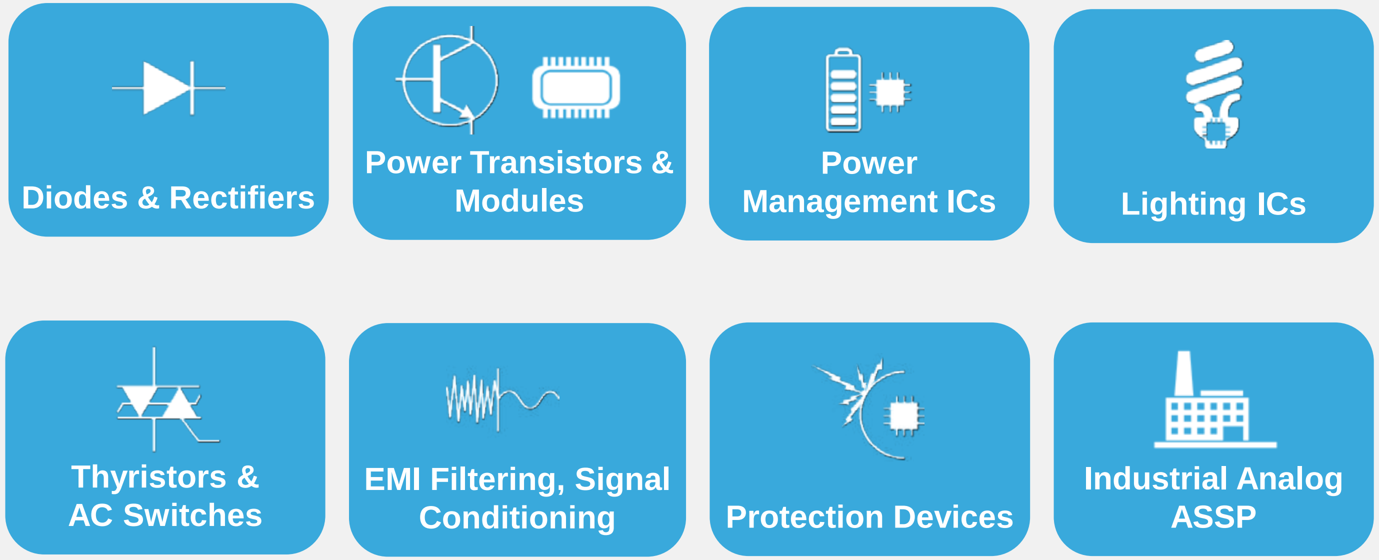
IPD – Industrial & Power Discrete

Contribution to ST revenues 1Q14



IPD

Portfolio



- Diodes & Rectifiers
- Power Transistors & Modules
- Power Management ICs
- Lighting ICs
- Thyristors & AC Switches
- EMI Filtering, Signal Conditioning
- Protection Devices
- Industrial Analog ASSP

#1 Industrial Analog ASSP

#1 High voltage Power MOSFET

#1 Thyristors & Triacs

Source : IHS, CLT March 2014

Automation - Motion Control

Home & Building Automation

Home & Small Appliances

Factory Automation

Motion Control ICs and Power Discretes

- Efficiency improvement due to new IGBT technology is the key driver for the new generation of equipment
- Large opportunities for air conditioning in Greater China

➢ IGBT at 600 V and 1200 V with various current ratings
➢ Ultrafast and Silicon Carbide (SiC) Rectifiers
➢ Dedicated and standard Motor Control ICs
➢ Smart Gate Drivers & new GapDRIVE™ products

Energy & Power Management for Portable

Smartphones and Tablets

Gaming Consoles

Wearable

Internet of Things

Energy Management

- Strong market demand due to battery power saving and improved antenna signal reception

- ➢ Power Management ICs
- ➢ RF Antenna Tuners
- ➢ Common Mode Filter (ECMF)
- ➢ High Speed Protection devices

AMOLED

- Usage of AMOLED Display is extending rapidly from Korea to Greater China and Taiwan due to screen brightness and image quality improvement

- ➢ Introducing the first family of Power Management ICs combining Energy Management and AMOLED drivers

Power Conversion - Digital Power & LED Lighting

LED Lighting

Switched-mode Power Supply for Telecom & Consumer

Adapters

Uninterruptible Power Supply

LED Lighting

- LED Lighting estimated to grow by 35% per year for the next 5 years

➢ STLUX Digital Power Controllers ICs
➢ AC-DC & DC-DC LED Lighting Converter ICs
➢ Power Factor Correctors (PFCs) ICs
➢ Power MOSFET, Diodes
➢ LED By-Pass Protections

Digital Power

- Programmability in Digital Power allows higher efficiency and offers significant growth potential

➢ STNRG Digital Power Controllers ICs
➢ HV Super-Junction and LV advanced Trench MOSFET, IGBT
➢ Flat Package Ultrafast & Silicon Carbide Devices
➢ Field effect rectifier Diodes

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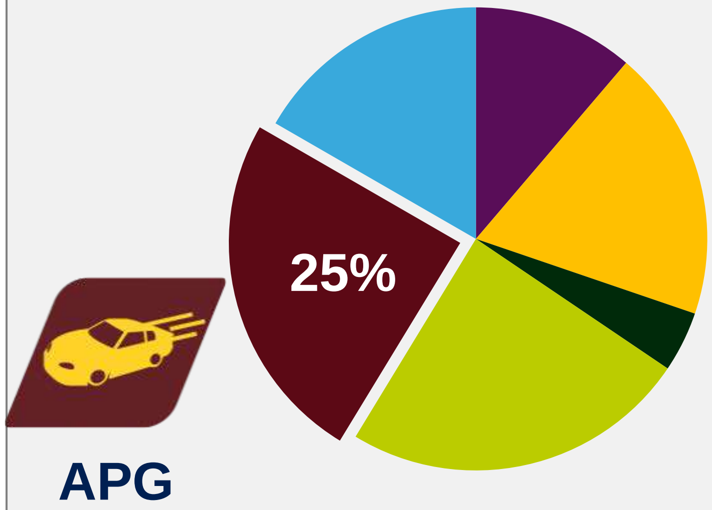
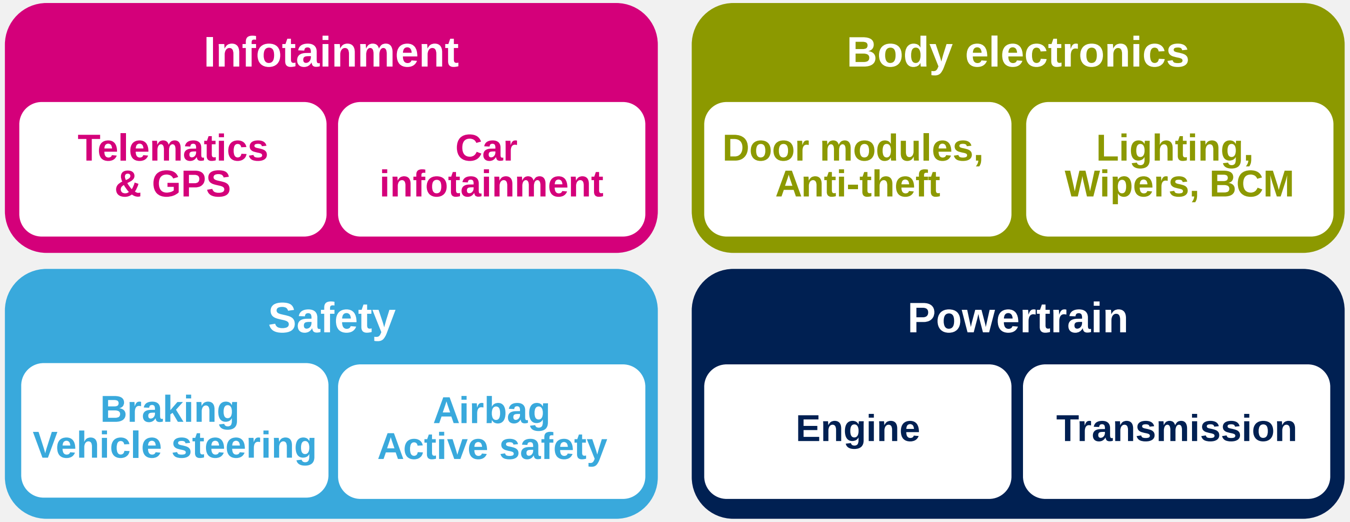
Source: ST

APG – Automotive Product Group

Contribution to ST revenues 1Q14



Portfolio



Infotainment
- Telematics & GPS
- Car infotainment

Body electronics
- Door modules, Anti-theft
- Lighting, Wipers, BCM

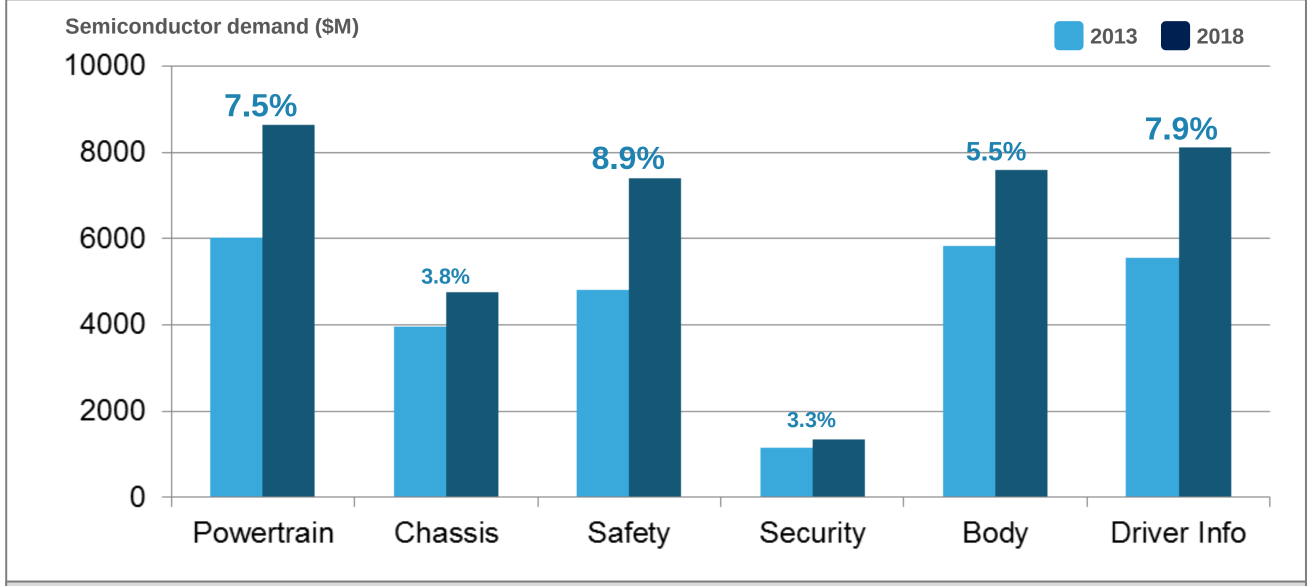
Safety
- Braking Vehicle steering
- Airbag Active safety

Powertrain
- Engine
- Transmission

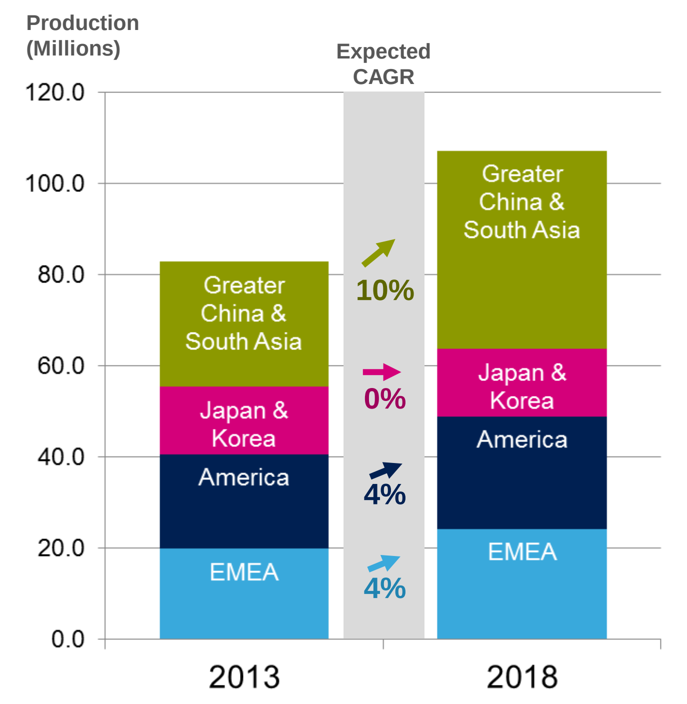
#1 Automotive Analog Application Specific
#1 in Safety
#1 in China

Source : IHS, CLT March 2014, ST

Automotive Market



Semiconductor growth in all application domain



Vehicle production to hit 108 M units by 2018.

CAGR of 5.2% over 2013-18

Expected growth

- Safety is the highest growth, with Active Safety (ADAS) system for mature markets and passive safety for emerging markets
- Powertrain growth opportunity, driven by Vehicle Electrification / Hybridization, Stop-Start and increasing penetration of innovative automatic transmission
- China exhibits highest content growth

Source: Strategy Analytics

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Car Efficiency & Safety

Smart Power

- Solid technology roadmap to support the development of new systems

➢ Leadership confirmed in the area of smart power with latest **110nm BCD9S** process

Automotive MCU

- Expansion through new product offer, supporting proliferation of MCUs in Automotive systems

➢ More than $2.5B **in design wins** for 32-bit MCU

➢ Continued expansion of **32-bit Power Architecture** MCU family, doubling our revenues in this segment

Active safety

- Major market growth expected in active safety, double-digit growth across all regions
- Strong push by certification authority
- Growing Consumer interest

➢ Strong offer in **radar & vision**

➢ Starting production of 3rd gen “Collision Avoidance processor”, 4th generation in development addressing **autonomous driving**

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Infotainment

Telematics & GPS

- Further use of the connectivity in the car (GPS, Wi-Fi ….) to address Vehicle to X applications

- ➢ New generation of industry-leading **multi-constellation** satellite-positioning chip
- ➢ Addressing **Automotive grade Wi-Fi** with a new product family
- ➢ Important design wins already captured in **Telematics**
  - ➢ Market leader in Insurance box
  - ➢ Growing share in Telematics at OEMs

Car Infotainment

- Increased content in the emerging market Infotainment systems, addressing a market of more than 50M modules per year
- Car Infotainment ready to support smartphone resources

- ➢ **Key player in China,** addressing the full system solution: Audio, Tuner, Processor
- ➢ **Gaining momentum in Japan** with several design wins, in both OEM’s and after market
- ➢ Ready to support “**Car Play”** concept

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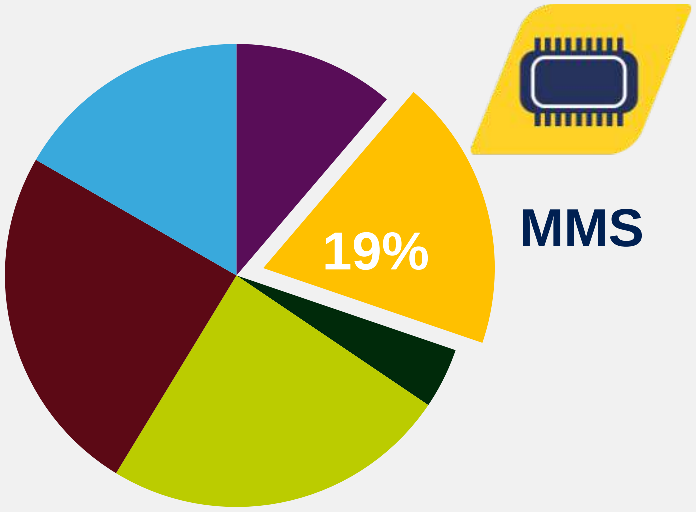
MMS – **M**icrocontroller, **M**emory & **S**ecure MCU

Contribution to ST revenues 1Q14



Portfolio

General Purpose Microcontrollers

- General Purpose 8-bit & 32-bit MCUs
- Automotive 8-bit MCUs

Memories

- Serial EEPROM
- RF memories
- Dual-Interface memories

Secure MCU

- Personal and embedded security
- Secure Hardware platforms & turnkey solutions

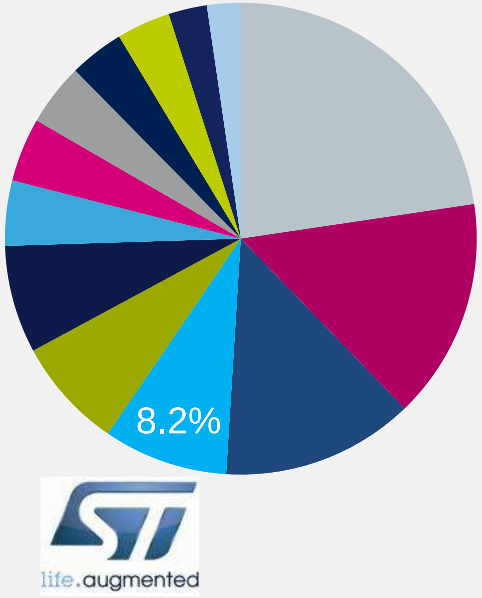
#2 Microcontroller Player (GP + Secure)

Source : IHS, CLT March 2014, ST

Further Expand STM32 MCUs

General Purpose MCUs 2013 Ranking

IHS March 2014, market share in %



Key Market trends

- Major push in Mass Market with >70% of our billing
- Strong demand in wearable
- Wireless phones / tablets with sensor hub and phone accessories

Expand the STM32 product line

- Decisions driven by targeted applications
  - **STM32L0** (Cortex-M0) to reinforce our position in ultra low power 32-bit

Strengthen the ecosystem

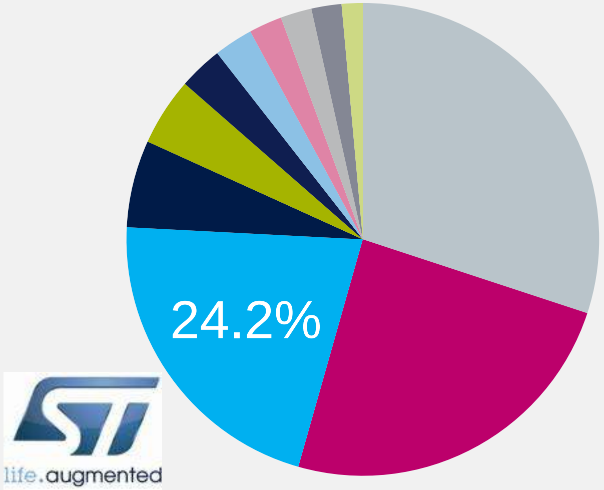
- Extend the concept of "easy to design with"
  - Expansion of **our offer with hardware and software platforms** to make life easier for developers

Differentiation

- Continuing to build on ARM cores, but differentiating through **eNVM** technology and advanced analog and digital IP

Secure MCUs Opportunities

Secure MCUs
2013 Ranking
IHS March 2014, market share in %



Key Market trends

- Migration to Contactless
- Migration to Secure mobility

Mobile Security

- Maintain leadership in all kinds of **NFC Secure Elements**, through fully owned, leading-edge technologies and **state of the art security**

Banking & ID

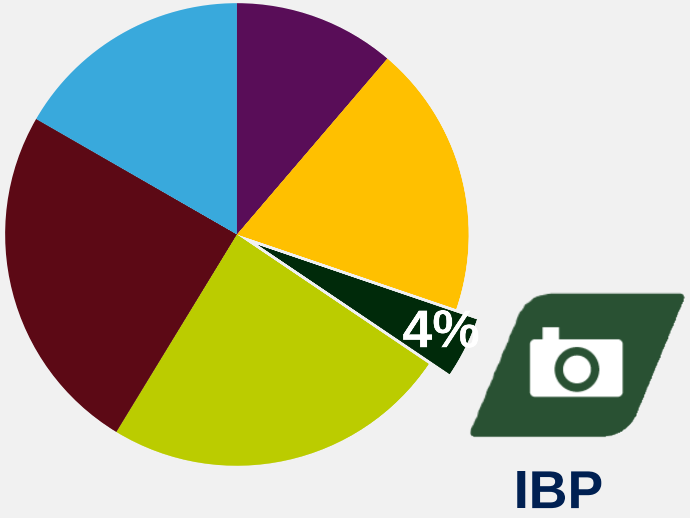
- Ramp up **ST31 Dual Interface** Banking in Asia and Europe
- Support the US Europay, MasterCard and Visa (EMV) migration for banking
- **ST31 Flash** reinforcing our position in ID & Banking

Expand to new value-added applications

- M2M for **Automotive**
- Expand **secure authentication** solutions in consumer electronics and digital world

IBP – Imaging, BiCMOS ASIC & Silicon Photonics

Contribution to ST revenues 1Q14



Portfolio

Imaging
- CMOS Image Sensors
- Proximity Sensors

Mixed Process
- RF/ RF-SOI
- Silicon Photonics & Optical Products

Key Opportunities

Imaging

FlightSense™

- Innovative emerging applications - Range finder, gesture recognition, depth map

➢ Ramp **proximity sensors** based on proprietary **Flight**Sense technology

Diversification

- Automotive with safety camera
- Home automation and security
- Medical with Imagery

Mixed Process

RF-SOI

- CMOS solutions solidly gaining market share versus GaAs for mobile Front End

➢ RF ICs for Mobile and Wi-Fi Front End based on low power RF-SOI technology

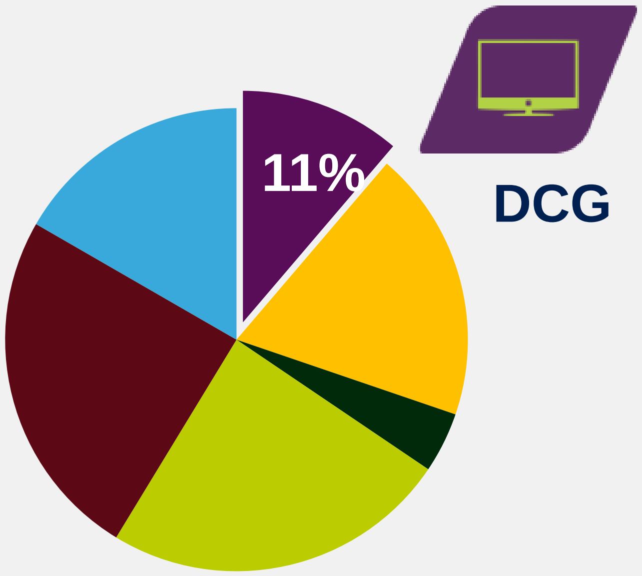
Silicon Photonics

- Continued strong momentum

➢ 30+ new ASIC projects in BiCMOS and Silicon Photonics

DCG – Digital Convergence Group

Contribution to ST revenues 1Q14



Stronger portfolio with Industry leading products

BROADCAST STB

CLIENT & SERVER

HOME GATEWAY

#2 Set-Top-Box Player

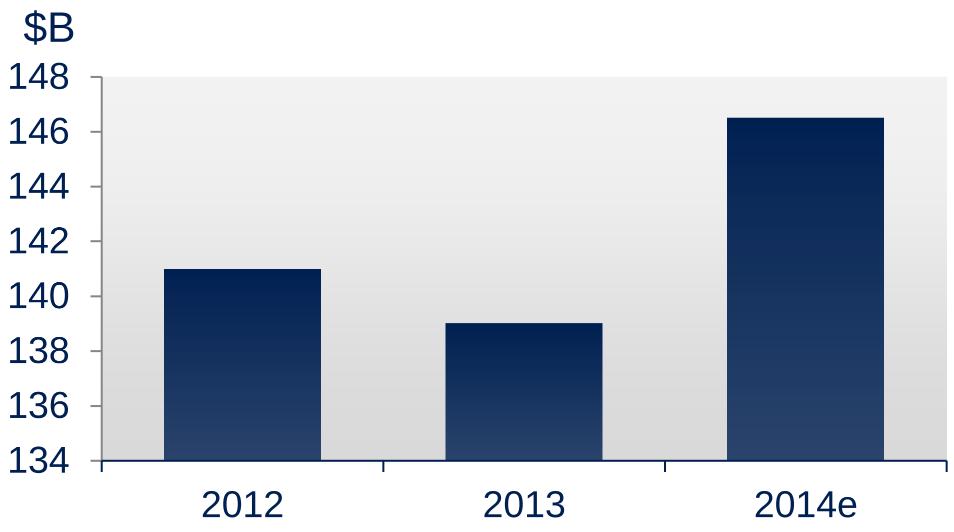
Digital ASIC

Networking
Consumer
Legacy

Advanced CMOS
FD-SOI

Market Trends

ST Serviceable Available Market*



~ $139B in 2013

Expected to grow 5.6% in 2014

Key Markets

	CAGR 2013-2016
MEMS & Sensors	6.5%
32-bit MCUs	8.0%
Automotive	7.3%
Power Management & Industrial	7.2%
HD and UHD Set-Top-Box units	10.4%

- WSTS and IHS market growth expectation; ST SAM includes Image Sensor
- IHS + Strategy Analytics for Automotive

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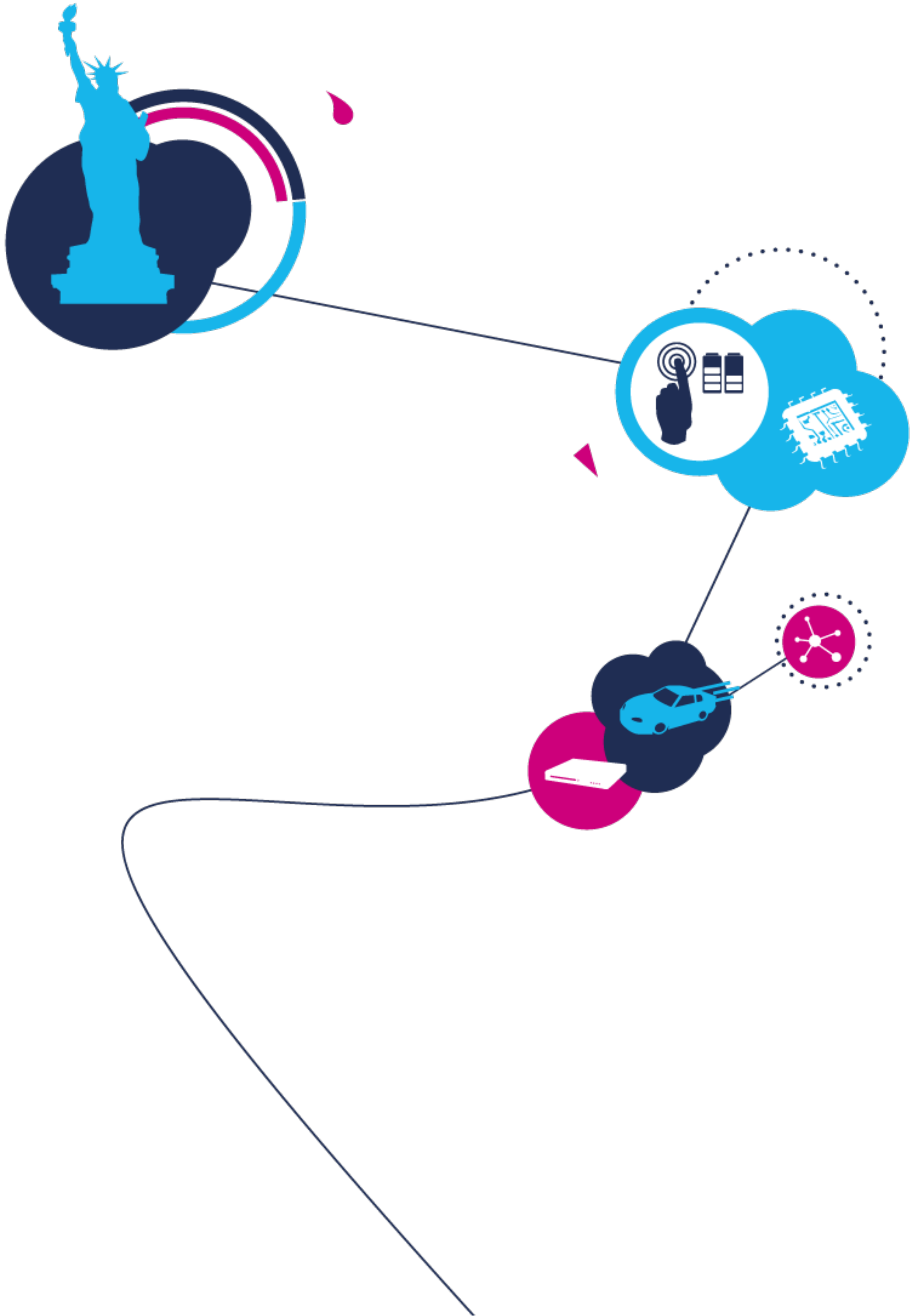
Home and Digital

Jean-Marc Chery

Chief Operating Officer



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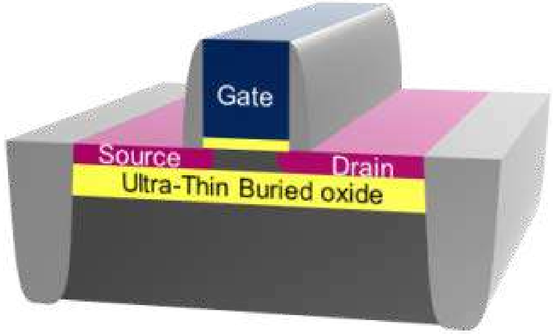
Driving Success

- **Digital Convergence Group** turnaround in two waves to double revenues by Q4 2015 from Q4 2013

- **FD-SOI** becoming an industry standard**, with expanded ecosystem** on track to be a substantial revenue generator for 2015



Agenda

- Set Top Box, Connected Client-Server and Home Gateways
- Customs Solutions & ASICs
- FD-SOI Update

Agenda

- Set Top Box, Connected Client-Server and Home Gateways
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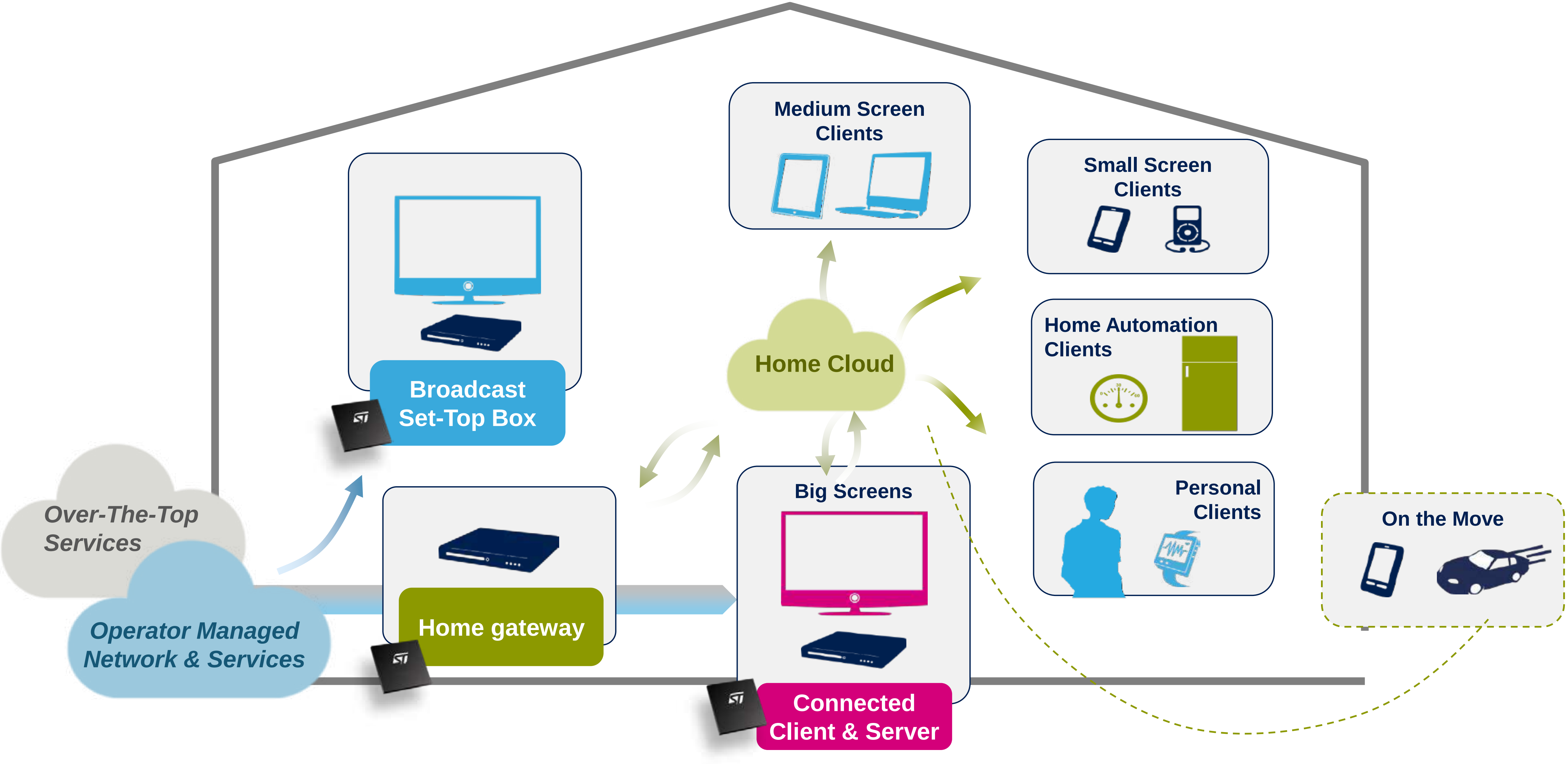
Towards the Home Cloud



A Complex Ecosystem

Silicon SoC

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BROADCOM
MARVELL
MStar semiconductor
ALi

OEM's

ARRIS
CISCO
Pace
technicolor
SAMSUNG
ZTE中兴

Operators Managed Services Providers

Comcast
LIBERTY GLOBAL
J:COM
DIRECTV
sky
RELIANCE
at&t
orange
中国电信 CHINA TELECOM

CAS*

CISCO Technology
NAGRA KUDELSKI
viaccess-orca
irdeto

ODM's

JIUZHOU
CHANGHONG

Syst. Integrators

SeaChange
S3 GROUP

Over The Top Services Providers

NETFLIX
YouTube
hulu

Technology Providers (Middleware, Browser, …)

Opera
soft at home
RDK REFERENCE DESIGN KIT
Google
wyplay

Content Owners

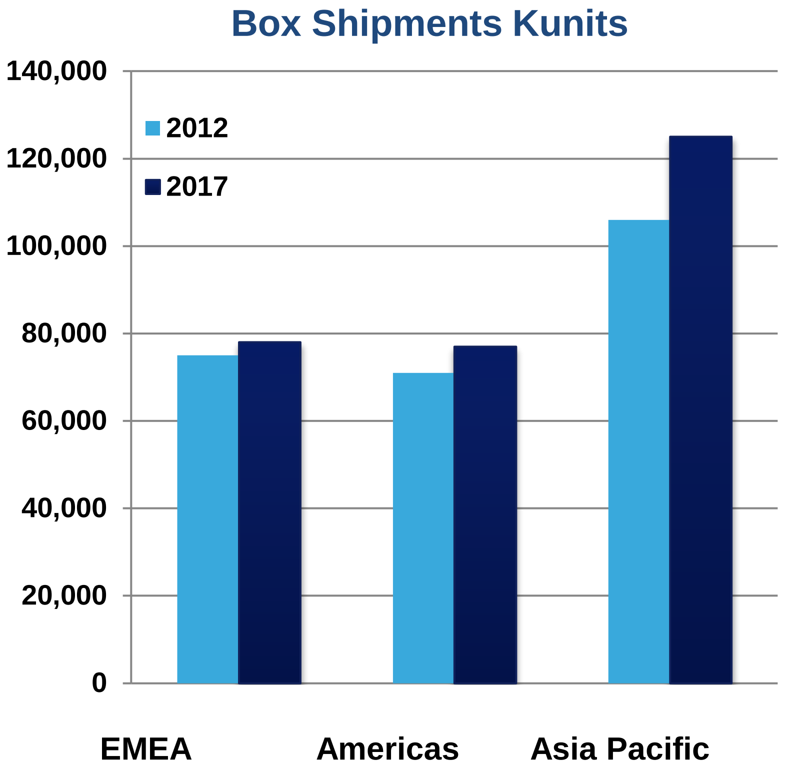
WB
NFL
CNN

ST driving the Box & Gateway Ecosystem at all levels

* CAS : Conditional Access Security

Market

Box Deployments Evolution



Americas & EMEA

- High value market
- ST SAM $2.2B 2014

Connected Client & Server

Home Gateway

Broadcast Set-Top Box

Asia Pacific

- Fast-Growing Market
- ST SAM $840M 2014

Broadcast Set-Top Box → **Connected Client & Server**, **Home Gateway**

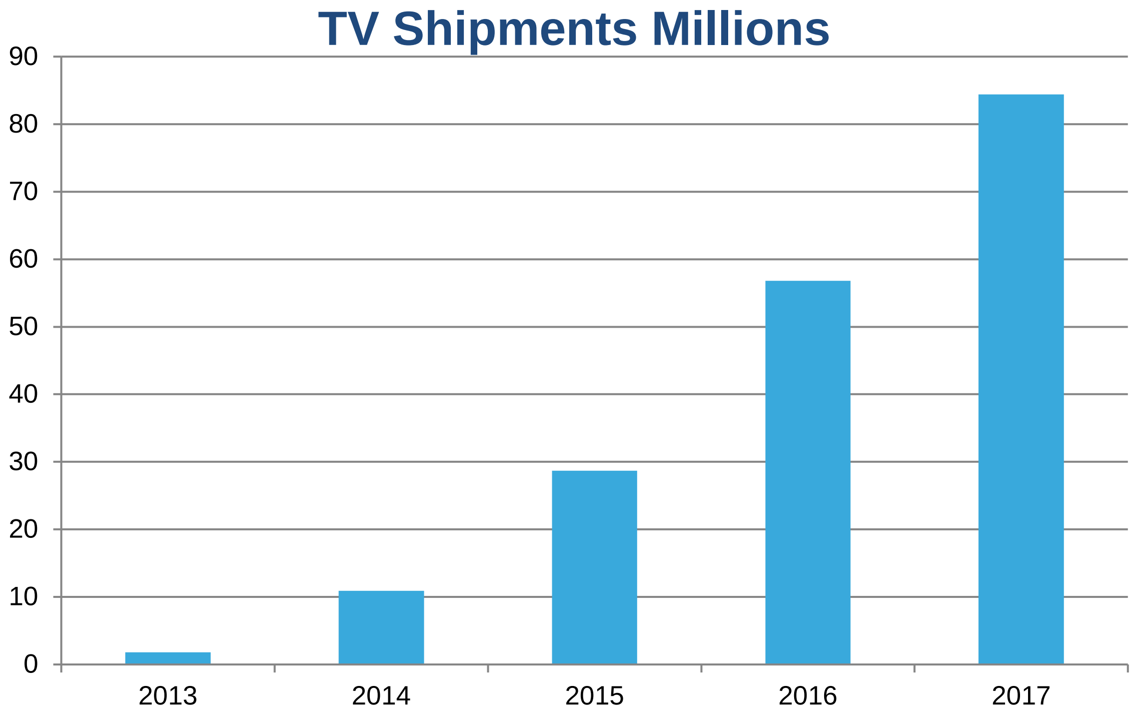
Sources: IHS iSuppli, ABI and STMicroelectronics

Ultra HD Growing Rapidly

New user experience with Ultra HD wide screen TV

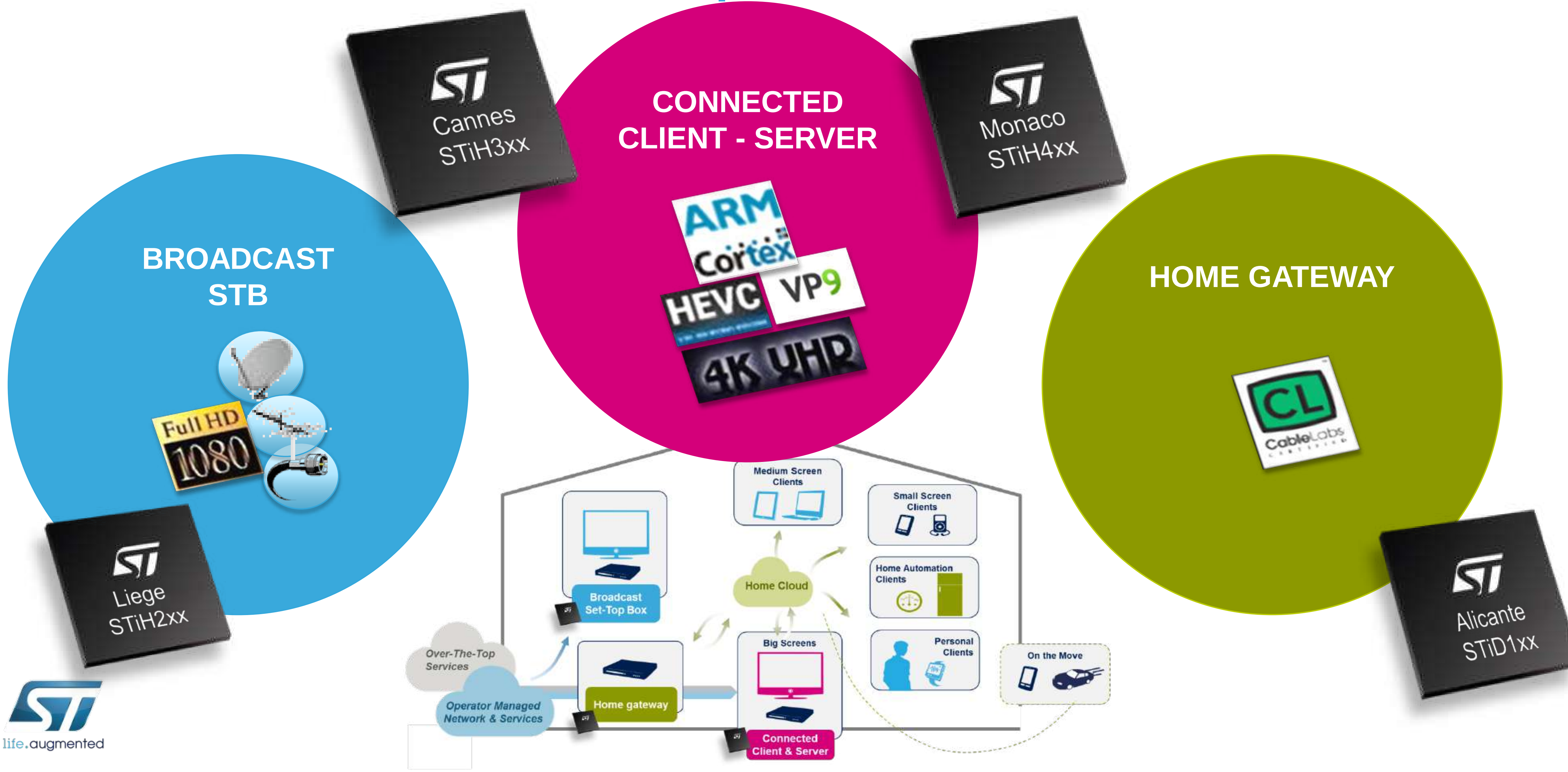
HEVC video compression to limit Ultra HD bandwidth impact

Ultra HD



Source: International Business Strategies Inc (IBS) January 2014

Complete Product Portfolio



BROADCAST STB

CONNECTED CLIENT - SERVER

HOME GATEWAY

BROADCAST
STB

STiH2xx Deployment

Over 100 Designs

Around 40 box models starting in production

Value in HD Market

System Cost
Security
Wide Portfolio
SW Ecosystem

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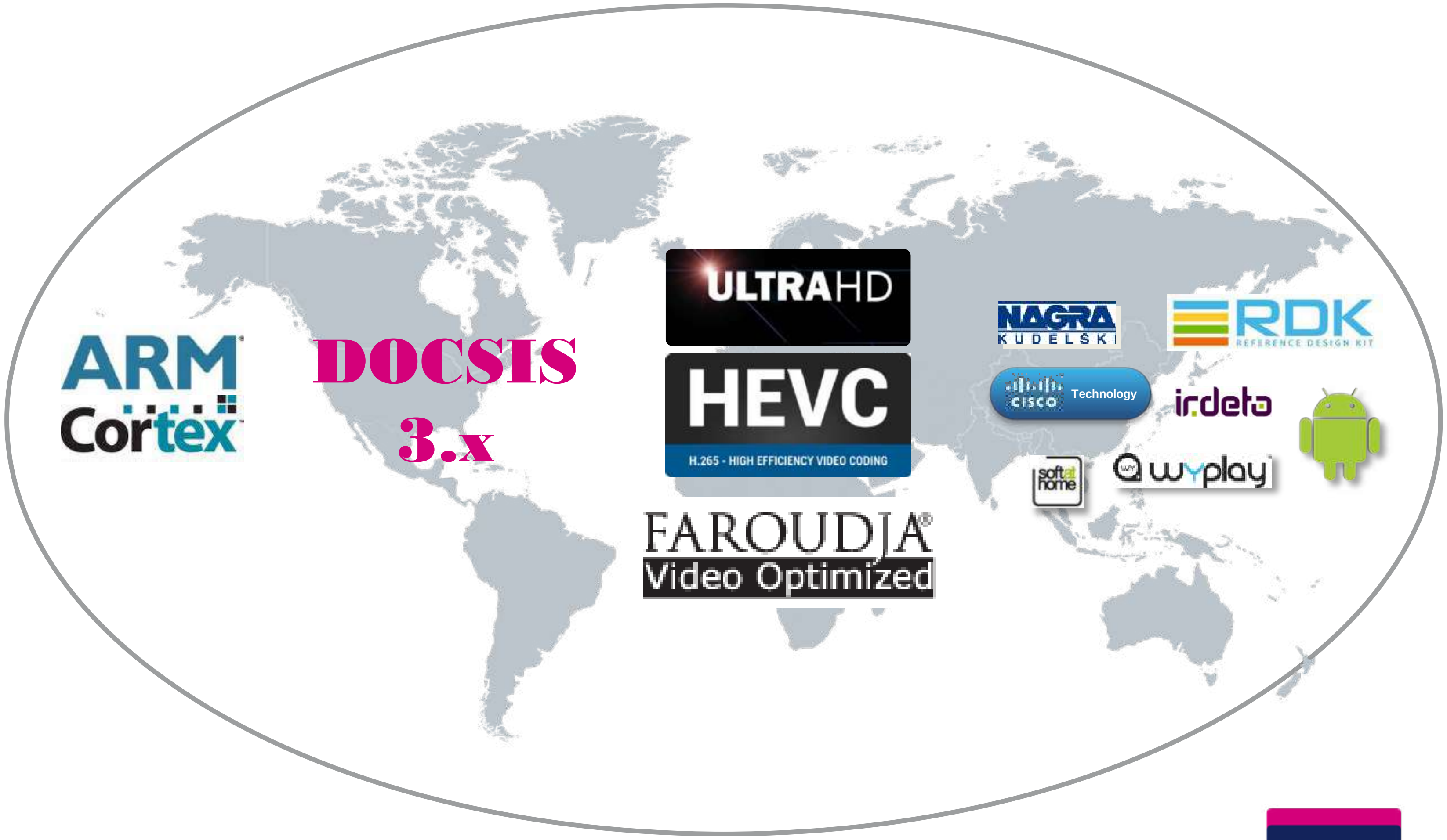
STiH3/4xx Engagement

Already around 30 Designs

Over 10 boxes entering production

Value

ARM CPU
HEVC, DOCSIS3.0
HD & UHD
SW Ecosystem
Client & Server Portfolio

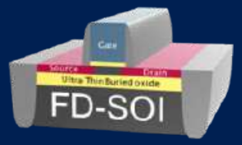


Towards Tomorrow's ST Digital Platforms

STi8K™ Architecture

ARM® Cortex™ A53/A57 64-bit processor

& FD-SOI best power & performance



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ST IP portfolio

CLIENT & SERVER

The Ultimate Ultra HD experience

HOME GATEWAY

The Future Home Gateway solution

ASIC

ASIC Consumer & Networking offer

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Agenda

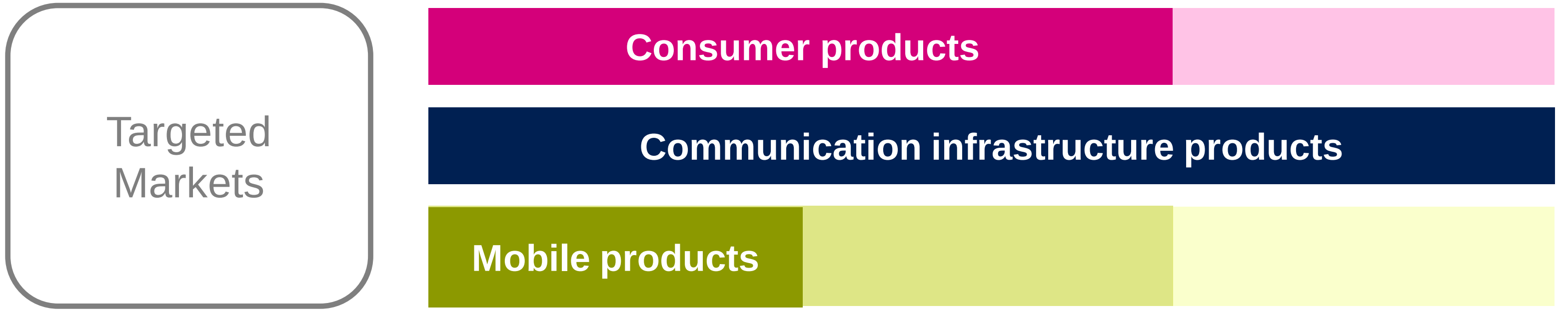
- Set Top Box, Connected Client-Server and Home Gateway
- Customs Solutions & ASICs
- FD-SOI Update

Customer Silicon Implementation Options

	Open Market ASSP	**Custom SoC ASIC**	FPGA
Cost effectiveness – High volume	🟩	🟨🟩	🟥🟨
Cost effectiveness – Low volume	🟨	🟨	🟨
Time to Market	🟩	🟨	🟨🟩
Differentiation	🟥	🟩	🟨
Power efficiency	🟨	🟩	🟥
Performance	🟩	🟩	🟨

🟥 *Poor* 🟨 *Fair* 🟩 *Good*

Cost, high volume	**HW differentiation**	Fast TTM



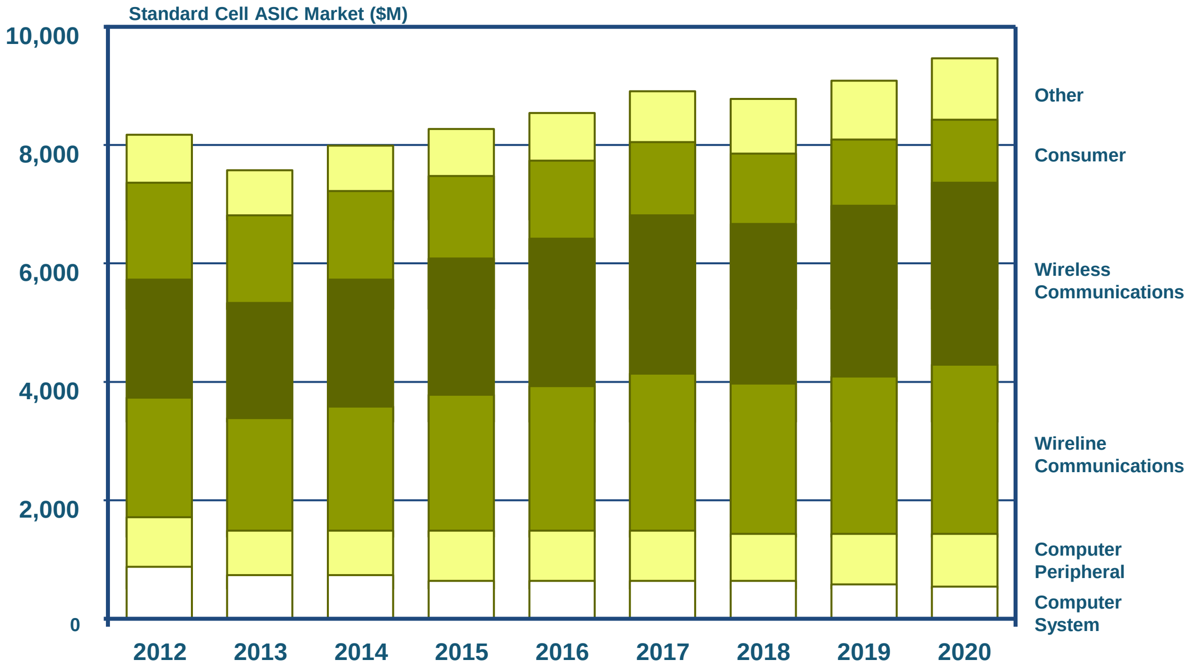
Targeted Markets

Consumer products

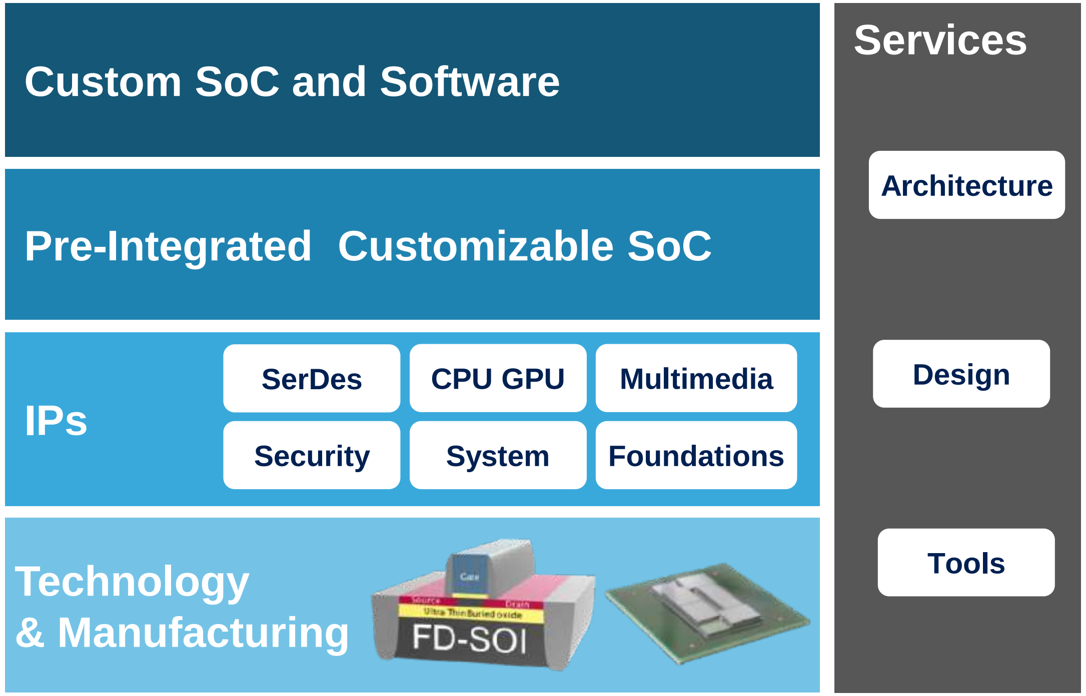
Communication infrastructure products

Mobile products

ST Custom Solutions & ASICs:Complete Offer



ASIC Market *(source: IBS)*



Custom SoC and Software

Pre-Integrated Customizable SoC

IPs
- SerDes
- CPU GPU
- Multimedia
- Security
- System
- Foundations

Technology & Manufacturing

Services
- Architecture
- Design
- Tools

ST Offer

Complete & Flexible Offering to match technical and business requirements

Customizable Platform

Customer ASIC Design

COT & Foundry

ASIC Progress Made in 12 Months

Expansion of our capabilities

- Now addressing **consumer ASICs** on top of networking
- New **flexible business models** and service offer
- **Reinforced critical skills** thanks to ST-Ericsson resources reallocation
    - In architecture and low power
    - In complex design
- Nearly doubled our design throughput

Building product leadership

- Capability to manage design complexity up to **400mm2 in 28nm**
- Best in class **energy efficiency** (perf/power ratio)
- Leading edge IPs
- **FD-SOI** projects **increased** from 2 to 17 (14 ASICs)
- **FD-SOI unique value proposition** vs 28/20nm bulk and FinFet

Agenda

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FD-SOI: Efficiency at All Levels

CPU, GPU and logic

FBB dynamic modulation to get the best total power

Best dynamic power /leakage tradeoff

● ● ●

Memories

Memory bit cells in FD-SOI have much lower leakage compared to Bulk

● ●

Analog & High-speed

FD-SOI analog performance far exceeds Bulk

Better figure of merit than FinFET for high-speed IPs

●

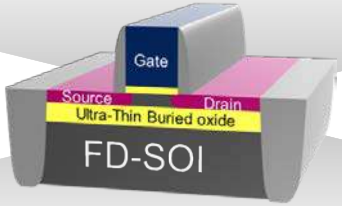
Infrastructure Networking

Consumer

Automotive

Internet of Things

POWER EFFICIENCY & PERFORMANCE



DESIGN & PRODUCTION

Simplicity & cost

Lower cost vs Bulk HPM & FinFET

Lower development cost vs. FinFET

● ● ●

Reliability and yield

Memory: 50x better immunity to Neutron SER vs alternatives

True process compensation through body bias

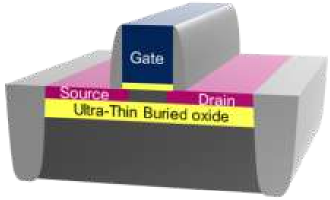
● ●

Flexibility of usage

Single implementation from very low power to high performance

Ultra low voltage / sub threshold

● ●



FD-SOI Ecosystem Expanding

- An extended strategic collaboration between Samsung and ST
- Supply agreement
    - Samsung to serve as a second source for ST customers complementing Crolles300
- Strengthens FD-SOI ecosystem and confirms momentum
    - Offers customers choice and security of supply
    - Full design compatibility Samsung – ST. Same design can be manufactured in both Fabs
    - Accelerates adoption in the targeted market
- Samsung is licensing ST’s 28nm FD-SOI
    - To be part of Samsung foundry offer

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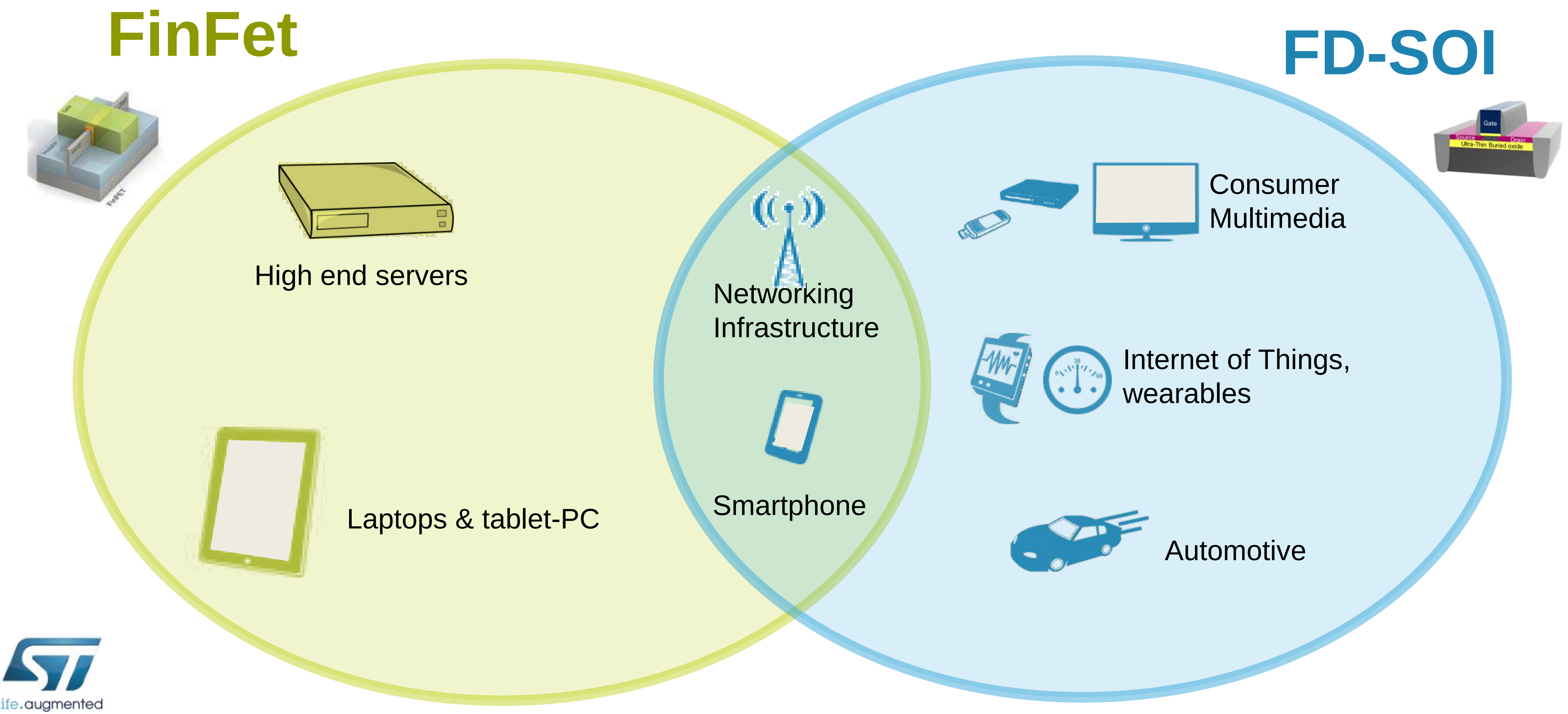
Markets Using 40nm & 28nm Bulk are Evolving to…



FinFet

FD-SOI

High end servers

Laptops & tablet-PC

Networking Infrastructure

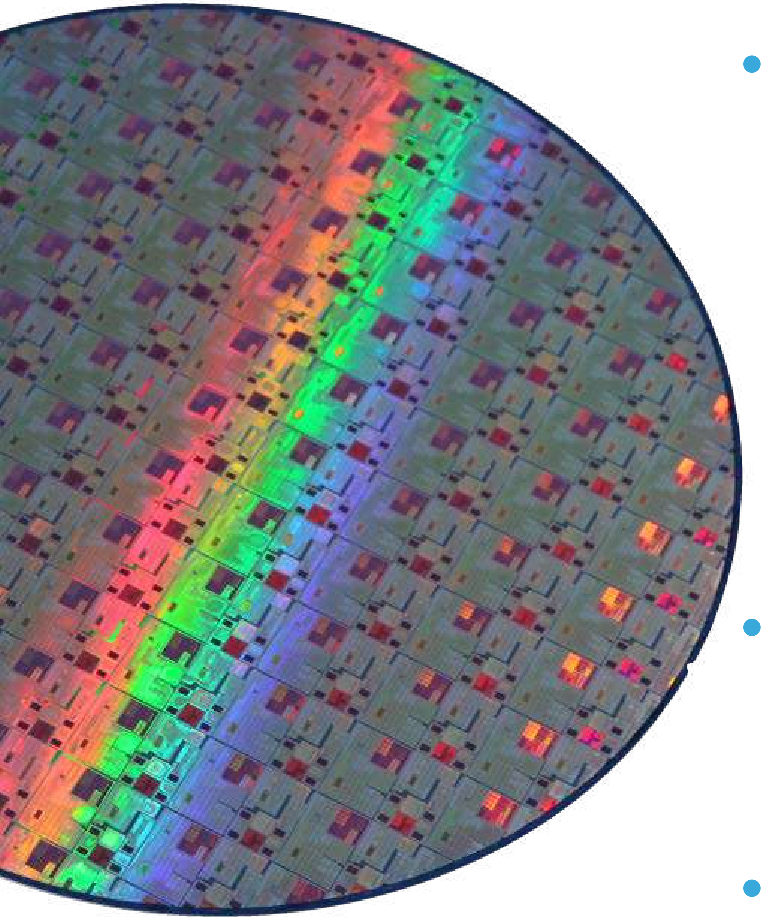
Smartphone

Consumer Multimedia

Internet of Things, wearables

Automotive

Takeaways

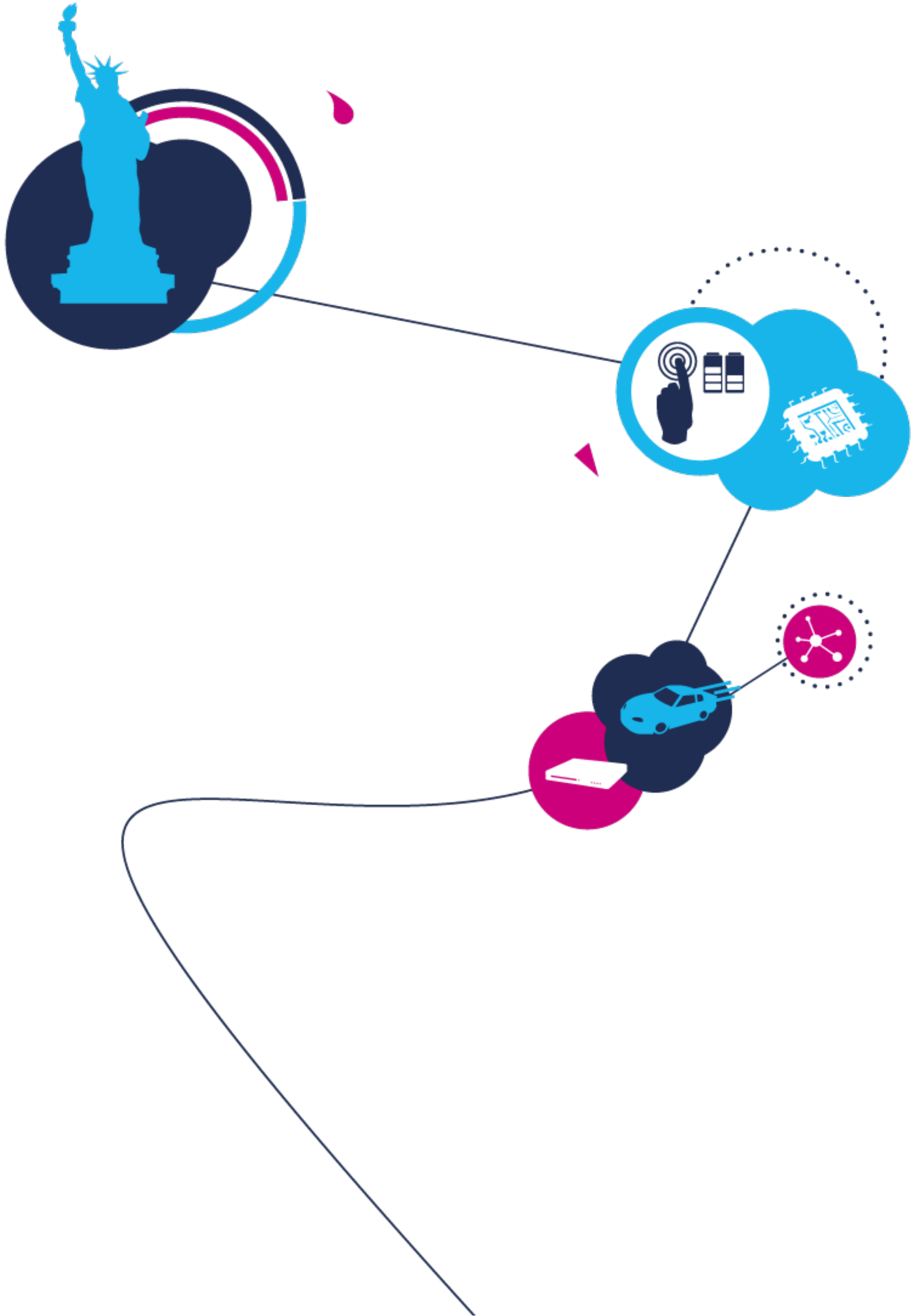


- Foundations to support turnaround of DCG
  - Market traction and opportunities
    - Broadcast STB and Home Servers/Gateways
    - Custom solutions and ASICs for Networking and Consumer
  - Building technology and product/Solution leadership
    - FD-SOI, Ultra HD, ARM 64-bit, …

- Reinforcement and acceleration of FD-SOI ecosystem
  - 28nm FD-SOI Samsung agreement

- Clear advanced CMOS development strategy with payback over several market waves

ST Leadership in the Automotive Industry



Marco Monti

Executive Vice President

General Manager, Automotive Product Group

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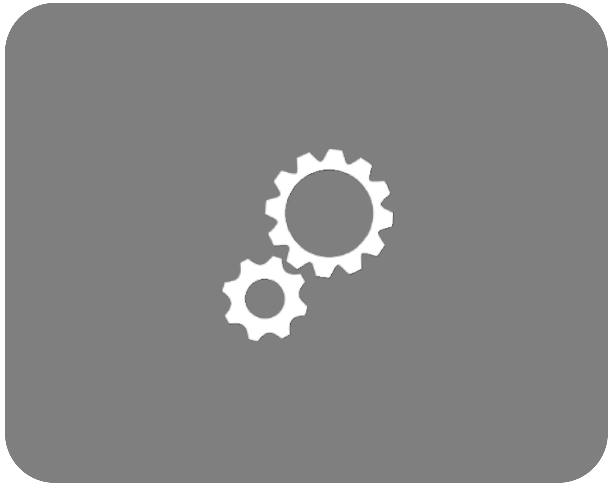
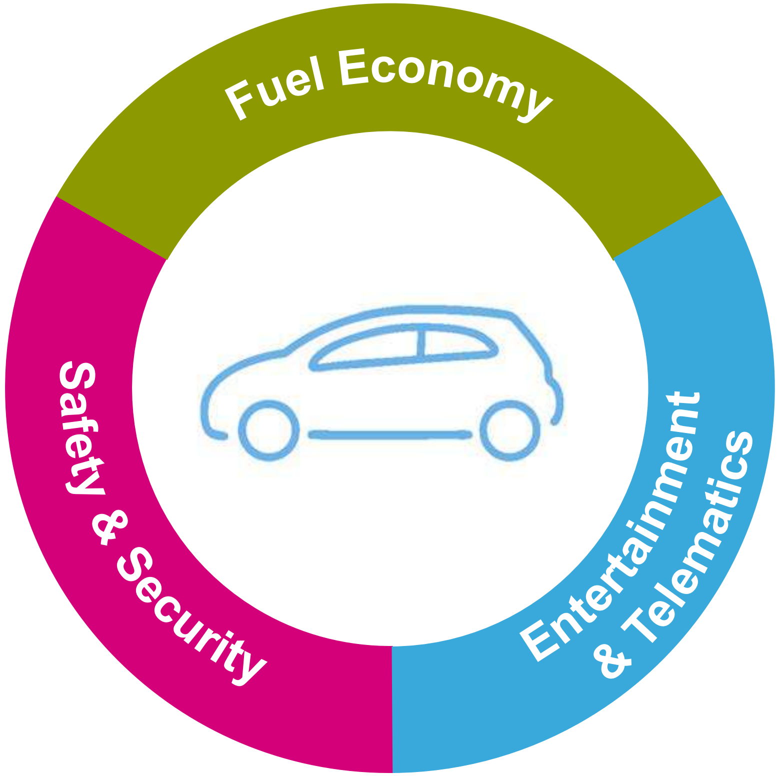
GPS
ABS



The Car as a Technology Hub

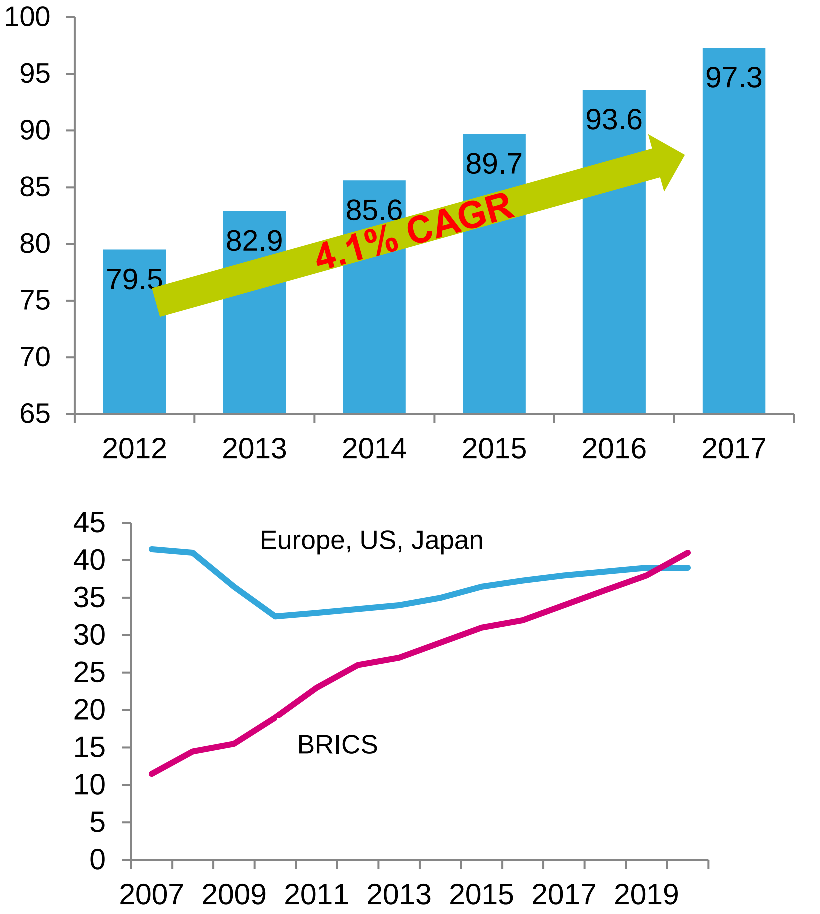
Car evolution is dominated by three domains with a high level of interaction



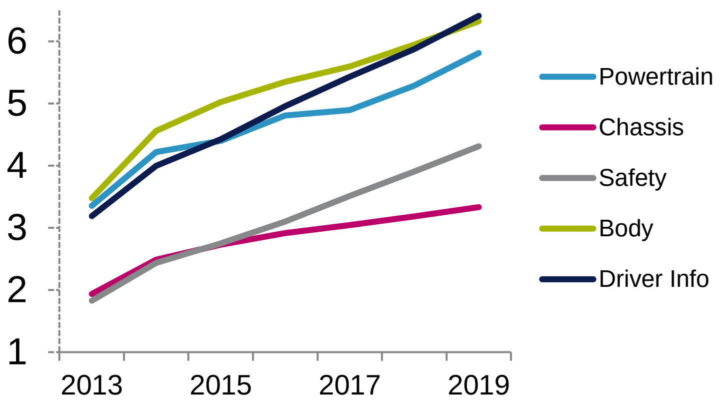
The Automotive Market

The right place to be

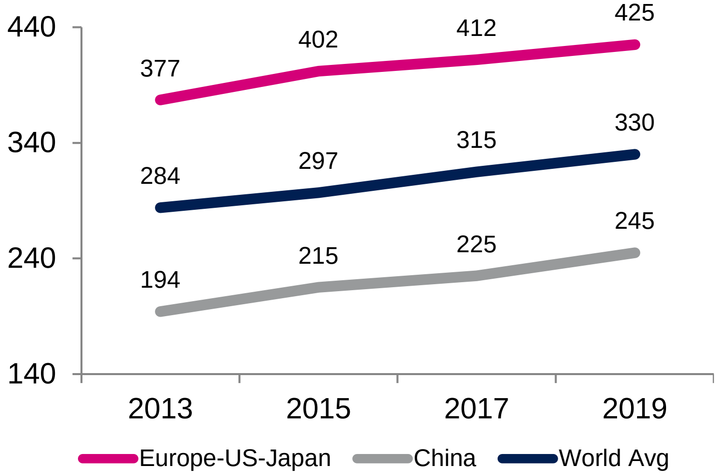
Light Vehicle sales (M. Units)



Semiconductor Opportunity



Semiconductor demand ($B)

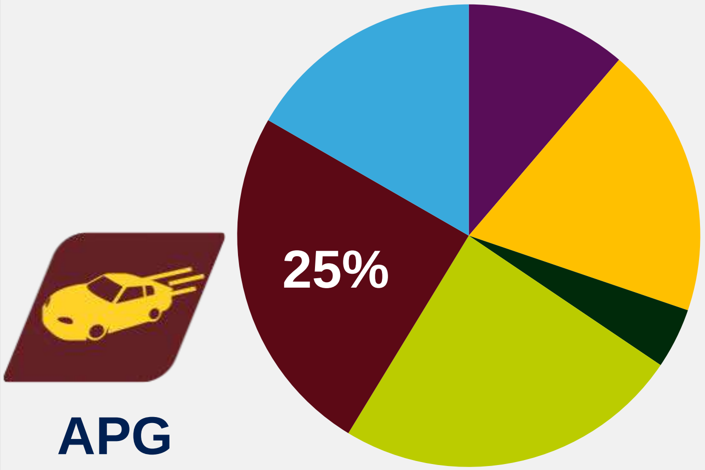


Car Semiconductor content ($)

Source: Strategy Analytics, IHS Automotive, January 2014

Automotive Product Group

Contribution to ST revenues 1Q14



Portfolio

Infotainment
- Telematics & GPS
- Car infotainment

Body electronics
- Door modules, Anti-theft
- Lighting, Wipers, BCM

Safety
- Braking Vehicle steering
- Airbag Active safety

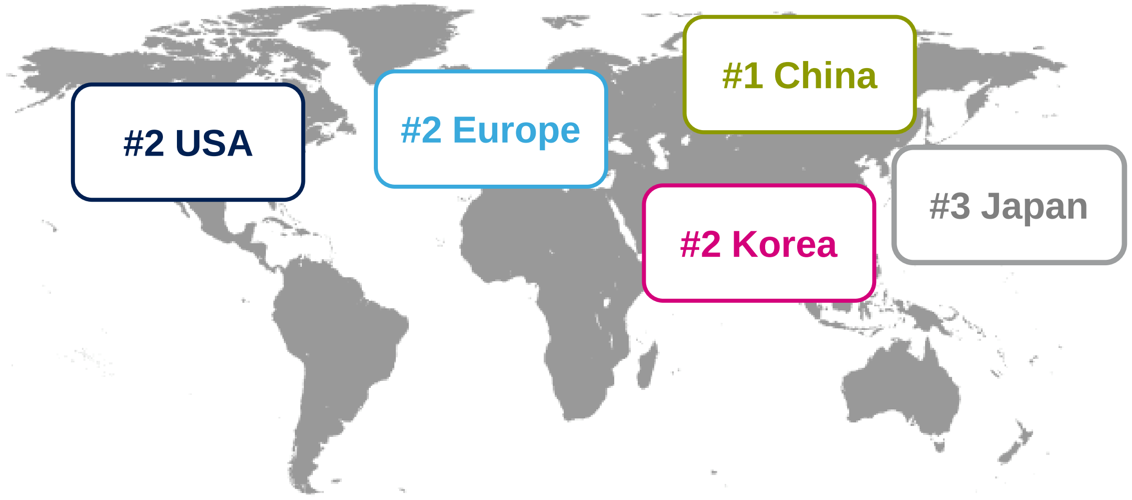
Powertrain
- Engine
- Transmission

APG : $1.7B Sales in 2013

- Up 7.3% vs. 2012
- 4Q13 up 22% vs. 4Q12
- 1Q14 up 16% vs. 1Q13

ST a leader in Automotive

Balanced geographical distribution



A leading market position

#3 automotive semiconductor supplier

	#	Item	share
APG Positioning	2	SAM	12.8%
	1	Smart Power	~25%
	1	ASIC	~35%
Automotive Electronics	1	Engine control	~32%
	1	Braking	~19%
	2	Airbag	~14%
	1	Active Safety	~35%
	1	Car Lighting	40%
Infotainment	2	Infotainment	~13%
	1	Digital Tuners	~71%
	1	Audio	~47%
	2	Positioning	~14%

Source: WSTS 2014, IHS Auto 2014,,Strategic Analytics 2014

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ST in your Car

Volkswagen
Golf

Peugeot
RCZ

Mercedes
CLS

BMW
3 Series

Ford F150

Toyota
Corolla

Hyundai
Sonata

Infotainment

- Telematics & GPS
- Car infotainment

Body electronics

- Door modules, Anti-theft
- Lighting, Wipers, BCM

Safety

- Braking Vehicle steering
- Airbag Active safety

Powertrain

- Engine
- Transmission

Changan

Nissan juke

Fiat 500

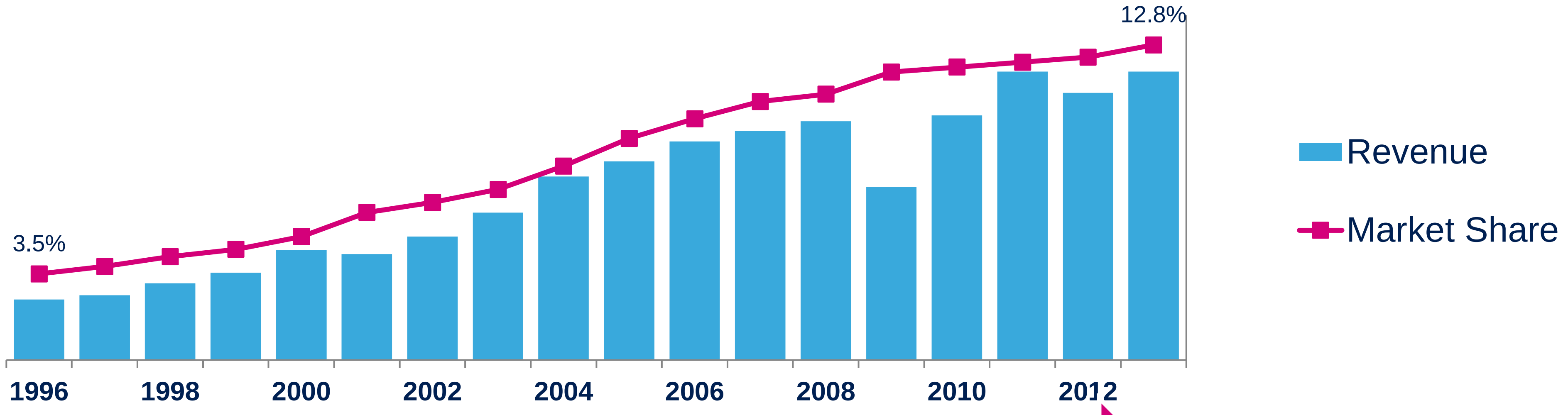
Chevrolet
Corvette

Porche
918 Spyder

Ferrari
La Ferrari

Audi A6

ST Strategy Aligned with Market Evolution



Serving key customers

Expanding the customer portfolio

Global innovative automotive player

Today the 3 business models coexist to bring value to our customers

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Serving key customers – 90’s to 2006

- OEM modular platform strategy increased the volumes for players able to participate
  - Strongly technology driven (Power and Smart Power technologies …)
  - Major focus on ASIC portfolio
  - Driven by manufacturing, quality, product execution
  - Focusing on specific product development more than full system support

Results

- Market share: From 3.5% in mid ’90’s to 10% in 2006
- Solid technology roadmap and competitive manufacturing machine
- Strong leadership with key Automotive players in Germany, Japan and USA
- Exceeding 30% market share in products for engine, braking and air bag systems

Collision Warning (ADAS)
Air Bag

Engine Control
Braking & Steering
Transmission
Suspension

Infotainment
Premium Audio
Navigation
Satellite Radio (US Market)

Door & Mirror Controls
Exterior Lighting
Seat Heating & Controls
Air Conditioning
Gateway

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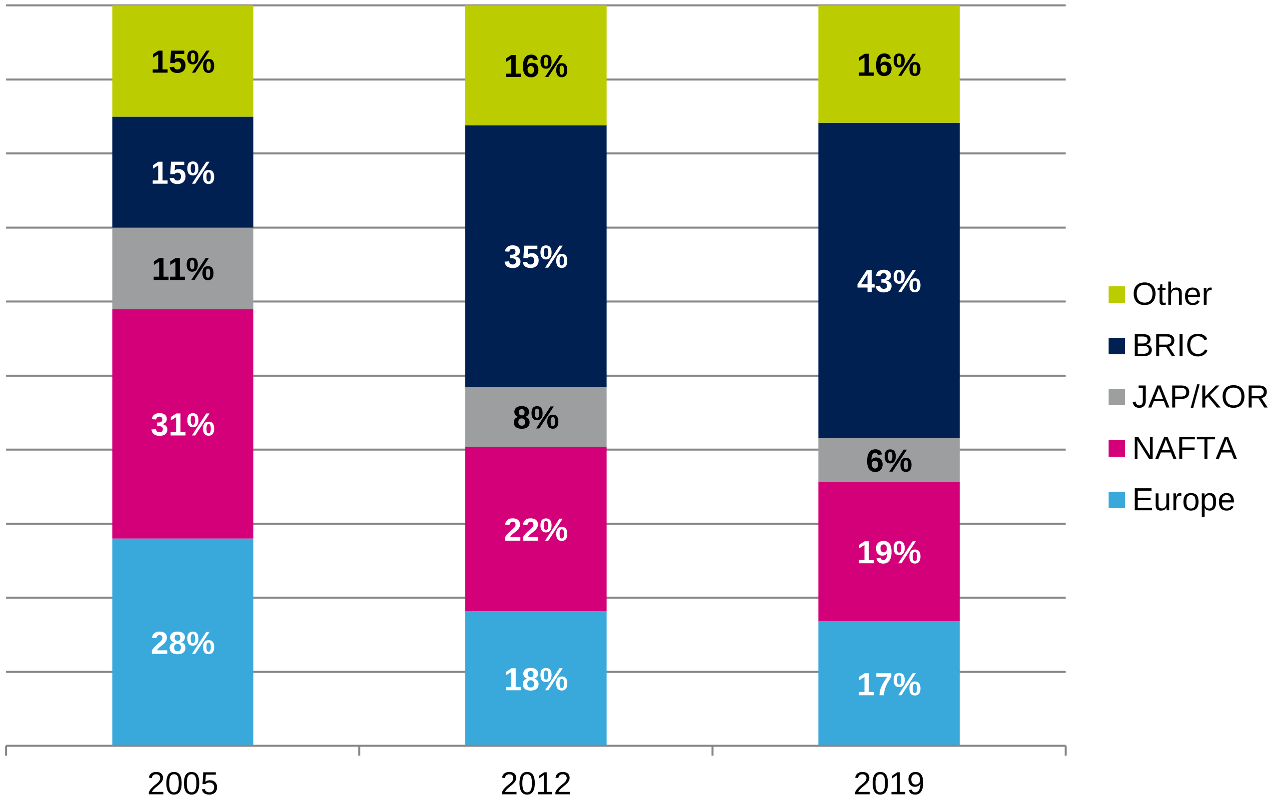
Geographical Evolution

Light Vehicle Sales by region



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Source: Strategy Analytics, IHS , Automotive, Jan 2014

Expanding the customer portfolio – 2005 to today

- Driven by the Automotive opportunities in the emerging markets and by infotainment proliferation in the car
  - Transition from ASIC to ASSP
  - Focused on providing a full system solution to our customers
  - A new offer of Automotive Microcontrollers based on Power and ARM architectures has been developed

Results

- Market share: More than 12.8% in 2013
- Market leader in China and multiple alliances with leading Chinese OEM’s
- Strong presence in ASSP for infotainment
- ~1/4 of our business through distribution
- More than 2.5B$ in design wins with 32-bit microcontrollers

Air Bag
ABS
Stability Control (ESC)

Engine Control
Transmission

Infotainment
Positioning
Car Radio

Exterior Lighting
Front/Rear Door
Air Conditioning
Wiper

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The Automotive Market is Changing

Increasing complexity drives innovation

- Proliferation of new systems challenges the traditional Automotive business model and the role of the semiconductor vendors
- Capabilities required are significantly broader
- Increasingly high barriers to entry

Driving forces

- Zero Casualties
- Continuous emission reduction
- Driver assistance
- Info-mobility / Intelligent mobility
- Strong momentum for premium vehicles

Ability to innovate at the right level is critical to long-term viability

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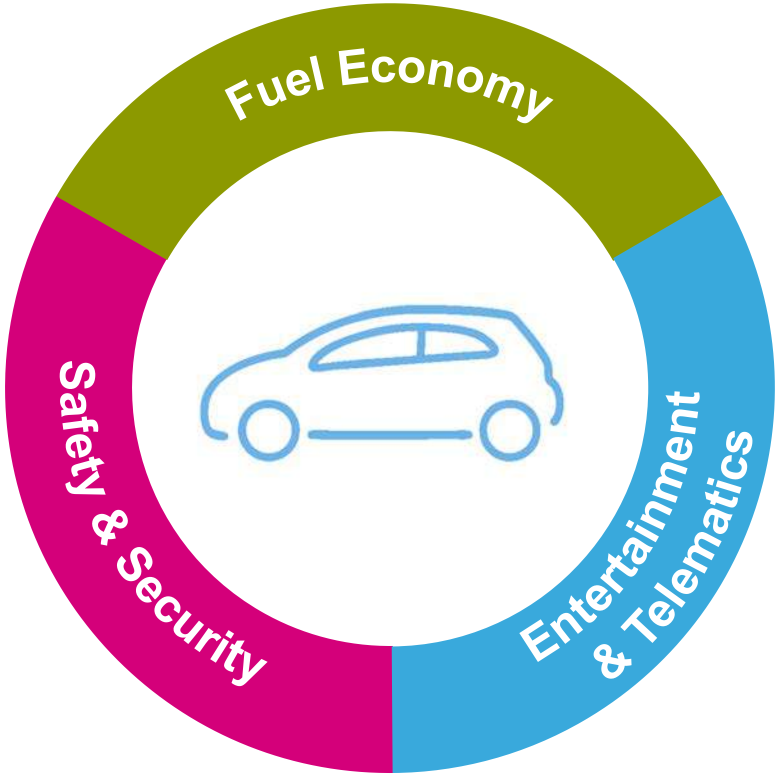
Global Innovative Automotive player – Now

Car is becoming

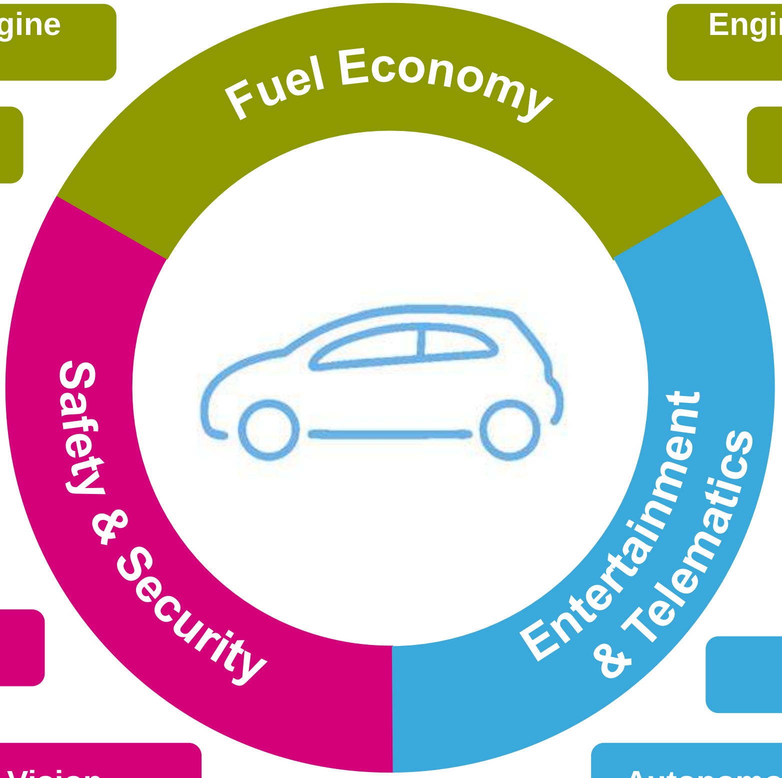
a technology HUB

- Cross-industry innovation key to success in future automotive systems
- ST strengthening leadership as global innovative automotive player



Why the Car Requires so Many Technologies

The car evolution is dominated by 3 domains with a high level of interaction



- Shift by wire
- Vehicle electrification
- Innovative Engine Control
- Engine down-sizing and turbo
- Stop start
- Street Predictability
- Urban Vehicles management
- Queue Management
- Autonomous Braking
- Terrestrial & satellite receivers
- Integrated chassis
- Positioning
- Car to Infrastructure
- Active Safety
- Car to Car
- Night Vision
- Autonomous Driving

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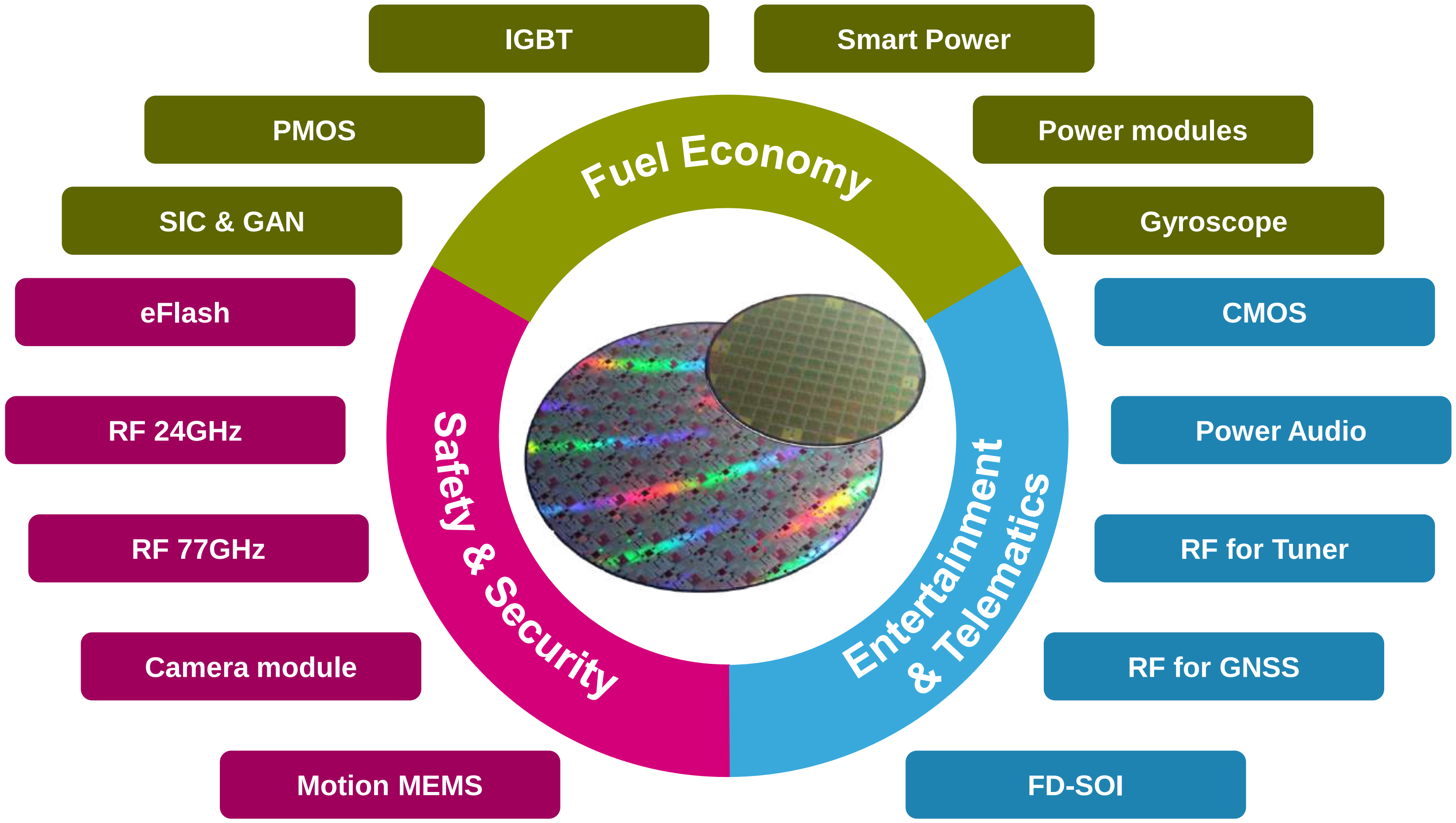
Different Technologies Means Different Silicon

The proliferation of the new systems brings a huge variety of silicon technologies in the car



Fuel Economy

- IGBT
- Smart Power
- PMOS
- Power modules
- SIC & GAN
- Gyroscope

Safety & Security

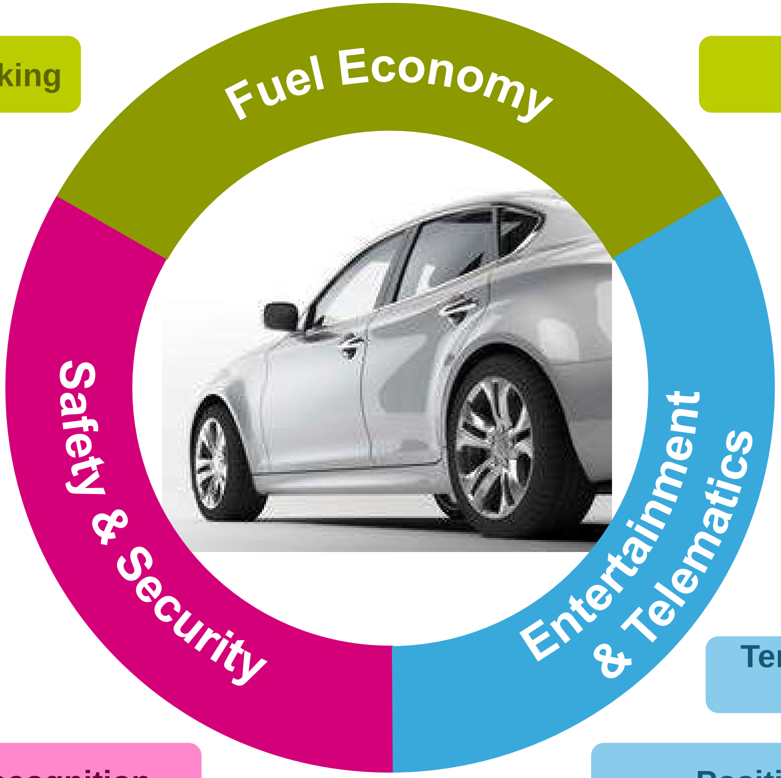
- eFlash
- RF 24GHz
- RF 77GHz
- Camera module
- Motion MEMS

Entertainment & Telematics

- CMOS
- Power Audio
- RF for Tuner
- RF for GNSS
- FD-SOI

…and Different System and IP Requirements

New needs are bringing several new IP requirements to Automotive



Real-time processing

Low speed networking

Cryptography

Security

High speed networking

Functional safety (ISO 26262)

Object recognition

Wi-Fi automotive (80211-P)

Android OS

IOS (car play)

LINUX OS

2D/3D graphics

Terrestrial & satellite receivers

Positioning

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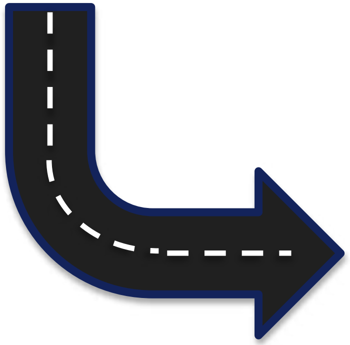
No Compromise on Automotive Requirements

Managing complexity and mastering new technologies is a must

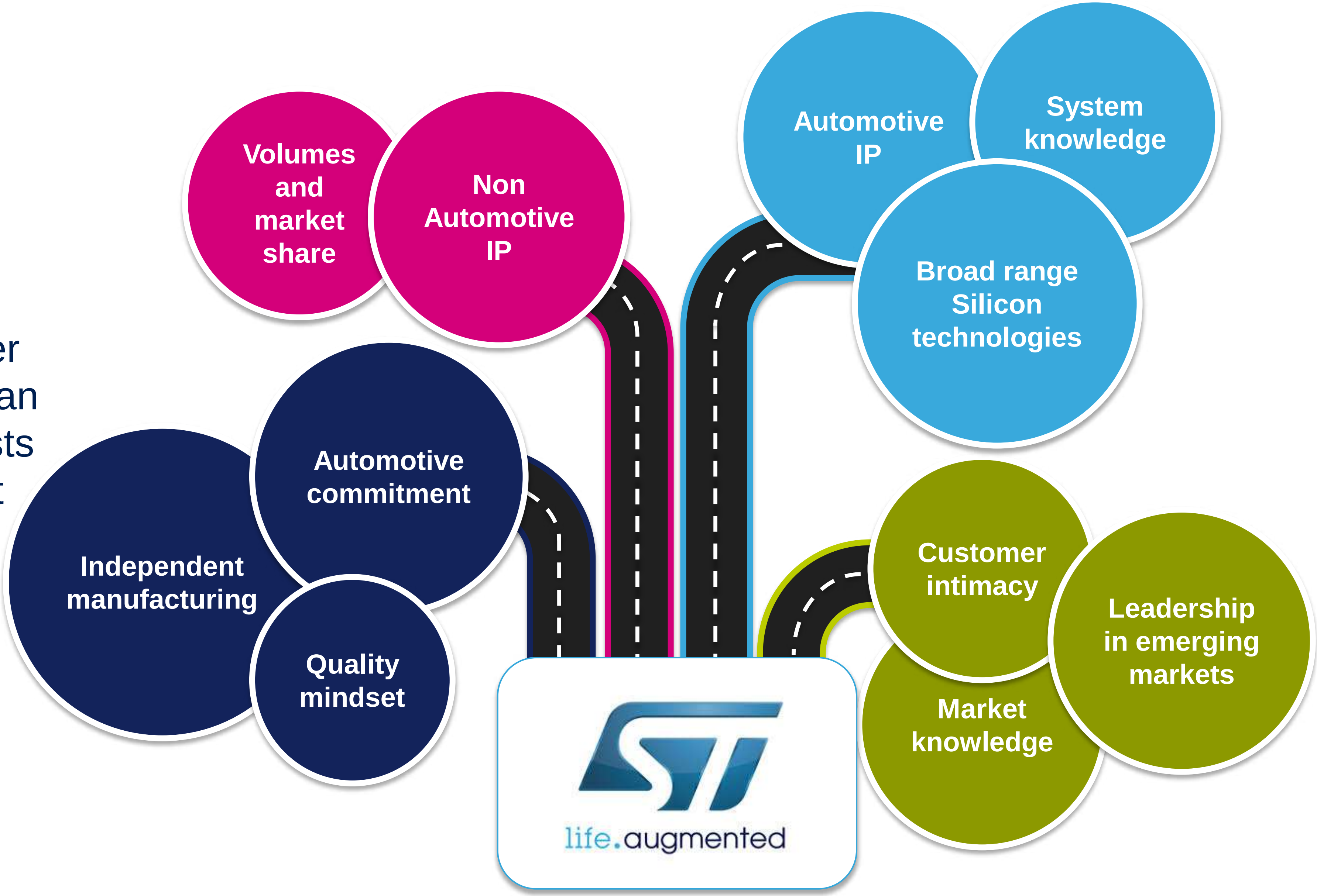
- Zero defect Quality
- Safety and Reliability
- Product longevity (> 20 years)
- Supply chain security
- Product confidentiality (ASIC)
- System development support
- Complexity management



Automotive Knowledge and Commitment

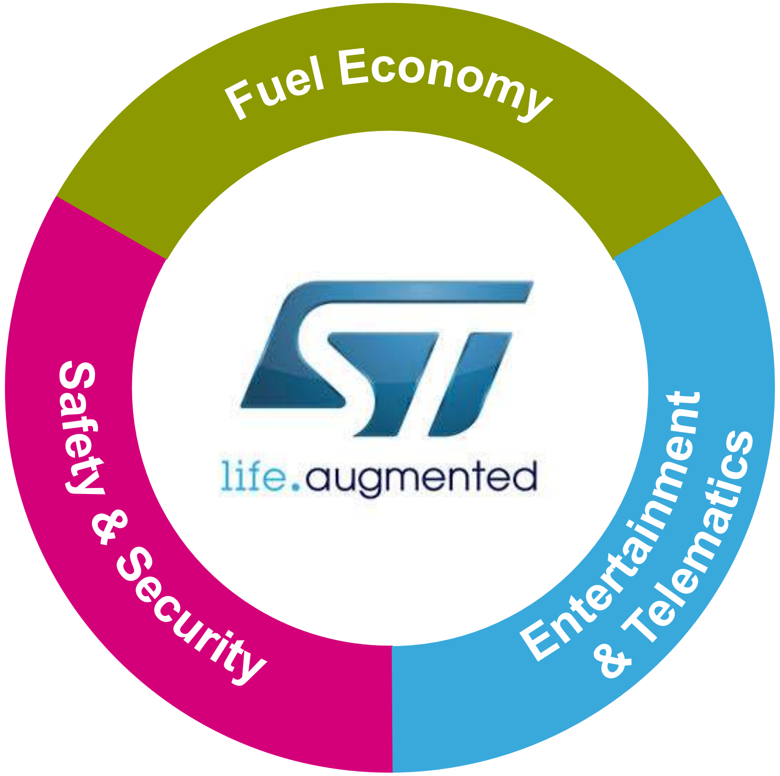
ST Leading the Automotive Transition

Only an innovative technology and IP provider committed to Automotive can match the stringent requests of the Automotive market



ST is Leading in ...

Just started in production



Direct Injection

Conventional power train

Stop start solutions

Air Bag system for China

24 GHz radar based safety system

Powertrain System for China-6

Terrestrial and satellite receivers including the software Radio

Entry level / China dedicated Infotainment processor (Accordo 2)

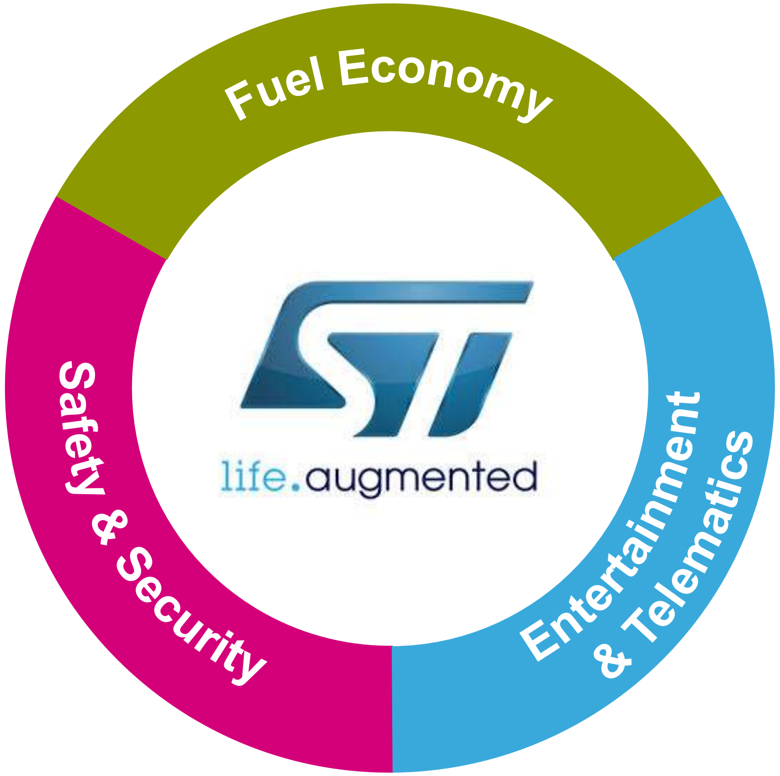
ST is Innovating in …

Production starting during 2014

Engine down-sizing and turbo

Hybrid vehicles main micro

3rd generation ADAS Vision Based Processor



3rd gen. Li-ion Battery management HEV

High precision positioning through GNSS

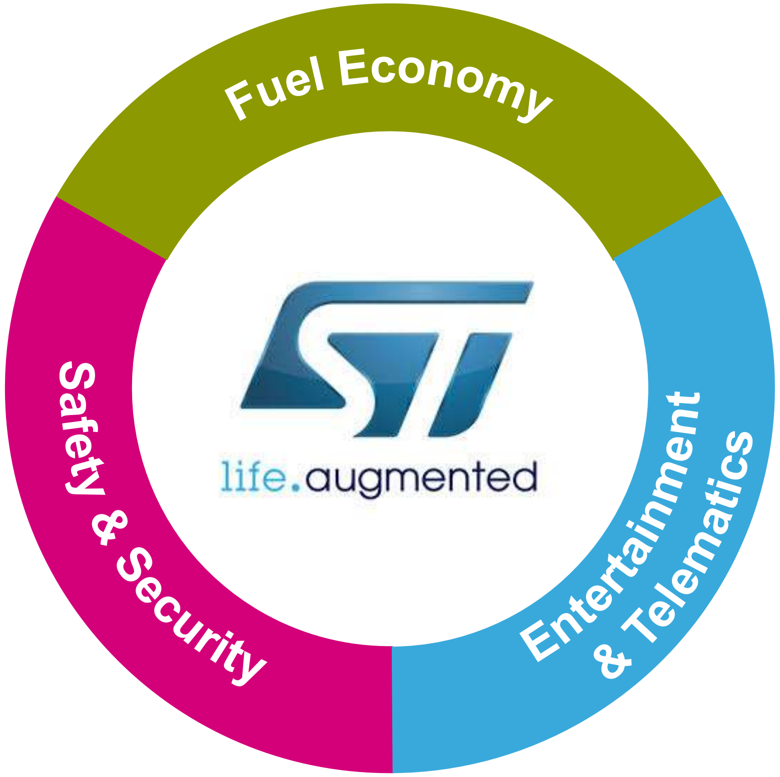
77 GHz Radar

ST is Pioneering in …

Production starting 2015 and beyond

Cryptography implemented in all our Automotive micro

Power module to support electric vehicles



4th generation ADAS Vision Based Processor (FD-SOI based) for autonomous drive

Infotainment Application Processors (Car Play)

Dedicated camera module for active safety systems

Car to X …

ST is Partnering with…

Direct Injection

Engine down-sizing and turbo

Stop start solutions

Hybrid vehicles main micro

Air Bag system for China

3rd generation ADAS Vision Based Processor

4th generation ADAS Vision Based Processor (FD-SOI based) for autonomous drive

24 GHz radar based safety system

Conventional power train

Ready to support the different role of car makers with specific partnership models

Audi	Toyota
Mercedes	FAW
Hyundai	Great Wall
Changan	Others not yet disclosed

77 GHz Radar

Cryptography implemented in all our Automotive micro

3rd gen. Li-ion Battery management HEV

Power module to support electric vehicles

Terrestrial and satellite receivers including the software Radio

High precision positioning through GPS

Entry level / China dedicated Infotainment processor (Accordo 2)

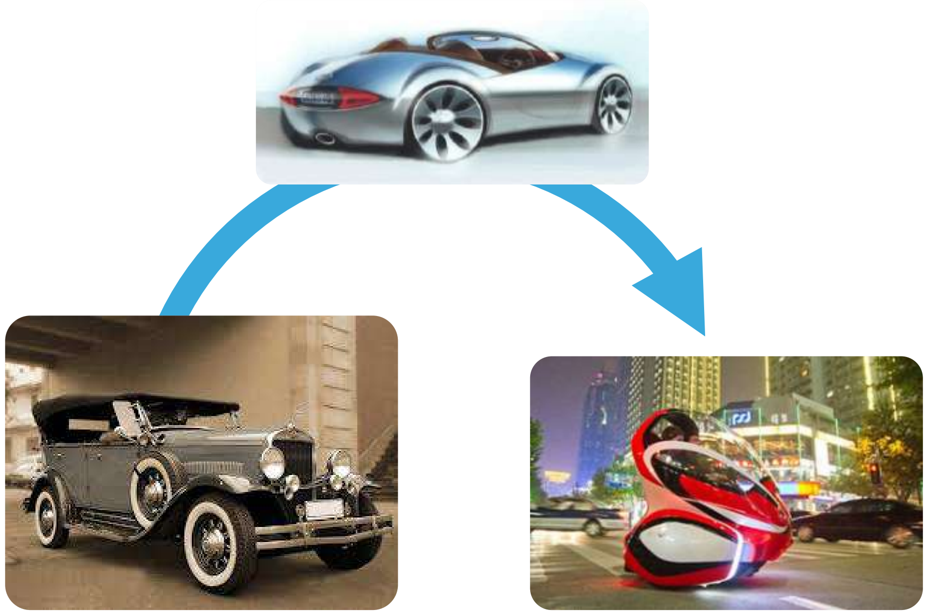
Infotainment Application Processors (Car Play)

Car to X …

Dedicated camera module for active safety systems

Takeaways

- The car of today is increasingly becoming a technology hub
    - Innovation is driven by enhancing car safety and driving experience
- Automotive semiconductor content will increasingly incorporate digital technologies
    - Key systems becoming more integrated
    - Increasing complexity of silicon technologies and IP
    - The entry barriers are becoming higher
- ST is well positioned to continue to lead the Automotive market
    - Long-standing commitment to Automotive
    - Established leading positions
    - Balanced strategy to enlarge customer base
    - Early investment in key technologies and IP to deliver innovation



Internet of Things

Bob Krysiak
Executive Vice President
President, Region Americas

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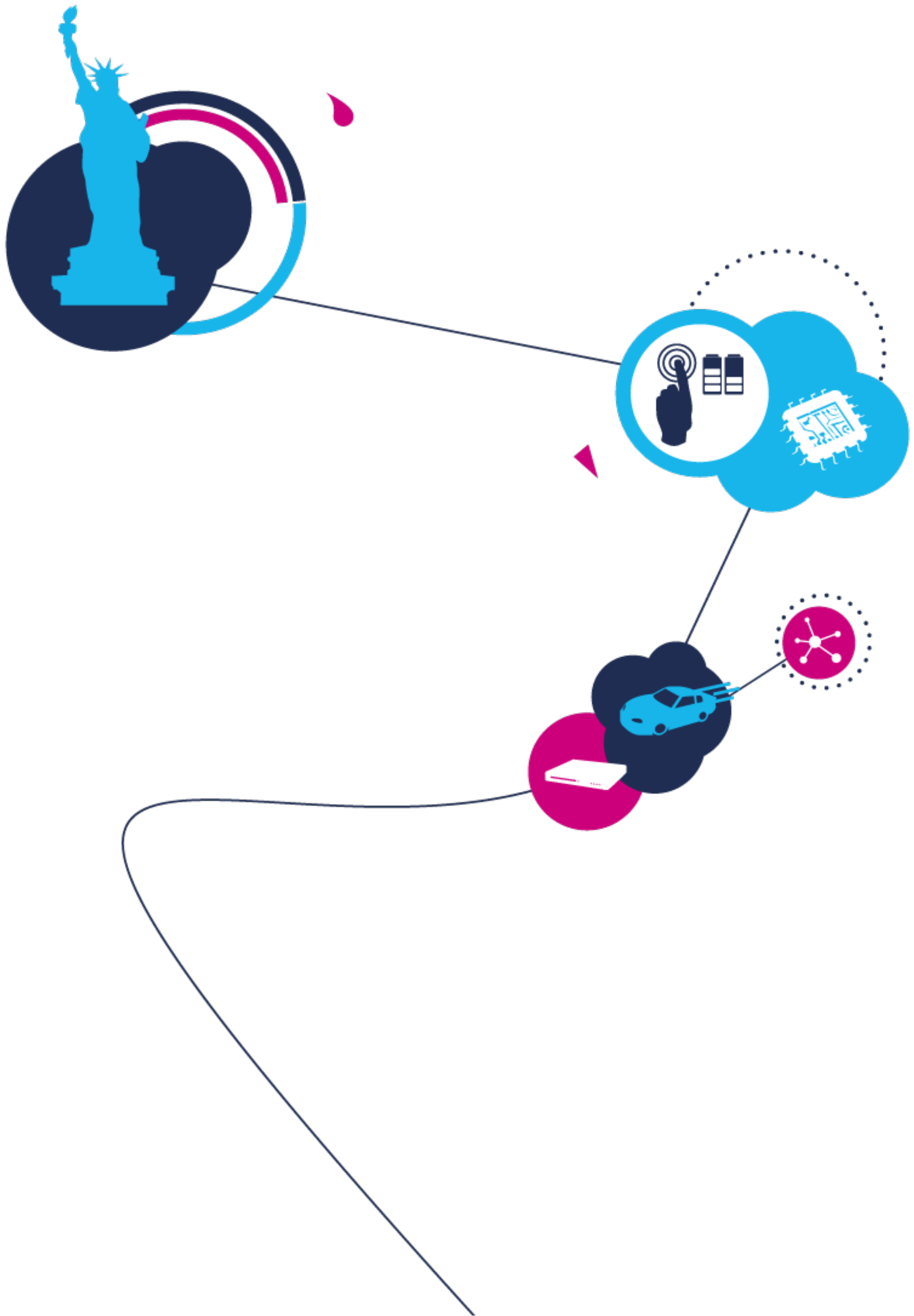
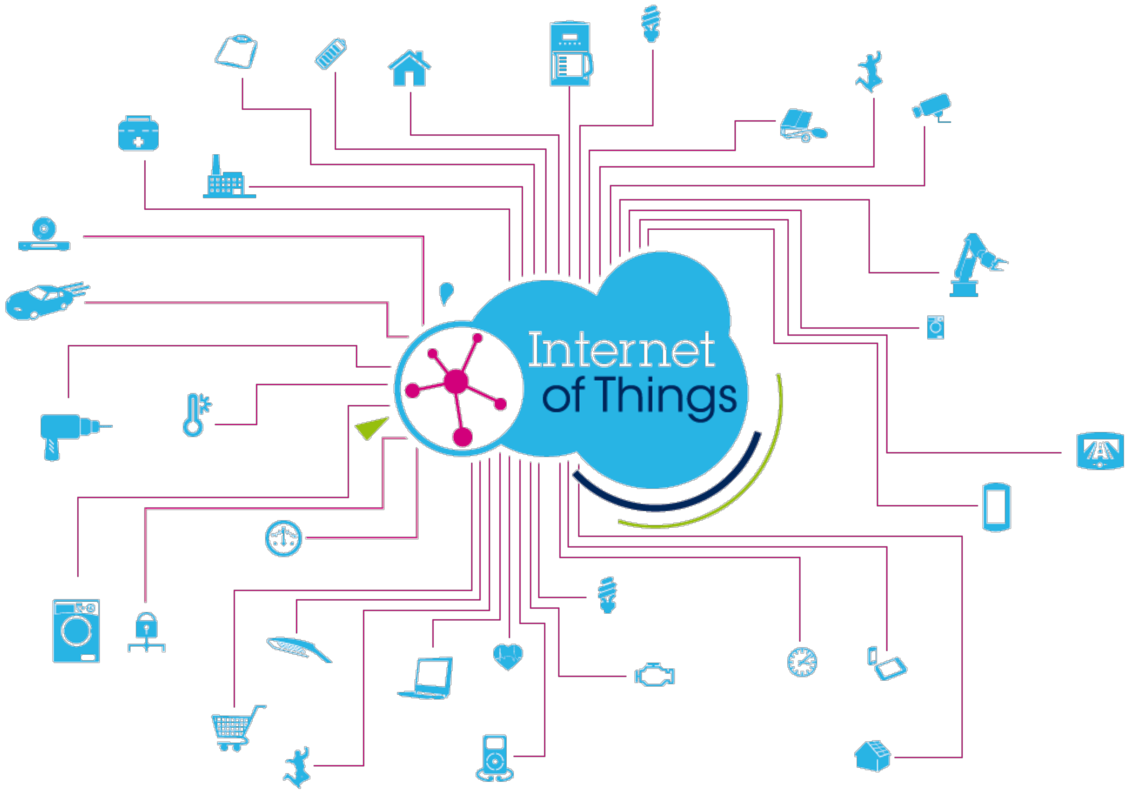


The Internet of Things

Existing Things augmented



New Things to augment life

“Things that leverage the internet to make them smarter…”

Existing Things Augmented

(Making Things Smarter)

It used to tell you
the time

Now it tells
you what to do

It used to remind you
of someone close to
your heart

Now it reminds you
to take care of your
heart

It used to just
provide power

Now it talks to your machines
and tells how you much they
are consuming

They used to help you
see clearly

Now they help you
to see more

New Things to Augment Life

Smart City

Reduce traffic congestion

Better use of resources

Improve security

Smart Car

Reduce emissions

Increase safety

Save fuel

Smart Home

Make entertainment more interactive and immersive

Increase comfort

Save energy

Smart Me Healthcare

Empower patients

Help physicians monitor and diagnose remotely

Smart Me Fitness & Wellness

Help to lead healthier lives

Optimize sports performance

Early warning of illness

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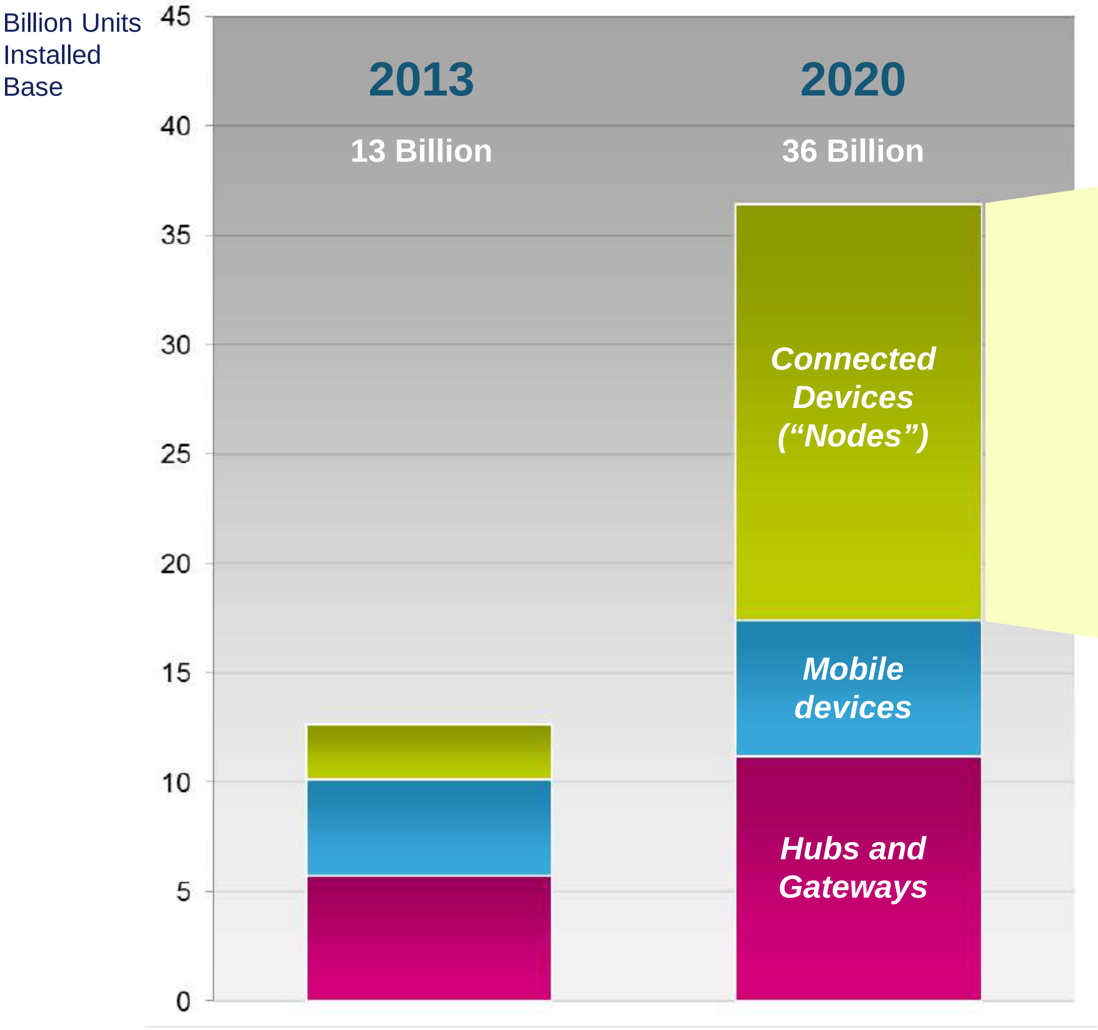
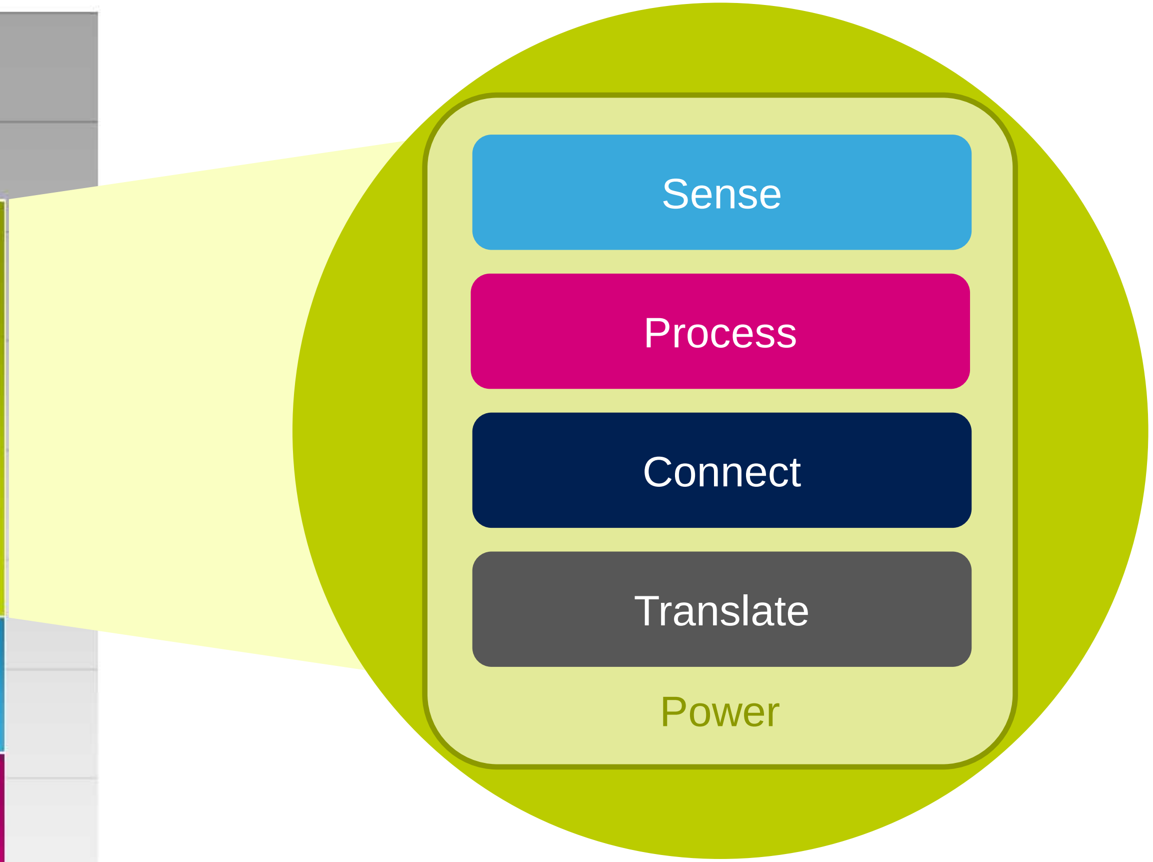
The Opportunity





Augmented Things

Source: ABI Research

ST in Mobile Today

Motion Sensors

Ultra-mobile projector

FingerTip Touch Sensor

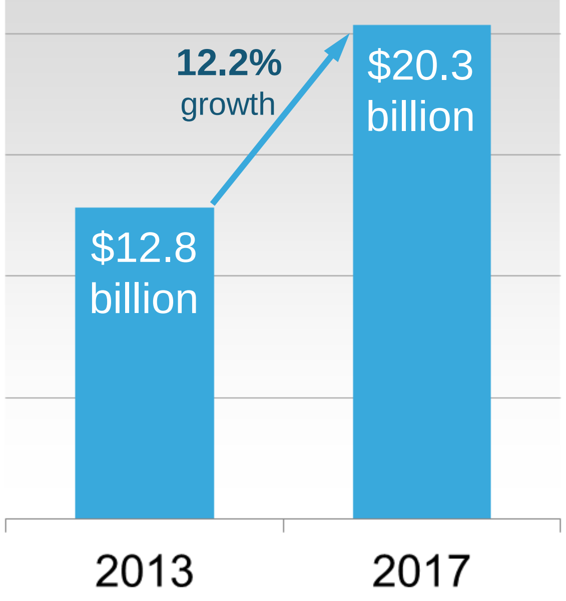
MEMS microphones

Environmental Sensors

Proximity & ambient light sensor

Imaging solutions

ST addressing the fastest growing part* of the Wireless market



Low-power microcontrollers

Secure microcontrollers

Dynamic NFC tags

EEPROM

AMOLED power supply

Backlight driver

Energy management

Wireless charging

Audio processors Audio amplifiers

Antenna tuning

Ultra-low power connectivity

Protection & EMI-filtering devices

**Sensors, imaging, MCU, standard logic, display drivers, discretes*

Source : IHS-iSuppli, AMFT 4Q13

Diversifying in Mobile

Motion Sensors

Imaging solutions

+

Protection & EMI-filtering devices

EEPROM

Secure microcontrollers

Backlight driver

AMOLED power supply

+

Antenna tuning

Dynamic NFC tags

Low-power microcontrollers

Energy management

FingerTip Touch Sensor

Environmental Sensors

MEMS microphones

+

Audio processors
Audio amplifiers

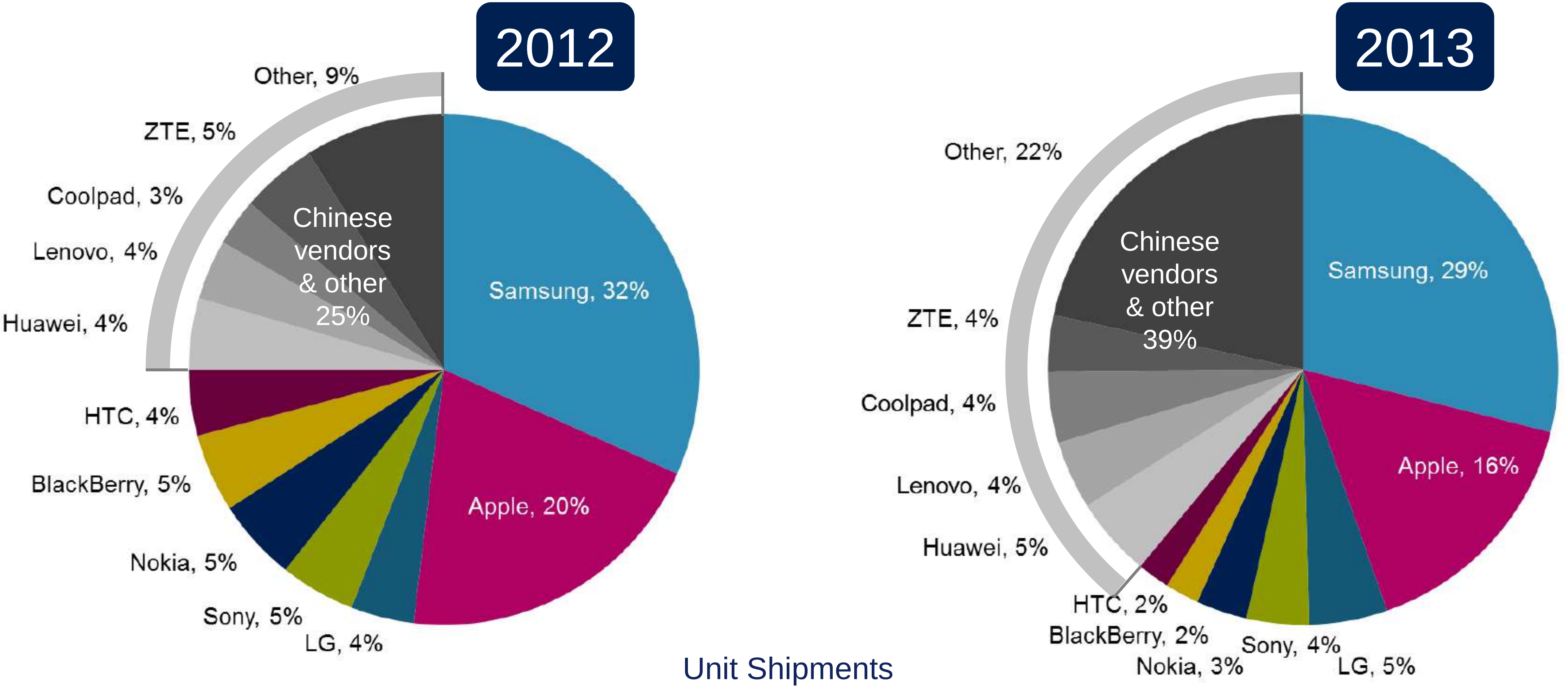
Ultra-low power connectivity

Wireless charging

Proximity & ambient light sensor

Ultra-mobile projector

Diversifying in Mobile

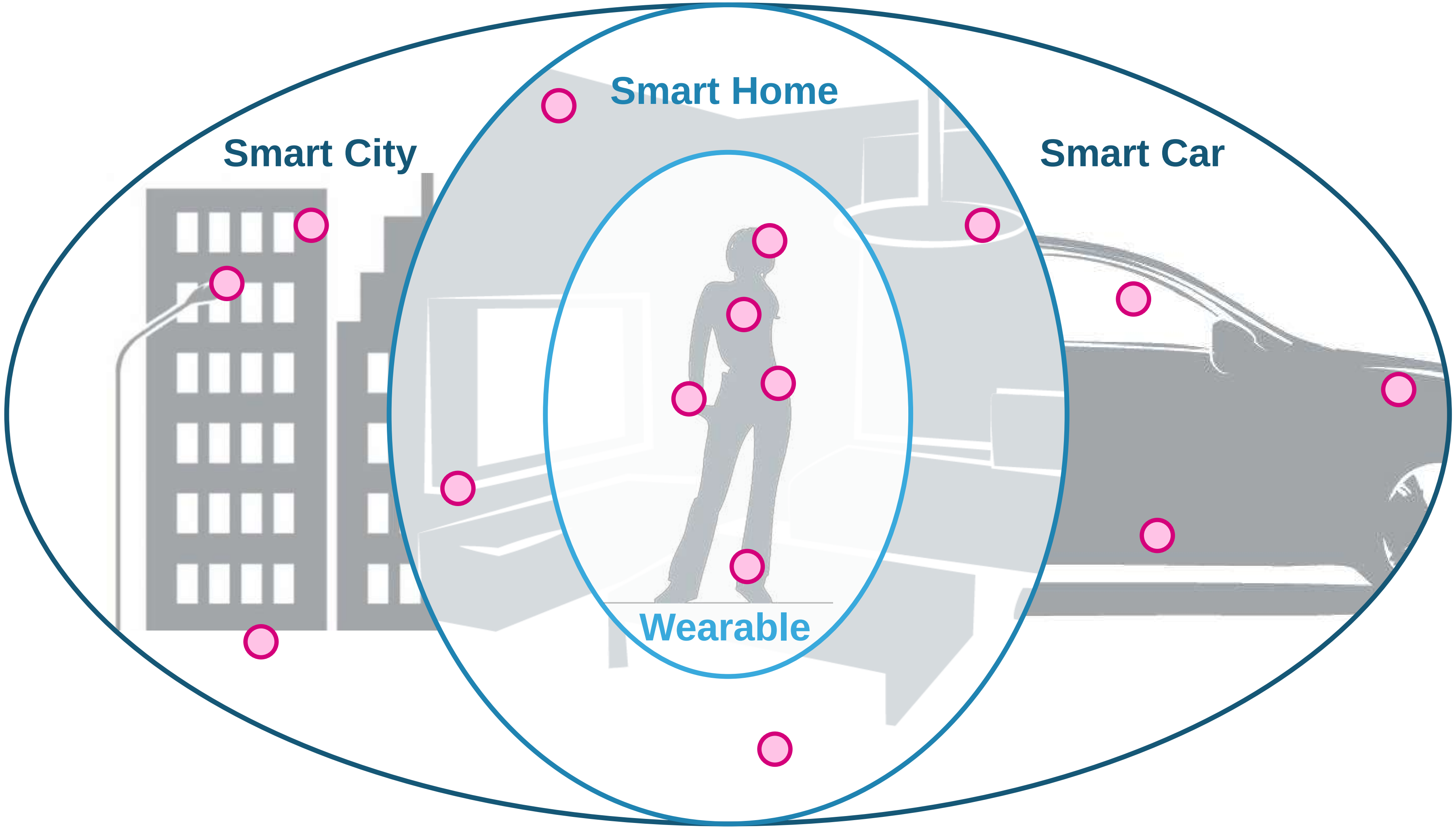


Unit Shipments

Source: ABI Research

Expanding to Make Things Smarter

Beyond the Smartphone



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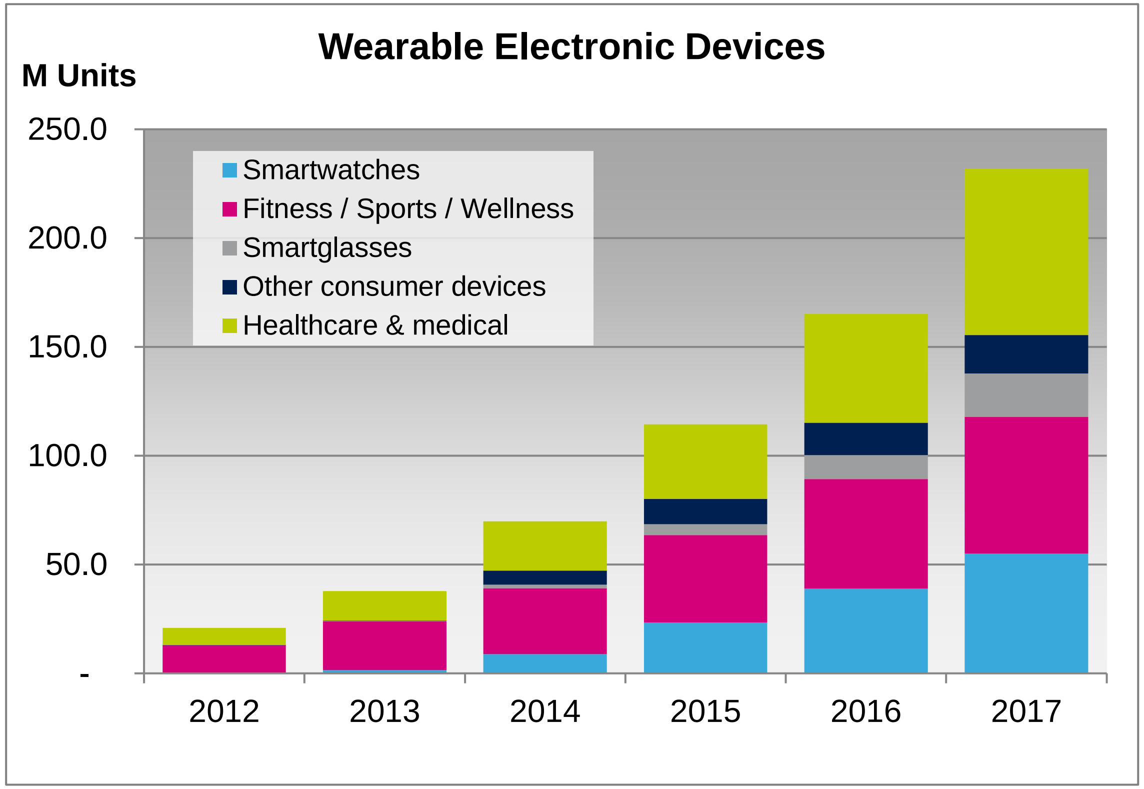
Wearables – the First Wave of the IoT

Why wearable devices have taken off

- Addressing existing needs
- Building on the personal infrastructure of the smartphone – providing local and Internet connectivity as well as the screen and interface capabilities
- Based on a existing connectivity standards
- Motivated entrepreneurs seeing lower barrier to entry than more complex electronic devices
- High volume availability of tiny components allows reasonable cost and size end devices



Sources: Strategy Analytics, ABI

ST Winning in Wearables

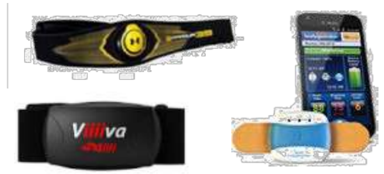
Leading with the right products

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

The right sales model

- Broad market coverage
- Systems approach

Activity Monitor



Heart Monitor

Sports

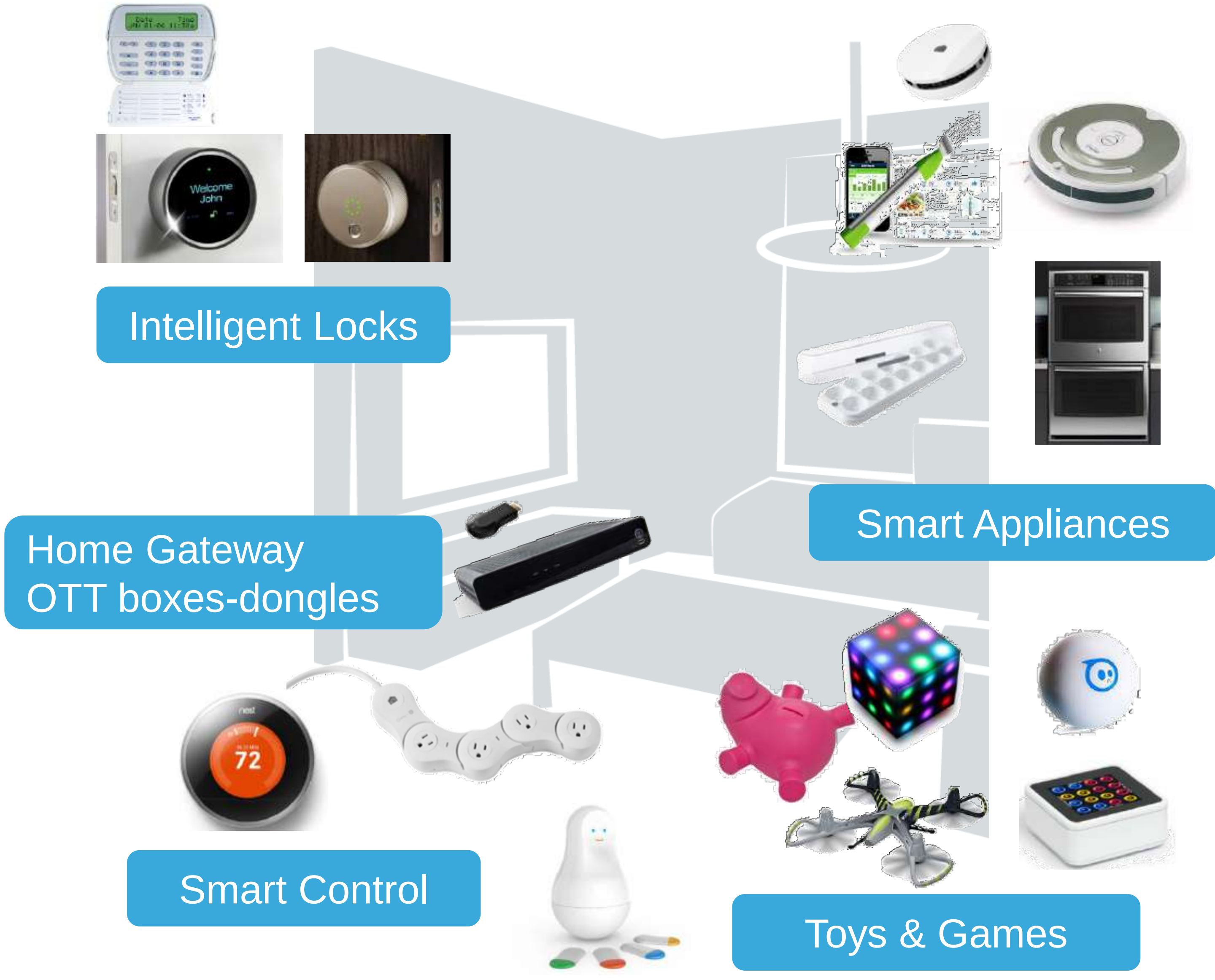
Smart Watch

Accessories

Glasses & Goggles

ST Winning in the Smart Home

- Sensors, intelligence and connectivity being added to many devices in the home
- Innovative nature of the products allows new companies to challenge established leaders
- ST present with many of the leaders in the first wave of augmented things in the home



Intelligent Locks

Smart Appliances

Home Gateway
OTT boxes-dongles

Smart Control

Toys & Games

Adding Sensors to Everyday Things

Auto-Schedule
The Nest Thermostat programs itself in about a week. It creates a personalized schedule based on the temperature changes you've made and continually adapts to your changing life.

Auto-Away
After you've left the house, the Nest Thermostat senses you've gone and automatically adjusts the temperature to avoid heating or cooling an empty home.

Sunblock
If the Nest Thermostat heats up in direct sunlight, it automatically adjusts to read and sets the right temperature.

The Leaf
The Nest Leaf appears when you turn the Nest Thermostat to a temperature that's energy efficient. It guides you in the right direction.

Time to Temp
The Nest Thermostat learns how long it takes your home to heat up and cool down, so it will show you how long it will take to reach your target temperature.

Airwave
Save on your cooling bills this summer. Airwave automatically runs the AC less when humidity in your home isn't too high, and ensures you stay cool.

Auto-Tune
Auto-Tune finds ways to lower your energy bill while keeping you comfortable, then automatically does them for you. It powers two Nest services: Rush Hour Rewards and Seasonal Savings.

Cool to Dry
If you're in a hot, humid climate, Cool to Dry can help keep your home dry, without needing a dehumidifier.

The Building Blocks of the IoT

Sensors & Actuators

- **Motion MEMS**
- **Environmental Sensors**
- **MEMS microphones**
- **Touch Sensor**
- **Micro-actuators**
- **Proximity sensor**
- **Image sensors**

Brain

- **Low-power brain**
- **Sensor fusion**

Communication

- **Ultra-low power connectivity**

Interfaces

- **Analog**

Leading Positions in the Key Building Blocks

ULP Microcontrollers & Memories

Number 2 in MCU (GP + Secure)

General-Purpose Microcontrollers

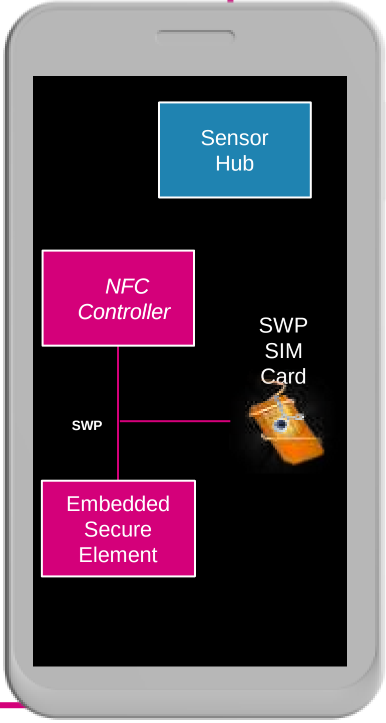
Leadership in 32-bit architecture based on Cortex-M™ platform

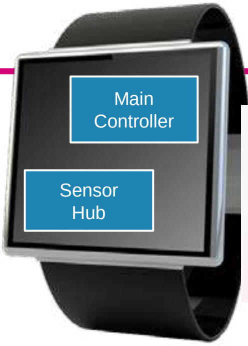
Memories

Leadership in RF EEPROM Near-Field-Communication compliant

Secure MCU

Leadership in 32-bit architecture based on Secure Cortex™- SCxxx platform

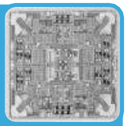




MEMS & Sensors

Number 1 in MEMS Sensors and Micro-actuators

MOTION



ACOUSTIC

ENVIRONMENTAL

ACTUATORS

TOUCH

ANALOG

Power and Analog

Smart Energy Management

Largest portfolio of power management IP for smartphone and tablet

2 in Industrial power

Power management ICs

Lighting ICs

Diodes

Analog & Mixed Signal ICs

Thyristors & AC switches

Transistors

EMI filtering & signal conditioning

Protection devices

Analog and mixed signal components

Wide range of analog products needed by our customers to complete product design

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

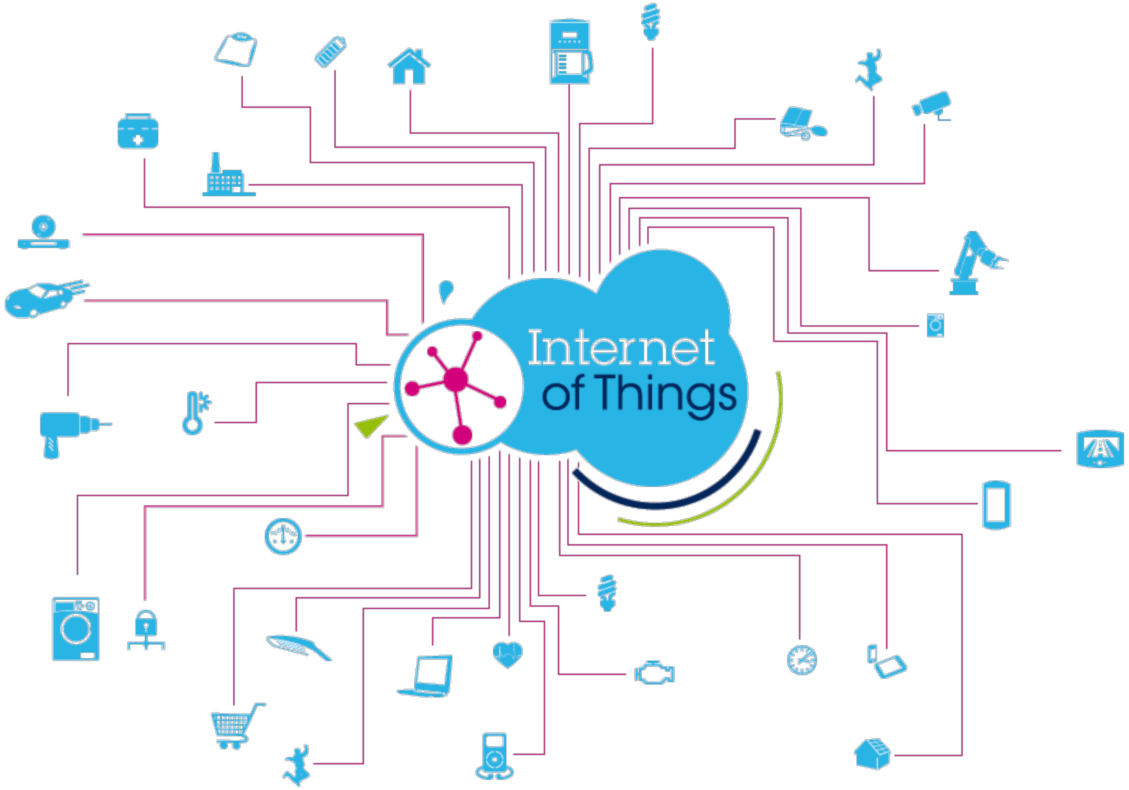
Connectivity

Ultra-low power Connectivity

- Ultra low-power Bluetooth connectivity solution for wearable and the IoT
    - Master and Slave Single Mode BLE (4.0) Network Processor.
    - On chip non-volatile Flash memory allows OTA BLE-stack upgrade. Stack qualified
- Plug-and-play Wifi modules
    - Fully qualified and certified
    - Easy entry to wireless for customers
- Spirit Transceiver for sub-1 GHz radios
    - Very low power
    - Flexible Multi-band transceiver

Mass Market is the Right Approach for IoT

- While big companies will benefit from the Internet of Things it is also spawning many new companies
  - Lower barriers to product creation
  - Leveraging the open infrastructure
  - Sufficient standards in place for market takeoff but not enough to allow domination by a few large players
- ST well positioned to serve this market



ST Enabling the Ecosystem

ULP Microcontrollers & Memories

Security

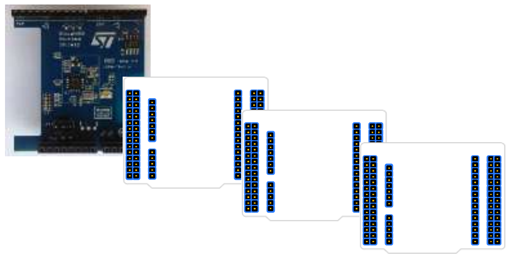
Software

Sensors

Ultra-low power connectivity

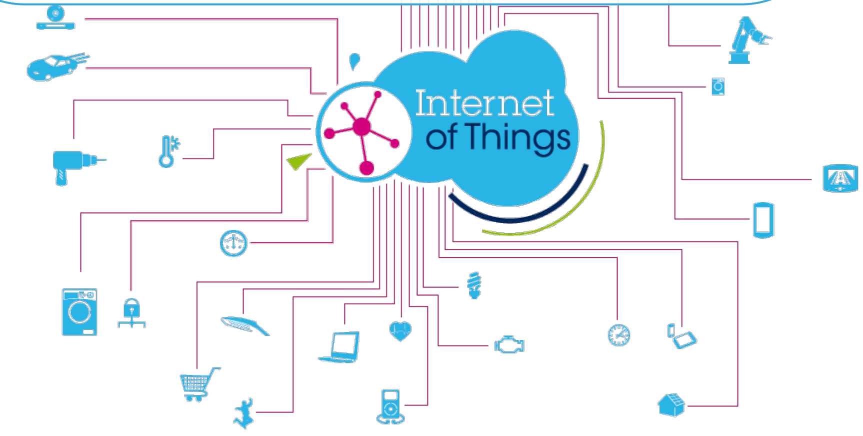
Smart Energy Management

Analog and mixed signal components



Modular approach to create building blocks needed for IoT

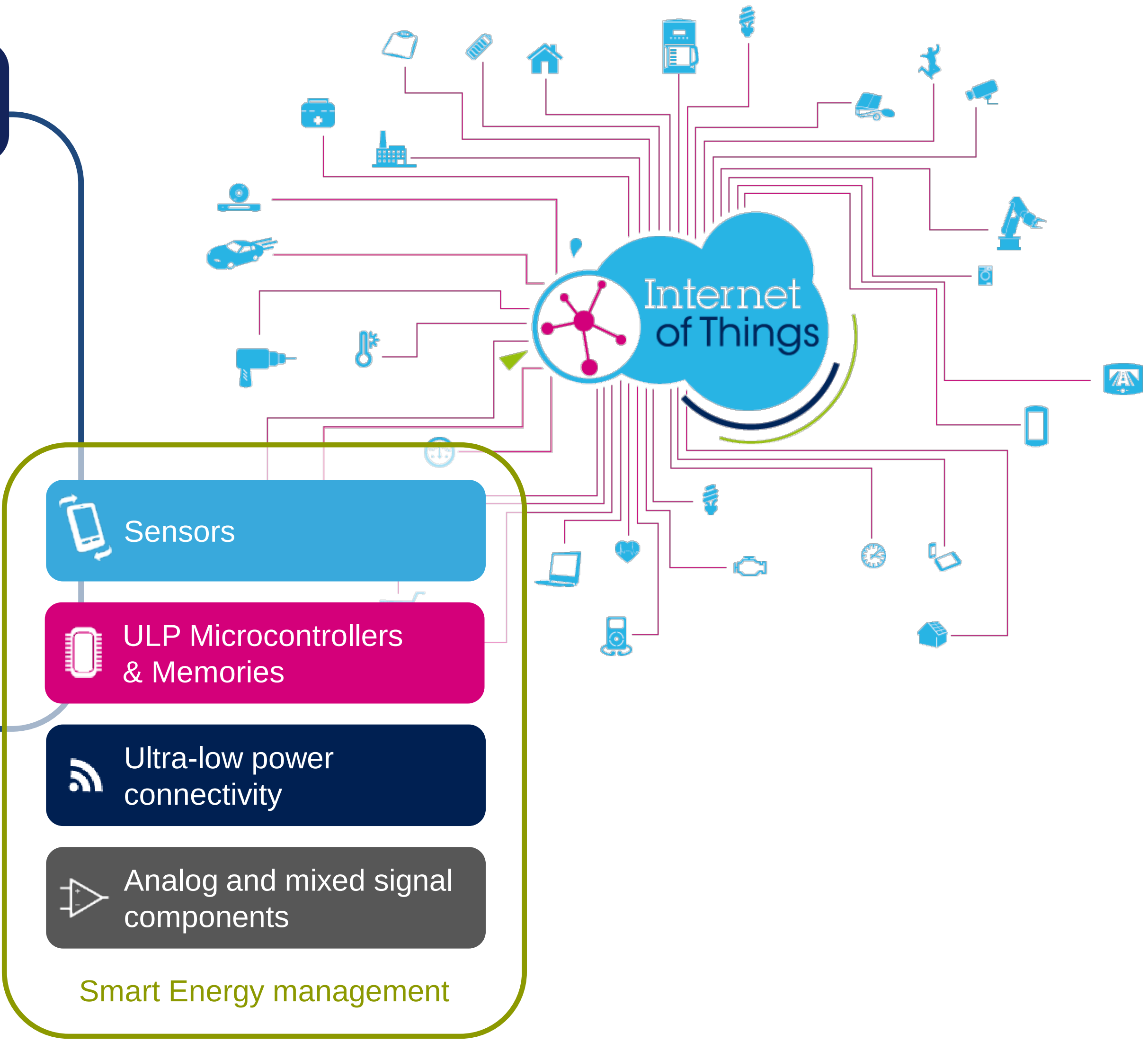
- STM32 Nucleo boards with standard connectors
- STM32CubeMX for rapid software development and maximum reusability across ST's microcontroller devices
- Add-on modules featuring ST's broad range of ingredients for IoT applications



ST has All the Ingredients for the IoT

ST has all the ingredients to enable Augmented Things in the IoT

- A unique portfolio with all the key technologies & products
- Understanding the sensor-to-cloud value chain
- Engaging with a broad ecosystem
- Expertise in digital-security technologies
- State-of-the-art semiconductor technologies and high-volume production capabilities



Sensors

ULP Microcontrollers & Memories

Ultra-low power connectivity

Analog and mixed signal components

Smart Energy management

Takeaways

- The Internet of Things has the potential to connect tens of billions of things to the internet generating strong demand for sensors, microcontrollers, connectivity and energy management
- ST has all the ingredients for the IoT and is winning today in the first high volume markets that have emerged
- ST is well positioned to continue to serve and benefit from the diverse range of devices and applications that will be created

AMS

Benedetto Vigna
Executive Vice President
Analog, MEMS and Sensors Group

Marco Cassis
Executive Vice President
President, Japan and Korea Region

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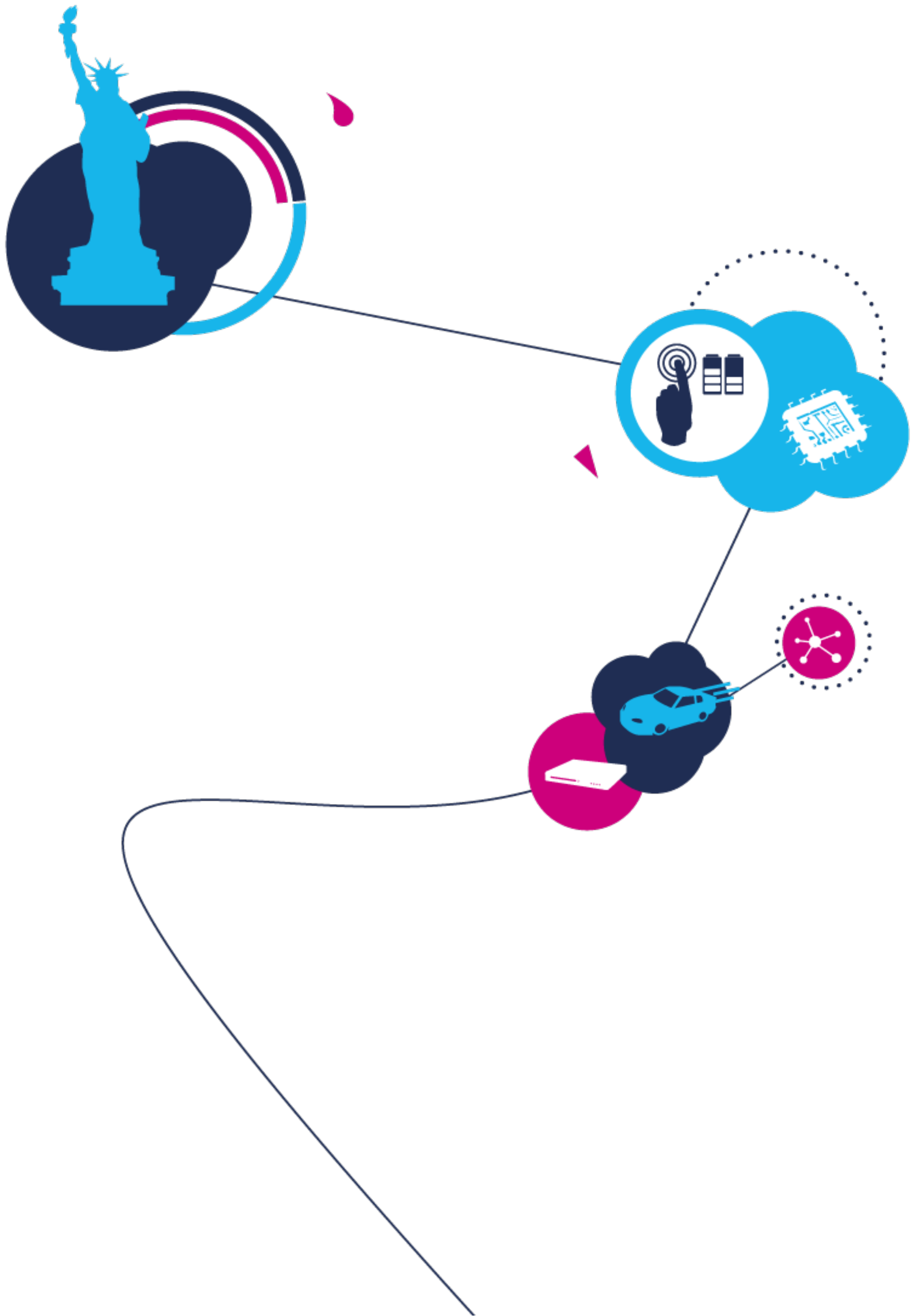
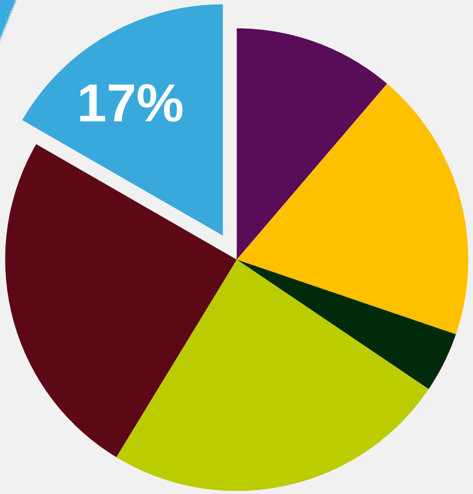


AMS – Analog, MEMS & Sensors

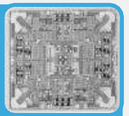
Contribution to ST revenues 1Q2014

AMS



Portfolio

MOTION MEMS
Accelerometers
Compass
Gyroscopes



ACOUSTIC MEMS
Microphones

ENVIRONMENTAL SENSORS
Humidity / Chemical
Pressure / Temperature
Infrared / Gas Flow
Light / Proximity

Sensor Hub & Sensor Fusion

MICRO-ACTUATORS
Electrostatic: Mirrors for Portable Projector
Thermal / Piezoelectric: InkJet Drug Dispensing

TOUCH SENSORS
Touch Screen
Active Pen

ANALOG
OpAmps, Comparators
Low-power electronics
Bluetooth Low Energy
Advanced Audio Solutions

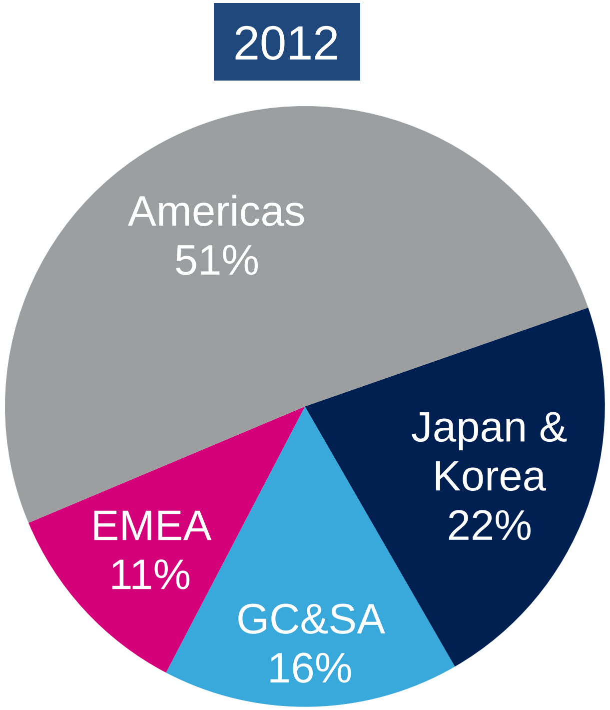
#1 in MEMS for Consumer and Mobile
#1 in MEMS Sensors & Micro-actuators

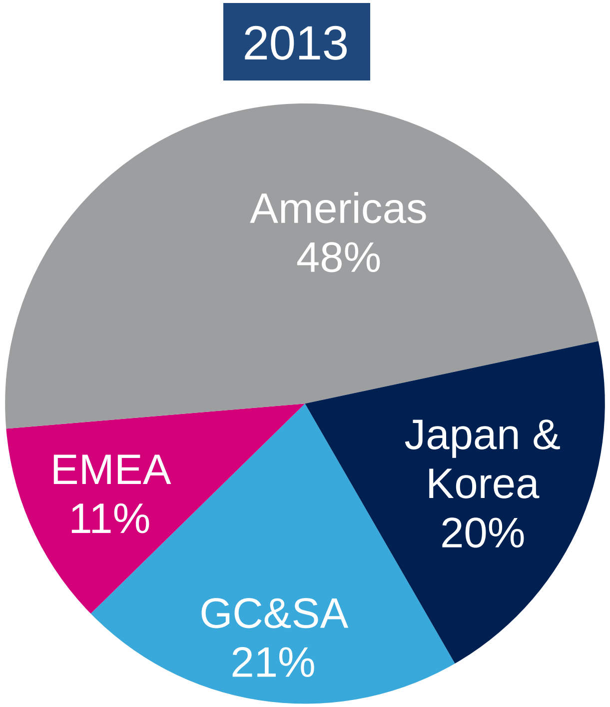
Source: IHS MEMS Market Tracker - Consumer and Mobile - H2 2013, ST

AMS Results 2013

- **$1.3B** sales - Flat vs 2012
- More balanced customer base – growth in Greater China
- Diversification of revenue sources beyond motion MEMS and fluidic

Revenue by region of Origin





Key achievements in 2013

May 2013 Priorities

- High volume production of ultra-small package Motion MEMS and Sensors - discrete and integrated
- High volume production of Touch Screen Controllers with embedded hovering function
- Double-digit revenue growth in new mid and high-end Op Amp families
- High volume production of high-performance Microphones

Our Achievements

PRODUCTS

- New family of Android KitKat-compliant **6-axis smart sensors**
- Shipping world's smallest, lowest-power **6-axis compass**
- **iNEMO smart sensor system** in high volume production
- Started shipments of a new **touchscreen controller**
- >20% growth of signal conditioning (including Op Amp) revenues
- >100MUnits **MEMS microphones** shipped >200% growth

CUSTOMERS

- Consolidating lead **motion MEMS position -** wins at top phone OEMs & proliferation in wearable
- Multiple **environmental sensor** wins
- Doubled sales with **China** smartphone OEMs

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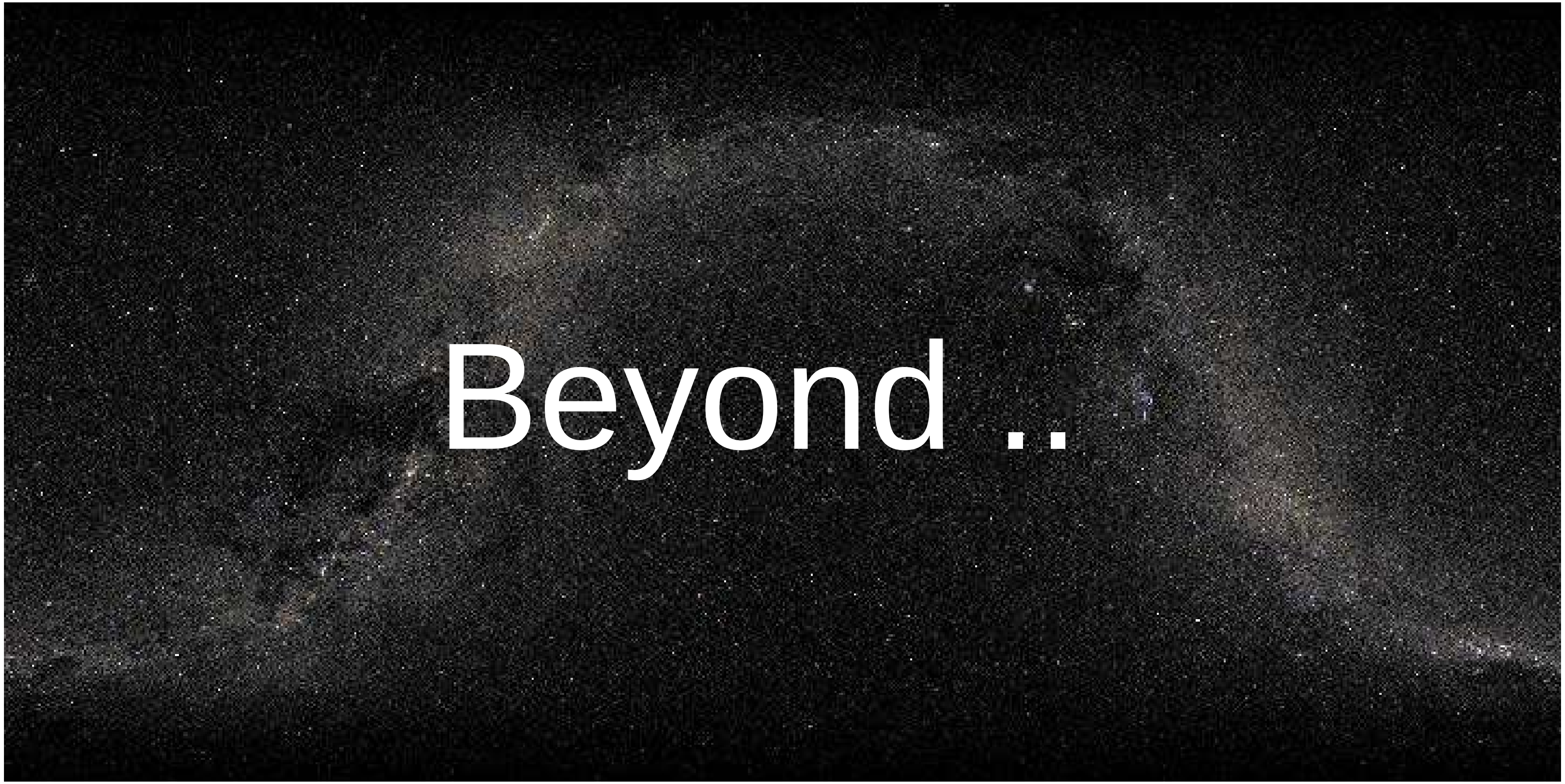
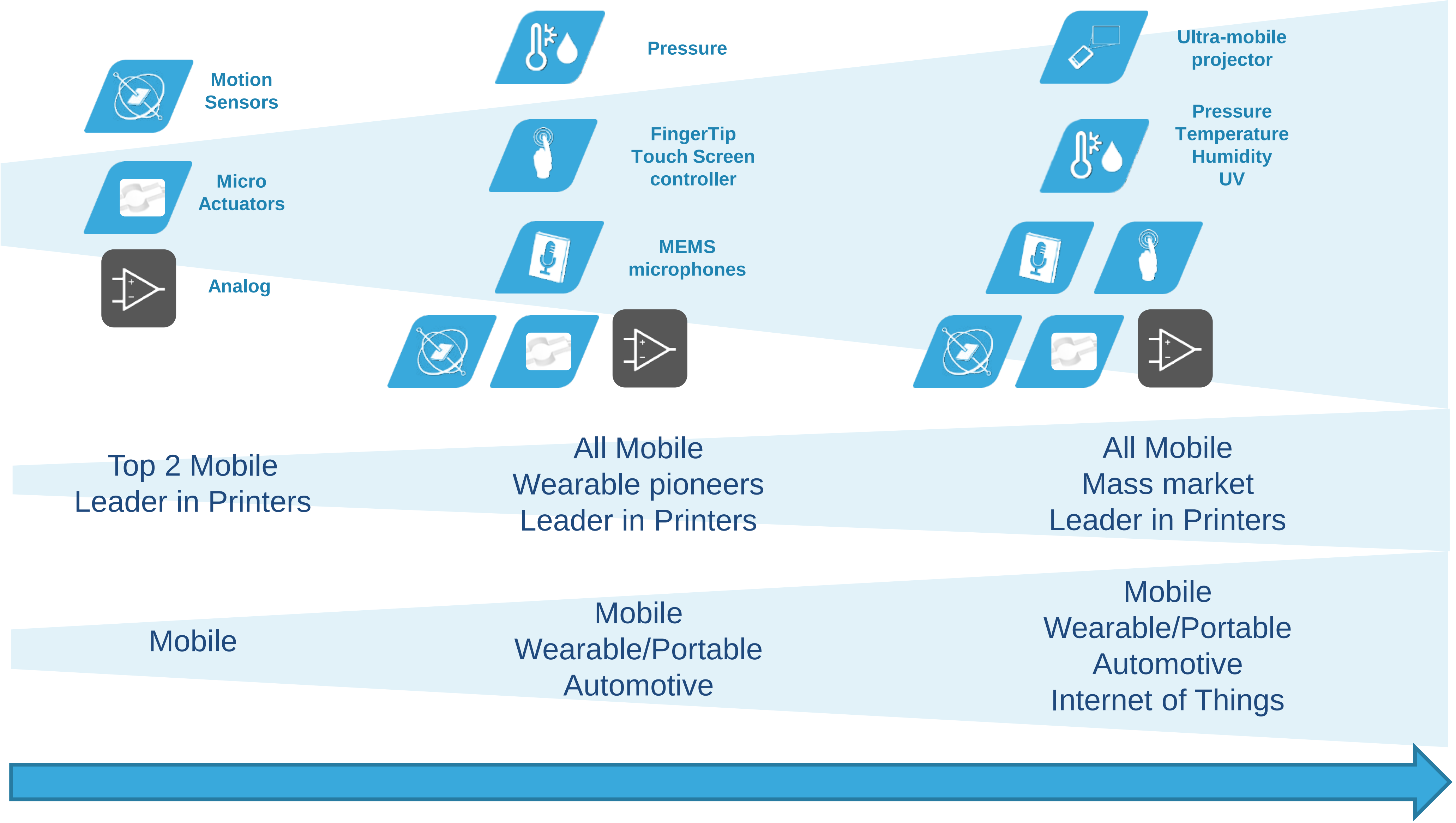


Beyond ..

Diversification



Product	Motion Sensors Micro Actuators Analog	Pressure FingerTip Touch Screen controller MEMS microphones	Ultra-mobile projector Pressure Temperature Humidity UV
Customer	Top 2 Mobile Leader in Printers	All Mobile Wearable pioneers Leader in Printers	All Mobile Mass market Leader in Printers
Market	Mobile	Mobile Wearable/Portable Automotive	Mobile Wearable/Portable Automotive Internet of Things

Leading in MEMS & Micro-actuators

Number 1 - MEMS & Micro-actuators

Motion Sensors

Number 1 - Motion MEMS

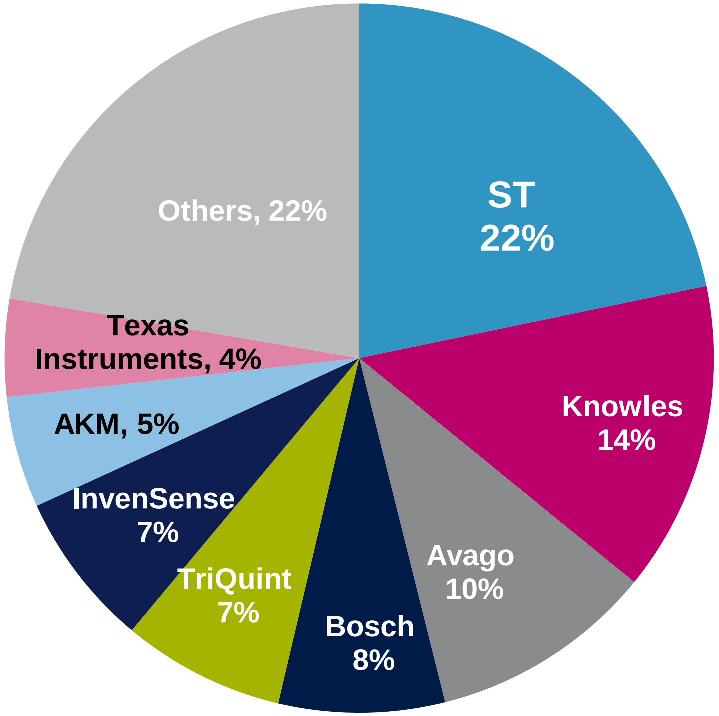
Environmental Sensors

Number 2 - Pressure sensors

MEMS microphones

Number 5 - MEMS Microphones

Consumer and Mobile Market Share by revenue



Source: IHS MEMS Market Tracker - Consumer and Mobile - H2 2013, ST

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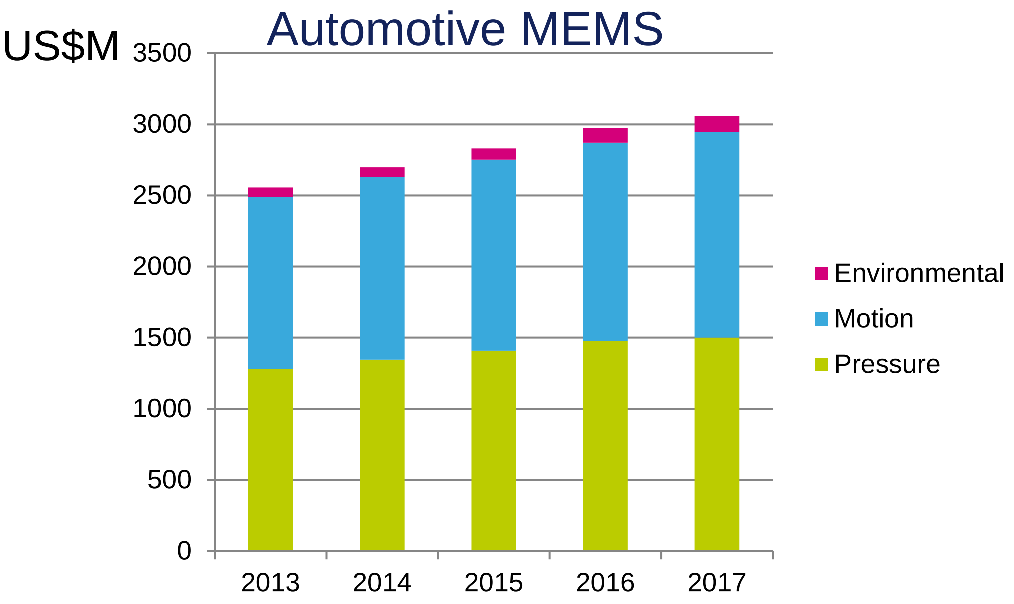
Automotive MEMS

Our Accelerometers on the road

- Huge opportunity where ST has minimal presence today
- Building on existing technologies developed for consumer and mobile
- Leveraging ST's strong position in automotive
- In production with motion MEMS today
- Qualification of pressure and other sensors ongoing at multiple automotive suppliers
- Long design-in cycles



Source: IHS MEMS Market Tracker - Automotive - H2 2013

Sensors are Changing the World

Smart City

Reduce traffic congestion

Better use of resources

Improve security

Smart Car

Reduce emissions

Increase safety

Save fuel

Smart Home

Make entertainment more interactive and immersive

Increase comfort

Save energy

Smart Me Healthcare

Empower patients

Help physicians monitor and diagnose remotely

Smart Me Fitness & Wellness

Help to lead healthier lives

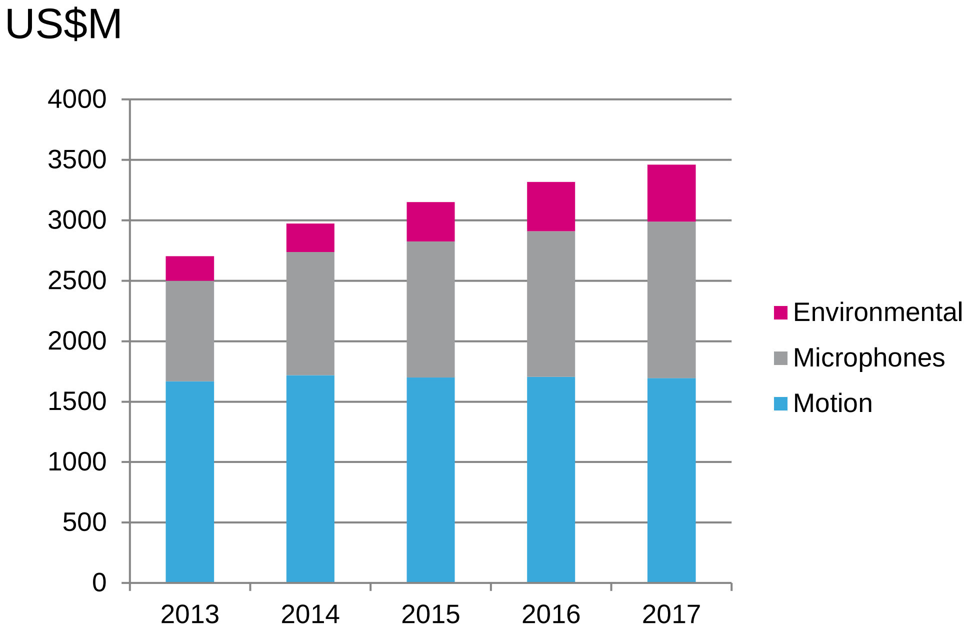
Optimize sports performance

Early warning of illness

Consumer and Mobile

Remains a top focus area

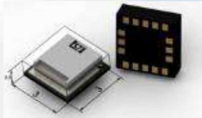
- Opportunities beyond mobile in wearable and more broadly in the Internet of Things
- Microphones growing quickly with multiple microphones in each device to deliver ever more advanced audio processing
- Environmental sensors offer opportunities for several sensor types per end device



Source: IHS MEMS Market Tracker - Consumer and Mobile - H2 2013

Motion MEMS – Leading Innovation

Higher integration



iNEMO - LSM6DB0

Accelerometer + Gyroscope
Sensor Hub / Microcontroller

The smartest and most flexible sensor hub
Full offload of the application processor

More sensitive

LSM6DS0

Accelerometer + Gyroscope

Gyroscope rate noise down to
0.008 dps / √Hz typical

Lower power

LSM6DS1

Accelerometer + Gyroscope

40% power improvement
for 6-Axis motion sensing

More robust

LIS2HH12

3-axis accelerometer

New internal structure more
resilient to mechanical and thermal stress

Thinner

R2G3IST

OIS Gyroscope

0.7mm thin OIS gyroscope

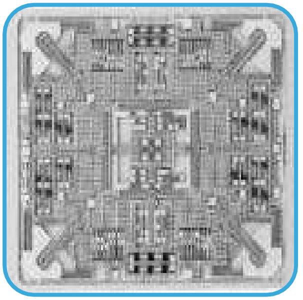
Smaller

LSM303C

Accelerometer + Magnetometer

The world smallest
compensated compass

LGA 2x2x1

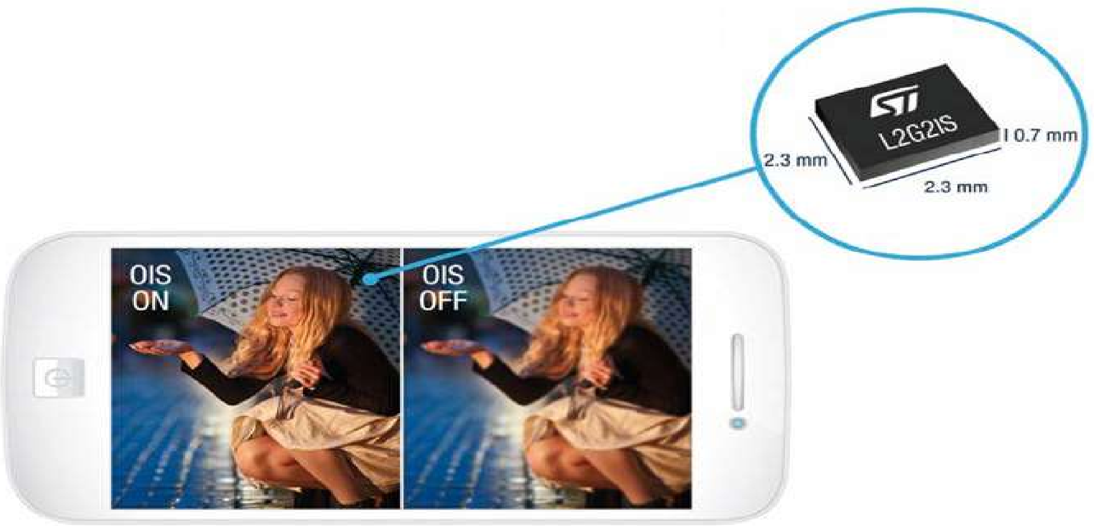


HTC One (M8)

www.ifixit.com/Teardown/HTC+One+%28M8%29+Teardown/23615

Optical Image Stabilization

- Growing inclusion of optical image stabilization (OIS) within smartphones
- Launched 3rd generation of gyroscope for OIS
- Thinnest Gyro for OIS
- Traction with major manufacturers



3rd Generation Ultra-compact Gyro For OIS

- 2-axis gyro for OIS: ±100/±200 dps full-scale
- High temperature stability
- Embedded temperature sensor
- Power Supply range: 1.7V to 3.6V
- Advanced power management functionality

Environmental Sensors

Rapidly growing penetration in smartphones and Augmented Things

Humidity Temperature

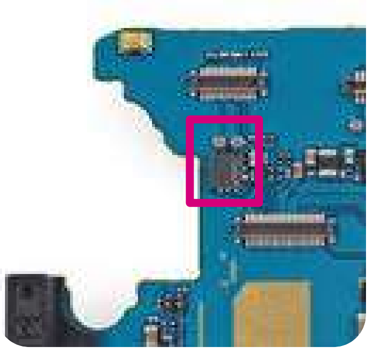
- Combined temperature & humidity sensor in final productization stage
- Market introduction in 2Q

Pressure

- Introduced fully molded pressure sensor in tiny package (2.5x2.5x1.0mm
- Water resistant
- 100% share at a leading smartphone manufacturer

UV

- UV sensor in development
- Market introduction in 3Q

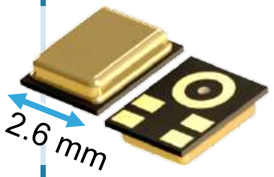


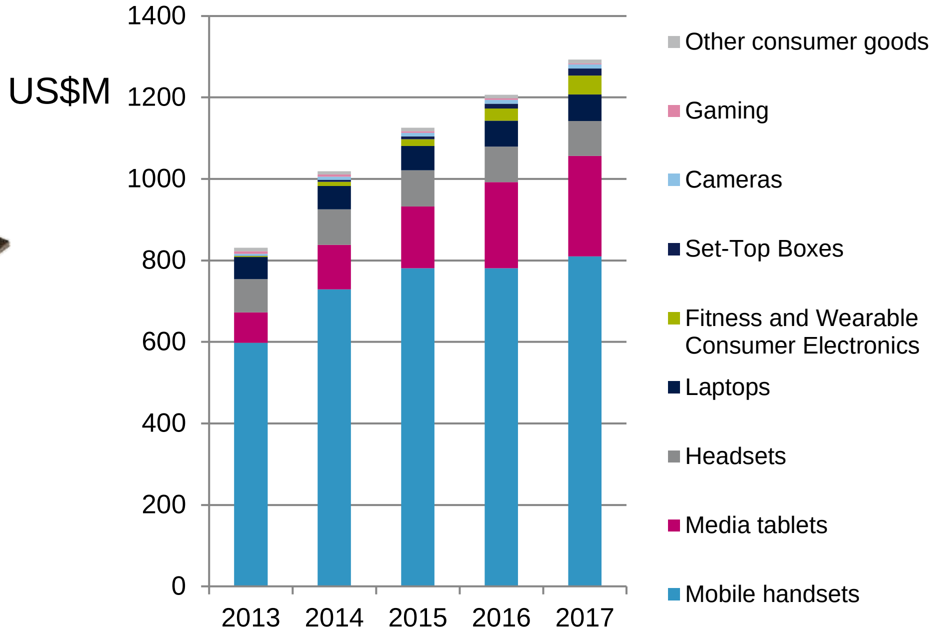
Samsung Galaxy S5

www.ifixit.com/Teardown/Samsung+Galaxy+S5+Teardown/24016

MEMS Microphones

- High growth market with multiple microphones per end device
- Over 100M microphones shipped in 2013
- Win for high volume smartphones and tablets
- Expanding portfolio of analog and digital, top and bottom port microphones
- Expertize in delivering the right trade-off between performance, reliability and form factor





November 1, 2013

Inside the iPad Air - New Info

- Two STMicroelectronics 331 microphones

http://www.chipworks.com/en/technical-competitive-analysis/resources/blog/inside-the-ipad-air2/

3-axis accelerometer, ST

Digital MEMS Microphone, ST

Google Glass XE-C

IHS Teardown, May 2014

Source: IHS MEMS Market Tracker - Consumer and Mobile - H2 2013

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Touchscreen Controllers

- Targeting Smartphones and Tablets with focused portfolio
    - High volume mid-range smartphones
    - Premium/Flagship smartphones
    - Tablets

3.0 Billion
Touchscreens
in 2016

Source:IHS

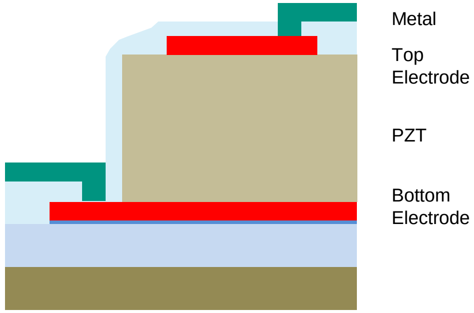
Ultramobile Projector

Revolutionary laser-based MEMS mirror projection technology

- Smaller, lighter and more flexible than competing technologies
- Easy focus free operation
- Vibrant colors projected up to 20” picture size

Thin-film Piezo MEMS Actuators

- First in the world to manufacture Thin-film Piezo MEMS Actuators on 8” at the ST Agrate Fab
- Sampled pilot customers in 1Q14



Application: Print heads

- Partnership with leading printing companies
- Lower cost at higher performance versus bulk Piezo

Application: Autofocus

- Partnership with innovative lens maker for autofocus actuator in smart phones
- Lower power consumption and higher speed versus Voice-Coil Motor (VCM) based solution

Analog

- 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

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

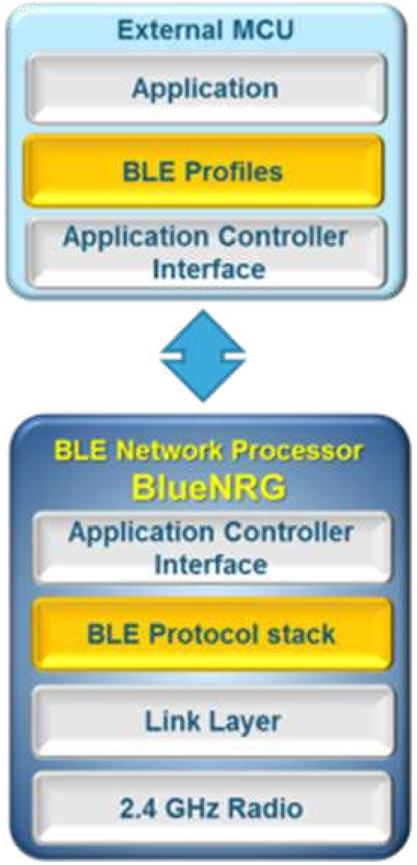
High-efficiency Class D and G amplifiers for headsets and speakers

Smart reset

Customizable products providing safe and convenient reset

BlueNRG Bluetooth Low Energy

- Ultra low-power connectivity solution for wearable and the IoT
  - Master and Slave Single Mode BLE (4.0) Network Processor.
  - On chip non-volatile Flash memory allows OTA BLE-stack upgrade. Stack qualified.
- Multiple designs in progress



External MCU

Application

BLE Profiles

Application Controller Interface

BLE Network Processor BlueNRG

Application Controller Interface

BLE Protocol stack

Link Layer

2.4 GHz Radio

ST Enabling the Ecosystem

ULP Microcontrollers & Memories

Security

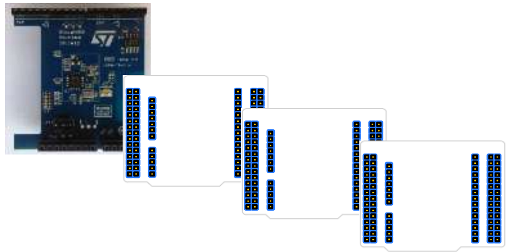
Software

Sensors

Ultra-low power connectivity

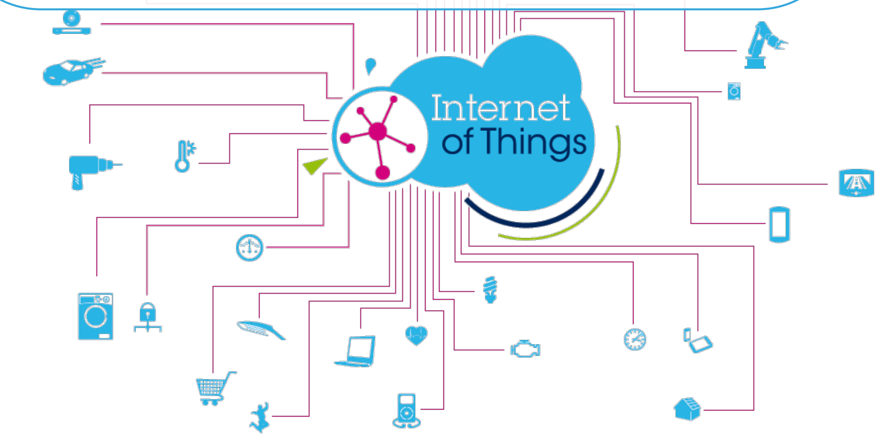
Smart Energy Management

Analog and mixed signal components



Modular approach to create building blocks needed for IOT

- STM32 Nucleo boards with standard connectors
- STM32CubeMX for rapid software development and maximum reusability
- Add-on modules featuring ST’s broad range of ingredients for IoT applications



Beyond ..

Takeaways

- AMS portfolio evolving to take advantage of the growing breath of opportunities in MEMS and sensors as well as analog and connectivity
- Motion MEMS remains a priority. Environmental sensors bringing more value per end-device allowing leverage on existing customer relationships
- Steady progress in diversification into automotive
- Analog promotion to wearables and mass market showing traction
- MEMS microphones, touchscreen and environmental sensors starting to become significant revenue generators. Bluetooth Smart products completing the offering

Automotive Product Group (APG)

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

Kevin Gagnon
Vice President, Region Americas
Central Sales Territory & APG Marketing

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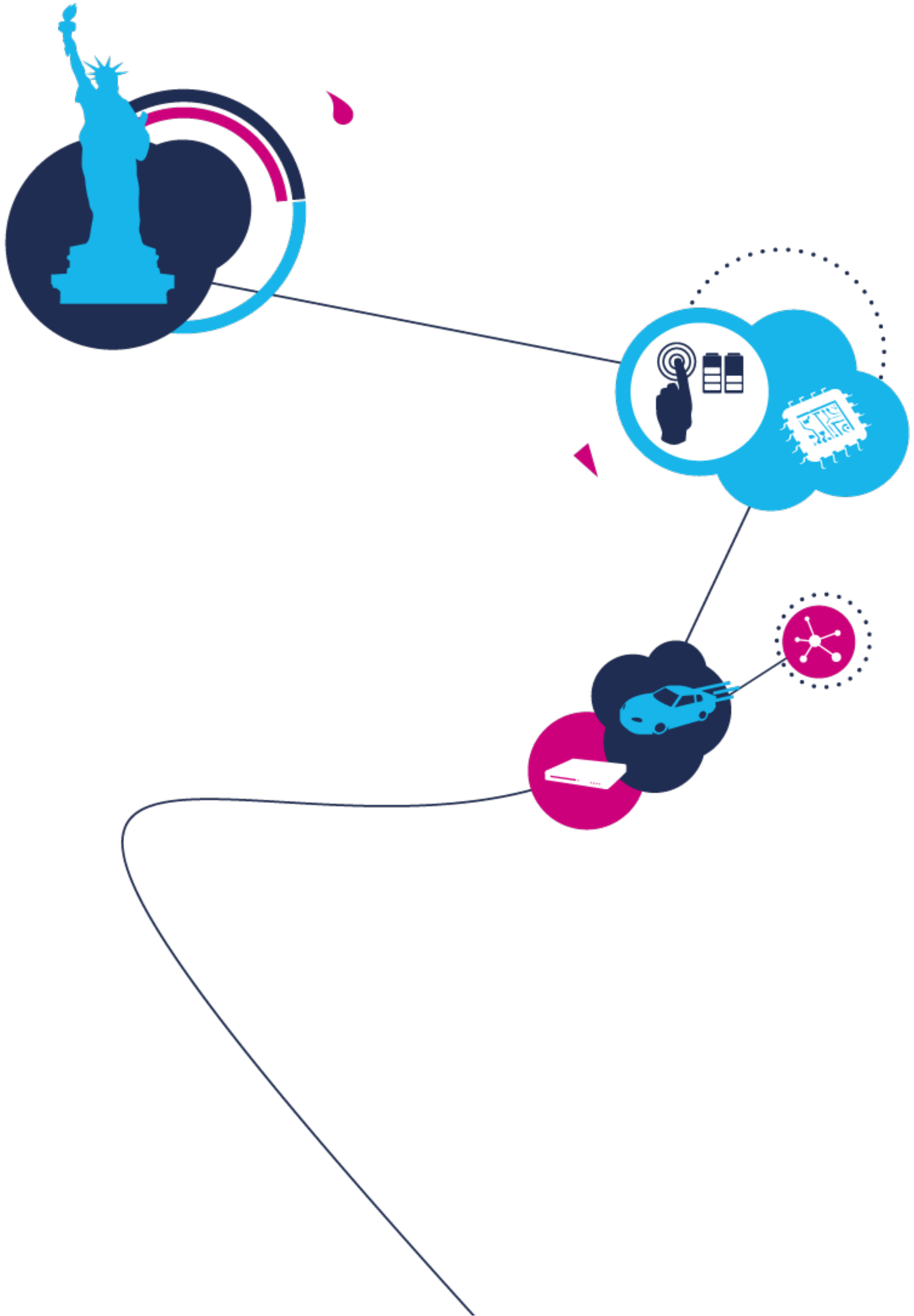
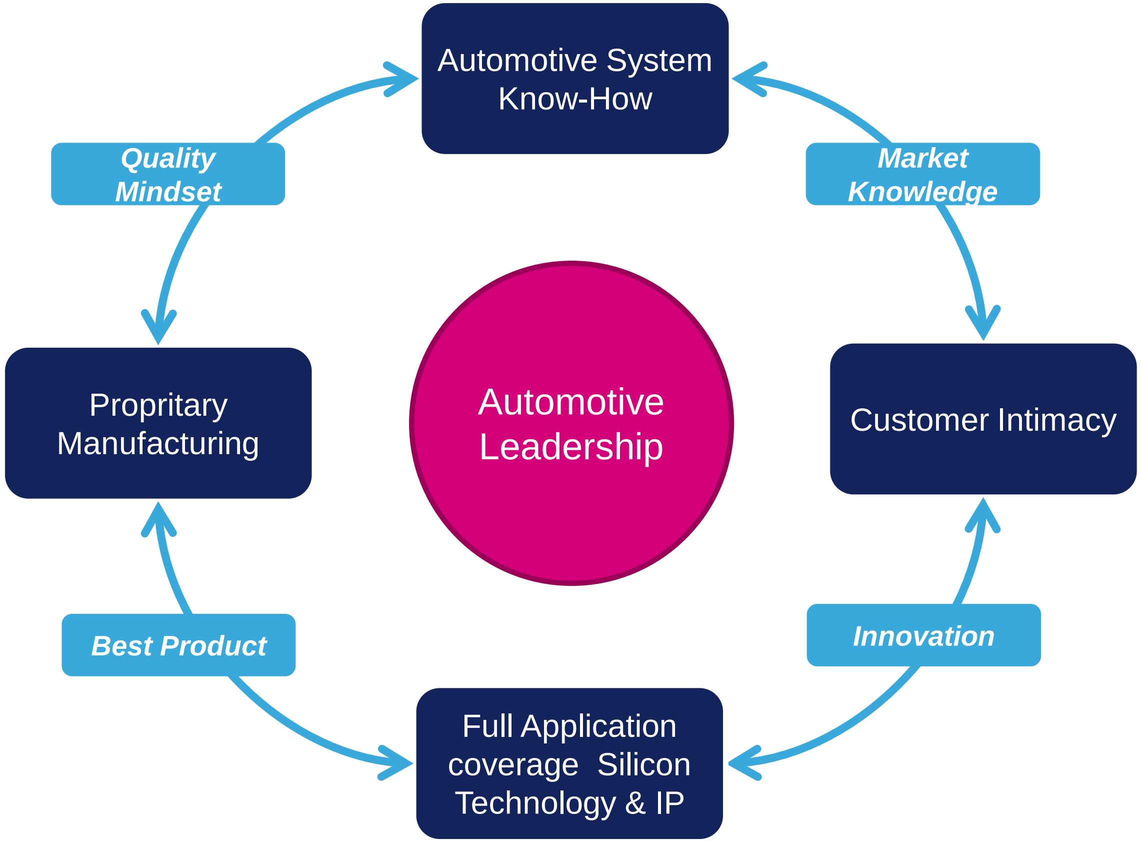


ST in Automotive Today

- 30+ years leadership in Automotive
- Well balanced geographical sales
- Strong intimacy with leading Car Makers and Major Tier-1
- Wide application coverage thanks to a 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


Automotive System Know-How

Market Knowledge

Customer Intimacy

Innovation

Full Application coverage Silicon Technology & IP

Best Product

Propritary Manufacturing

Quality Mindset

Automotive Leadership


Well positioned in USA

Solid link with European Industry Leaders

Growing faster than market in China

Historical presence in Japan and Korea

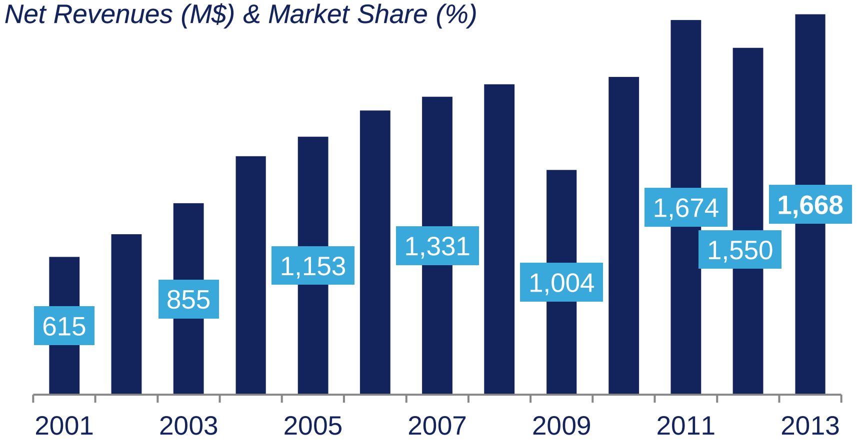
Automotive: Positioning

Wide Application Coverage

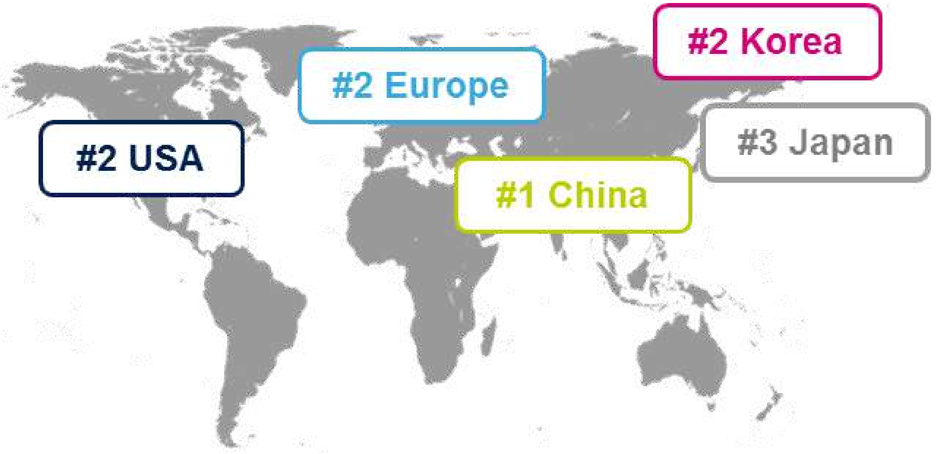
APG : $1.7Bn Sales in 2013

- Up 7.3% vs. 2012
- 4Q13 up 22% vs. 4Q12
- 1Q14 up 16% vs. 1Q13

Solid Continuous Growth


Net Revenues (M$) & Market Share (%)

Worldwide Footprint



Market Leadership

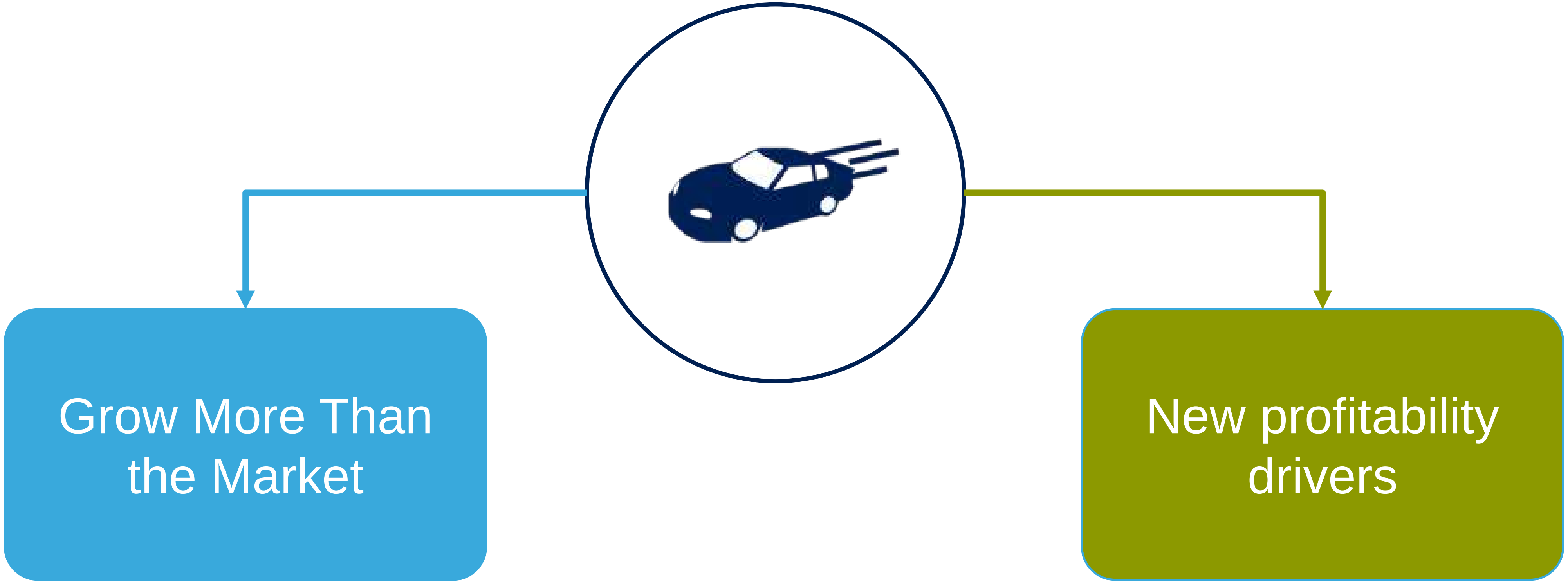
Automotive Electronics

#	Application	Mktg Share
1	Engine Control	~32%
1	Charging	~22%
1	Braking	~19%
2	Airbag	~14%
1	Active Safety	~35%
1	Door Zone	~80%
1	Lighting	~45%
3	Motor Control	~20%

Infotainment

#	Application	Mktg Share
2	Infotainment	~13%
1	Digital Tuners	~71%
1	Audio Amplifiers	~47%
2	Positioning	~14%

Key Priorities



Grow More Than the Market

New profitability drivers

Addressing a $23.6 billion market, APG gaining share

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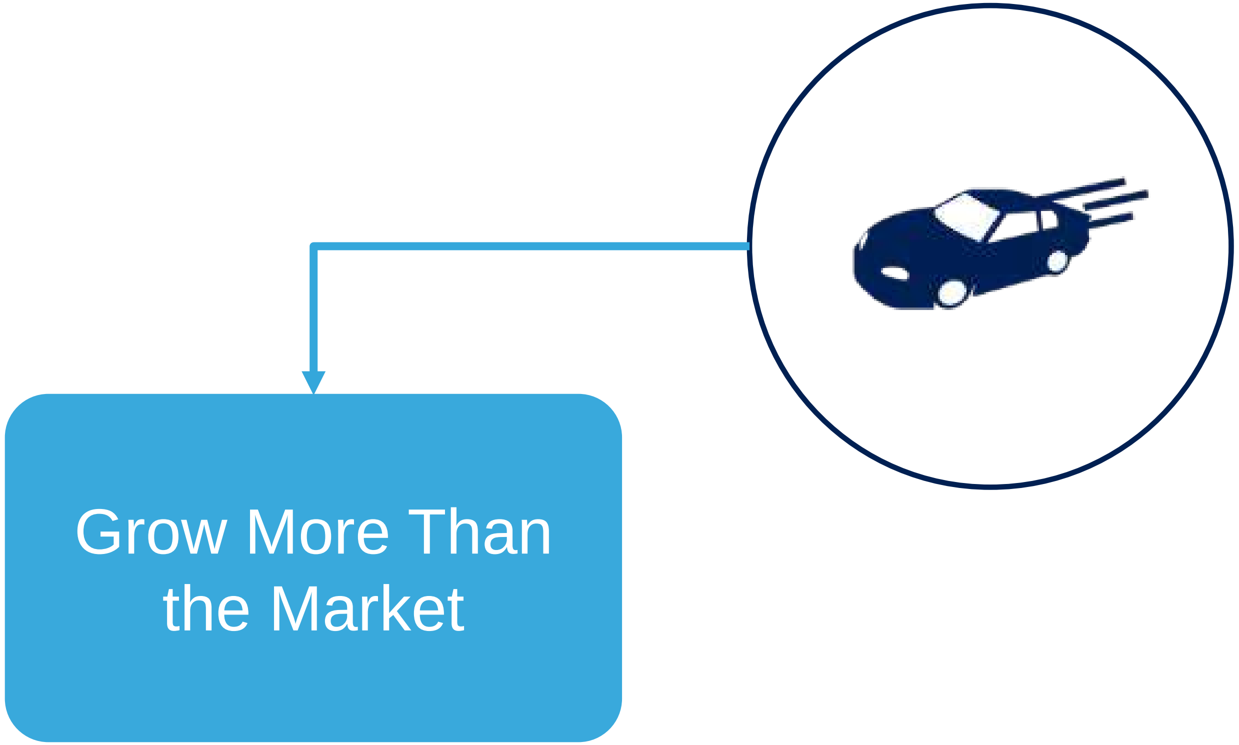
Source: Strategy Analytics, Jan 2014

Key Priorities



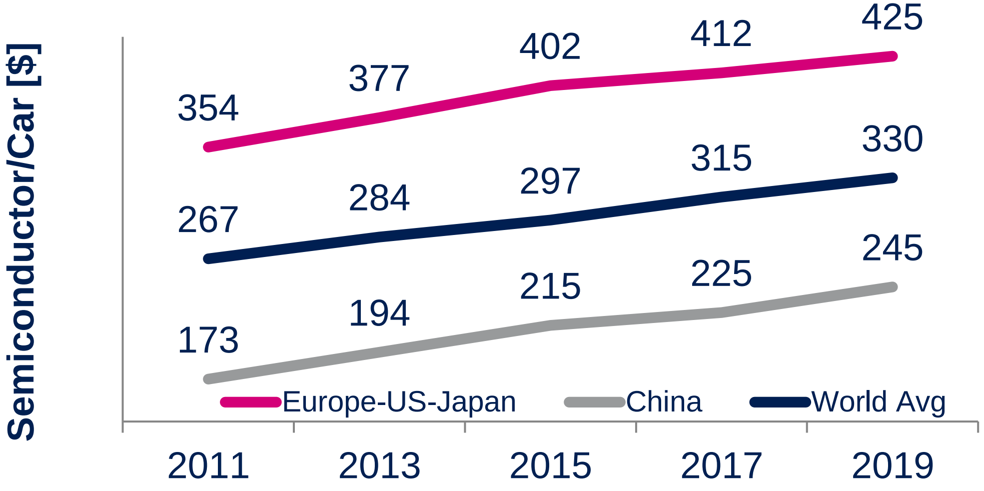
Grow More Than the Market

Addressing a $23.6 billion market, APG gaining share

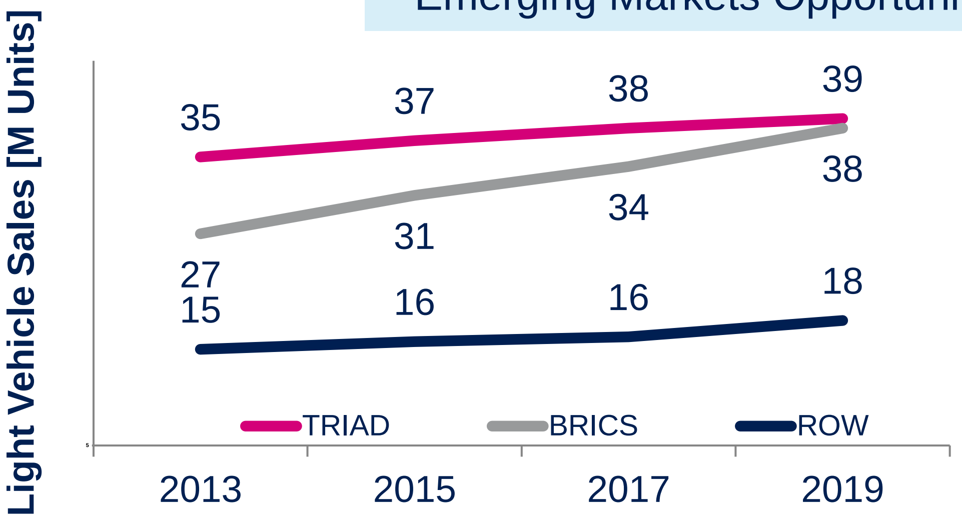
Source: Strategy Analytics, Jan 2014

APG Market Growth Opportunities

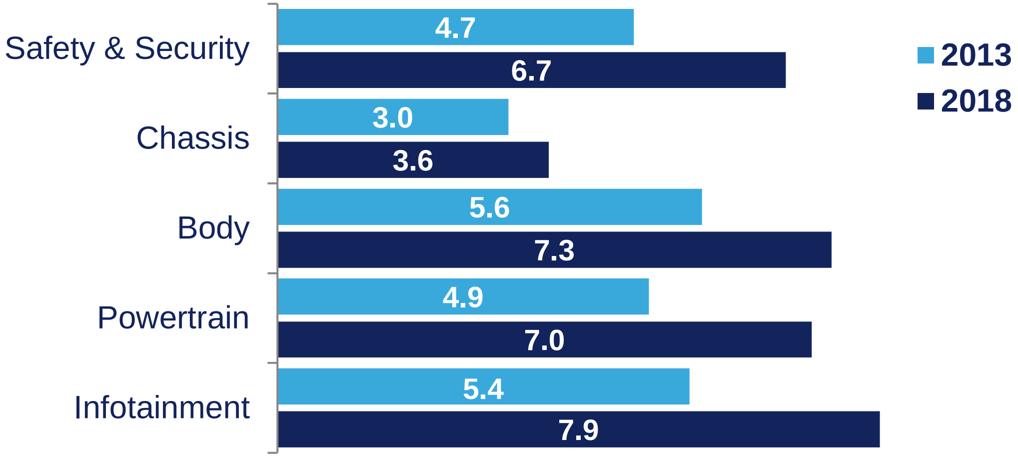
Pervasiveness per Vehicle



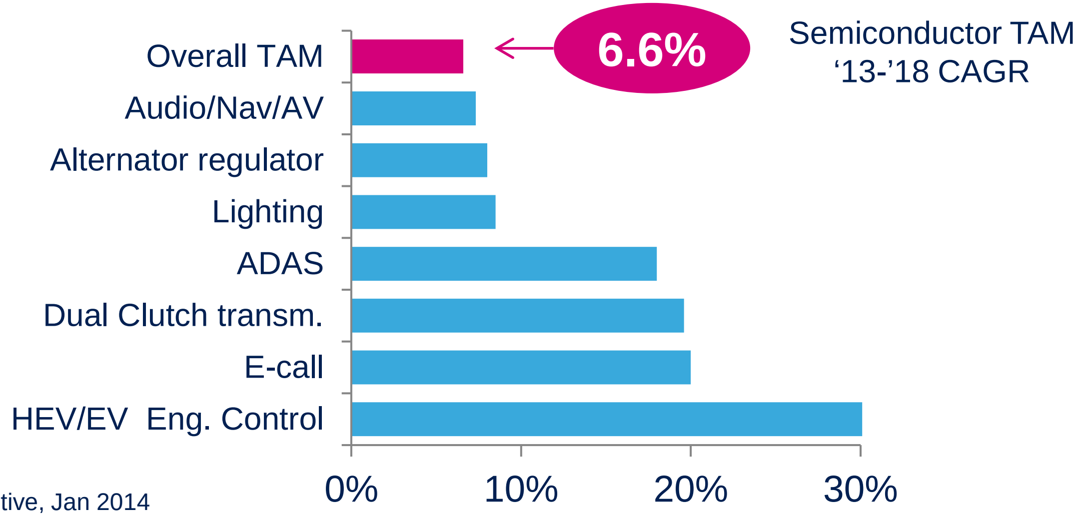
Emerging Markets Opportunity



All Segments Growing (US$B)



Emerging Applications



Source: Strategy Analytics, IHS , Automotive, Jan 2014

Pervasiveness per Vehicle: Key Opportunities

Powertrain

Direct Injection Engine
~+40% Si content vs. traditional solutions

- CO2 emission reduction, fuel saving and high-power output
- New Product Offer available now to meet EURO-6 requirements (95 CO2 grams)

Automatic Gearbox

- Unique Fully Integrated Market Solution for High-Precision Automatic Transmission, available in 2014

Charging

- New Flexible Voltage Alternator Regulator with Embedded 8-bit microcontroller

Safety

Airbag increased number of channels for more safety

- Complete Product Offer for Low & Hi-End, in produc latest 160nm Technology
- New Product extending coverage up to 28 loops

Braking

- New Integrated solution in 110nm Technology
- In production with Electric Parking Brake brand new integrated solutions

Steering

- New complete Offer available for cars and trucks

Pervasiveness per Vehicle: Key Opportunities

Body

Market leadership in Lighting & Door Zone

A new complete product family able to reduce wiring weight thus reducing C02 emissions now available for:

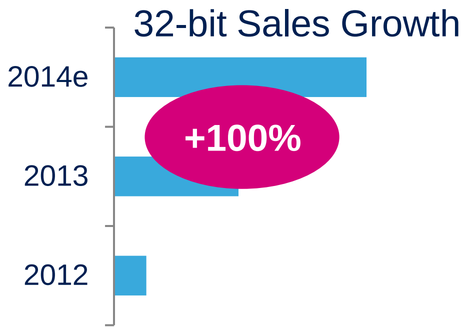
- Xenon Discharge lamp
- Interior and Exterior Bulb & LED’s
- Door Zone highly integrated solutions

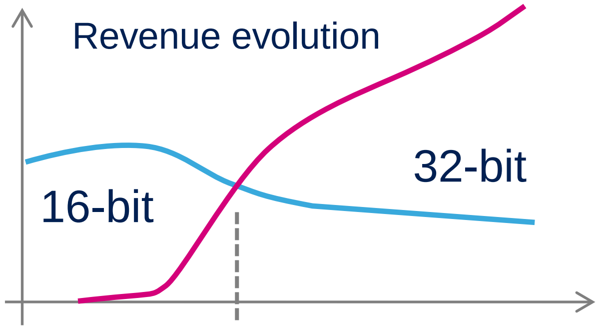
High efficiency motor drivers

- Product offer enrichment: 4 new products coming in 2014. New portfolio in M07 innovative process.

32-bit microcontroller for Automotive

- From New Comer to Reference Supplier for Main Tier-1, worldwide
- 55nm Embedded Flash ramp-up production, 28nm under development
- Dedicated solutions for Power Train, Safety, Body
- Mass production on more than 100 part numbers

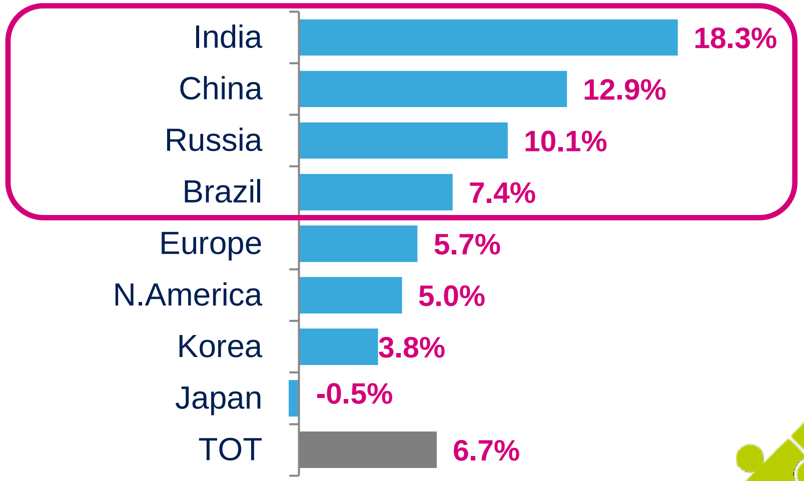




Emerging Market: Key Opportunities

The highest growing market

Vehicle market growth CAGR 13-18



State of the art, cost-optimized standard products, tailored to Mass Market and BRICs

- Low-cost 4-cycle Engine control compliant to the China-6 emission regulation
- 4 to 8 channel fully integrated Airbag IC
- Flexible Alternator regulator for emerging market
- Dedicated system oriented family of 32-bit micro
- New family of smart actuators (switches) for Body applications

Specific products for China

System Solutions

Plug 'n Play full system solutions

- 4-cycle Engine Control
- 1/2-cycle Motorcycle Engine Control
- Entry level ABS
- Entry level Stability Control
- Low to mid-end Airbag
- Entry level Body Control Module
- Digital Tuners
- Entry level Infotainment

Dedicated team to offer system solutions to mid/small size customers

- Application and software support
- New Tools and Reference Designs

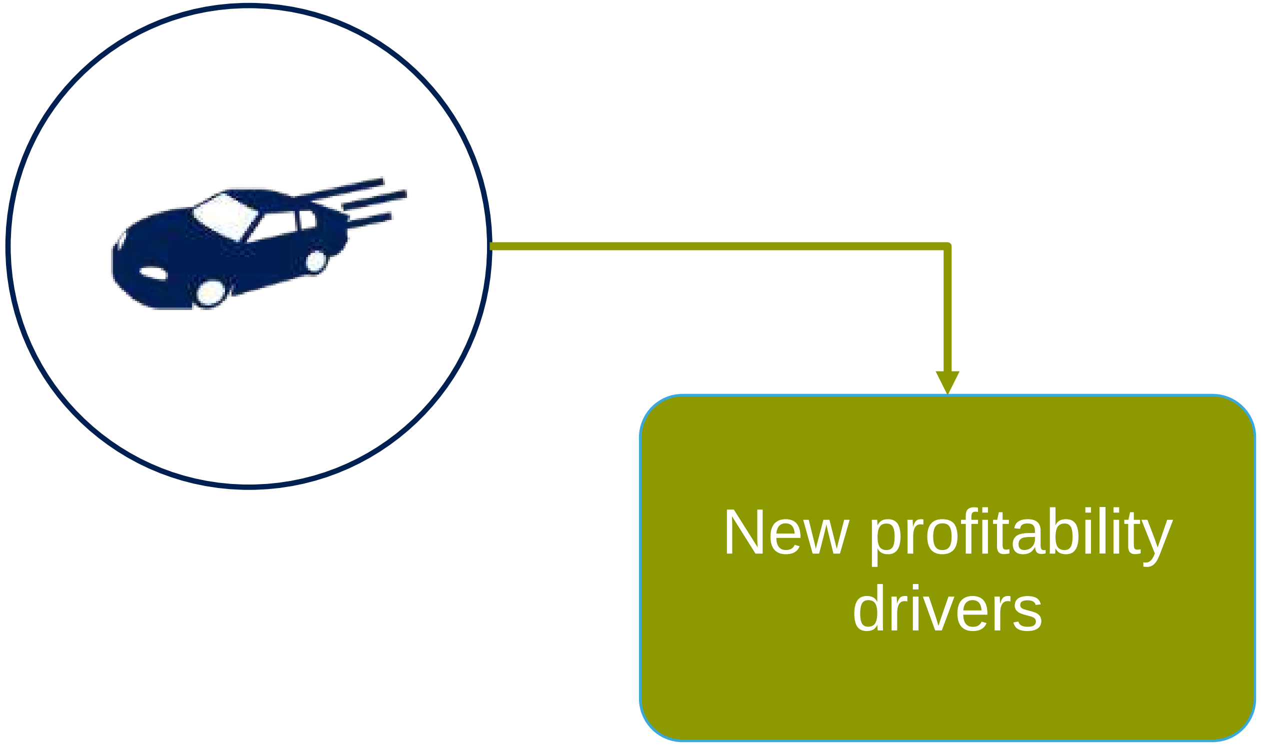
Production grade SW library

- Positioning
- Infotainment
- Protocol management

Specific organization to support mid/small customers

Source: Strategy Analytics, Jan 2014

Key Priorities



Addressing a $23.6 billion market, APG gaining share

Source: Strategy Analytics, Jan 2014

Key Profitability Drivers: **Smart Power**

Smart Power market
CAGR 2013-18: +5.6% (>$5.0B in 2013*)

Technology

Continuous Innovation:
110nm in BCD and 180nm in VIPower tailored to automotive applications

Intimacy Product /Technology R&Ds
to optimize cost and performance

Functions integration into single chips

Miniaturization in packaging technologies

Leadership and IP

System knowledge and IP for full application integration with reduction of the system cost

Market leader in dedicated high margin ASIC

High precision analog

Innovation

HEV and EV Battery Management with **silicon Insulated technology**

Gasoline Direct Injection to comply to Euro 6 for CO_2 reduction and fuel saving

Automatic and Dual Clutch Transmission

Electrical motors for X by wire support
(Power Steering, Stability Control, Pumps)

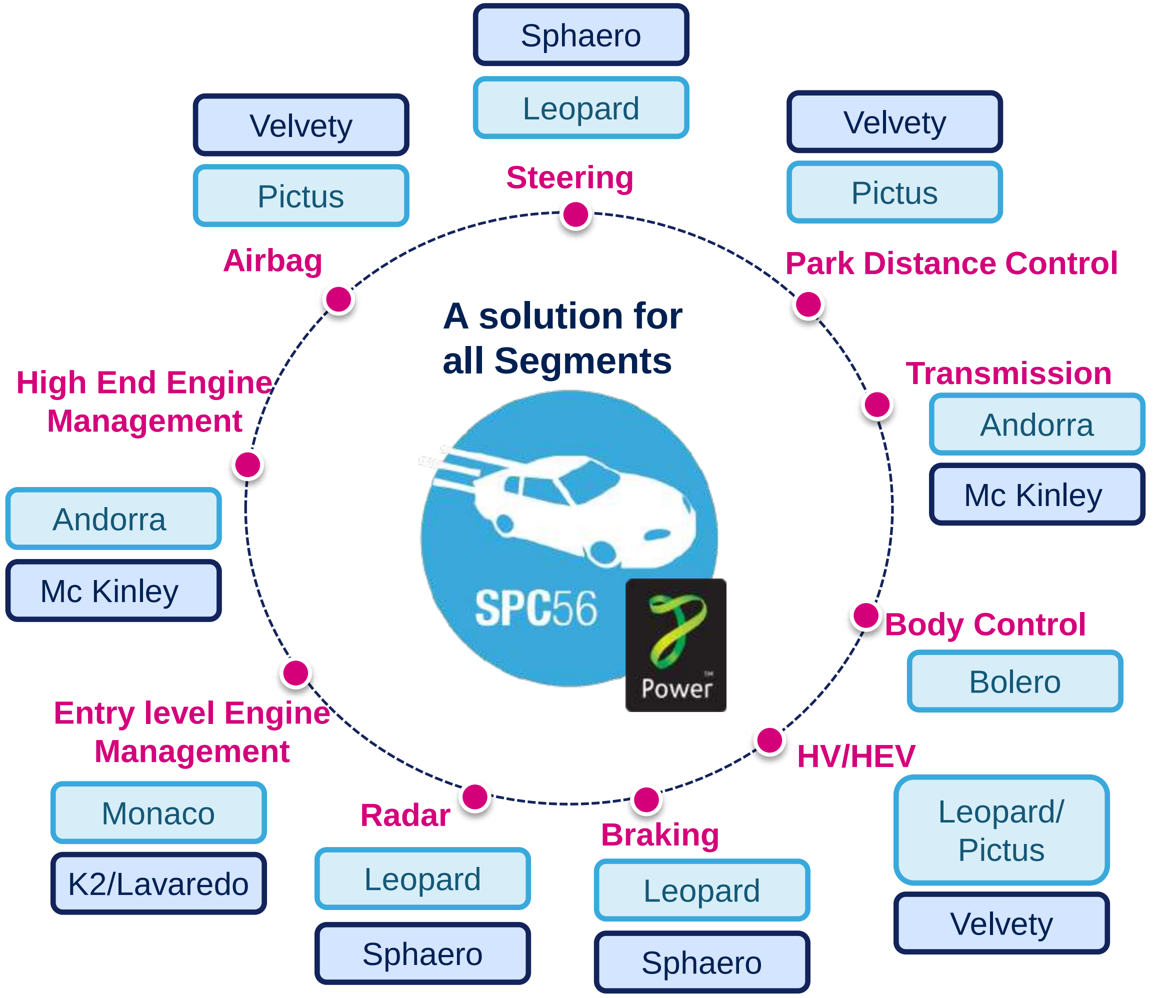
LEDs drivers for a new efficient concept of car lighting

*Strategy Analytics, Jan 2014

Key Profitability Drivers: **32-bit MCUs**

32-bit MCUs market
CAGR 2013-18: +8.9% (>$3.5B in 2013*)

- Proprietary 28nm Embedded Flash process in design with unique internal 12” 40nm and below capability
- Major progress to become reference player in fastest growing supplier in the 32-bit segment addressing key customer and mass market
- 100 part numbers available to cover all the specific Automotive applications
- Functional Safety (ISO26262 ASILD certification) & Security



A solution for all Segments

Steering: Sphaero, Leopard

Park Distance Control: Velvety, Pictus

Transmission: Andorra, Mc Kinley

Body Control: Bolero

HV/HEV: Leopard/ Pictus, Velvety

Braking: Leopard, Sphaero

Radar: Leopard, Sphaero

Entry level Engine Management: Monaco, K2/Lavaredo

High End Engine Management: Andorra, Mc Kinley

Airbag: Velvety, Pictus

55nm **90nm** **Embedded Flash technology node**

*Strategy Analytics, Jan 2014, excluding infotainment

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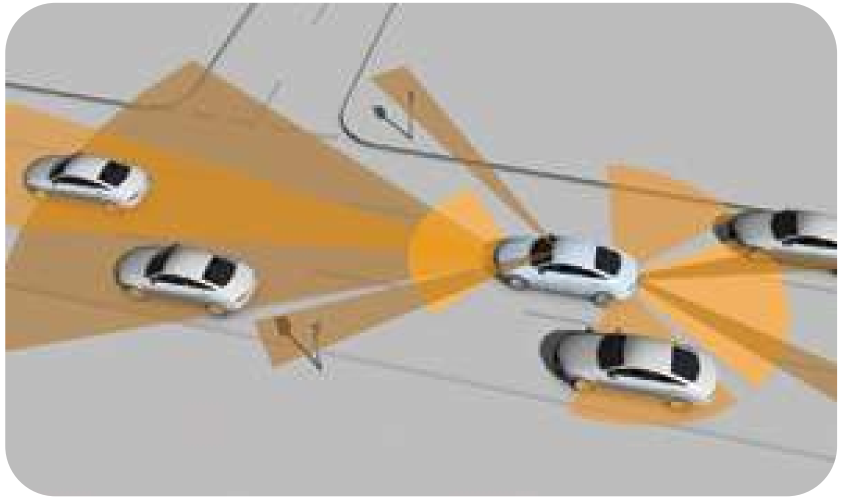
Key Profitability Drivers: **Active Safety**

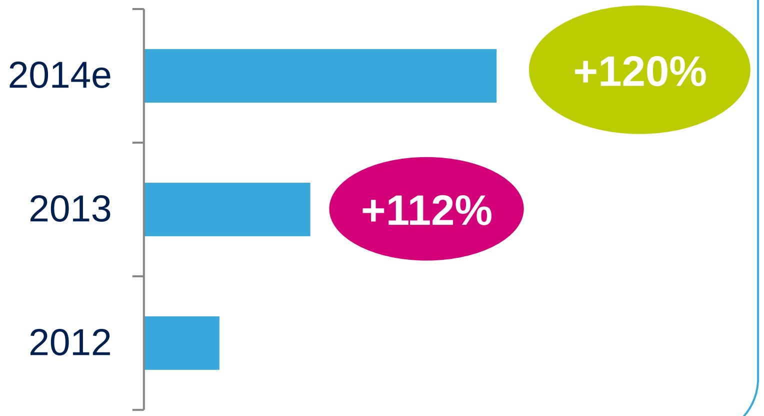
Active safety market
CAGR 2013-18: +18% (>$0.6B in 2013*)



- Market leader in Vision based solutions with presence in more than 23 car brands** resulting in more than 70% market share*
  - APG business is confirmed growing at triple digit rate with a dominant presence in the premium brands
  - 4th generation under development exploiting full Autonomous Driving in cooperation with Mobileye

- Leading edge RF SiGe BiCMOS technology perfectly fitting Short Range and Long Range Radar Automotive Systems
  - Market leader on 24 GHz Radars
  - First 77 GHz single chip RX-TX available in 2014

ADAS Sales Growth



*Strategy Analytics, Jan 2014
**ST internal data

Key Profitability Drivers: **Infotainment**

Infotainment market
CAGR 2013-18: +7.3% (>$4.4B in 2013*)

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
- New Audio Processor ready for market for Asian Car Radios

Positioning and Telematics

- 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/EE, GLONASS/Russia, BEIDOU/China single chip solution (Teseo III)

Tuners

- More than 20 years presence in Tuners for Automotive applications
- Consolidated leadership in Satellite Receivers thanks to long lasting partnership with SiriusXM (now at 7th generation)
- Advanced multi standard software defined radio ready for production

Phone + **Position** + **UI** + **Sound**

Positioning

Navigation & Audio Processors

Terrestrial & Satellite Tuners

Digital Audio Amplifier

*Strategic Analytics and IHS infotainment. Jan 2014

Innovation: A Few Examples

From Active Safety → To Autonomous Car

3.9%

Blind Spot Detection

5.2%

Lane Departure Warning

Obstacle Detection

4.4%

Emergency Braking

2013: Semi-autonomous driving is a standard option in $30K cars

Radar

CMOS Camera

High precision GPS

Vision Processing

Multiple-core MCU

Sensor Fusion

Functional safety

Auto Steering

Self-adaptive speed control

Traffic Light Detection

Adaptive Braking

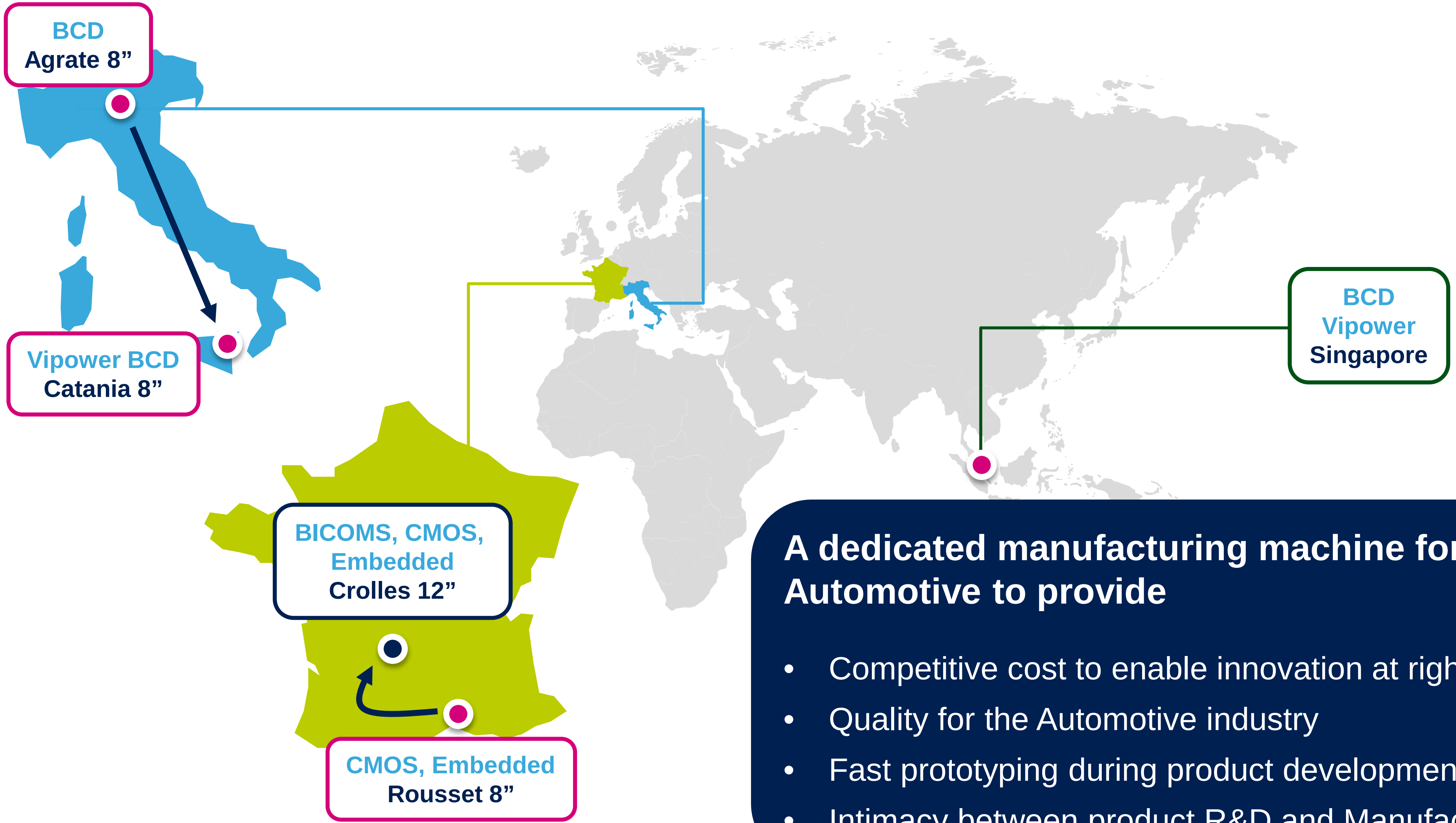
2020: Full-autonomous driving will become a standard equipment

● *2013 penetration rate*

Source: Strategy Analytics, Jan 2014

Manufacturing and Supply Chain Machine

Dedicated to Automotive



A dedicated manufacturing machine for Automotive to provide

- Competitive cost to enable innovation at right price
- Quality for the Automotive industry
- Fast prototyping during product development
- Intimacy between product R&D and Manufacturing

APG Main Growth Drivers & Expectations

- Growth above market
  - Reinforce the Smart Power / Intelligent Power leadership
  - Gain market share in 32-bit microcontrollers with the Power Architecture
  - Maintain the leadership in Body, Audio and Infotainment expanding the penetration in the emerging markets
  - Further expand customer base thanks to a system approach and dedicated support structure

- New drivers for profitability
  - New 110nm BCD & 180nm Vipower technology generations
  - 28nm e-FLASH to support our microcontroller growth
  - Enter in new high growing infotainment segments leveraging company IP’s
  - Lead Active Safety with strong innovation contents

The APG Value Proposition

A strong Automotive commitment

- Long term leadership in Automotive
- Wide Automotive coverage thanks to our system competence & products IP’s
- State of the arts technology portfolio addressing Automotive applications
- Proprietary Manufacturing machine committed to Automotive
- Solid market growth and intimacy with key customers at WW level

A wide application coverage in Automotive

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

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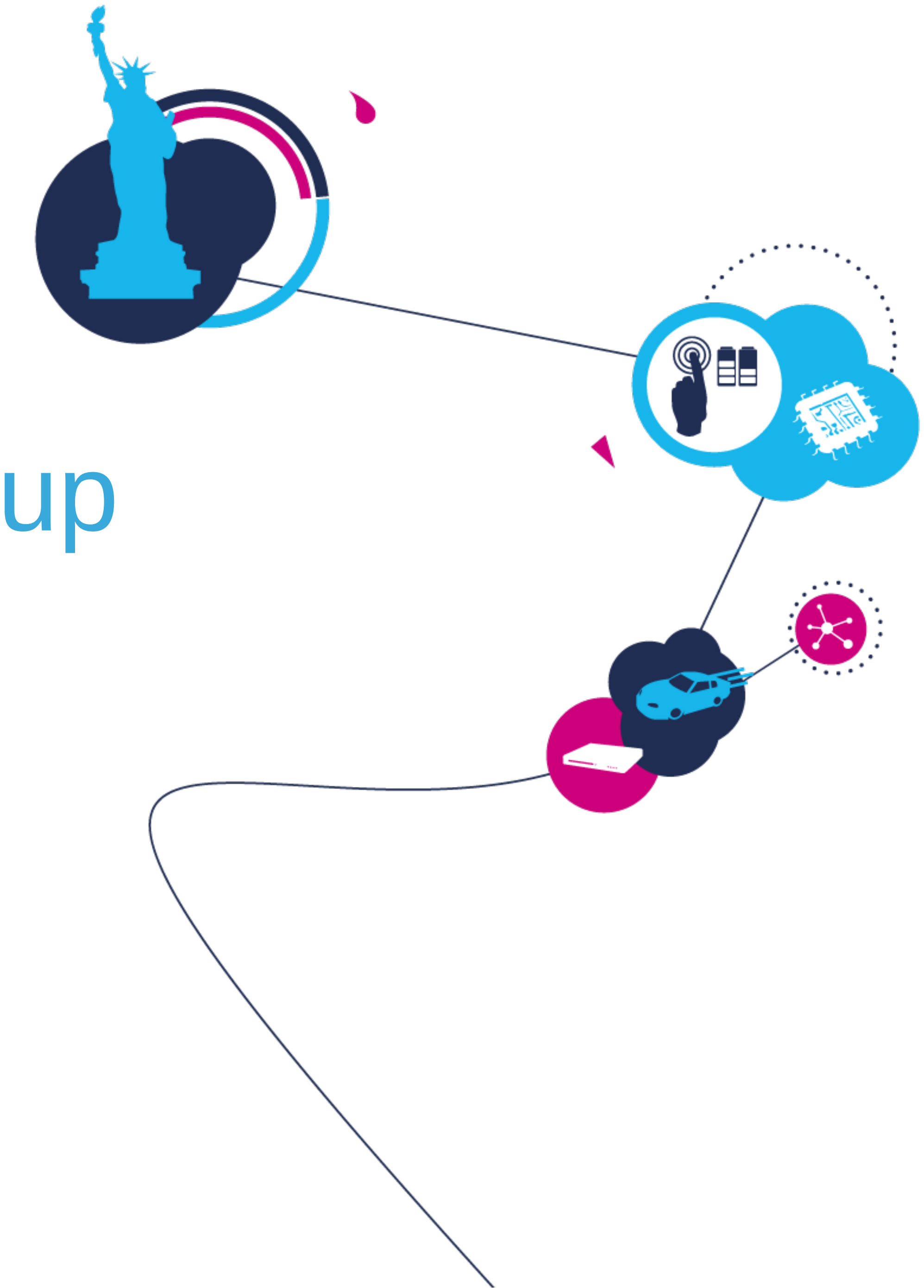
Digital Convergence Group

Gian Luca Bertino
Executive Vice President,
General Manager, Digital Convergence Group



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Focus on Digital Consumer and ASIC

Leveraging specific skills (Low Power, Open Source SW, Application Processor) from ST-Ericsson

#2 WW position in Set Top Box Market

> 15 years of Market Leadership

> 1 Billion Mpeg Decoder cumulative shipments

On the leading edge towards next transitions

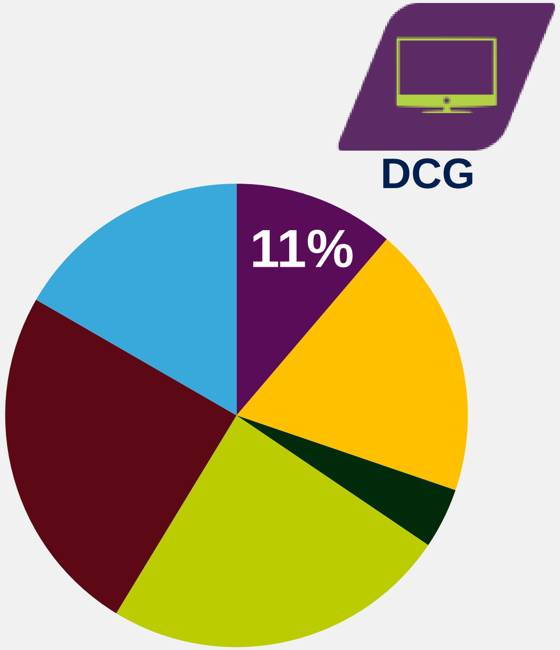
- Connected boxes (hybrid, client /server, DOCSIS)
- Ultra HD TV, supported by HEVC & VP9
- Pervasion of ARM cores & Open Source SW

Long Standing presence in ASIC Market

Traditional play in Networking through specific IPs (SerDes) and design methodology for big dies (>400 sqmm in 28nm)

Now boosting the biz by leveraging FD-SOI and expanding into the consumer space

Contribution to ST revenues 1Q14



Source: IHSi, ST

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Strong Value Proposition for Set Top Box

HOME GATEWAY

Network Access
DOCSIS
Telephony
Routing

CLIENT & SERVER

Content Anywhere
High Multimedia Performance
Ultra HD

BROADCAST STB

Cost-Effective
Multimarket
Solutions

CL CableLabs CERTIFIED DOCSIS 3.0

4K UHD 2160p
ARM Cortex
HEVC
VP9

HD TV 1080p

Complete and cost optimized HW/SW Portfolio

Ad Hoc devices for specific use cases

HW/SW compatibility within each product family

Smooth transition to ARM cores & ecosystem

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

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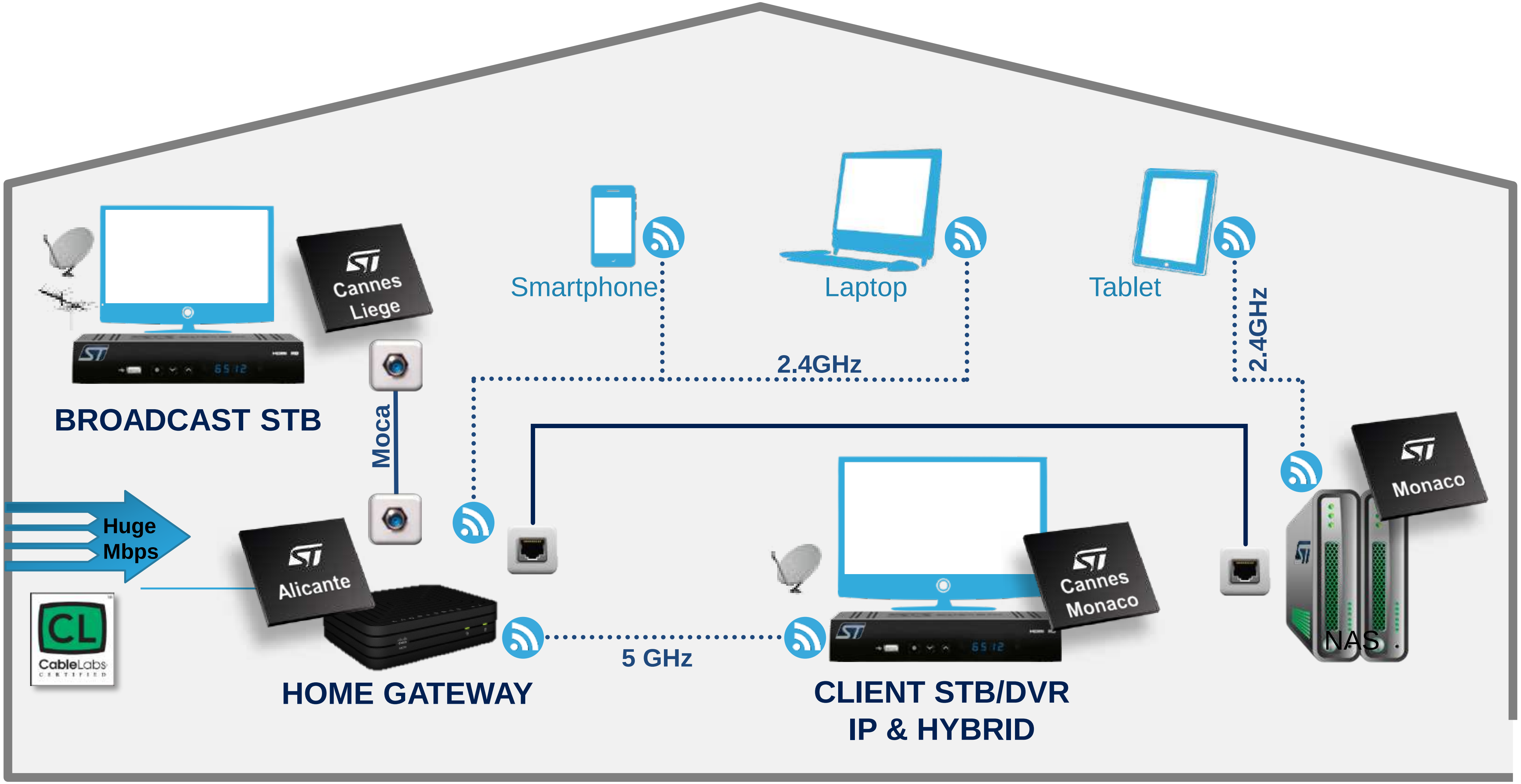
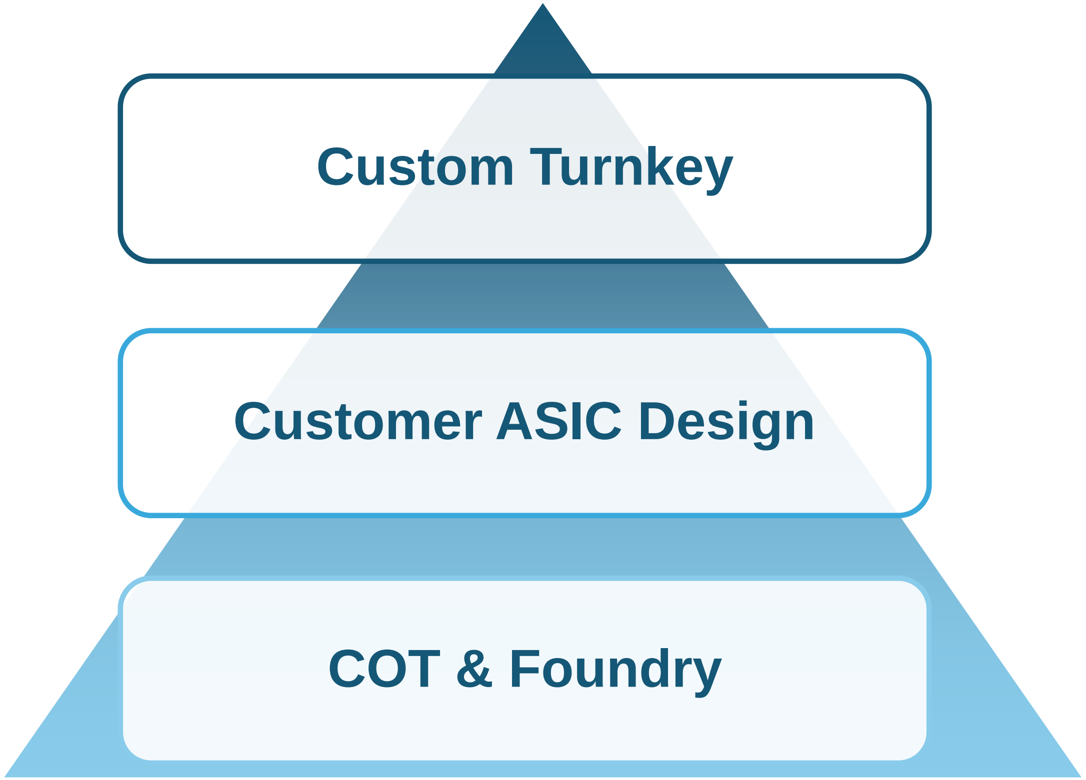
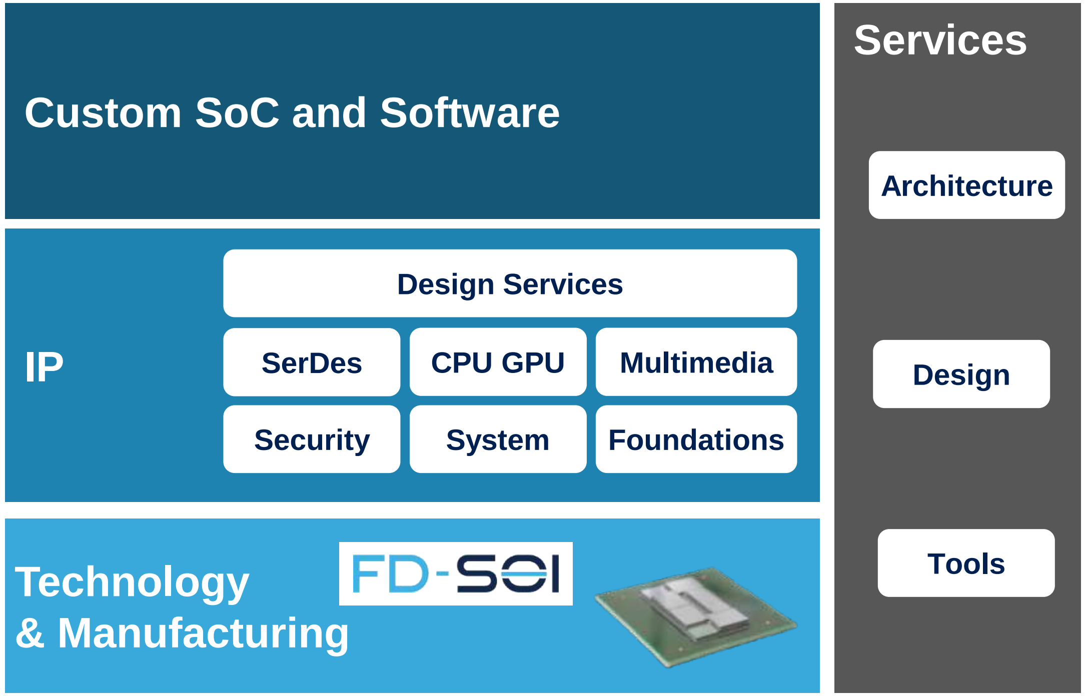
Full Solution for the Digital Home



Strong Value Proposition for ASIC



Business model



ST Offer

Complete & Flexible Offering to match technical and business requirements

Towards Tomorrow’s Digital Home

STi8K™ Architecture

ARM® v8 Cortex™-A53/A57 64-bit cores

FD-SOI 28nm process for the best power-to-performance ratio

CLIENT & SERVER

+

- Compute GPU for HW-accelerated OpenCL1.x, OpenGL-ES 3.0, Renderscript, up to 5GpixS 3D, advanced transcoding, 4K/8K TV
- Modular & Scalable Solutions, from streaming Dongle to Home Server

The Ultimate Home Multi-Media Experience

HOME GATEWAY

+

- DOCSIS 3.1 for uncompromised up & downstream bandwidth
- Wire-speed routing capabilities
- Carrier Grade Telephony

The Ultimate Home Gateway Solution

ASIC

+

- Leverage fully scalable HW/SW platform for turn key offer in the consumer space
- Leverage ARM® v8 Cortex™ in the networking market

The Comprehensive Value Proposition in ASIC

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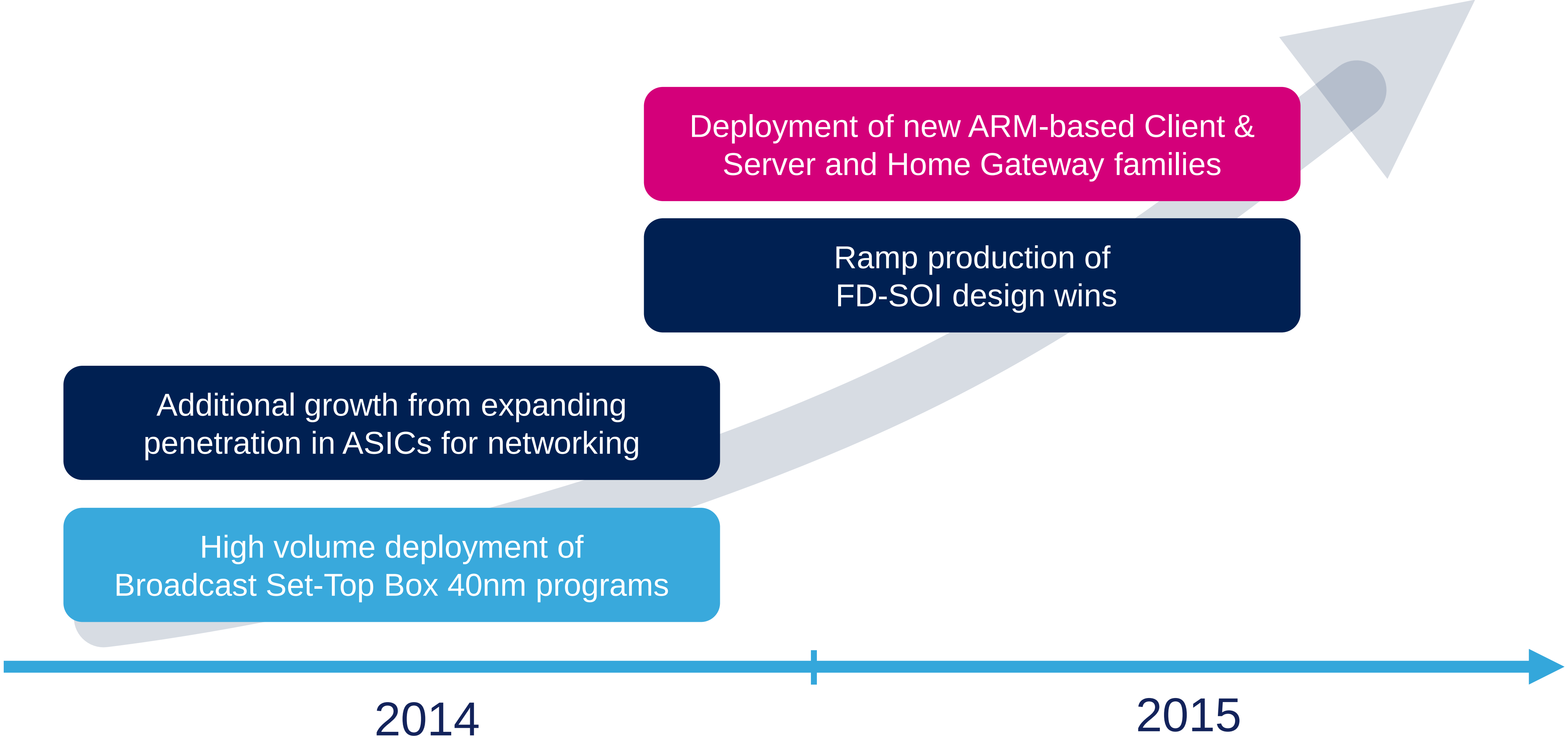
Doubling DCG Revenues by 4Q15



Deployment of new ARM-based Client & Server and Home Gateway families

Ramp production of FD-SOI design wins

Additional growth from expanding penetration in ASICs for networking

High volume deployment of Broadcast Set-Top Box 40nm programs

Doubling DCG Revenues by 4Q15

ASICs – Our achievements

2013 and 1Q14 achievements

- 17 active designs in **FD-SOI** (including Sti8K for Set-Top Box)
  - Multiple Design wins in ASIC for networking and consumer in 2013 and 1Q14
  - FD-SOI momentum continues, strong pipeline of new opportunities, expecting first 14nm win in 2H 2014
- 5 new ASICs in 28nm (bulk) and 32nm ramping production in 2H14

- 8 new **ASICs in 28nm FD-SOI** anticipated to ramp volumes during 2015
  - Material revenues of new FD-SOI ASIC from 2H 2015
  - Leveraging both internal fab and foundry for FD-SOI volumes ramp up
- Expecting strong flow of active designs in 2015 leveraging STi8K and SerDes
  - 28Gbps SerDes demonstrated in 3Q13

Additional growth from expanding penetration in ASICs for networking

Ramp production of FD-SOI design wins

2014

2015

Doubling DCG Revenues by 4Q15

STB & Gateway – Our achievements

2013 and 1Q14 achievements

- **Liege** family products ramping volumes
  - largely adopted by operators, including satellite, cable and digital terrestrial
  - Material backlog in place as of now
  - Revenues already visible in 1Q14, material from 2Q onwards
- **Liege2** family launched at CCBN 2014, for early introduction of HEVC into the volume broadcast market
  - 28nm, leveraging Cannes architecture

- **DOCSIS 3.0** certification for the **Alicante** product family achieved in 3Q13
- **Cannes** and **Monaco** product families successfully launched at IBC 2013, with immediate good traction
  - Multiple design wins and healthy pipeline of opportunities, including US cable and European satellite and telco markets.
- 3 design wins will materialize production already from 4Q14

High volume deployment of Broadcast Set-Top Box 40nm programs

Deployment of new ARM-based Client & Server and Home Gateway families

2014

2015

Takeways

- DCG business and operation completely refocused around **Digital Consumer and ASICs**, now one of the five growth drivers of ST
- New traction coming from **FD-SOI ASICs** and **ARM-based families** in Set-Top Box (Cannes, Monaco, Alicante)
- Setting the stage for future **leadership with the STi8K architecture**, leveraging FD-SOI and ARM® v8 Cortex™-A53/A57 across the board
- Revenue bottom in 1Q14, growth from 2Q and following quarters, target to **double revenues by 4Q15**

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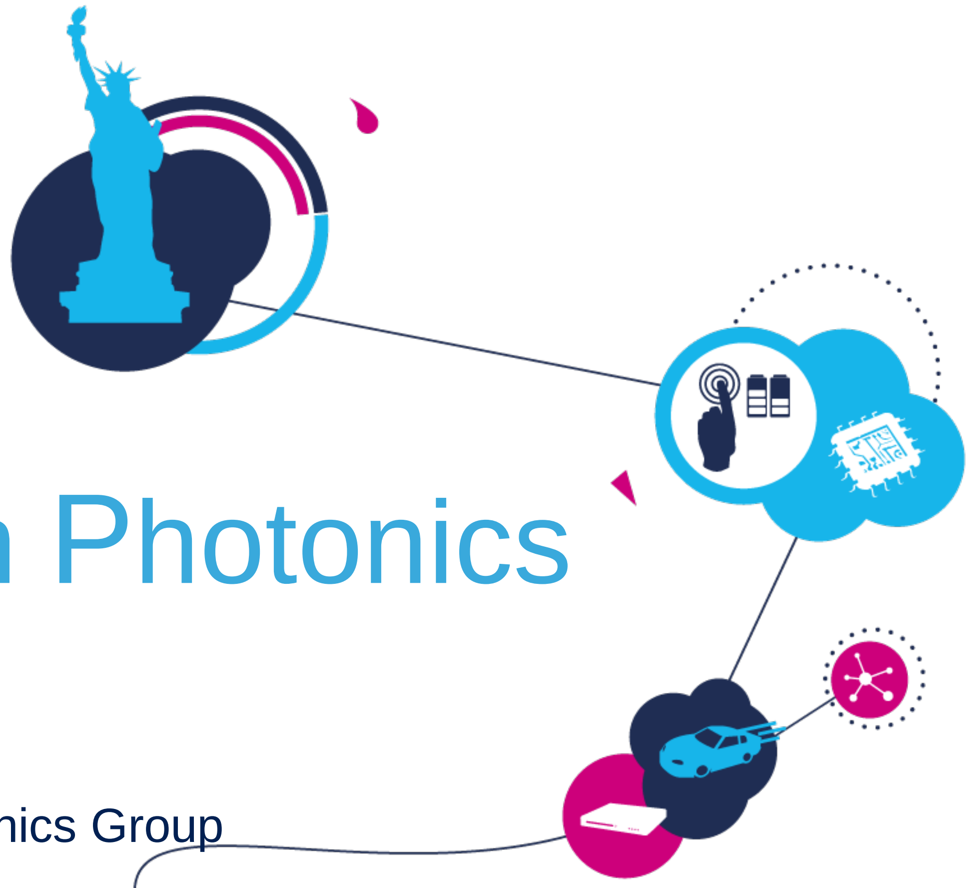
Imaging,
BiCMOS ASIC and Silicon Photonics



Eric Aussedat
Executive Vice President
General Manager, Imaging, Bi-CMOS ASIC and Silicon Photonics Group

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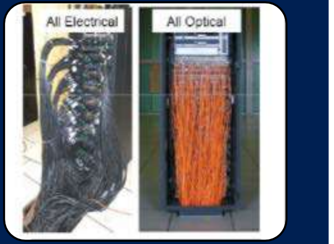
IBP leading position targets

Image Sensors Solutions

Within Top 5 players in imaging solutions and processing

Silicon Photonics

Leader in Optical interconnect and Silicon Photonics



Photonic Sensors

Worldwide leader in photonic sensors

RF Mobile Front-End & Infrastructure

Within Top 2 in RF Mobile Front-End

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Mixed Processes Division

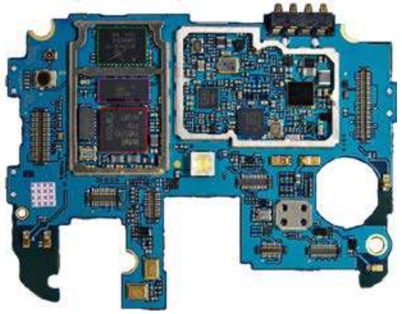
Powering Infrastructure Connectivity

Products for
Base Stations and
Backhaul

350M$ TAM in 2017

ICs for
Optical Transceiver
Connection

580M$ TAM in 2017



Technologies for
Mobile Antenna ICs

1B$ TAM in 2017

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MPD Division – Key Pillars

RF

ICs for Base Stations and for Point-to-Point Backhaul

Technologies
- BiCMOS7RF
- BiCMOS9MW
- BiCMOS55

Products
- Synthesizers
- Transceivers

RF SOI

Foundry for Mobile Front End ICs

Technology
- H9_FEM

Applications
- Mobile Front-End Switches and PA

Business model
- Design Support and Wafer Foundry

Optical Module

Electronic ICs for Optical Interconnect
Telecom & Datacom Transceivers

Technologies
- BiCMOS9MW
- BiCMOS55

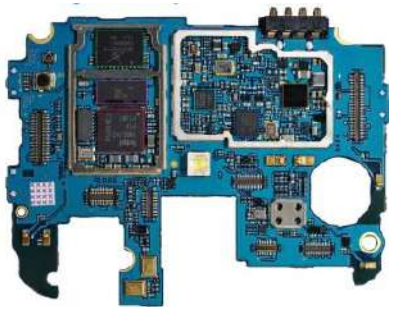
Products
- Trans-Impedance Amplifiers
- Laser Drivers
- Clock Data Recovery

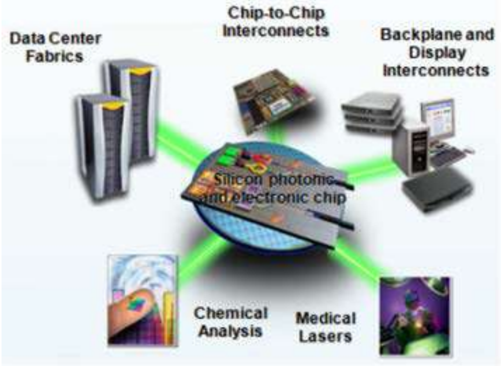
Silicon Photonics

Photonic ICs for Optical Interconnect
Telecom & Datacom Transceivers,
Board-to-Board

Technologies
- **PIC25 Photonic**
- BiCMOS9MW
- BiCMOS55
- 3D assembly with advanced copper pillar
- Optical assembly

Products
- Integrated Transceivers

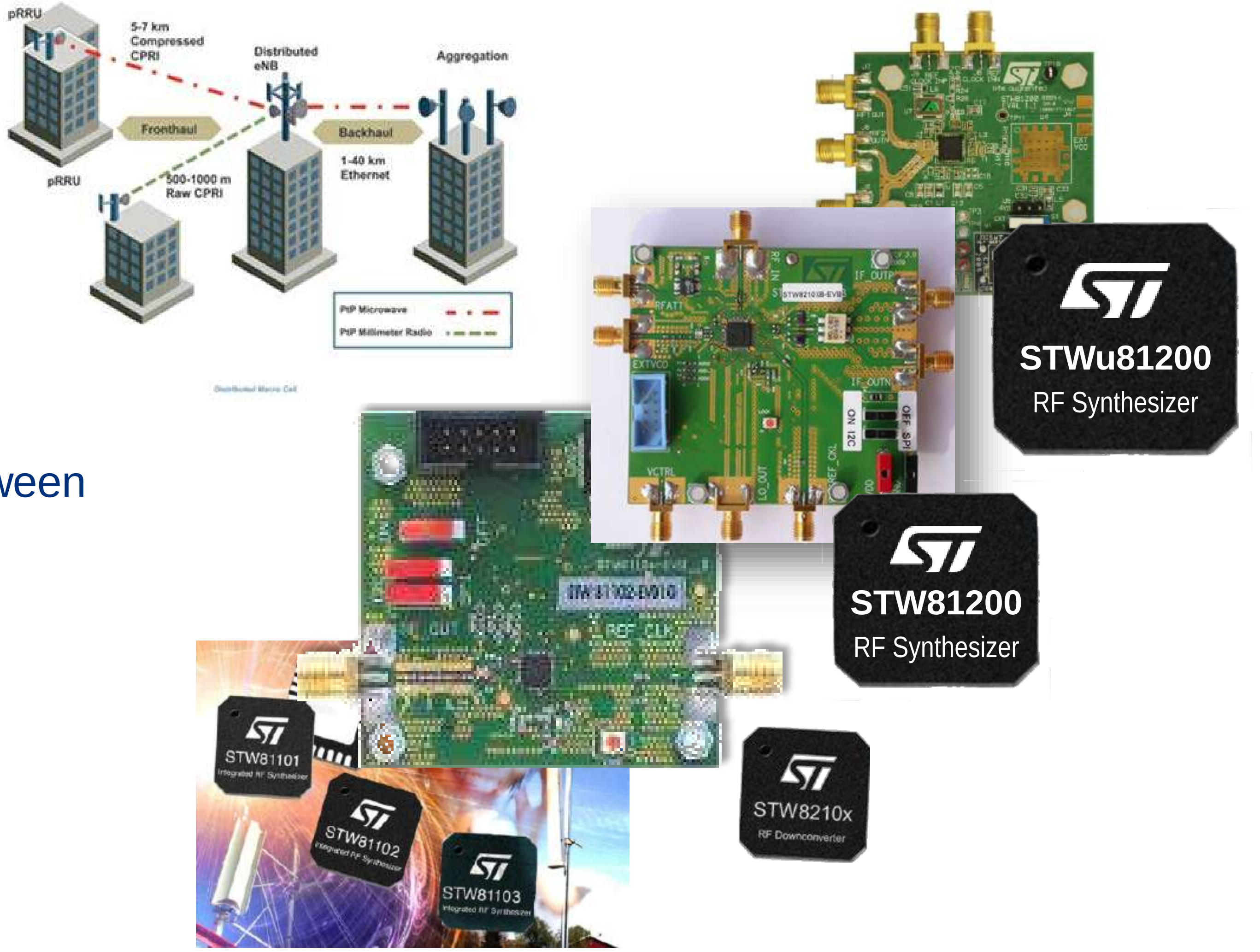




RF for Infrastructure

Base Station and Backhaul

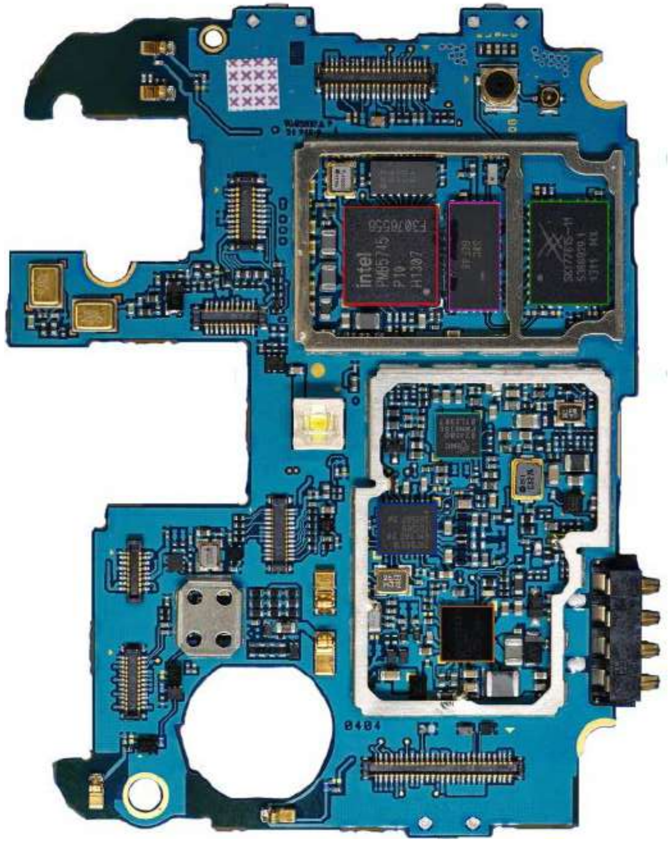
- BiCMOS7RF **Synthesizers**:
  - STW81200 for Base Stations Benchmarked as Best in Class!
  - STuW81200 for 2-16 GHz Backhauling
- BiCMOS9MW STuWx1026 **Transceiver for 10-26GHz**
  - Addressing point-to-point radio link between Base Stations and/or Small Cells
- Roadmap to provide **fully integrated backhaul solutions**
  - V-Band (40-75 GHz) and E-Band (71-86 GHz) transceiver



RF for Mobile Front End

RF SOI technology

- **CMOS** solutions rapidly **gaining market share** versus GaAs
  - To date about 20% of mobile antenna switch and power amplifier TAM
  - TAM approaching 1B$/year run rate at the end of 2016
- Strong interest from **key market players in** ST **H9SOI-FEM**
  - Proven best-in-class performance in both Switch and PA
  - First production volumes in 2H 2014
- High level **support to customers**
  - In fab with optimized prototyping cycle times and cost effective mask set solutions (MPW, MLR and SLR)
  - Full supply chain service available

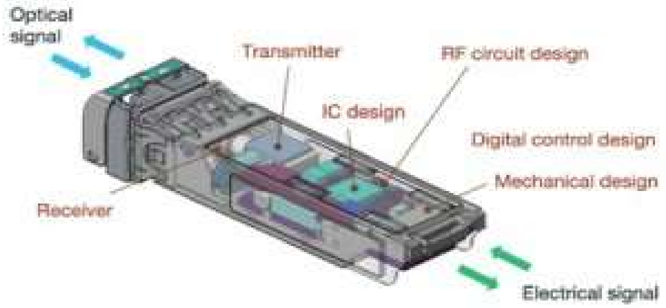


Electronic ICs for Optical Interconnect

Telecom & Datacom Transceivers

- ST is a **leading supplier** of ICs for **optical modules**
    - Next to 200M modules powered by ST BiCMOS technologies in the field today
    - Serving the leader and engaging with other 2 among the first 5
    - BiCMOS55 for long term product roadmap featuring significant power saving

- Enabling **widest application range**
    - 10Gbps, 25Gbps, 40Gbps, 100Gbps
    - SR, LR and Parallel Optics



- **Developing catalog** products for 2nd tiers players
    - 10G TIA, Transceiver and CDR

B55

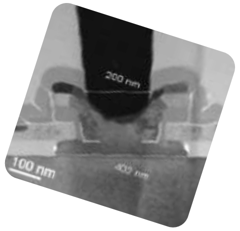
55-nm CMOS

SiGe-C HBT
f_T > 300 GHz
f_{MAX} > 400 GHz

BICMOS9MW

0.13-µm CMOS

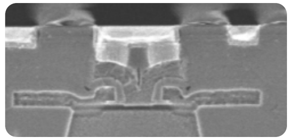
SiGe-C HBT
f_T = 220 GHz
f_{MAX} = 280 GHz



BICMOS9

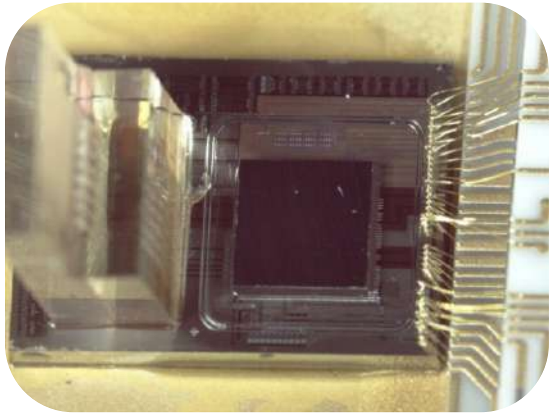
0.13-µm CMOS

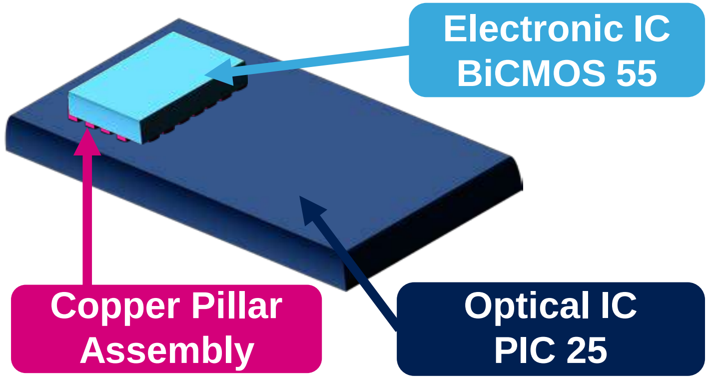
SiGe-C HBT
f_T = 160 GHz
f_{MAX} = 160 GHz



Silicon Photonic ICs for Optical Interconnect

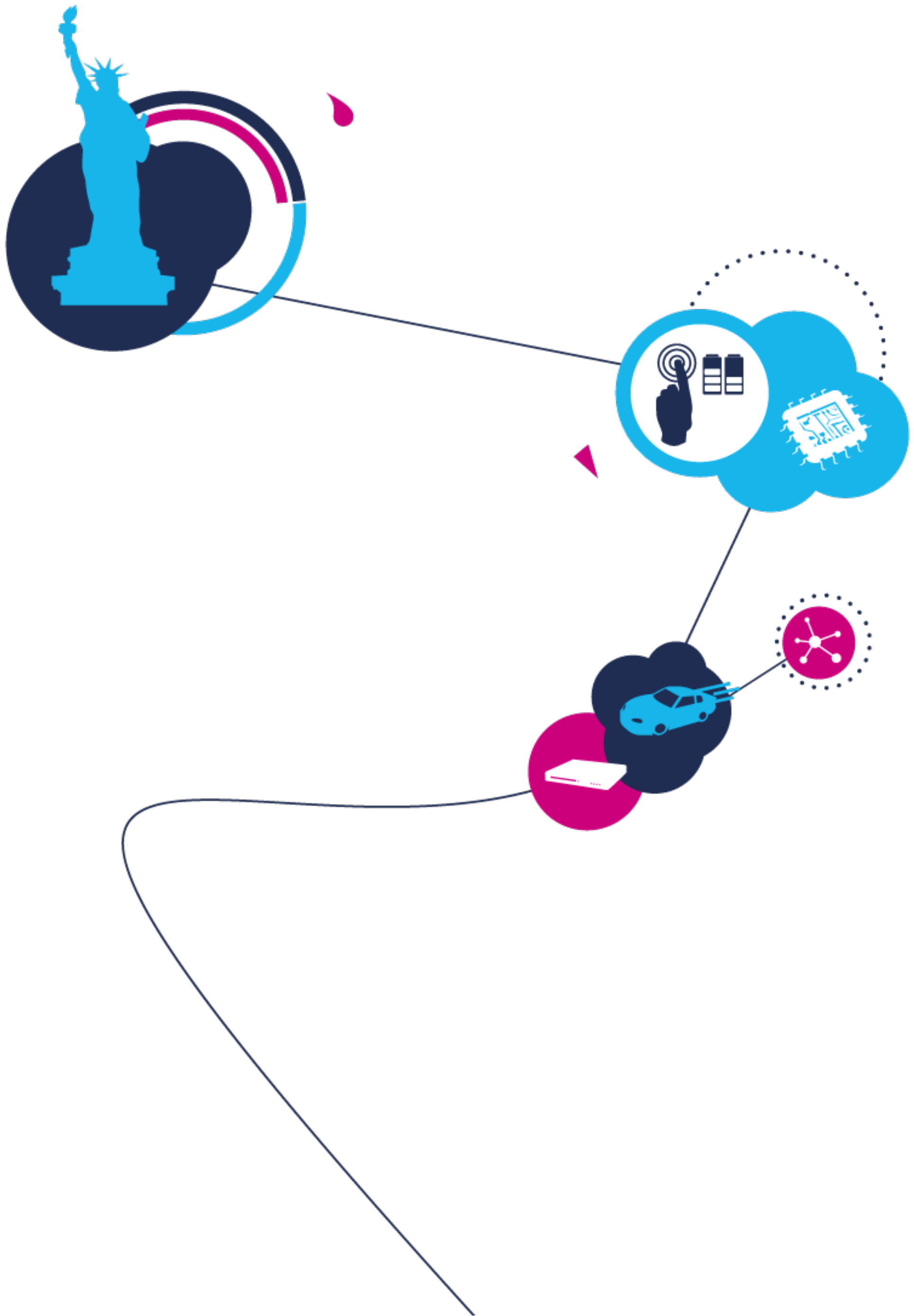
- **PIC25 ecosystem** to develop Optical ICs in a CMOS-like style
  - Design Tools, 12” Wafer Fab, ElectroOptical testing, Fiber attachment, Packaging
  - ST BiCMOS55 companion chip, 3D assembled, allows optimal system performances
- Recognized to be the **only viable industrial solution** on the market
  - Proven to enable performances up to 40Gbps per lane
- **Awarded 2 custom projects** by top players in Optical Transceiver





Developing a Silicon Photonics catalog products line
to support growth of high speed optical fibers connectivity in datacenter and telecom

Imaging Division



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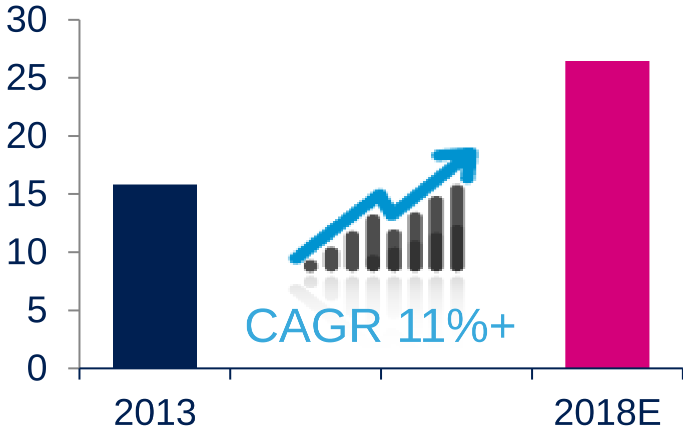
Imaging Market - continuous growth

Steady growth in total market value

Growth & Innovation Drivers



Imaging TAM (B$)

- Mobile
- Automotive
- Security
- Selfies
- Proximity
- Gaming

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Source : TSR, IBS, ST

Imaging Division – Key Pillars

ST Imaging solutions for main and fast growing applications

IMAGE SENSORS

From VGA to 24MPix products (DSC)

1.4um to 5.6um pixel mass production

1.1um pixel qualification

Image processing IPs

Traditional and innovative optical solutions

FlightSense™ for emerging and innovative applications and use cases

PHOTONIC SENSORS

Proximity Sensing, User Detection

Ranging, Depth Map

Ambient Light Sensing

Optical Navigation

Man Machine Interfaces

- Front-Side and Back-Side Illuminations
- Differentiated technologies and solutions for next imaging node
- Proprietary SPAD-based Time Of Flight

TECHNOLOGIES

- 8 & 12” ST foundry (UMC 2nd source)
- 12” ST TSV foundry
- Assembly, Test, Long term optics & supply chain partners

MANUFACTURING

Imaging Key Products Driving Growth

Key Applications & Segments

Mobile Imaging

Automotive, Security, Medical

Time Of Flight emerging applications

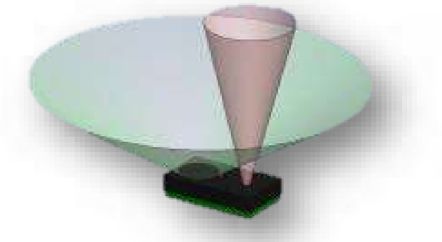
Key Products

Image Sensors - Diversification

- HDR large pixel sensor for automotive and security
- Medical imaging sensors (X-ray, Endoscopes)
- High-resolution stitched sensor for DSC

FlightSense™ - Emerging applications

- Proximity sensor and ambient light sensing module
- Range finder
- Gesture recognition, depth map



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Source: ST

Recent Achievements

Image Sensors

New imaging applications

- Execution of Tiers-1 Automotive Customer commercial projects
- Large opportunities for ST sensors for automotive & security applications
- Extending presence in medical imaging

Photonics Sensors for Proximity Applications

Flight Sense

- Volume production with a ranging custom sensor based at a key European OEM
- Mass production starting for an innovative camera system by a leading smart-phone manufacturer
- Mass market deployment started

Takeaways

Exploit full potential of BiCMOS and RF CMOS technologies

Become the leader in Silicon Photonics with a one-stop-shop approach

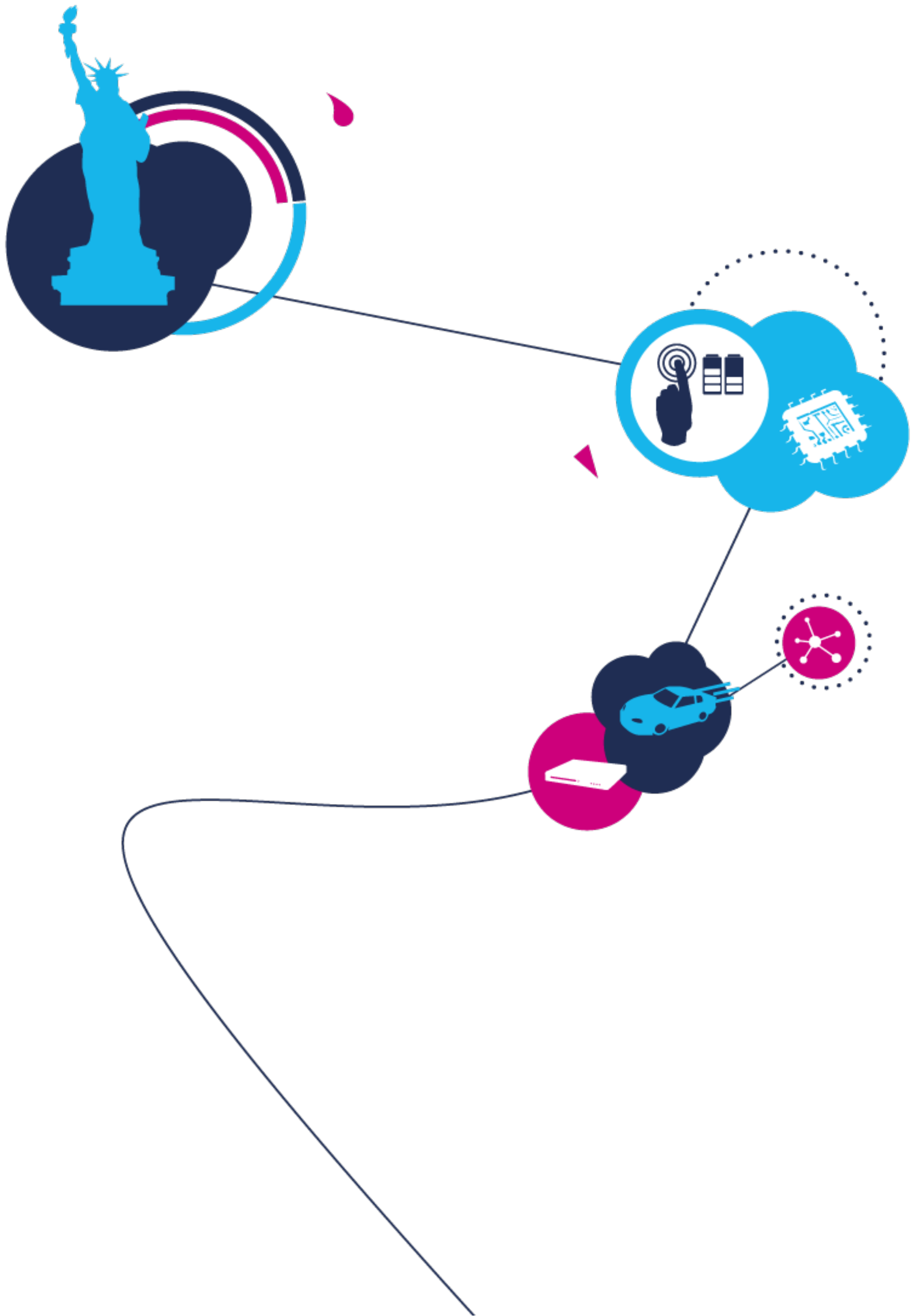
Executing Imaging diversification strategy in all targeted applications

Deploying FlightSense™ ranging sensors solutions

Industrial & Power Discrete (IPD)

Carmelo Papa
Executive Vice President
General Manager, Industrial and Power Discretes Group

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



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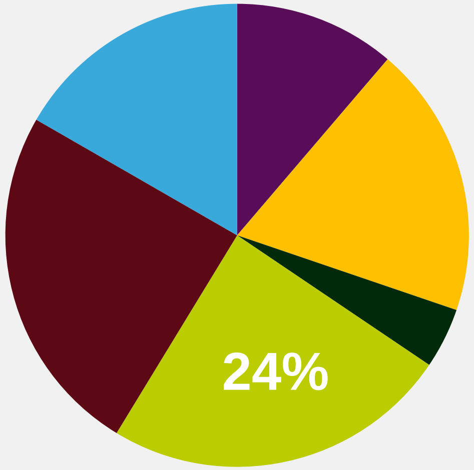
Industrial & Power Discrete (IPD) Group at a Glance

Contribution to ST revenues 1Q 2014



IPD

Portfolio

- Diodes & Rectifiers
- Power Transistors & Modules
- Power Management ICs
- Lighting ICs
- Thyristors & AC Switches
- EMI Filtering, Signal Conditioning
- Protection Devices
- Industrial Analog ASSP

- Extensive and diversified product portfolio
- Wide mix of Technologies (HCMOS, Power, BCD, Isolation), IPs, SW and Packages

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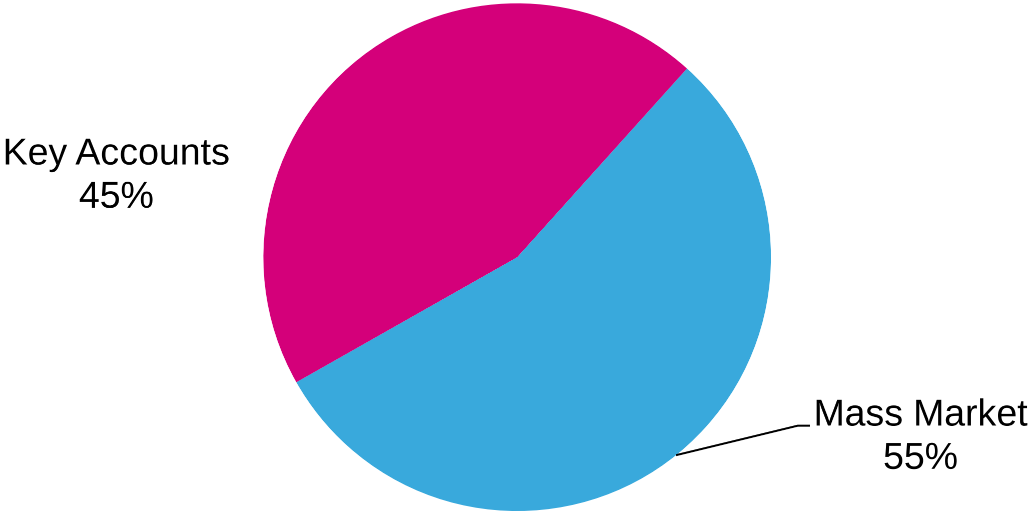
IPD 2013 Results

2013 key figures:

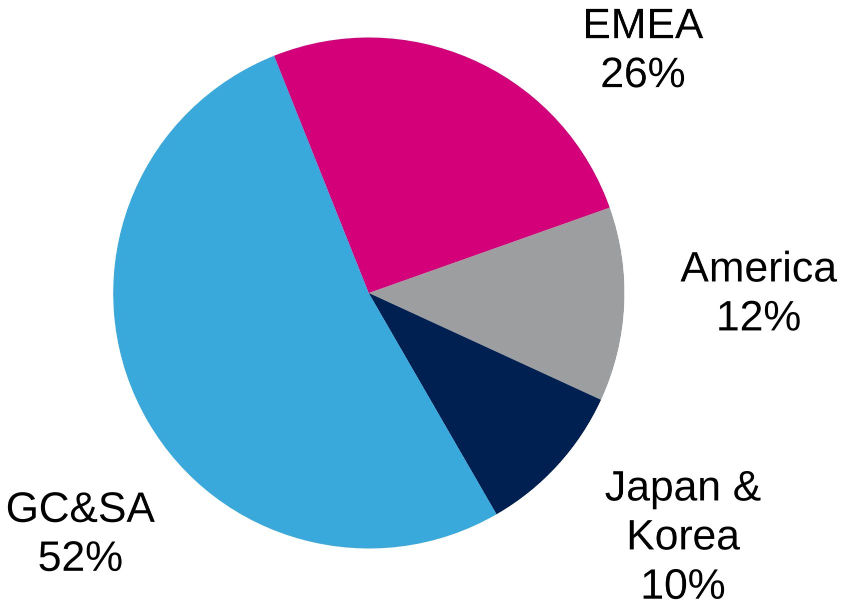
- TAM = $ **33.6B**
- Billing = $ **1.8B**
- Market share = **5.4%**

- **+3 % YoY** sales growth
- Gaining market share (**from 5.1% to 5.4%)** in a slightly decreasing market (**-1.3% YoY**)
- **+7% YoY** sales growth in Mass Market
- **Well-balanced customer base** minimizing market fluctuations (**55% sales from Mass Market**)

Revenue by customer type



Revenue by region of shipment



Sources: WSTS, ST

Leading Positions in our Markets

ST
#2 in the global Industrial market

#1 Industrial Analog ASSP
#1 High voltage Power MOSFET
#1 Thyristors & Triacs

- **Significant breakthroughs in Innovation**
  - **> 1000** new products contributing in 2013 revenue
  - **> 400** newly granted and filed patent applications in 2013
- **Wide product offering**
  - **> 7,500** available products covering a wide range of applications
  - **World-class IP** portfolio for Advanced Smart Power products
  - High-performance and robust **power packages** for high-power applications with optimized power density
- **Established Worldwide Ecosystem for Mass Market**
  - Strong system **know-how** to support a global **customer base**
  - **> 400** evaluation boards and associated tools (Software, Docs,…)

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Sources: WSTS, IHS , ST

Recent Achievements

Power Conversion

- **AMOLED Drivers** used in more than 300 M smartphones over the past 2 years
- Successful introduction of **Digital Power Smart Controller** addressing a strong growing market
- Introduced the first **PMIC (Power Management IC) Family** for energy management in mobile phones

Industrial Analog ASSP

- **High Voltage Gate Drivers** and **IGBT** are found in 50% of European appliances (1 appliance out of 2 uses ST products)
- Enlarged the **Intelligent Power Switches** portfolio for Industrial Automation

Power Discretes & Modules

- Continuous sales and market share growth (2 years in a row) for **IGBT**, boosted by **IPM (Intelligent Power Module)** and best-in-class **600 V, 650 V and 1200 V Trench Gate Field Stop IGBT** for High Frequency Converters for Industrial Applications
- Introduced new **Super-Junction (up to 1200 V)** and **Advanced Low Voltage (80 – 100 V) Trench MOSFET**
- Increased market share on **High Voltage MOSFET** about 20%
- Strong demand for **RF Antenna Tuners, Common Mode Filter (ECMF)** and **High Speed Protection** devices for smartphones
- 2nd Gen. of **Silicon Carbide (SiC) Diodes** and **Field Effect Rectifier (FER)** for high-power server applications and mobile-tablet chargers
- New **1200 V High-Sensitivity Triacs** for Motor control, E-car charging station and medical implanted equipment

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Sources: IHS, ST

Targeting the Fastest Growing Applications

Portable

Ultra-low power & high-efficiency

- Power Management & Interfaces

Automation

Efficient, safe, comfortable, secure

- Motion Control

Power Conversion

Green, sustainable, high efficiency

- Digital Power & LED Lighting
- Energy Management
- Vehicle Electrification

Portable

Power Management & Interfaces

Key Applications & Segments

Smartphones and Tablets

Gaming Consoles

Wearable

Internet of Things (IoT)

Key Products

Power Management ICs and Discretes

- PMICs for Energy Management & Wireless chargers
- AMOLED Display
- FER Diodes
- Ultra Low Power DC/DC ICs

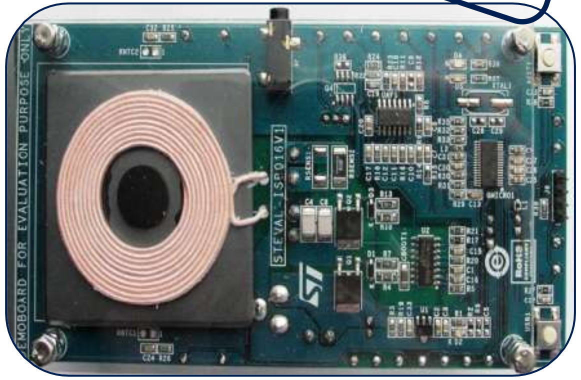
Integrated Passive Devices & Protections Devices

- Tunable Capacitors for Smart RF Antenna Tuning
- EMI Filters, Common Mode Filters & micro-ESD Protections
- RF IPD Baluns and Couplers

Technologies

- Advanced BCD
- Glass substrate for better RF performances
- Miniaturized packages (Flip Chip, Wafer Scale)

ST Reference Platform



Wireless Power Transmitter for Smartphones

ST Full System Solution Value: $5

Source: ST

Automation
Motion Control

Key Applications & Segments

Home & Building Automation

Home & Small Appliances

Factory Automation

Key Products

Power Devices

- IGBT, Power MOSFET, Power Modules
- Medium power, high commutation and high noise immunity Triacs
- Ultrafast & Soft Diodes
- Silicon Carbide (SiC) Rectifiers

Motion Control ICs

- Monolithic Motion Control
- Smart Gate Drivers & New Gap Drive
- Isolated Intelligent Power Switches (IPS)

RF & protections Devices

- Current Limiter and integrated EOS Protection
- RF IPDs

ST Reference Platform

Dual Motor Control with PFC for White Goods

ST Full System Solution Value: $16

Source: ST

Power Conversion

Digital Power & LED Lighting

Key Applications & Segments

LED Lighting

SMPS for Telecom & Consumer

Adapters

UPS

Key Products

Power Devices

- HV Super-Junction and LV advanced Trench MOSFET, IGBT
- Flat Package Ultrafast & Silicon Carbide Devices
- FER diodes

Power Management ICs and Protections Devices

- AC-DC & DC-DC LED Lighting Converter ICs
- Digital Power Controllers ICs
- Power Factor Correctors (PFCs) ICs
- LED By-Pass Protections

Technologies

- Advanced BCD
- Proprietary IPs for Mixed Digital and Analog Architectures
- Power Packages

ST Reference Platform

Digital Power Supply for Servers

ST Full System Solution Value: $19

Source: ST

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Power Conversion
Energy Management

Key Applications & Segments

Smart Metering

Renewable Energy

Internet of Things (IoT)

Key Products

Power Conversion ICs

- Monolithic High Voltage Converters
- Ultra-low Quiescent Current Linear Voltage Regulator

Industrial ASSP

- Power Line Communication & Connectivity SoC
- Meter Analog Front End ICs
- Energy Harvesting ICs

Discretes & Modules

- Power MOSFET, IGBT & Modules
- Ultra-fast and SiC Rectifiers
- High speed data ESD Protection
- High power TVS (Transient Voltage Suppressor)
- RF IPD Baluns

ST Reference Platform

Smart Gas Meter for Domestic and Commercial

ST Full System Solution Value: $10

Source: ST

Power Conversion

Vehicle Electrification

Key Applications & Segments

Hybrid Vehicles (HEVs)

Electric Vehicles (EVs)

Battery Charger Stations

Key Products

Application Specific ICs

- New Galvanic Isolation ICs (gapDrive™)
- DC-DC Converters ICs

Power Discrete & Modules

- SiC Rectifiers and MOSFET
- High power SCRs for input controlled bridge
- Trench Gate Field Stop IGBTs and Power Modules
- HV Super Junction MOSFET and new LV Trench MOSFET
- EOS Protection Diodes

ST Reference Platform

Unidirectional DC-DC Converter for HEVs and EVs

ST Full System Solution Value: $46

Source: ST

IPD Revenue Boosters in 2014

Portable

- Extending **PMIC Family** for Energy Management from Portable to Servers
- Introducing the first family of **PMICs** combining **AMOLED** Drivers and **Energy Management**
- Expansion of **Tunable Capacitors, RF Couplers**, **Baluns** and **Common Mode Filters** families
- New **micro-ESD Protections** and **Field effect Rectifiers** for high-efficiency and fast chargers for mobile

Automation

Power Conversion

- **Motion Control**: New **Smart Drives (x-SPIN™)** and **IGBT** (1200 V Trench Field Stop)
- **Internet of Things (IoT)**
  - Volume Production of “COMET”, the market’s first **Single-Chip Meter with PLM connectivity**
  - **RF IPD Baluns** for industrial and smart home connected sensors and data-center
  - New generation of **Protection devices** for high-speed data networking equipment exposed to high power surges
- **Silicon Carbide (SiC)**: Introducing 1st Gen. **1200 V MOSFET** and 2nd Gen**. 1200 V Diodes**
- **Advanced Trench** LV MOSFET: Expansion of portfolio to 60 V, 40 V, 30 V range

Expected growth supported by overall macro economic improvement in particular in industrial and housing

Dedicated regional marketing campaigns for distribution and mass market targeting double-digit growth

Source: ST

Targeting Double-Digit Growth in Mass Market

- Dedicated business development programs for each Region, involving over 30 channel partners worldwide, **in the following focus areas:**

Motion Control, LED Lighting and Digital Power

- Leveraging the complete **Ecosystem** to support **Distributors** and **Mass Market customers:**
  - Networking Technical Communities
  - Design Resources
  - Marketing Collateral
  - Evaluation Boards
  - Simulation Tools
  - Web Support

Motor Control Community

STEVAL-IKM001V1

eDESIGN Suite

Key Differentiators

- Wide mix of FE Technologies, IP, SW and Packages
- Diversified customer base for a balanced presence in the market
- Strong system know-how resulting in strategic relationship with Distributors and Mass Market customers
- Reference Platforms combining digital control and analog with a leading portfolio of discrete devices and ICs
- Manufacturing strategy aligned with growth opportunities

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Featuring the Smart System-In-Package

Combining IP and Technologies for Heterogeneous integration

POWER

Sensors

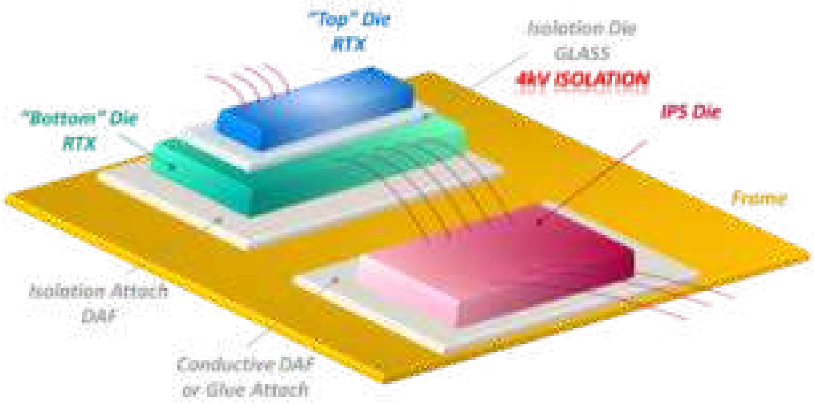
Analog Front End

SMART POWER

Our excellence in Analog & Power

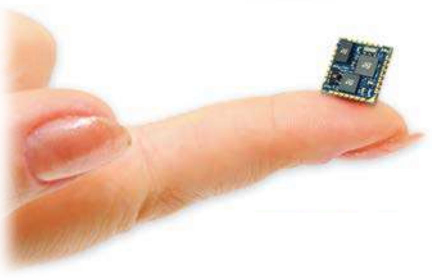
Key Benefits:

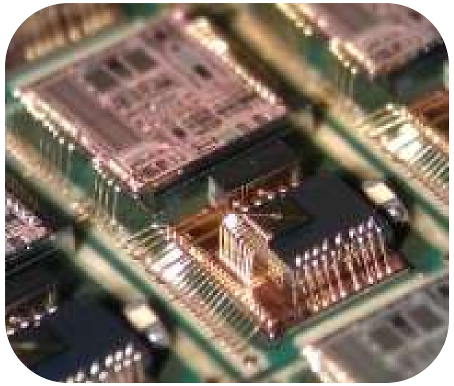
- Miniaturization
- Cost-effectiveness
- Enhanced functionalities
- Protected IPs
- Power Density
- Flexibility

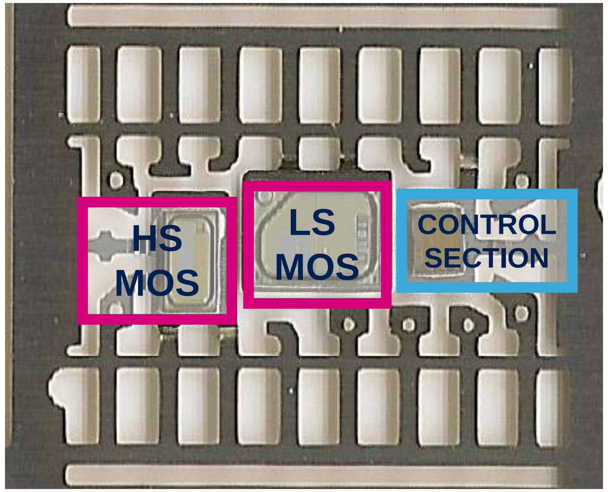


Key Features:

- Mix of hybrid technologies
- Heterogeneous integration
- Isolation + embedded MCU







Takeaways

Focusing on high growth markets with favorable trends through wide and diversified product portfolio addressing both high-margin and high-volume markets: **Portable**, **Automation** and **Power Conversion**

Combining efficient Power Technologies (MOSFET, IGBT, SiC) with **Smart Power ICs** in Advanced Modules for Automotive and Automation Markets

Distribution and Mass Market Focus with system approach, suitable and large product portfolio in key areas such as **Motion Control, LED Lighting, Digital Power**

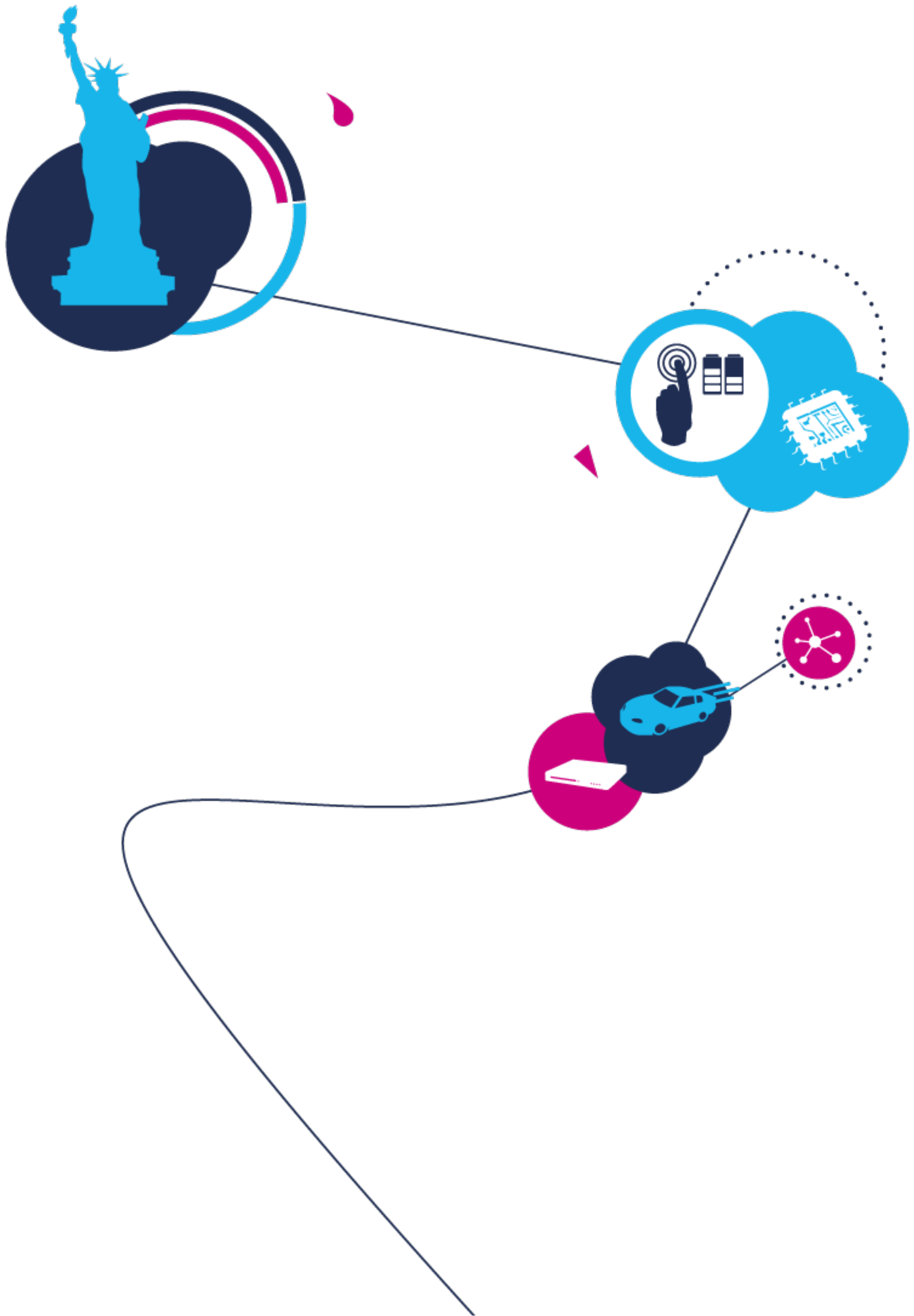
Leveraging leadership on **PMICs, AMOLED Drivers**, **High Speed Protections, ECMF & RF IPD's** for portable to expand into **Servers** and **Wearable Electronics**

Fostering **Leadership** in **Power Discrete** product families by introducing new **Super Junction high voltage MOSFET, Trench IGBT, high performance Rectifiers, Triacs & SCR's, Field Effect Rectifier (FER), Advanced low voltage Trench MOSFET & Silicon Carbide (SiC) Diodes and Transistors**

Mass Market

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

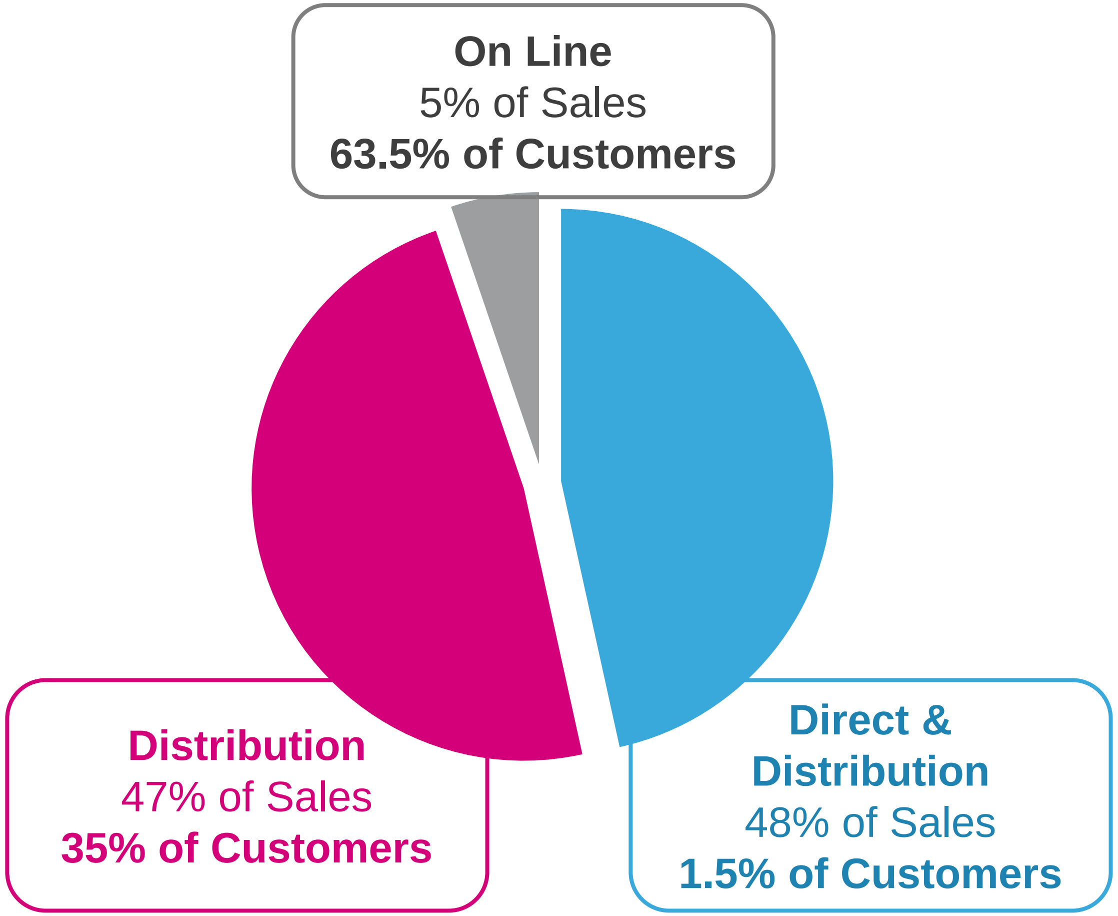
Bob Krysiak
Executive Vice President,
President, Region Americas



Mass Market of ST

- The market which encompasses **thousands of customers** of ST outside of the top accounts
  - The largest market served by ST
  - Different engagement dynamics of the channels
- Diversified customer base brings **higher stability**
  - Multiple market segment cycles
- **Higher margin** potential
- A new, **focused structure in place** to keep on winning in this market

“Mass Market” >100 000 customers



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

Stronger collaboration with channel partners

Intensify cooperation with distributors and certified partners

Mass Market Programs

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Developing the Mass Market Customer Base

Core Key Accounts

- ~ 1500 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

Channel Accounts

- 35,000 accounts entirely through distribution
- Programs deployed at distributors
    - Designed to create additional market share in distribution TAM by 2016

Online Accounts

- Today 60k ST customers purchase online
- 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 and Marketing Focus

- A renewed sales and marketing organization in place since end 2012
- Boosting demand creation through an enhanced focus on geographical coverage while strengthening global account development
- Establishing strong marketing organizations in the regions fully aligned with the product groups
- Intensifying our cooperation with distribution partners worldwide to boost mass market sales
- Measuring on direct and indirect sales

79 sales offices in **35** countries

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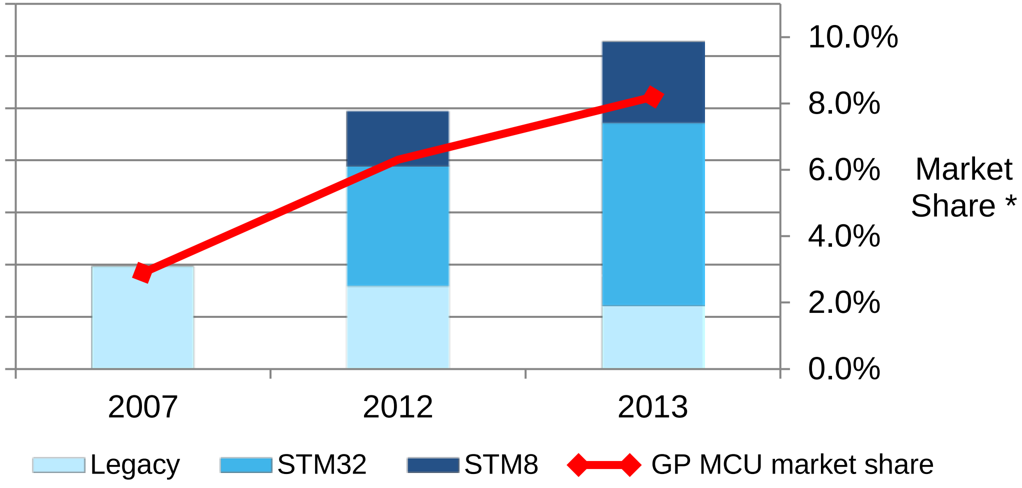
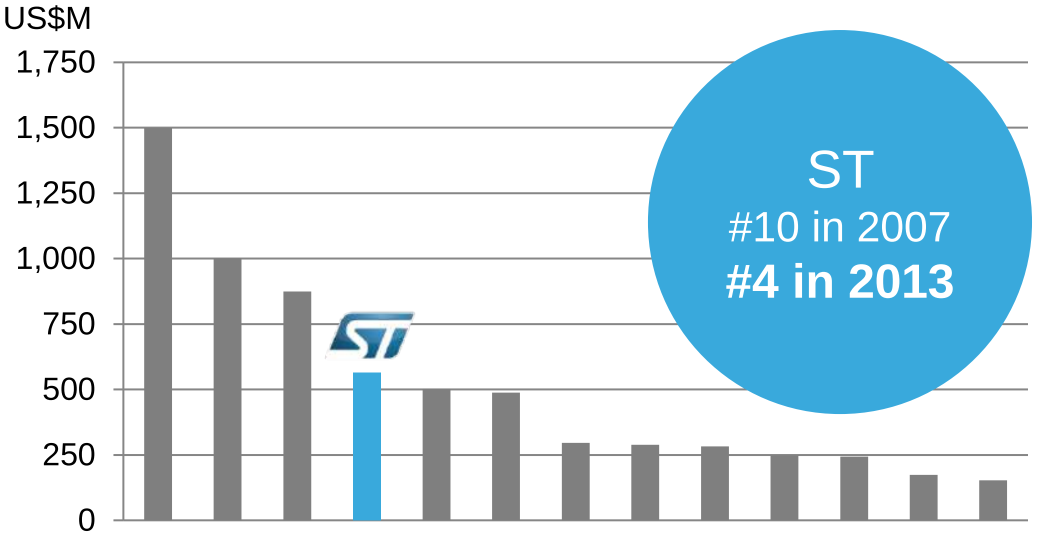
General Purpose MCUs Success Story

Strong focus on Mass Market
(~80% of total business in 2013)

- Tens of thousands customers worldwide
  - Target >40K WW customers
- Broad, multi-applications and fragmented business
- Lead product penetration provides visibility to the customer base, applications
- Also provides visibility in applications to sell other ST products

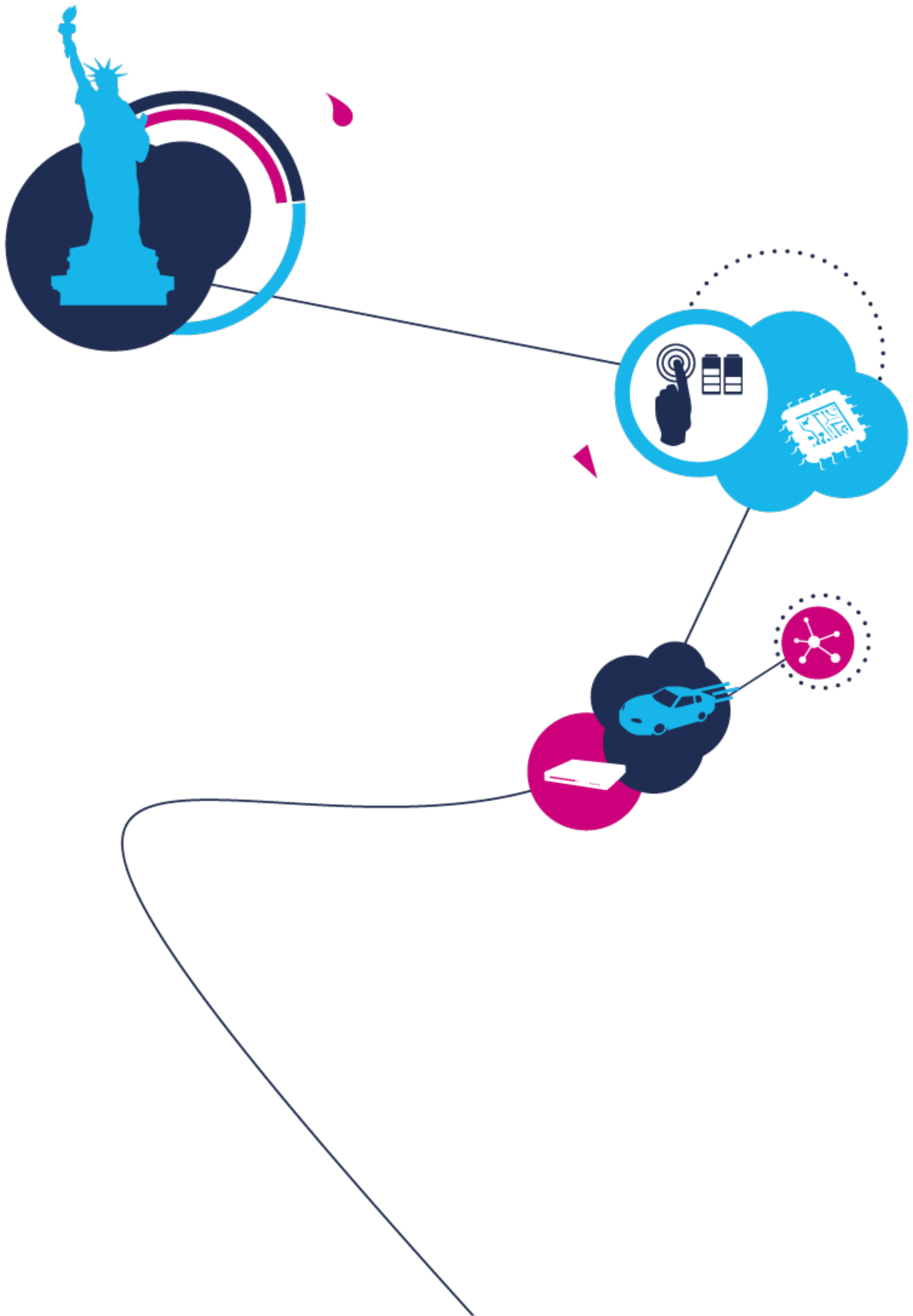




ST
#10 in 2007
#4 in 2013

MCU total Division revenues

* MCU share % vs. SAM (Source WSTS January 2014) excluding Automotive MCUs



Manufacturing and Technology R&D

Jean-Marc Chery
Chief Operating Officer

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

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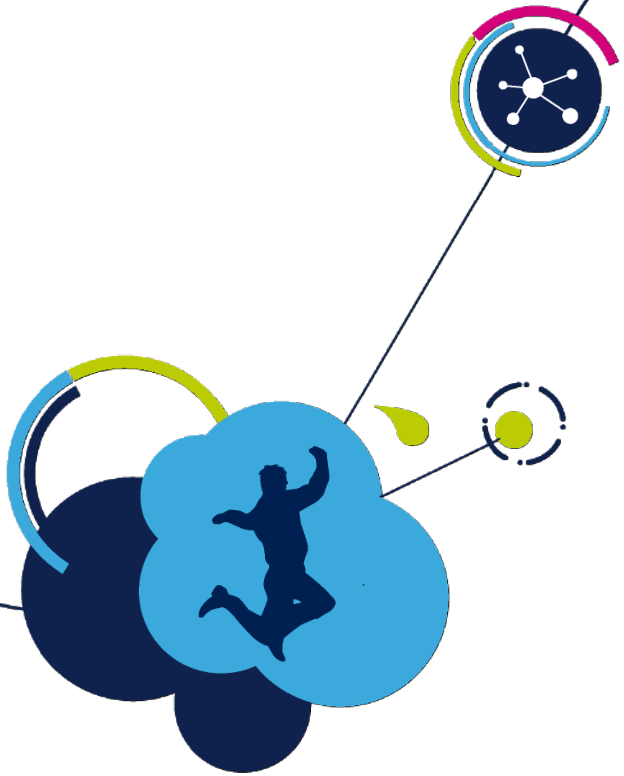


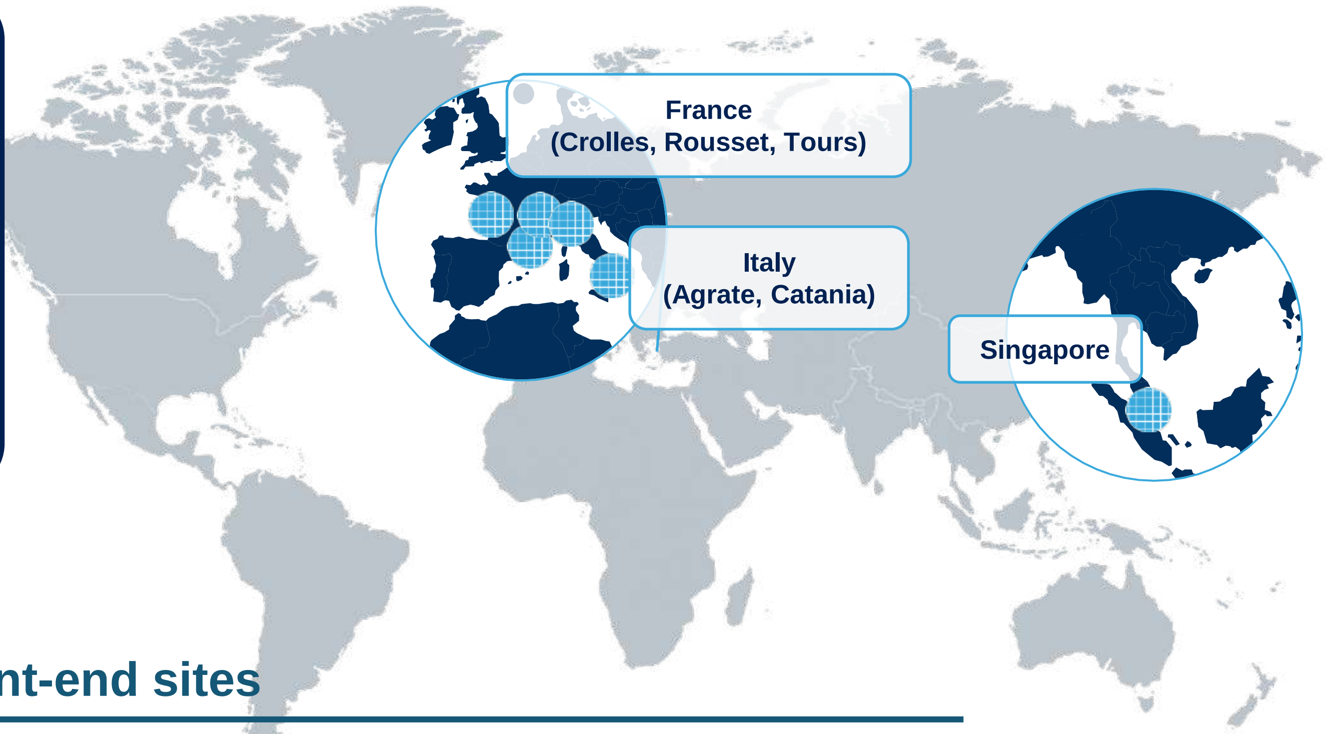
Manufacturing

Front-End Manufacturing: Unique Capability

Large technology portfolio

Clustering approach

Internal and external flexibility



6 front-end sites

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

Key Achievements

May 2013 Priorities

CMOS

- FD-SOI 28nm manufacturing ramp-up
- Imaging 1.4µP BSI volume production

E-NVM, RF/Analog

- 90nm e-Flash high volume production
- Optimized 130nm RF SOI in ramp-up

Smart Power & Discrete

- BCD mix evolution to 0.16µm, thickCu
- IGBT 650/1200V production ramp-up

MEMS

- 6-Axis combo volume production
- mPhone and Compass ramp-up

Our Achievements

- **Full qualification of 28nm FD-SOI** technology platform, now ready for Manufacturing: Strong prototyping activity ongoing
- **Volume production** ramp-up of **1.4µP BSI** technology for a key mobile phone customer
- Ramp-up at **Crolles300** of M10 **90nm eNVM** technology for general purpose microcontrollers applications. Volume production in Rousset for general purpose and secure microcontrollers applications.
- **Full qualification** of M55 **55nm eNVM** technology for automotive applications
- Complete redefinition of **RF SOI 130nm** technology with **best-in-class** Ron-Coff figure of merit and process **cost optimization**
- **Volume production** of **BCD8 0.16µm** generation for HDD, PMIC and Automotive applications at **Agrate** and **Catania** fabs
- **Volume** ramp-up of **IGBT** at Catania fab
- MEMS 6-axis and **pressure sensor** in **volumes** at Agrate fab
- Production start of **MDMESH** at Singapore 8”

Front-End Manufacturing Vision

Advanced CMOS and Derivatives

- Crolles 300 growth and critical size improvement, focusing on balanced mix of technologies, capitalizing on 28nm FD-SOI platform, improving flexibility and assets utilization
- Embedded-NVM, Analog CMOS, BiCMOS and RF SOI at both 200 and 300 mm (Rousset, Crolles)
- Multiple foundry options to support further growth and flexibility

Sense & Power Technologies

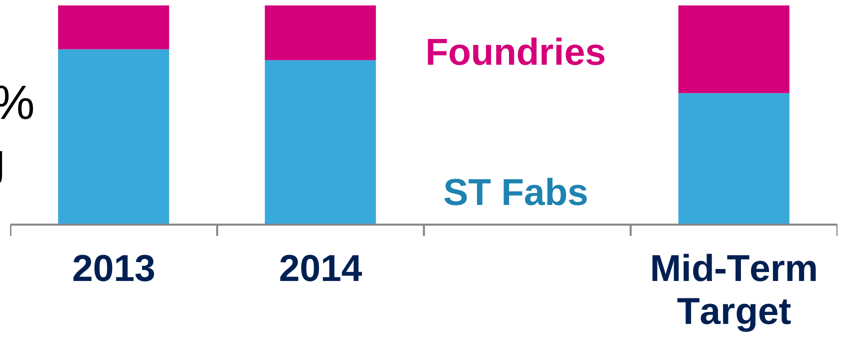
- Technology capability enabling product differentiation for MEMS, BCD & Discretes
- Improve mix toward higher margin product lines
- Progressive conversion from 6” to 8” at the Singapore and Catania fabs
- Foundry outsourcing to increase flexibility

CMOS and Derivatives Sourcing

28nm FD-SOI licensing agreement signed with Samsung

- Crolles 300 expansion. Rousset/Crolles clustering
- Technology & manufacturing partnerships in Image Sensor/BSI
- Multiple sourcing for flexibility

Targeting 40% outsourcing



Technology	First	Second
CMOS 40nm	Crolles 300	Foundry
CMOS 28nm Bulk	Foundry	Crolles 300
CMOS 28nm FD-SOI	Crolles 300	Foundry
Imaging BSI	Crolles 300	Foundry
BiCMOS55	Crolles 300	
Photonics 25Gbps	Crolles 300	
RF SOI	Crolles 200	
eNVM M55/M40	Rousset 200	Crolles 300

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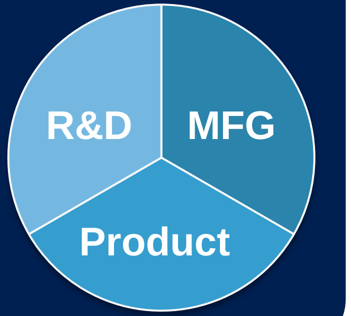
Sense & Power Technologies

Technology Differentiation

- MEMS motion and non-motion, sensors and actuators
- Smart Power BCD9s
- Tunable antenna discretes

Integrated Manufacturing & R&D

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



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

Cost competitive

High Volume Manufacturing

Packaging & Testing Manufacturing

Consolidation of China operation for cost structure improvement

Longgang closure: end of 2014

- Fast time to volume and competitive manufacturing
- Multipurpose sites serving both Product Sectors
- Relentless quality improvement

6 back-end sites

Bouskoura	Advanced Logic Image Sensors Embedded-NVM	**Calamba**	Discretes	**Shenzhen**	Advanced BCD Advanced PMOS
Kirkop	Embedded-NVM Logic	**Muar**	Advanced BCD MEMS	**Longgang**	Discretes Power BCD

OSAT partners

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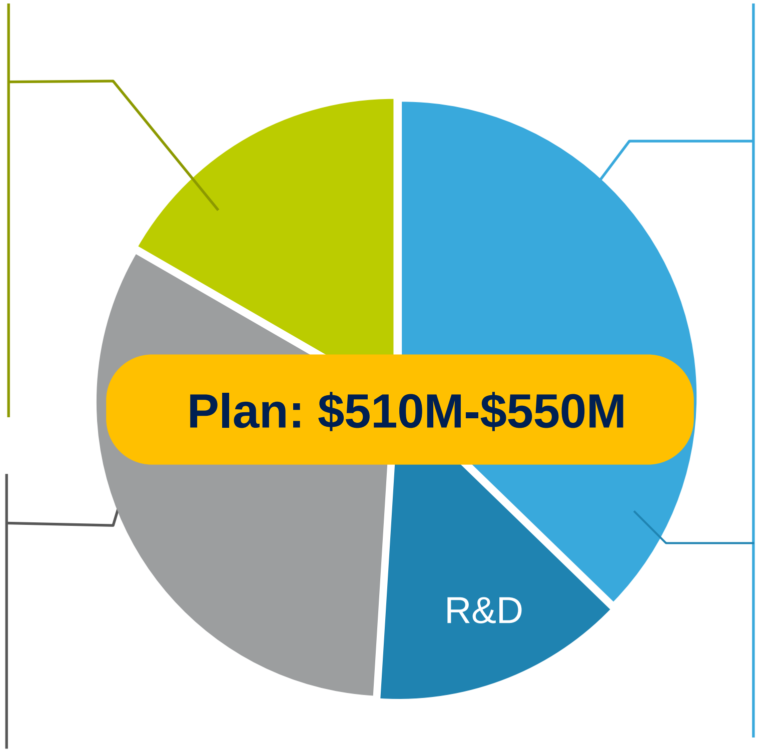
2014 Capital Spending



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

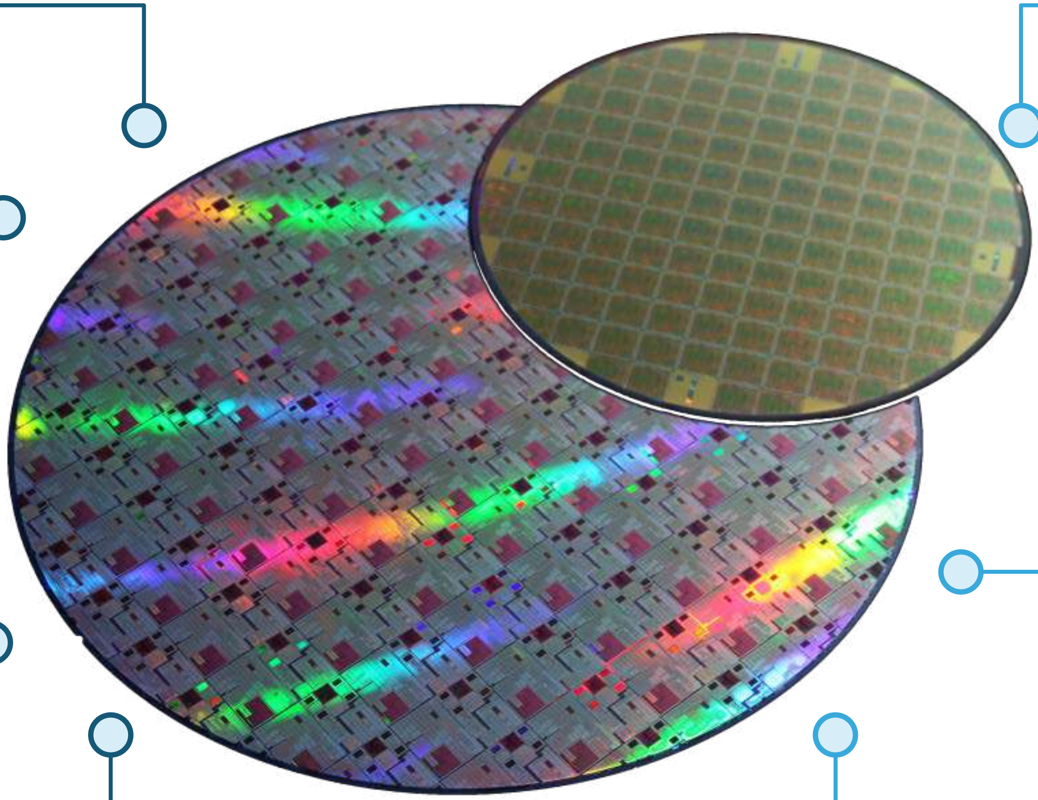
- 300mm capability for 14nm FD-SOI & mix evolution to support advanced MCU and Automotive products
- 200mm line in Singapore
- Capacity increase to meet demand in Smart Power and Discretes

Investments focused on:

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

Technology R&D

Strong technology portfolio



Advanced CMOS FD-SOI

eNVM

CMOS Image Sensor

BiCMOS & Photonics

RF SOI

MEMS

Power & Discrete

Analog Mixed Signal

BCD

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Key achievements

May 2013 Priorities

BCD9S technology platform
to be ready for production. Power ASIC for Automotive (ABS/ESP) engineering samples delivery

FD-SOI 14nm technology
to be ready for prototyping and IPs validation vehicles

Embedded flash 40nm
technology readiness for prototyping and IPs validation vehicles

Our Achievements

- Design and prototyping proliferation in **BCD9S** for Automotive products
- **Qualification** and volume start-up of **thick Copper RDL**

- **FD-SOI 14nm** technology development in line for **MAT20 end 2014**.

- **Qualification** of M55 **55nm eNVM** technology for automotive applications
- M40 **40nm eNVM** program execution in line with initial schedule. First **products expected in 2014**.

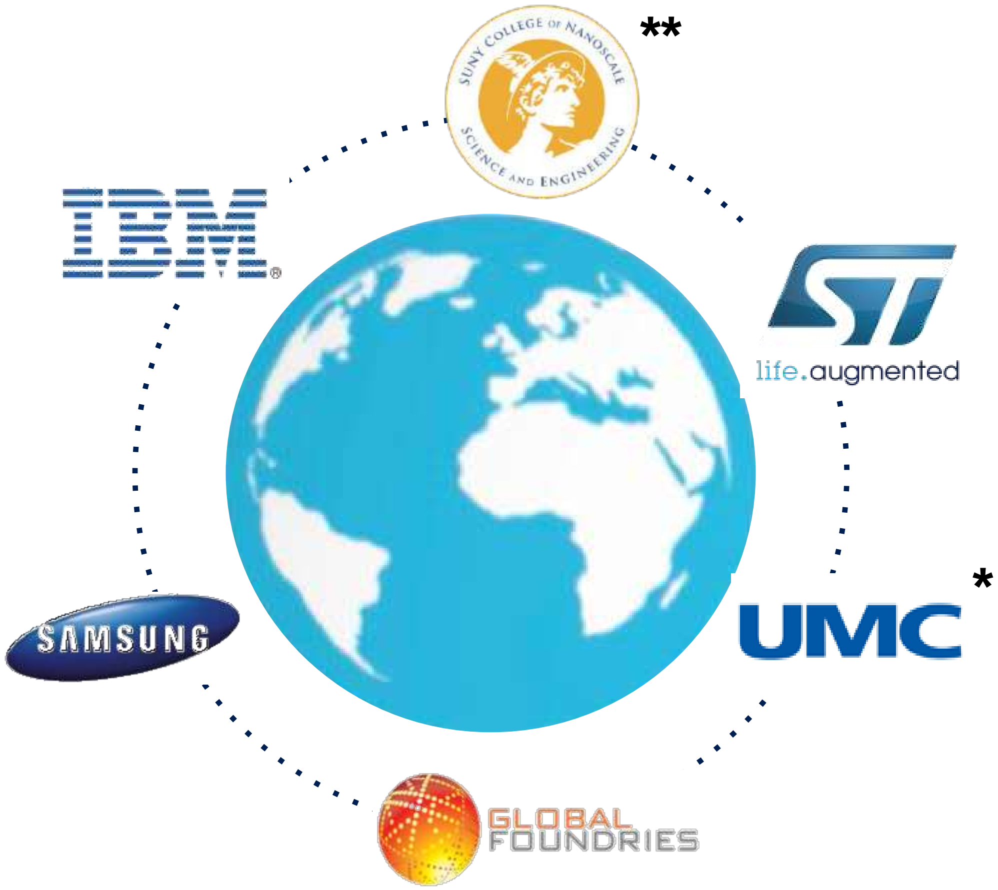
EPS - Technology Roadmap

	Available	2014/15	2016/17
CMOS Digital	28nm UTBB FD-SOI	14nm UTBB FD-SOI	10nm UTBB FD-SOI
RF SOI	130nm	28nm UTBB FD-SOI	
CMOS Imaging	1.4µP BSI	1.1µP BSI	Adv architecture
BiCMOS & Photonics	Photonics 25Gbps	BiCMOS 55nm	Photonics 40Gbps
CMOS eNVM* (Automotive micro)	55nm NOR	40nm NOR	28nm PCM
CMOS eNVM* (GP/secure micro)	80nm NOR	40nm NOR	

* Logic with Embedded Memories

FD-SOI: Fully Depleted Silicon On Isolator
UTBB: Ultra Thin Body and BOX (Buried Oxide)
BSI: Back-Side Illumination
eNVM: embedded Non-Volatile Memory
PCM: Phase-Change Memories

A Collaborative Technology R&D



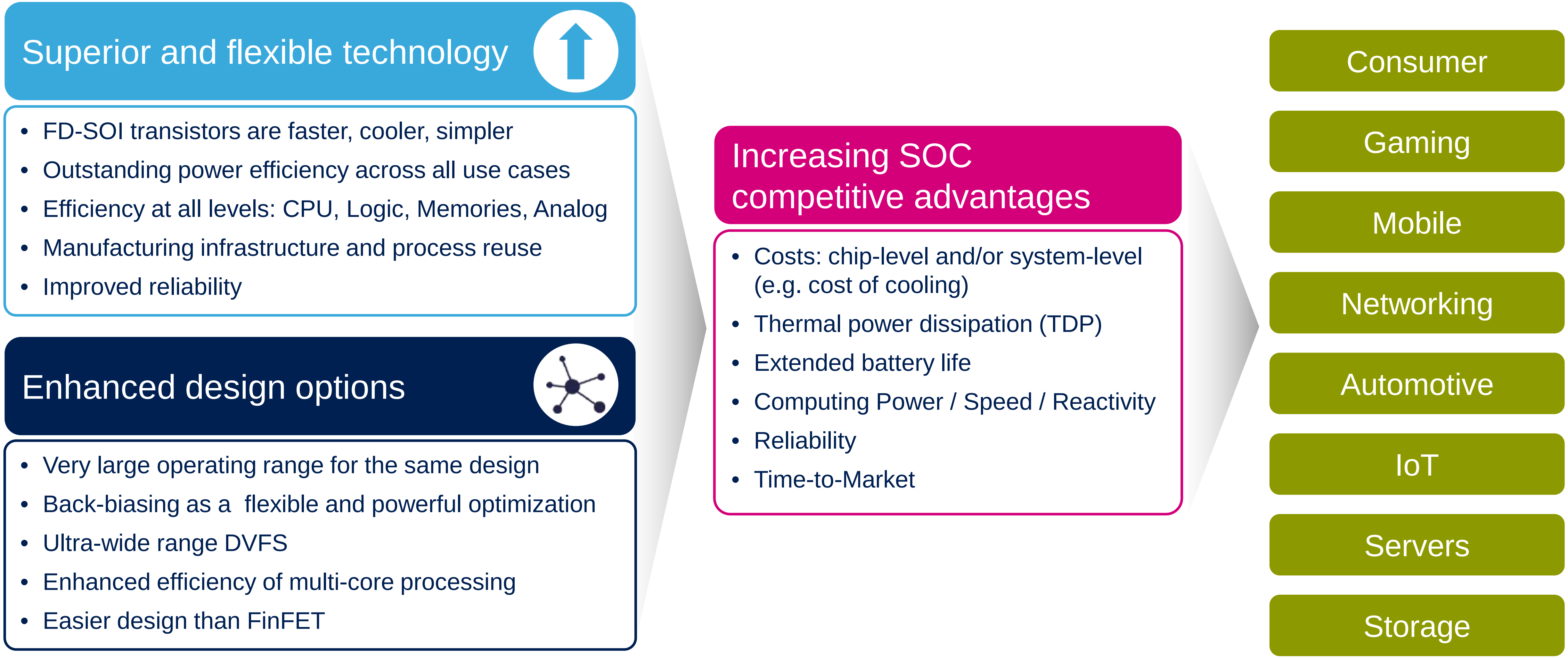
PATHFINDING/preT0 Research

PROJECTS

- 10nm FinFet Platform
- 7nm Program

*UMC is only part of 10nm
**CNSE is only part of Pathfinding/preT0

FD-SOI



Superior and flexible technology

- FD-SOI transistors are faster, cooler, simpler
- Outstanding power efficiency across all use cases
- Efficiency at all levels: CPU, Logic, Memories, Analog
- Manufacturing infrastructure and process reuse
- Improved reliability

Enhanced design options

- Very large operating range for the same design
- Back-biasing as a flexible and powerful optimization
- Ultra-wide range DVFS
- Enhanced efficiency of multi-core processing
- Easier design than FinFET

Increasing SOC competitive advantages

- Costs: chip-level and/or system-level (e.g. cost of cooling)
- Thermal power dissipation (TDP)
- Extended battery life
- Computing Power / Speed / Reactivity
- Reliability
- Time-to-Market

Consumer

Gaming

Mobile

Networking

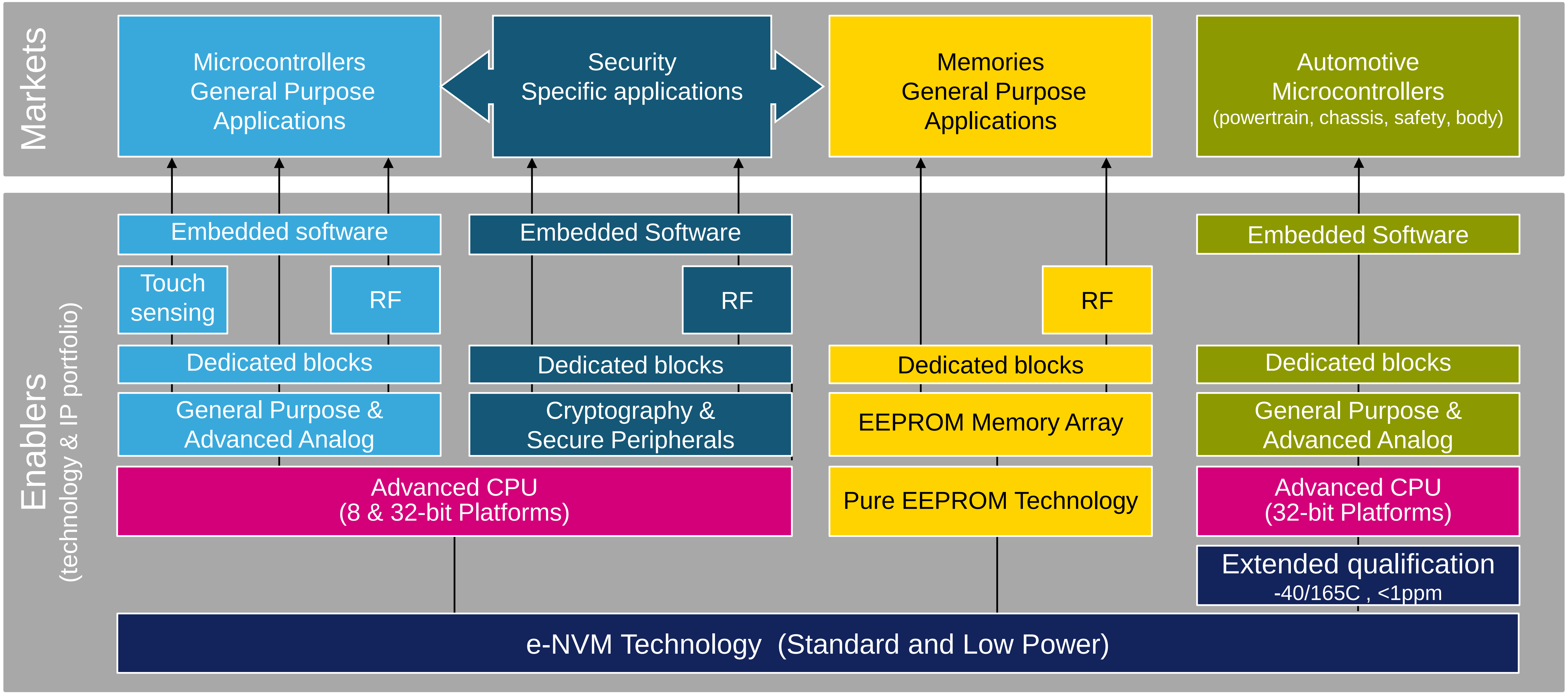
Automotive

IoT

Servers

Storage

Embedded NVM



Markets

Microcontrollers
General Purpose
Applications

Security
Specific applications

Memories
General Purpose
Applications

Automotive
Microcontrollers
(powertrain, chassis, safety, body)

Enablers
(technology & IP portfolio)

Embedded software

Touch sensing

RF

Dedicated blocks

General Purpose &
Advanced Analog

Embedded Software

RF

Dedicated blocks

Cryptography &
Secure Peripherals

Advanced CPU
(8 & 32-bit Platforms)

RF

Dedicated blocks

EEPROM Memory Array

Pure EEPROM Technology

Embedded Software

Dedicated blocks

General Purpose &
Advanced Analog

Advanced CPU
(32-bit Platforms)

Extended qualification
-40/165C , <1ppm

e-NVM Technology (Standard and Low Power)

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SP&A - Technology Roadmap

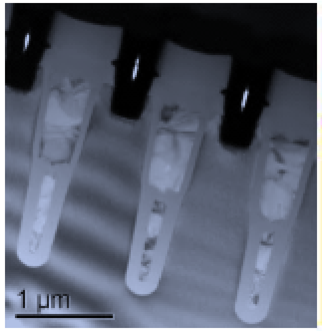
	Available	2014/15	2016/17
BIPOLAR CMOS DMOS 0-100V **BIPOLAR CMOS DMOS >100V**	160nm/110nm 320nm OL/160nm SOI	90nm (200/300mm)	65nm (300mm)
MEMS	Motion (6 axis, AMR, Geophone)	Environmental (Hr,Temp) Audio (Hperf Micro) Actuators	
Power	0.35µm Oxide Filled Trench Silicon Carbide (SIC)	0.2µm Oxide Filled Trench Gen2 Gallium Nitride (GaN)	
Discrete	HV Scr Triacs 1500V GaN Pschottky 600V EnFilm Gen1	HV Scr Triacs 2000V GaN Pschottky1200V EnFilm Gen2	HV Scr Triacs 2500V EnFilm Gen3

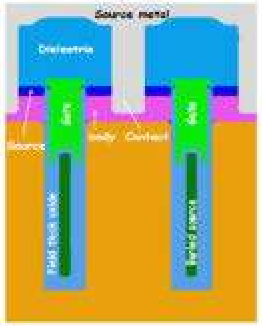
BCD Technology Segmentation

SEGMENT	TECHNOLOGY PLATFORM	APPLICATION FIELDS
Offline BCD	**BCD6s Offline - 0.32µm** *3.3V / 5V CMOS – 25V/800V*	**Lighting** **Motors** **Electrical Car**
	BCD6s HV Transformer - 0.32µm *3.3V CMOS - Galvanic Isolation 6KV*	
SOI BCD	**SOI-BCD6s - 0.32µm** *3.3V CMOS - 20V/50V/100V/190V*	**Full digital amplifier** **Echography** **AMOLED** **Pico-projector**
	SOI-BCD8s - 0.16µm *1.8V CMOS - 70V/100V/140V/200V*	
Advanced BCD	**BCD8s - 0.16µm** *3.3V CMOS - 8V/18V/40V*	**HDD** **Airbag** **Audio amplifier** **Printers** **ESP** ABS **Power Line modems** **Power Supply** **Automotive** **Power Management for Mobile**
	BCD8sP - 0.16µm *1.8V CMOS - 8V/18V/27V/42V/60V*	
	BCD8sAUTO - 0.16µm *3.3V CMOS - 20V/40V/65V/100V*	
	BCD9s - 0.11µm – *Full Cu BE* *1.8V CMOS - **10V**/40V/60V*	
	BCD9sL - 0.11µm – *Full Cu BE* *3.3V CMOS - 20V/40V/65V/100V*	
	BCD10 - 90nm *8V to 65V*	
High Voltage CMOS	**HVG8 - 0.18µm** *1.8V/22V/32V CMOS*	**Bio Medical** **Advanced Analog**
	HVG8A - 0.18µm *16V CMOS*	

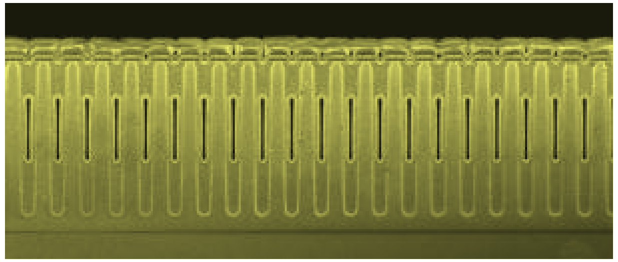
Power & Discrete Technologies

LV MOSFETs
- OFT100 (ind.)
- OFT60/40V

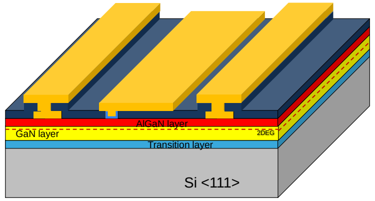


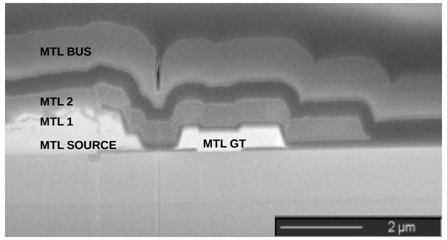


HV MOSFETs
- MD trench



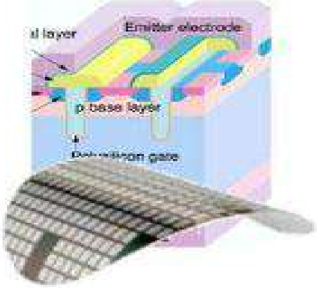
Gallium Nitride (GaN)
- GaN-HEMT

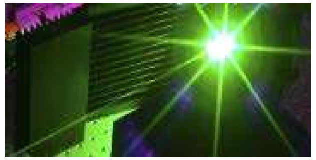




Silicon Carbide (SiC)
- SiC MOSFET
- SiC Diodes

IGBTs
- 1200V LA
- 650V LA
- Integrated Recovery Diode
- Copper-on-IGBTs





Manufacturing and Technology Summary

- Differentiating technologies and leading edge road-maps in both Moore and More-than-Moore
- Time-to-market and time-to-volume, driven by clusters of leadership
- Highly efficient and flexible manufacturing engine, Front-End and PTM serving both product segments
- Cost efficiency driven by global lean manufacturing initiative

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

Stronger collaboration with channel partners

Intensify cooperation with distributors and certified partners

Breadth and Depth of Product Portfolio

A **unique portfolio** with all the key technologies and products

Increasing semiconductor content per application

More ST chips per customer system

Engaging with a **broad ecosystem**

- MEMS & Sensors
- Analog & Mixed Signal ICs
- RF Connectivity

- Microcontroller
- Secure MCU
- Memory

- Power Discrete & Modules
- Industrial Analog ASSP
- Power Conversion

- Automotive
- Imaging
- Digital Consumer & ASICs

Expertise in Key Functions for Applications

Strong expertise in key functions

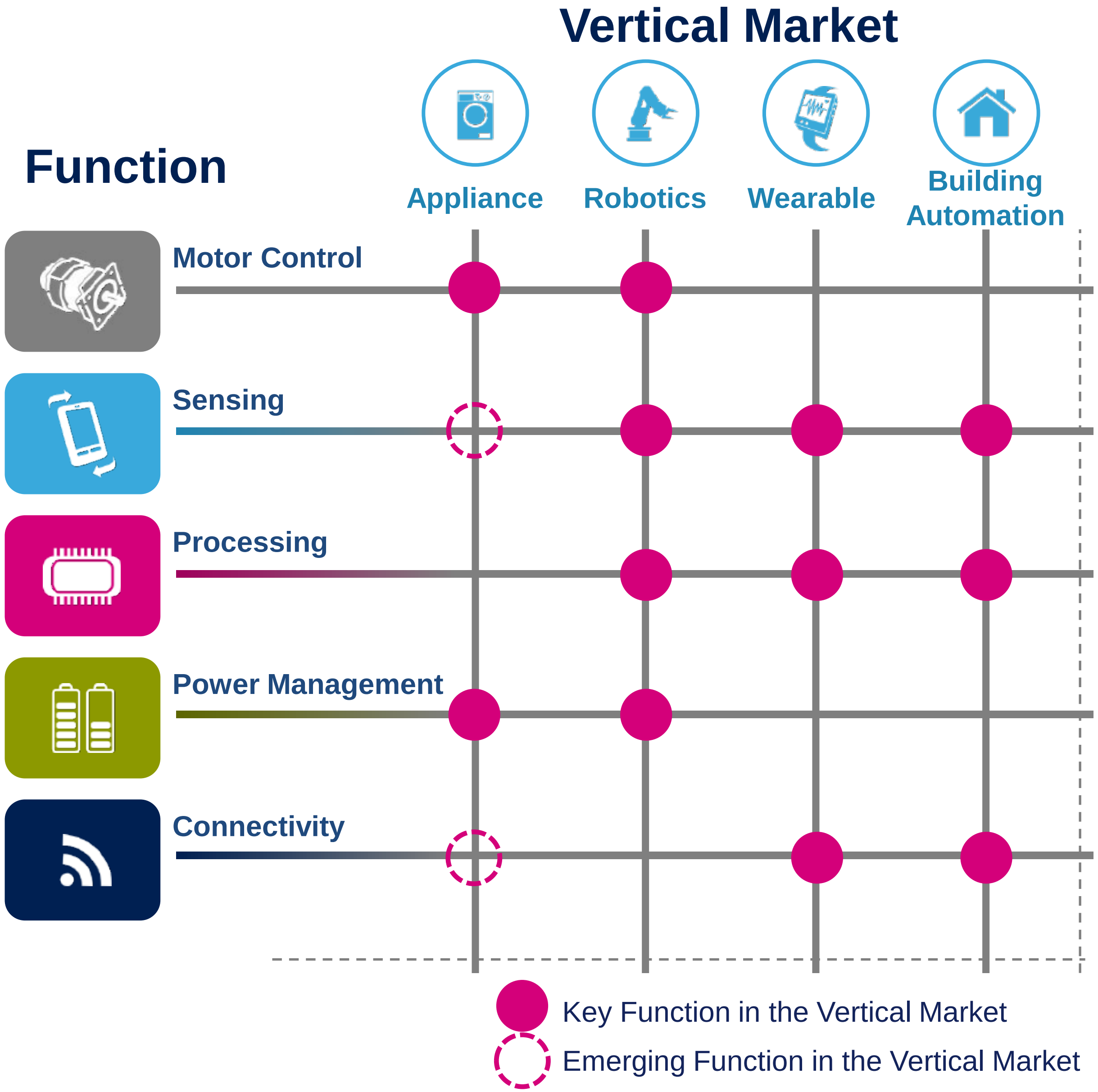
- Motor Control, Sensing, Processing, Power Management, Connectivity, …

Access to a fast and easy application development environment

- A wide range of platforms and reference designs
- Partnership with third parties
- Supporting design environment with selectors, design and simulation tools

Enlarged products portfolio supported by all collateral

- Software, evaluation boards, technical and marketing documentation…



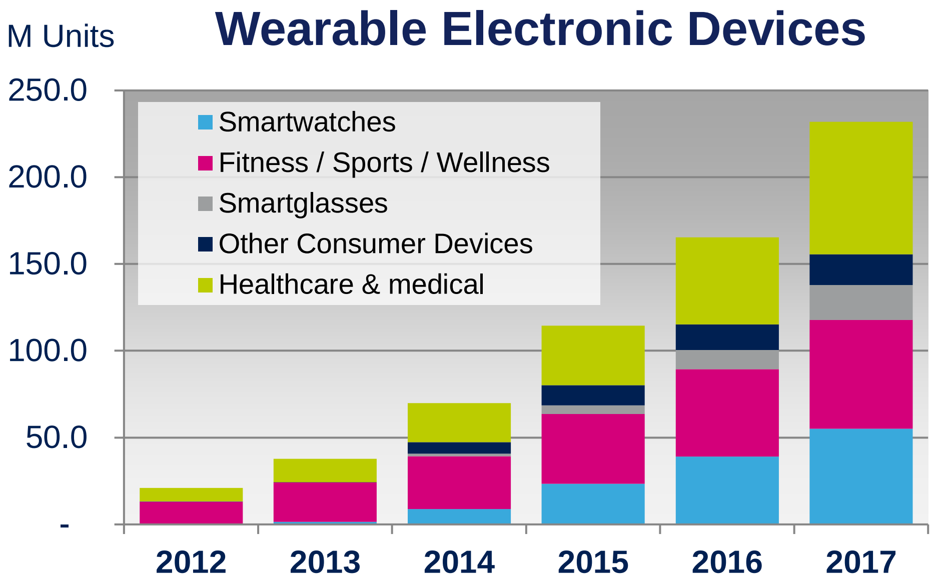
Vertical Market

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

ST in Wearable Applications


Wearable Electronic Devices


Activity Monitor


Heart Monitor


Sports


Smart Watch


Accessories

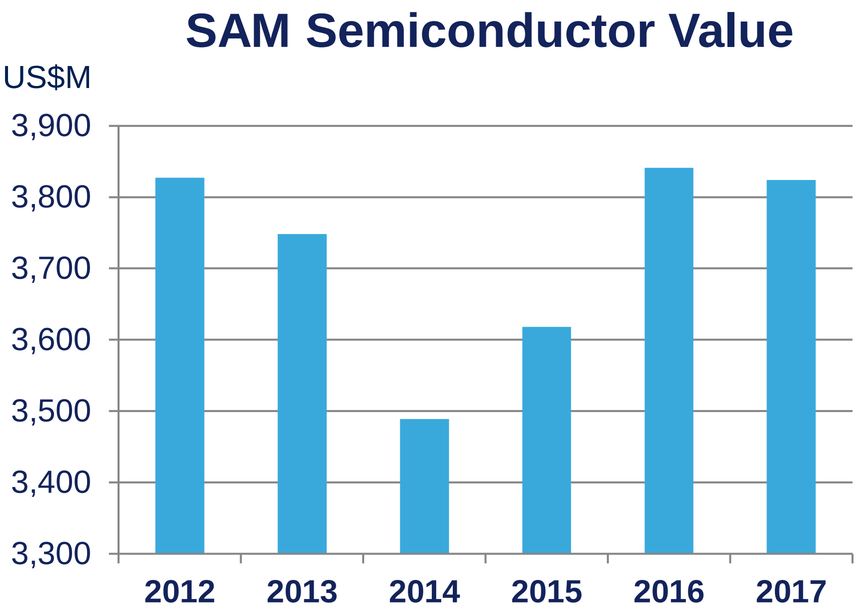

Glasses & Goggles

$1.4B in SAM by 2017

Sensing	Processing	Connectivity	Power Mgmt.
Gyroscope and Accelerometer **MEMS microphones** **Environmental sensors** **Sensor Fusion Hub**	**STM32 leader in low-power ARM Cortex-M Microcontrollers**	**Bluetooth Low Energy** **Bluetooth & Wi-Fi modules**	**AC-DC charging** **Battery management** **Wireless Charging** **Energy Harvesting**

Sources: Strategy Analytics, ABI Research, ST

ST in Appliances



Cold Appliances

Wet Appliances

Hot Appliances

Small Appliances

Processing	Motor Control	Sensing	Connectivity	Power Mgmt.
STM32 broad family of Cortex-M Microcontrollers for Motor Control/HMI applications	Power Discrete and Modules Industrial Analog ASSP	Accelerometer - Gyro Humidity & temperature Sensors Pressure Sensors	Power Line Modem BT Modules	Smart Power

Sources: HIS, Abi Research

Mass Market Programs

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Based on three pillars

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Promoting leading applications & products

Boost demand creation with full "go to market" series of actions

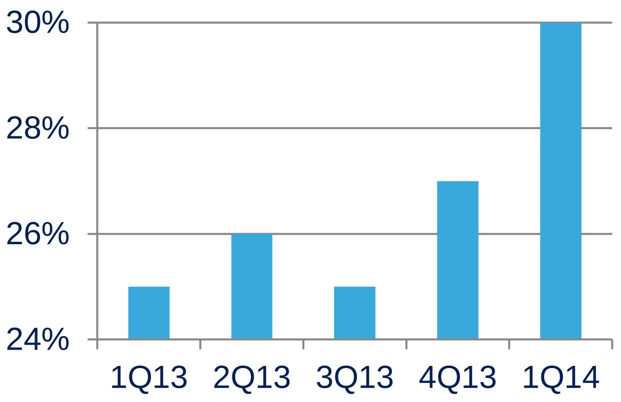
Stronger collaboration with channel partners

Intensify cooperation with distributors and certified partners

Collaboration with Partners

- Network of Distributors and Value-added Resellers
  - Extended marketing reach via joint promotion programs
  - Growing sales coverage and leverage of resources
  - Stronger technical support from distributors' teams thanks to increased knowledge of ST products and application solutions
- Enhanced design support through collaboration with third parties (design houses, training centers, …)
- Improved online marketing and design environment able to acquire, support and serve new customers during the design and production phases

Distribution (as % of total revenues)



Large Distribution Network

54 top class **distribution partners** worldwide fully integrated with our teams (sales, technical, supply chain, online) covering **150 countries**

Top 4 distributors*

AVNET®

WT MICROELECTRONICS

YOSUN GROUP

Catalog Distributors

Digi-Key CORPORATION

Farnell element14

MOUSER ELECTRONICS

RS

**Listed alphabetically*

ST Momentum in the Mass Market

Mass Market Growing

- High single digit growth in Mass Market billing in 2013
- ~1500 Core Key Account customers identified and tracked
- Double digit POS growth Q1 2014 vs. Q1 2013

Design Pipeline

- Strong growth in design win registrations and opportunities

Application

- Leading functions and applications support package development underway
- Around 20 000 STM32 Nucleo boards shipped since launch in February
- General Purpose MCU customer base growth of 28% (2012-2013) giving additional visibility into leading apps

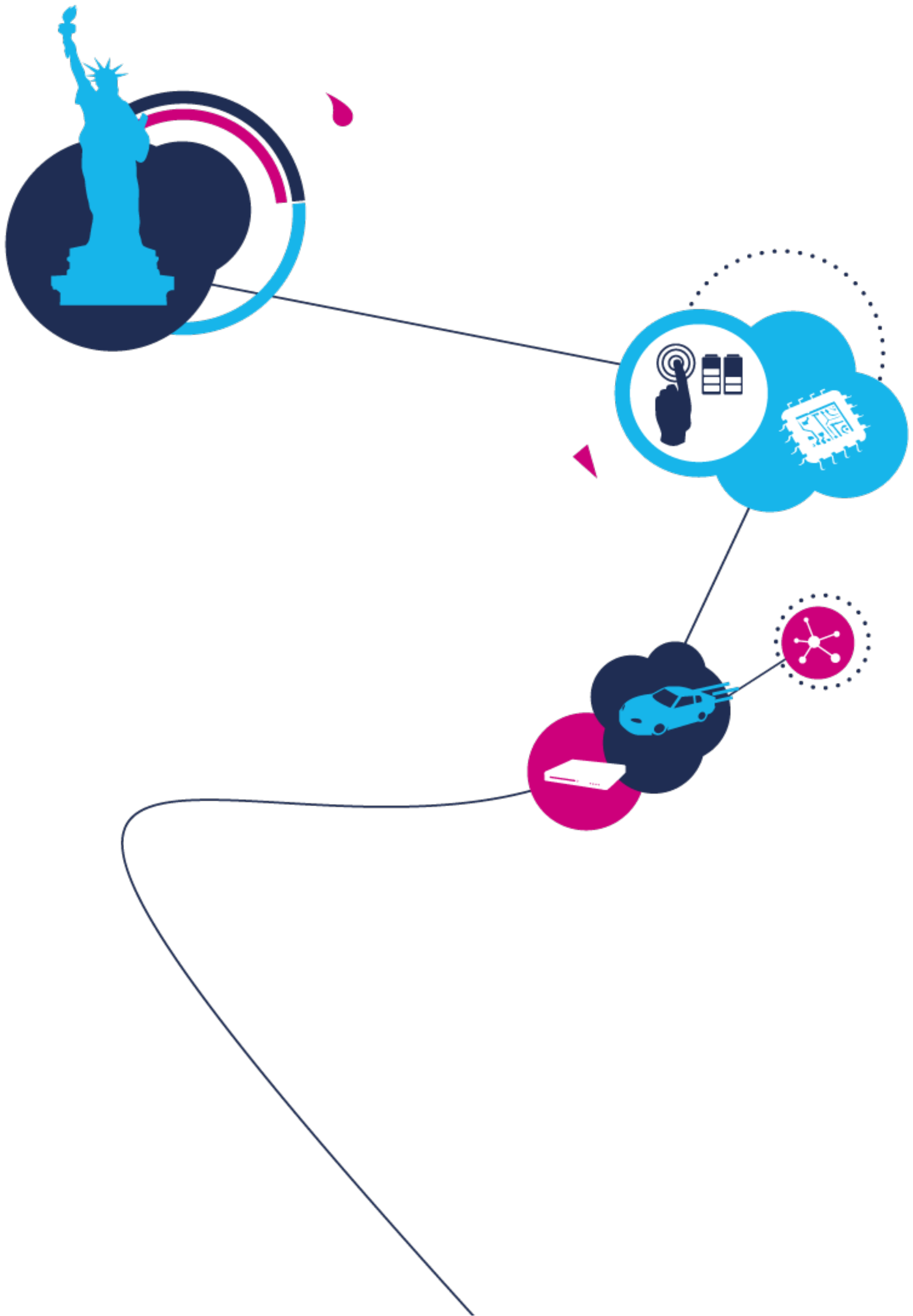
Takeaways

- Mass Market offers a great opportunity to grow
  - **Largest Market** of ST – More than 100,000 customers
  - **Stability of demand** due to multiple market segment
  - Higher prices generate **better margins**
- Unique position to win in the Mass Market
  - Breadth and depth of **product portfolio**
  - **Expertise** in multiple key functions and application **know-how**
  - Renewed **focus** of **marketing and sales** organization
  - **Strong partnership** with distribution and 3rd parties
- Renewed business focus on Mass Market
  - Formalized structure and process
  - Strong coordinated focus on growth

Manufacturing and Technology R&D

Jean-Marc Chery
Chief Operating Officer

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



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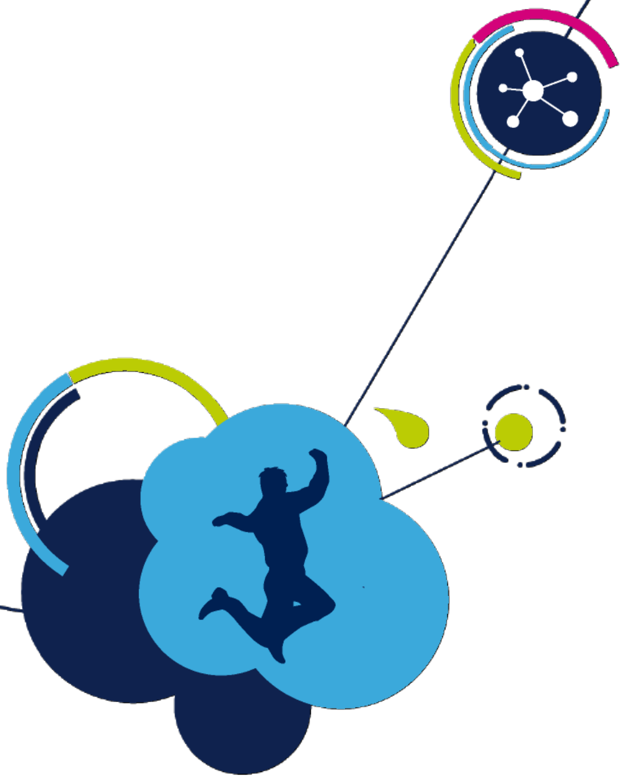


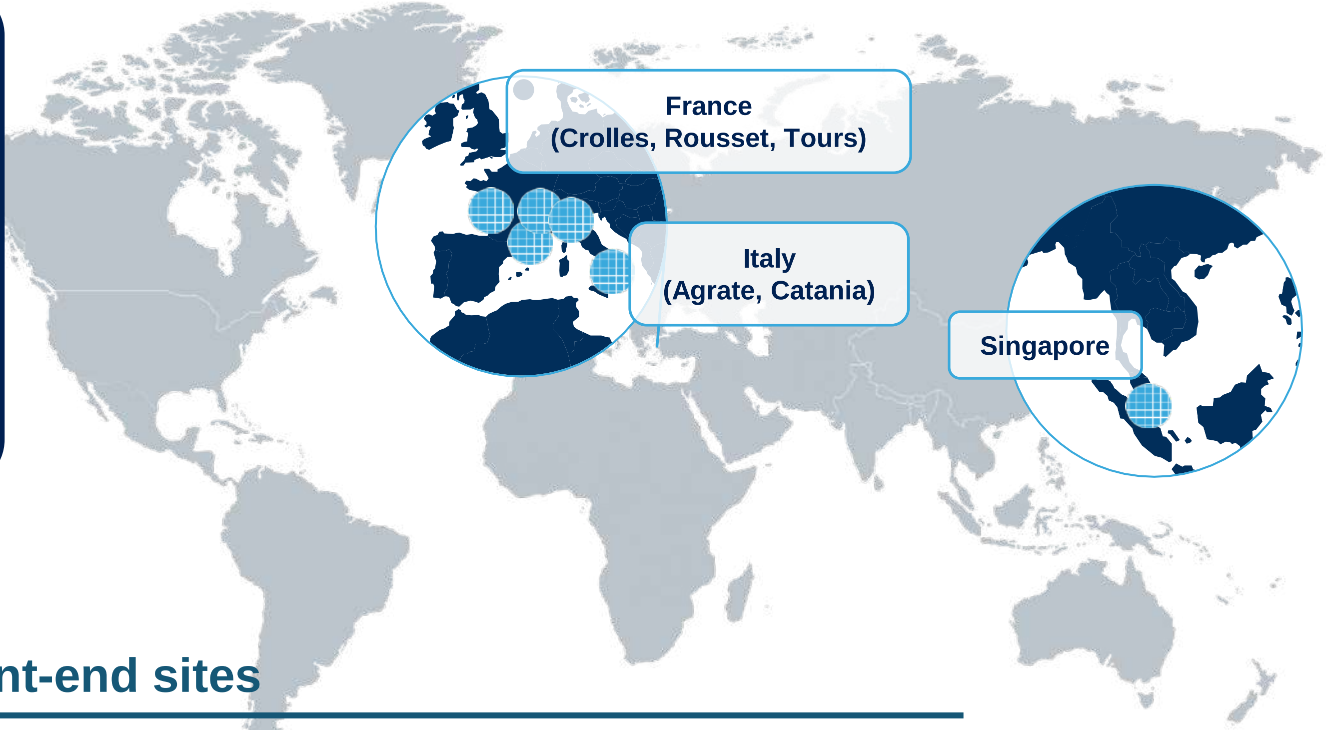
Manufacturing

Front-End Manufacturing: Unique Capability

Large technology portfolio

Clustering approach

Internal and external flexibility



6 front-end sites

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

Key Achievements

May 2013 Priorities

CMOS

- FD-SOI 28nm manufacturing ramp-up
- Imaging 1.4µP BSI volume production

E-NVM, RF/Analog

- 90nm e-Flash high volume production
- Optimized 130nm RF SOI in ramp-up

Smart Power & Discrete

- BCD mix evolution to 0.16µm, thickCu
- IGBT 650/1200V production ramp-up

MEMS

- 6-Axis combo volume production
- mPhone and Compass ramp-up

Our Achievements

- **Full qualification of 28nm FD-SOI** technology platform, now ready for Manufacturing: Strong prototyping activity ongoing
- **Volume production** ramp-up of **1.4µP BSI** technology for a key mobile phone customer
- Ramp-up at **Crolles300** of M10 **90nm eNVM** technology for general purpose microcontrollers applications. Volume production in Rousset for general purpose and secure microcontrollers applications.
- **Full qualification** of M55 **55nm eNVM** technology for automotive applications
- Complete redefinition of **RF SOI 130nm** technology with **best-in-class** Ron-Coff figure of merit and process **cost optimization**
- **Volume production** of **BCD8 0.16µm** generation for HDD, PMIC and Automotive applications at **Agrate** and **Catania** fabs
- **Volume** ramp-up of **IGBT** at Catania fab
- MEMS 6-axis and **pressure sensor** in **volumes** at Agrate fab
- Production start of **MDMESH** at Singapore 8”

Front-End Manufacturing Vision

Advanced CMOS and Derivatives

- Crolles 300 growth and critical size improvement, focusing on balanced mix of technologies, capitalizing on 28nm FD-SOI platform, improving flexibility and assets utilization
- Embedded-NVM, Analog CMOS, BiCMOS and RF SOI at both 200 and 300 mm (Rousset, Crolles)
- Multiple foundry options to support further growth and flexibility

Sense & Power Technologies

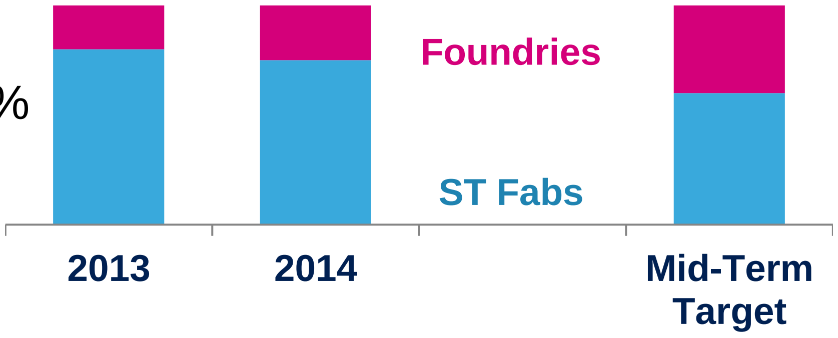
- Technology capability enabling product differentiation for MEMS, BCD & Discretes
- Improve mix toward higher margin product lines
- Progressive conversion from 6” to 8” at the Singapore and Catania fabs
- Foundry outsourcing to increase flexibility

CMOS and Derivatives Sourcing

28nm FD-SOI licensing agreement signed with Samsung

- Crolles 300 expansion. Rousset/Crolles clustering
- Technology & manufacturing partnerships in Image Sensor/BSI
- Multiple sourcing for flexibility

Targeting 40% outsourcing



Technology	First	Second
CMOS 40nm	Crolles 300	Foundry
CMOS 28nm Bulk	Foundry	Crolles 300
CMOS 28nm FD-SOI	Crolles 300	Foundry
Imaging BSI	Crolles 300	Foundry
BiCMOS55	Crolles 300	
Photonics 25Gbps	Crolles 300	
RF SOI	Crolles 200	
eNVM M55/M40	Crolles 300	

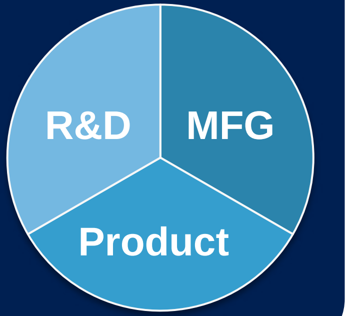
Sense & Power Technologies

Technology Differentiation

- MEMS motion and non-motion, sensors and actuators
- Smart Power BCD9s
- Tunable antenna discretes

Integrated Manufacturing & R&D

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



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

Cost competitive

High Volume Manufacturing

Packaging & Testing Manufacturing

Consolidation of China operation for cost structure improvement

Longgang closure: end of 2014

- Fast time to volume and competitive manufacturing
- Multipurpose sites serving both Product Sectors
- Relentless quality improvement

6 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
Longgang	Power PMOS Discretes

OSAT partners

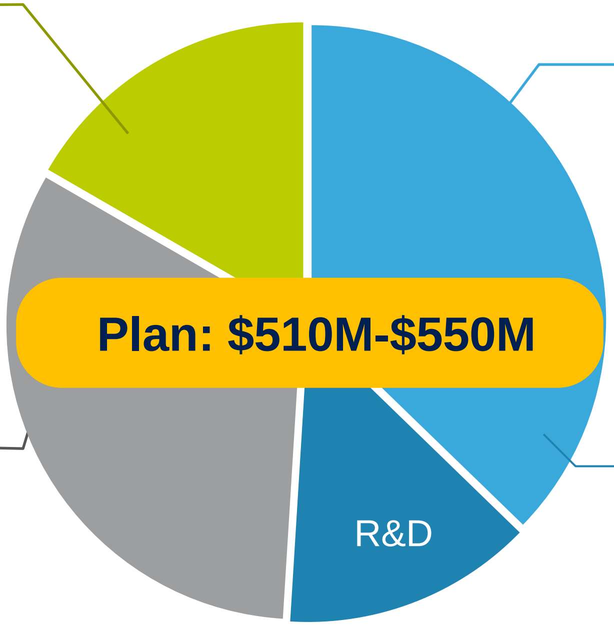
2014 Capital Spending

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

- 300mm capability for 14nm FD-SOI & mix evolution to support advanced MCU and Automotive products
- 200mm line in Singapore
- Capacity increase to meet demand in Smart Power and Discretes

Investments focused on:

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

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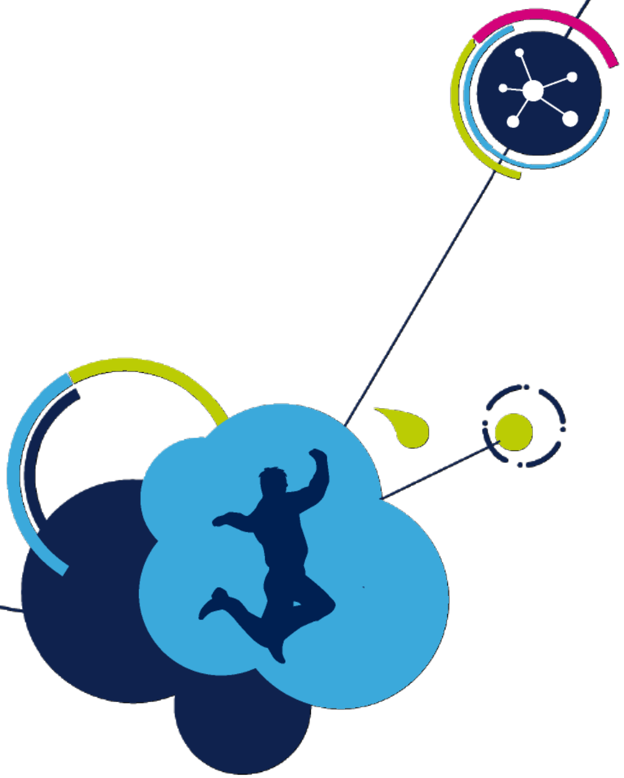
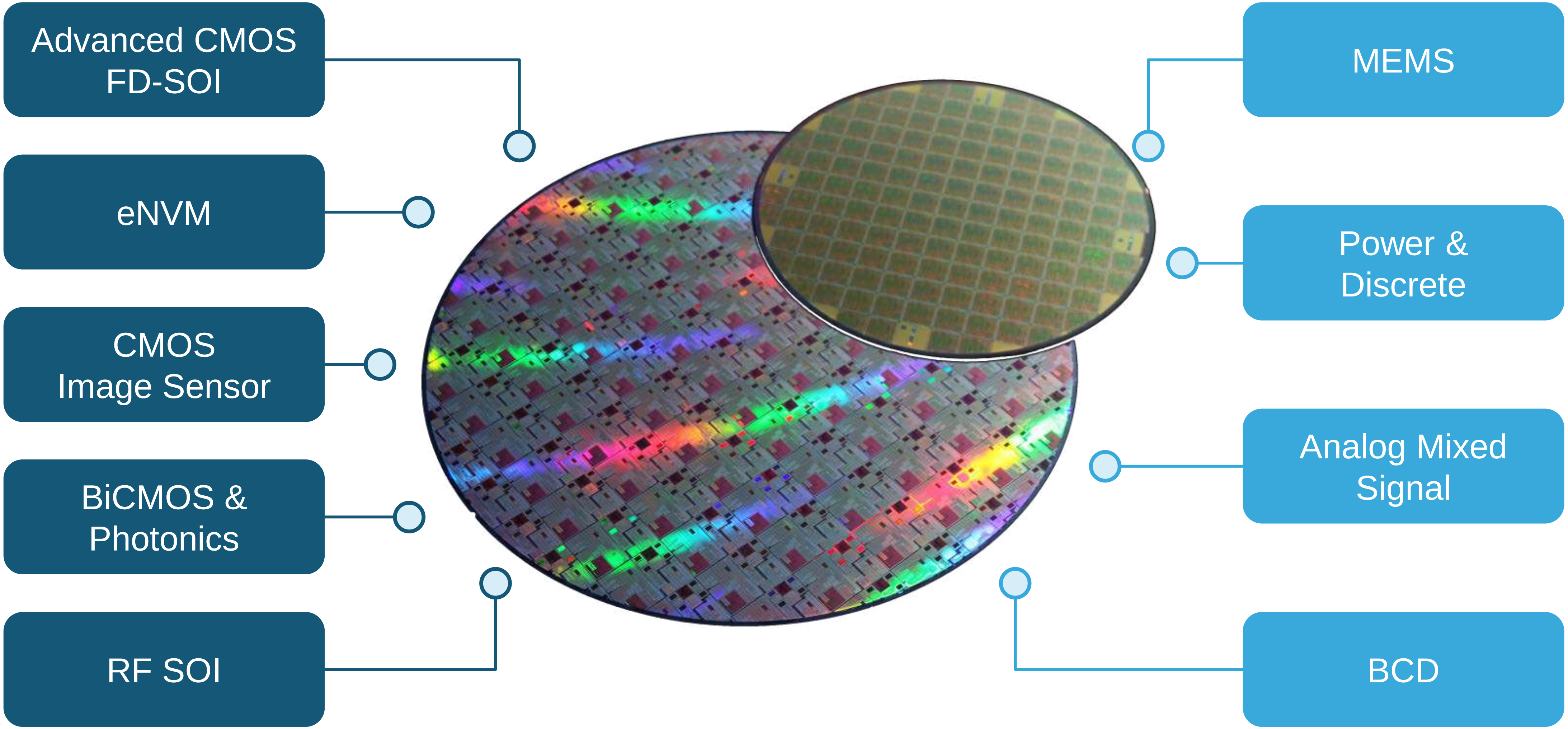


Technology R&D

Strong technology portfolio



Advanced CMOS FD-SOI

eNVM

CMOS Image Sensor

BiCMOS & Photonics

RF SOI

MEMS

Power & Discrete

Analog Mixed Signal

BCD

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Key achievements

May 2013 Priorities

BCD9S technology platform
to be ready for production. Power ASIC for Automotive (ABS/ESP) engineering samples delivery

FD-SOI 14nm technology
to be ready for prototyping and IPs validation vehicles

Embedded flash 40nm
technology readiness for prototyping and IPs validation vehicles

Our Achievements

- Design and prototyping proliferation in **BCD9S** for Automotive products
- **Qualification** and volume start-up of **thick Copper RDL**

- **FD-SOI 14nm** technology development in line for **MAT20 end 2014**.

- **Qualification** of M55 **55nm eNVM** technology for automotive applications
- M40 **40nm eNVM** program execution in line with initial schedule. First **products expected in 2014**.

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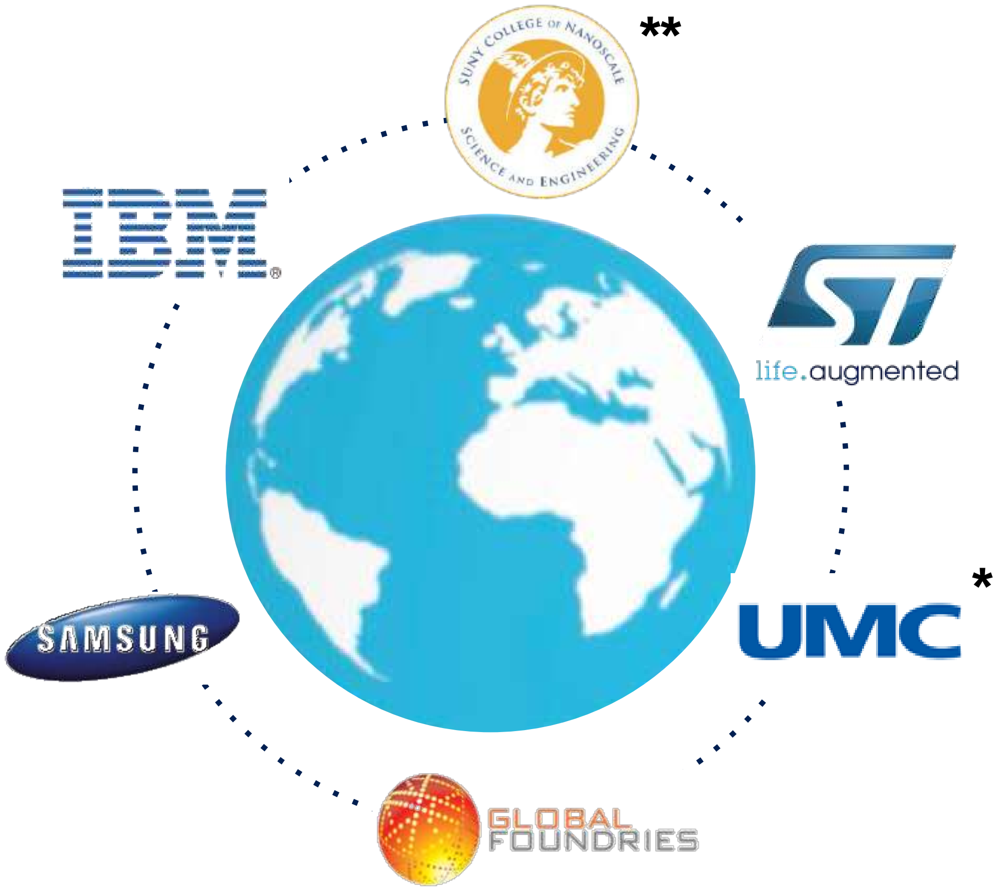
EPS - Technology Roadmap

	Available	2014/15	2016/17
CMOS Digital	28nm UTBB FD-SOI	14nm UTBB FD-SOI	10nm UTBB FD-SOI
RF SOI	130nm	28nm UTBB FD-SOI	
CMOS Imaging	1.4μP BSI	1.1μP BSI	Adv architecture
BiCMOS & Photonics	Photonics 25Gbps	BiCMOS 55nm	Photonics 40Gbps
CMOS eNVM* (Automotive micro)	55nm NOR	40nm NOR	28nm PCM
CMOS eNVM* (GP/secure micro)	80nm NOR	40nm NOR	

* Logic with Embedded Memories

FD-SOI: Fully Depleted Silicon On Isolator
UTBB: Ultra Thin Body and BOX (Buried Oxide)
BSI: Back-Side Illumination
eNVM: embedded Non-Volatile Memory
PCM: Phase-Change Memories

A Collaborative Technology R&D



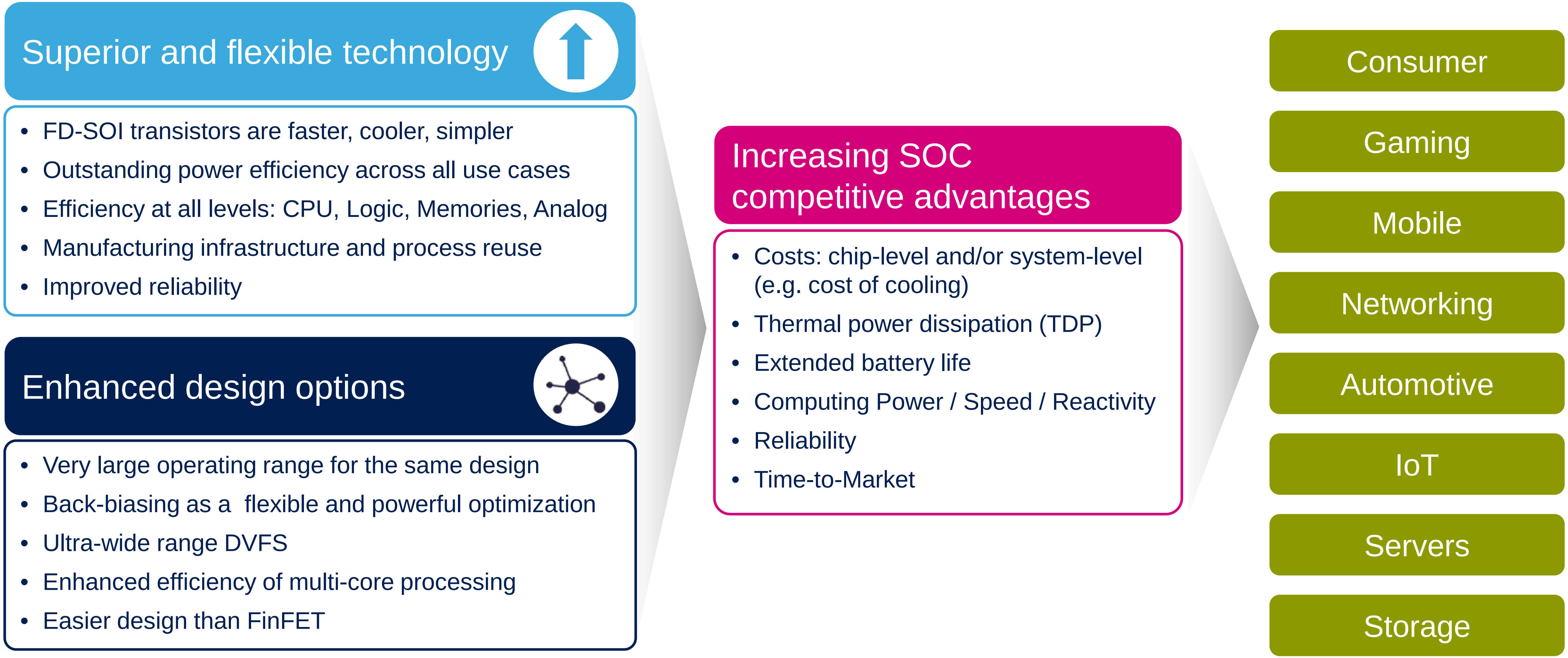
PATHFINDING/preT0 Research

PROJECTS

- 10nm FinFet Platform
- 7nm Program

*UMC is only part of 10nm
**CNSE is only part of Pathfinding/preT0

FD-SOI



Superior and flexible technology

- FD-SOI transistors are faster, cooler, simpler
- Outstanding power efficiency across all use cases
- Efficiency at all levels: CPU, Logic, Memories, Analog
- Manufacturing infrastructure and process reuse
- Improved reliability

Enhanced design options

- Very large operating range for the same design
- Back-biasing as a flexible and powerful optimization
- Ultra-wide range DVFS
- Enhanced efficiency of multi-core processing
- Easier design than FinFET

Increasing SOC competitive advantages

- Costs: chip-level and/or system-level (e.g. cost of cooling)
- Thermal power dissipation (TDP)
- Extended battery life
- Computing Power / Speed / Reactivity
- Reliability
- Time-to-Market

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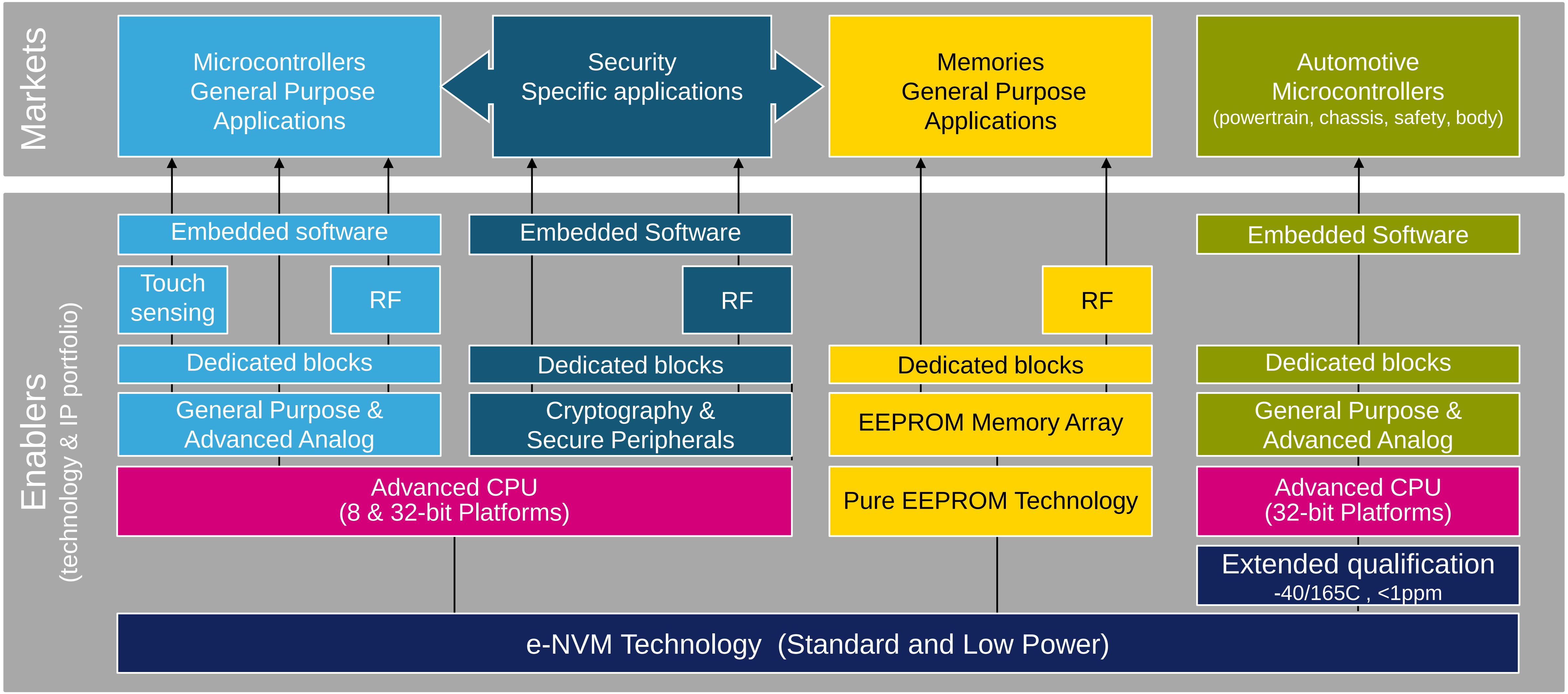
Embedded NVM



Markets

Microcontrollers
General Purpose
Applications

Security
Specific applications

Memories
General Purpose
Applications

Automotive
Microcontrollers
(powertrain, chassis, safety, body)

Enablers
(technology & IP portfolio)

Embedded software

Touch sensing

RF

Dedicated blocks

General Purpose &
Advanced Analog

Embedded Software

RF

Dedicated blocks

Cryptography &
Secure Peripherals

Advanced CPU
(8 & 32-bit Platforms)

RF

Dedicated blocks

EEPROM Memory Array

Pure EEPROM Technology

Embedded Software

Dedicated blocks

General Purpose &
Advanced Analog

Advanced CPU
(32-bit Platforms)

Extended qualification
-40/165C , <1ppm

e-NVM Technology (Standard and Low Power)

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SP&A - Technology Roadmap

	Available	2014/15	2016/17
BIPOLAR CMOS DMOS 0-100V **BIPOLAR CMOS DMOS >100V**	160nm/110nm 320nm OL/160nm SOI	90nm	Next gen
MEMS	Motion (6 axis, AMR, Geophone)	Environmental (Hr,Temp) Audio (Hperf Micro) Actuators	
Power	0.35µm Oxide Filled Trench Silicon Carbide (SIC)	0.2µm Oxide Filled Trench Gen2 Gallium Nitride (GaN)	
Discrete	HV Scr Triacs 1500V GaN Pschottky 600V EnFilm Gen1	HV Scr Triacs 2000V GaN Pschottky1200V EnFilm Gen2	HV Scr Triacs 2500V EnFilm Gen3

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BCD Technology Segmentation

SEGMENT	TECHNOLOGY PLATFORM	APPLICATION FIELDS
Offline BCD	**BCD6s Offline - 0.32*µm*** *3.3V / 5V CMOS – 25V/800V*	**Lighting** **Motors** **Electrical Car**
	BCD6s HV Transformer - 0.32*µm* *3.3V CMOS - Galvanic Isolation 6KV*	
SOI BCD	**SOI-BCD6s - 0.32*µm*** *3.3V CMOS - 20V/50V/100V/190V*	**Full digital amplifier** **Echography** **AMOLED** **Pico-projector**
	SOI-BCD8s - 0.16*µm* *1.8V CMOS - 70V/100V/140V/200V*	
Advanced BCD	**BCD8s - 0.16*µm*** *3.3V CMOS - 8V/18V/40V*	**HDD** **Airbag** **Audio amplifier** **Printers** **ESP** **Power Line modems** **Power Supply** **Automotive** **Power Management for Mobile**
	BCD8sP - 0.16*µm* *1.8V CMOS - 8V/18V/27V/42V/60V*	
	BCD8sAUTO - 0.16*µm* *3.3V CMOS - 20V/40V/65V/100V*	
	BCD9s - 0.11*µm* – *Full Cu BE* *1.8V CMOS - **10V**/40V/60V*	
	BCD9sL - 0.11*µm* – *Full Cu BE* *3.3V CMOS - 20V/40V/65V/100V*	
	BCD10 - 90nm *8V to 65V*	
High Voltage CMOS	**HVG8 - 0.18*µm*** *1.8V/22V/32V CMOS*	**Bio Medical** **Advanced Analog**
	HVG8A - 0.18*µm* *16V CMOS*	

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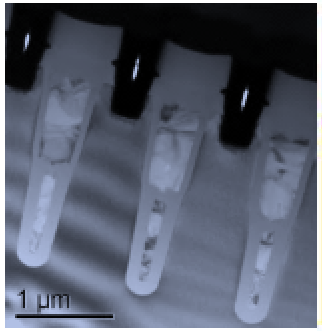
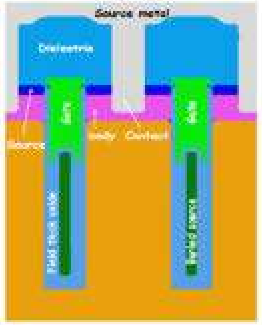
Power & Discrete Technologies

LV MOSFETs

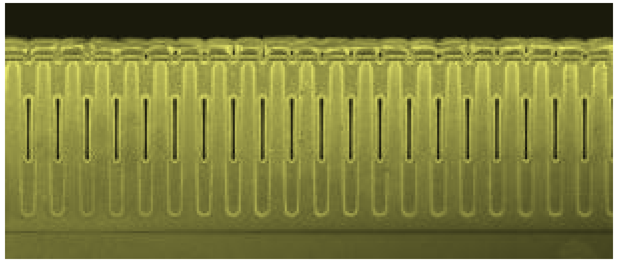
- OFT100 (ind.)
- OFT60/40V





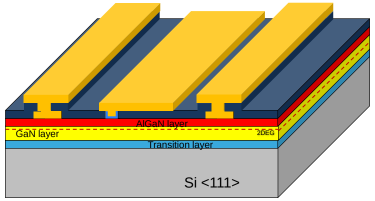
HV MOSFETs

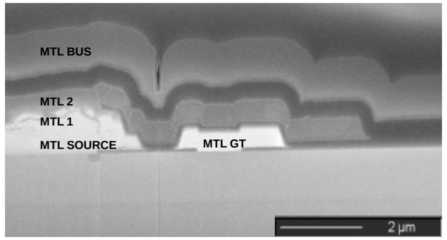
- MD trench



Gallium Nitride (GaN)

- GaN-HEMT



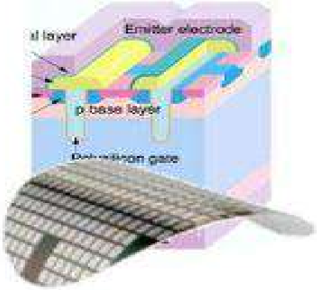


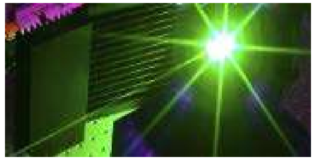
Silicon Carbide (SiC)

- SiC MOSFET
- SiC Diodes

IGBTs

- 1200V LA
- 650V LA
- Integrated Recovery Diode
- Copper-on-IGBTs





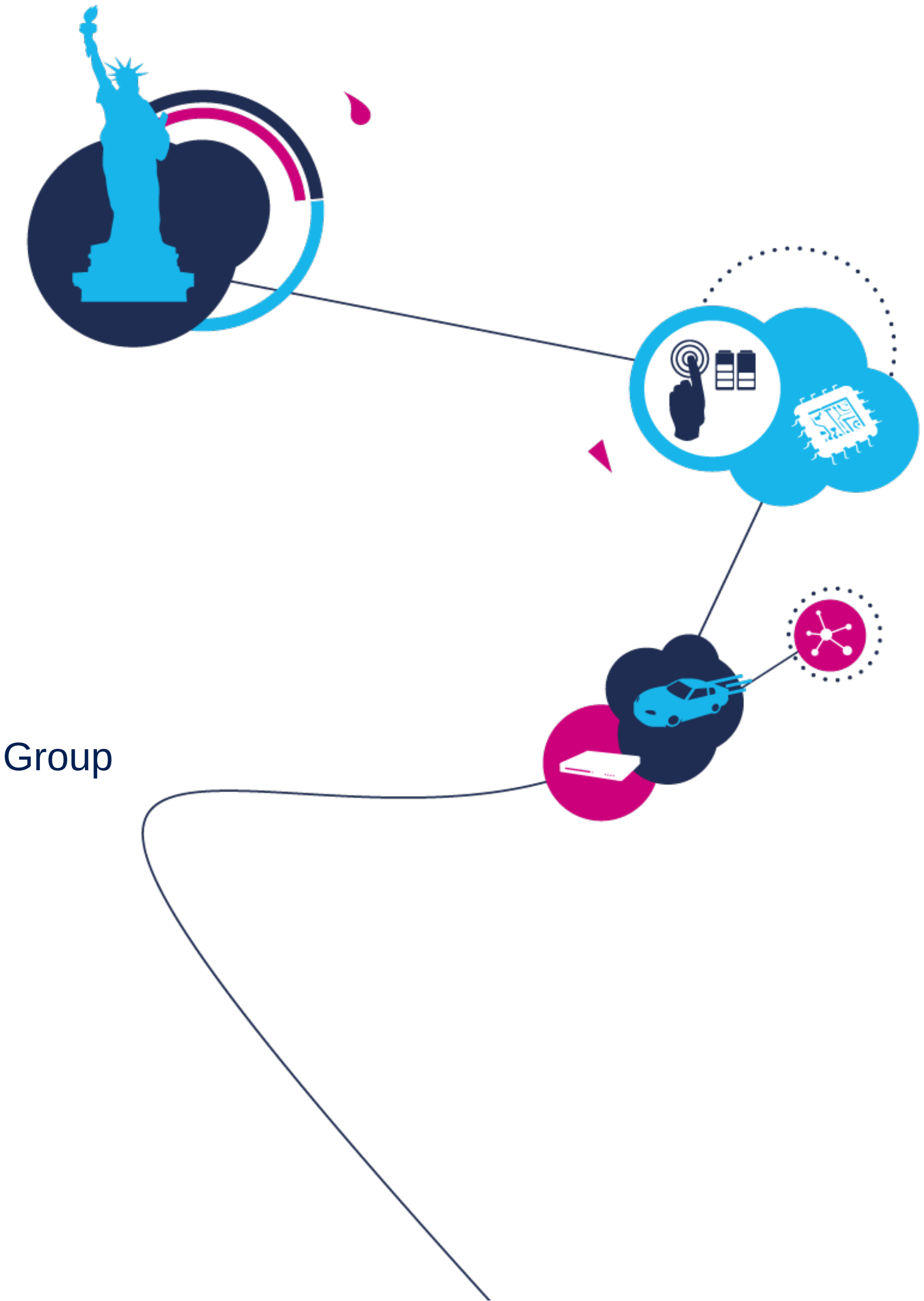
Manufacturing and Technology Summary

- Differentiating technologies and leading edge road-maps in both Moore and More-than-Moore
- Time-to-market and time-to-volume, driven by clusters of leadership
- Highly efficient and flexible manufacturing engine, Front-End and PTM serving both product segments
- Cost efficiency driven by global lean manufacturing initiative

Microcontrollers, Memory & Secure MCU

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

François Guibert
Executive Vice President,
President, Greater China and South Asia Region



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MMS Positioning in 2013

EEPROM memories

#1 worldwide supplier 2013

Secure Microcontrollers

#3 worldwide supplier 2013

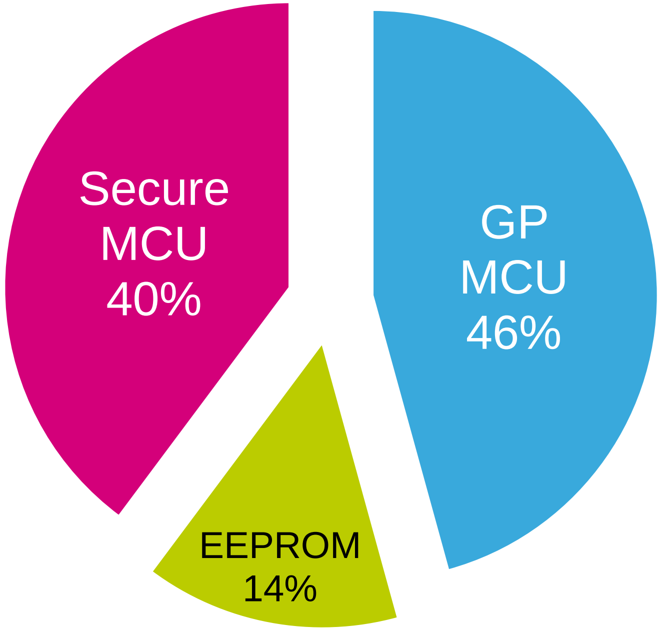
General Purpose Microcontrollers

#4 worldwide supplier 2013

Consolidated MCU

#2 worldwide supplier 2013

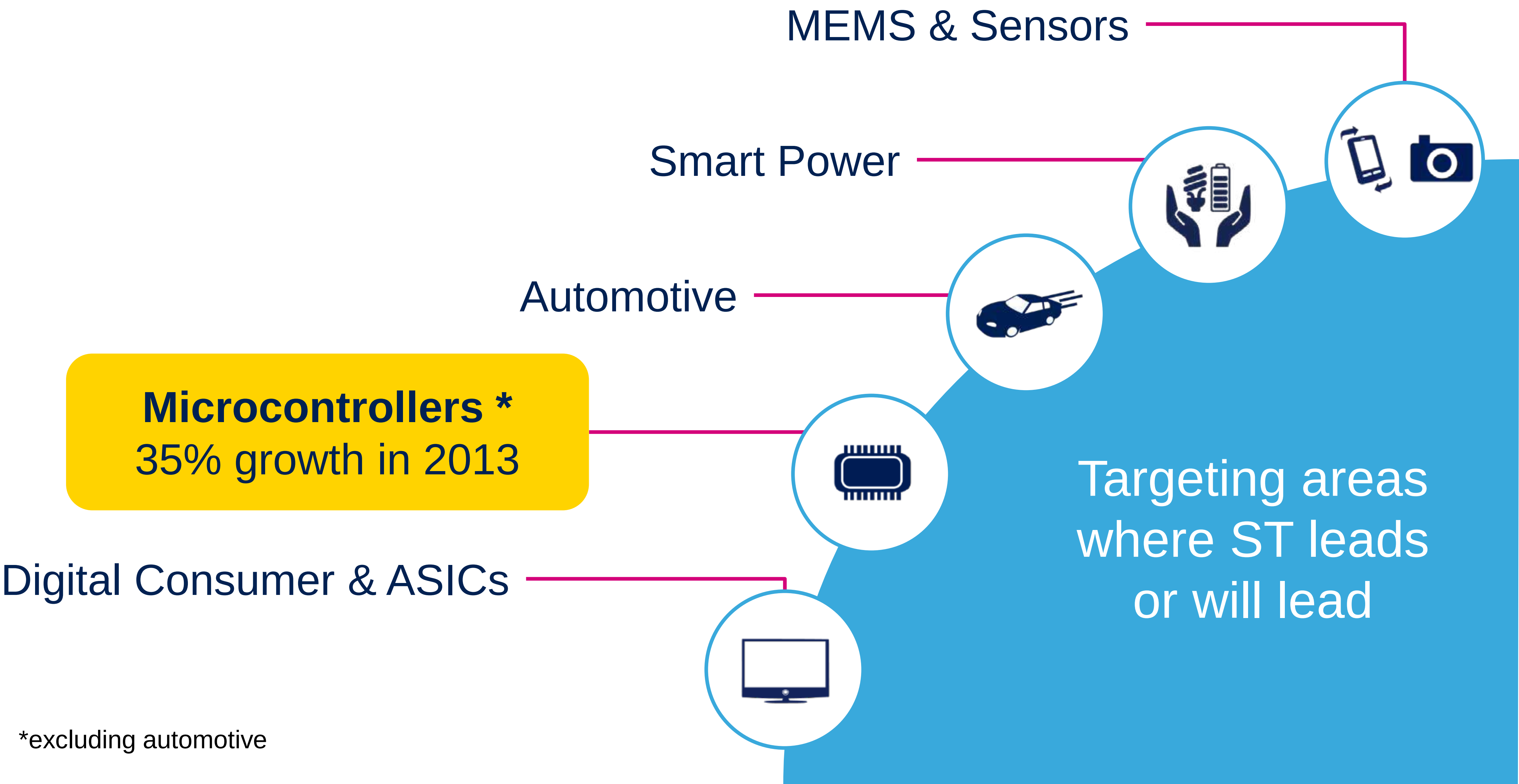
MMS 2013 Business by Activities



Major growth opportunity :
General Purpose MCU + Secure MCU

Source: IHS, CLT March 2014

ST Growth Drivers



MEMS & Sensors

Smart Power

Automotive

Microcontrollers *
35% growth in 2013

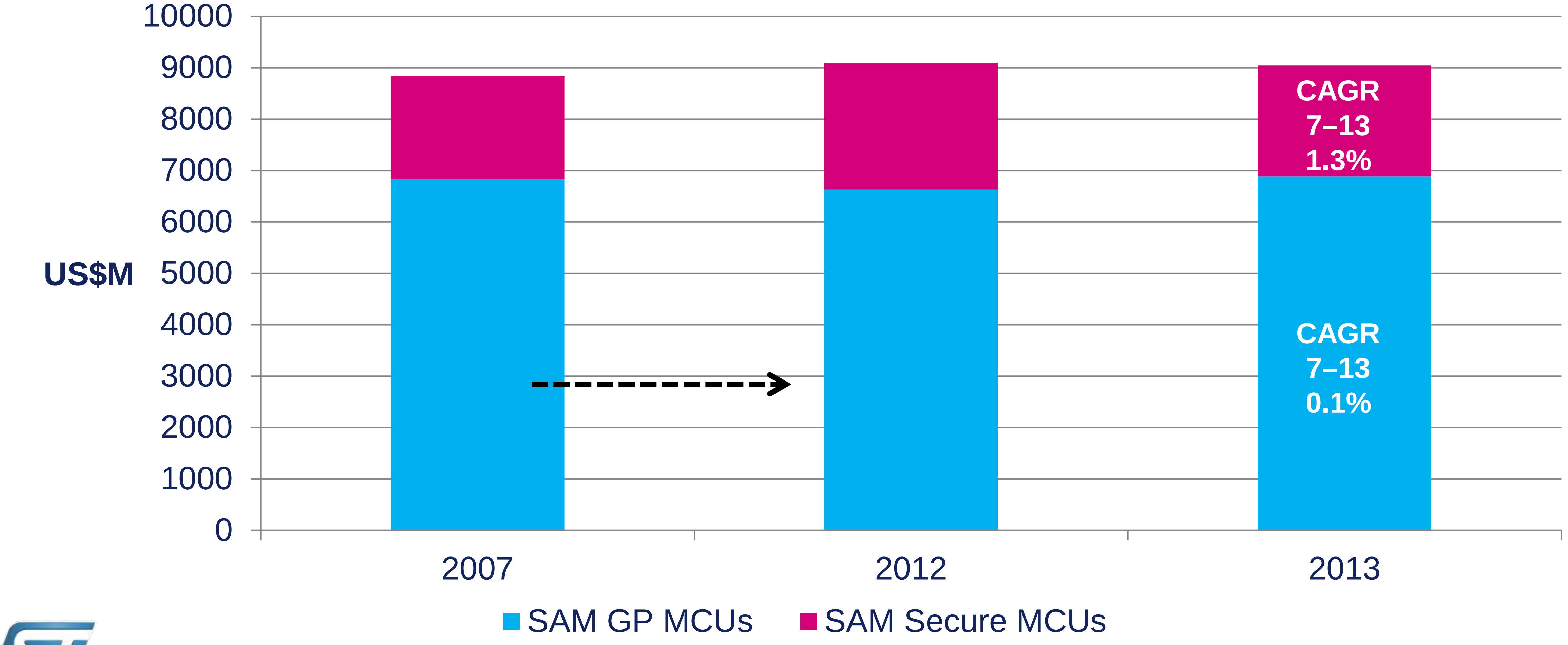
Digital Consumer & ASICs

Targeting areas where ST leads or will lead

*excluding automotive

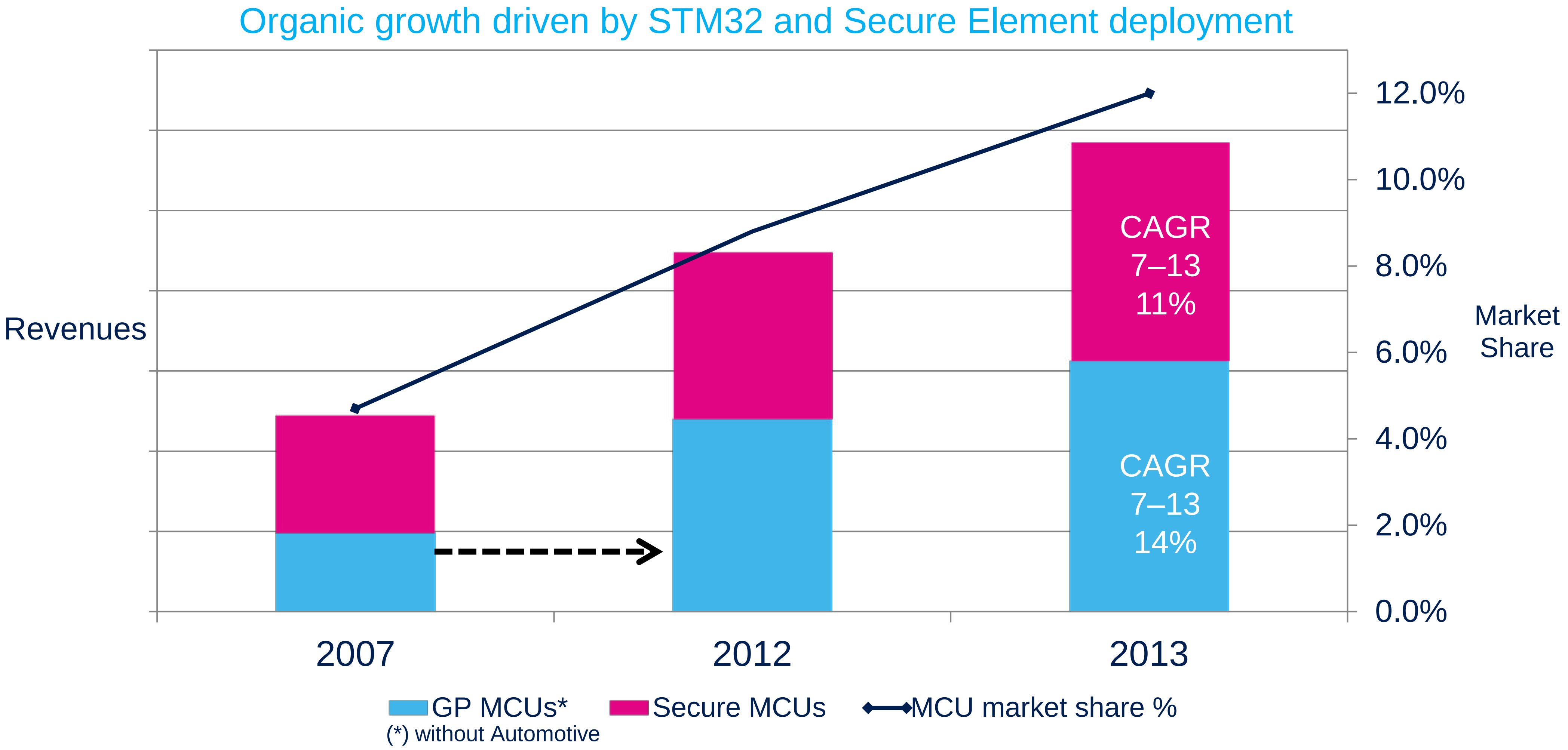
MCUs Serviceable Available Market 2007-13

Flat market, very limited growth for Secure MCUs.



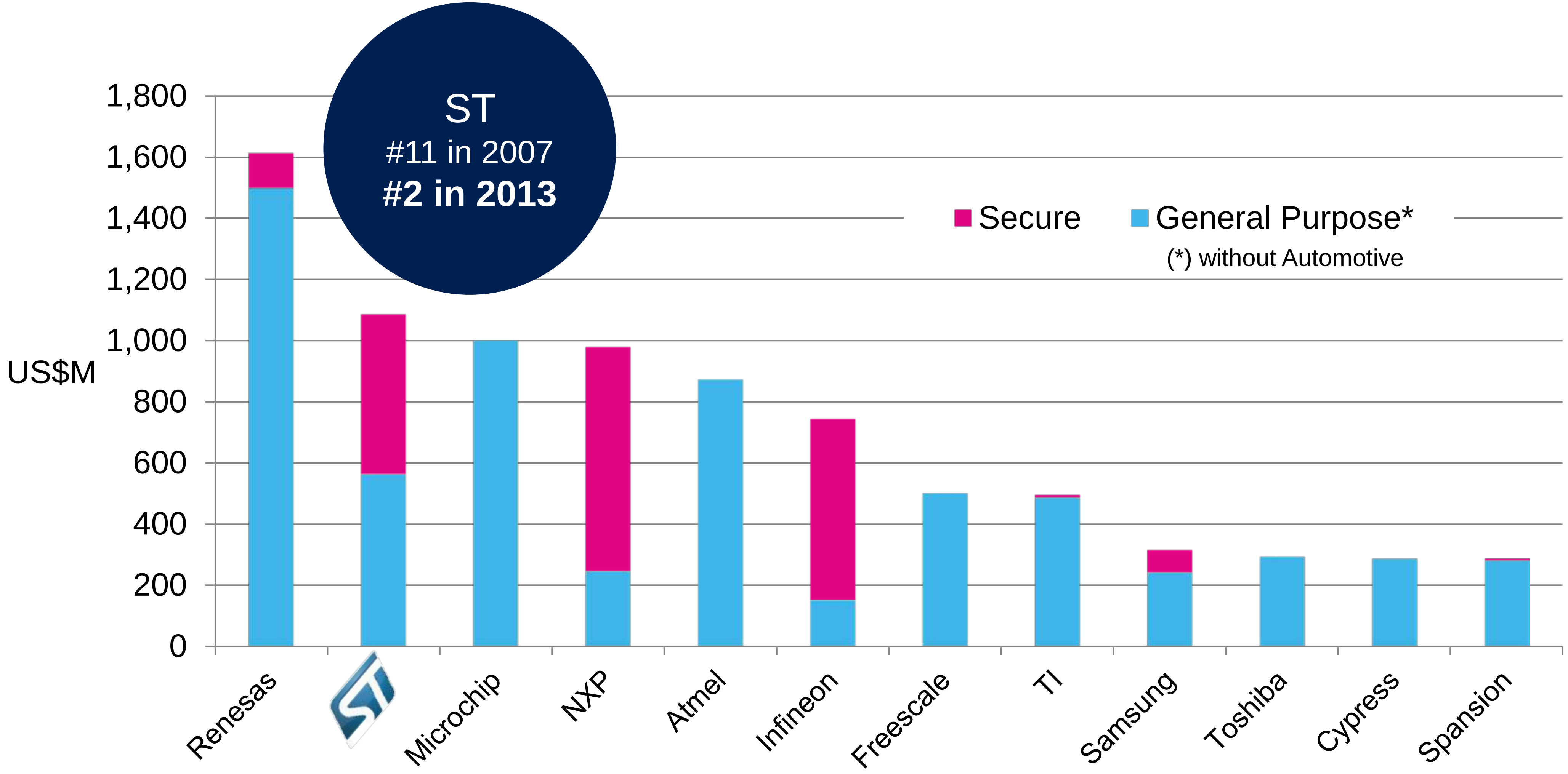
Source WSTS January 2014, excluding Automotive business

ST Consolidated MCUs Revenue 2007-13



MCUs revenues = GP MCUs + Secure MCUs
Market share for consolidated MCUs excluding automotive, payphone memories & cards (Source WSTS March 2014)

2013 WW GP & Secure MCUs Revenues



ST
#11 in 2007
#2 in 2013

(*) without Automotive

Source: IHS CLT, March 2014
In August 2013, Spansion acquired Fujitsu's microcontroller business

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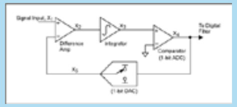
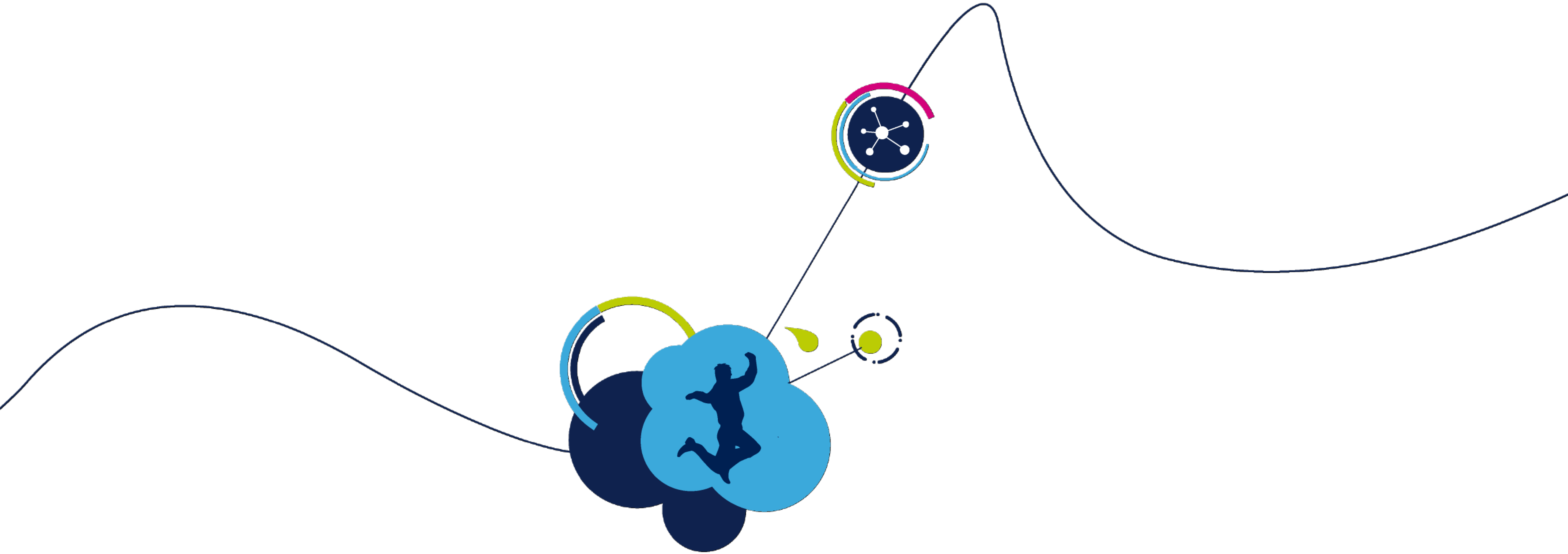
Microcontrollers Enablers

State-of-the-Art Ecosystem	**Turn-key solutions**
High performance	Application software
Advanced Analog 	Contactless performance
Ultra Low Power Connectivity	State-of-the-Art Security
Focus on 32-bit ARM® Cortex™ M0, M3, M4…	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



General Purpose MCUs :

Be undisputed leader in the 32-bit MCU arena

General Purpose MCU Market

Market Dynamics

~ 5.6% CAGR 2013-16

- Multi-Segments Market
- Well established and profitable business model
- Growth driven by migration to 32-bit CPU on advanced e-NVM technology

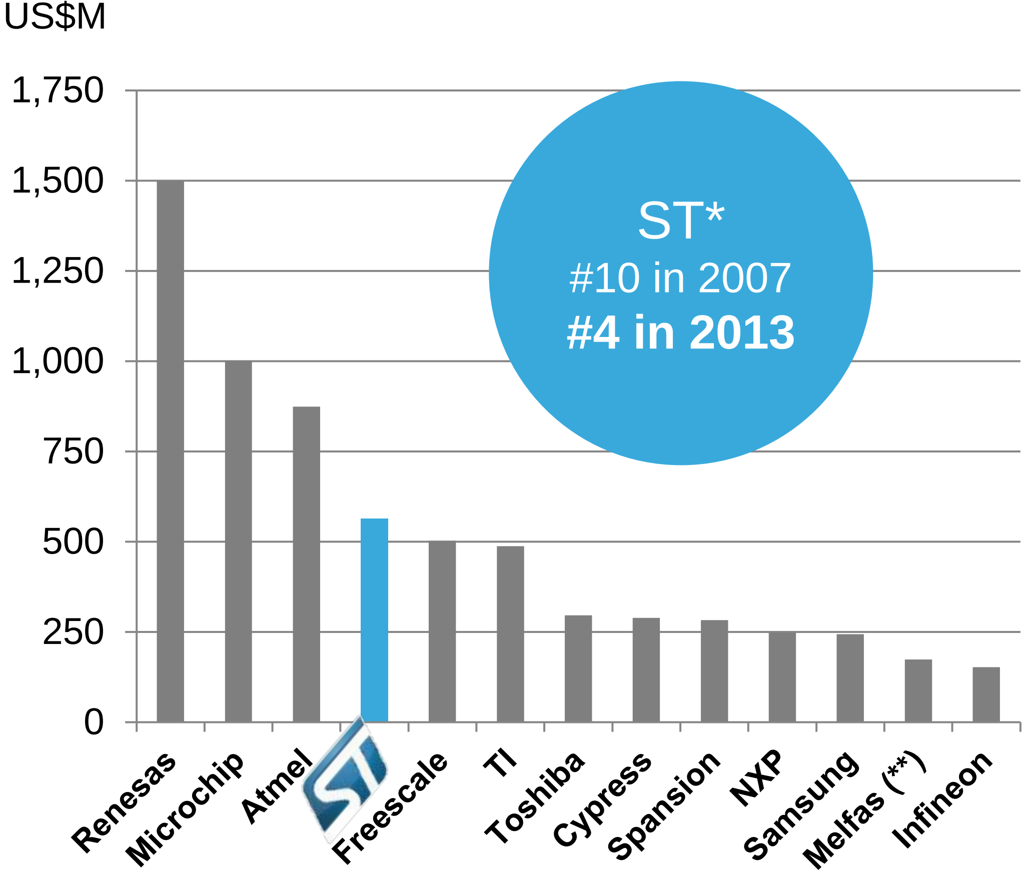
Customers

- Mass Market, tens of thousands customers globally
- Broad, multi-applications and fragmented business.
- Investment in software ensures higher business stability and stronger commitment to a family of products

Complementary to ST’s Analog portfolio from AMS & IPD

ST ➔ 32-bit Application Engine provider

WW Ranking



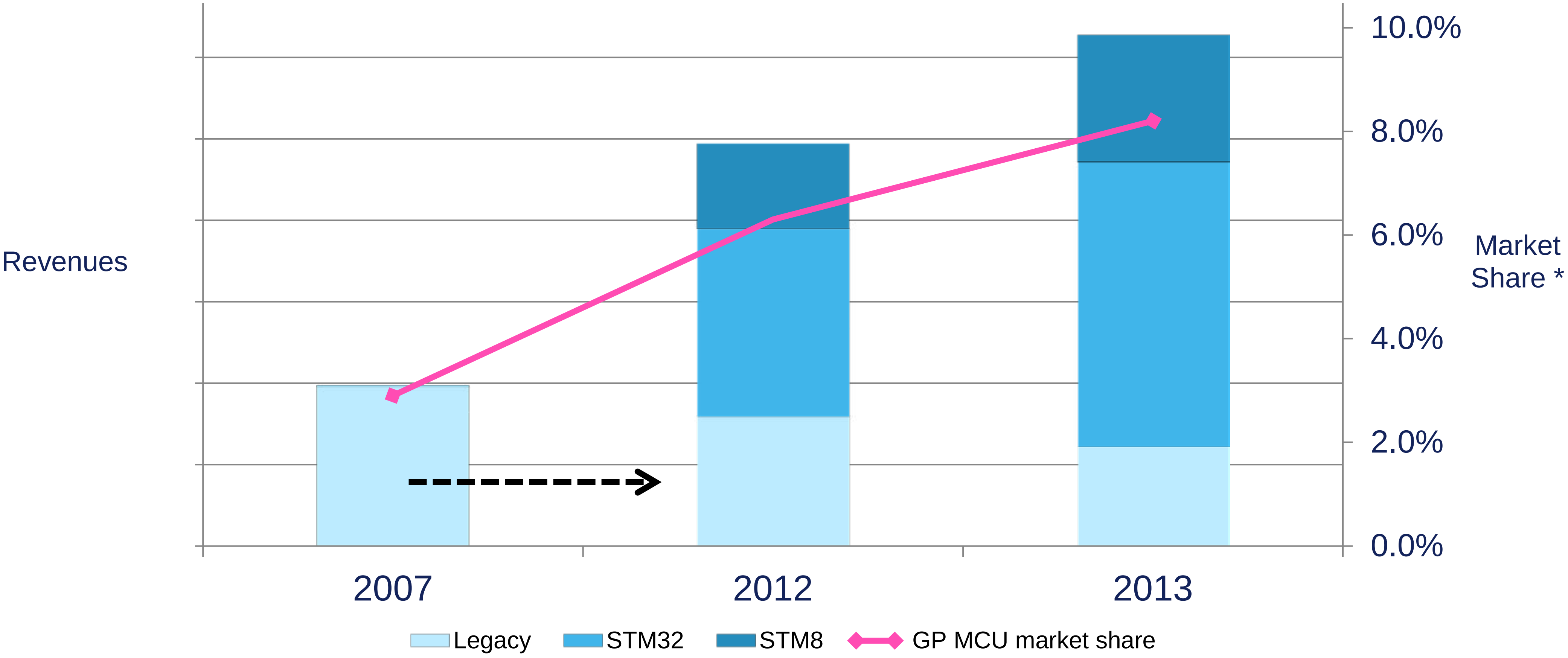
ST*
#10 in 2007
#4 in 2013

* without Automotive
** Korean touch sensor solutions

Source: IHS CLT, March 2014

General Purpose MCUs Revenue & Share Trend

Focus on 32-bit platform to address applications and market segments ensuring long term growth



MCU total Division revenues
* MCU share % vs SAM (Source WSTS January 2014) excluding Automotive MCUs

GP MCUs Offer Fitting Customer Needs

PERFORMANCE

Advanced Technology
ART Accelerator
Advance Peripherals
Reliable products

EASY DEVELOPMENT

Extended Ecosystem
Discovery kits
Hardware Develop tools
Software Develop tool chains
STM32Cube
(Pinout and FW configuration)
Collaborative developments

PERFECT
APPLICATION
FIT

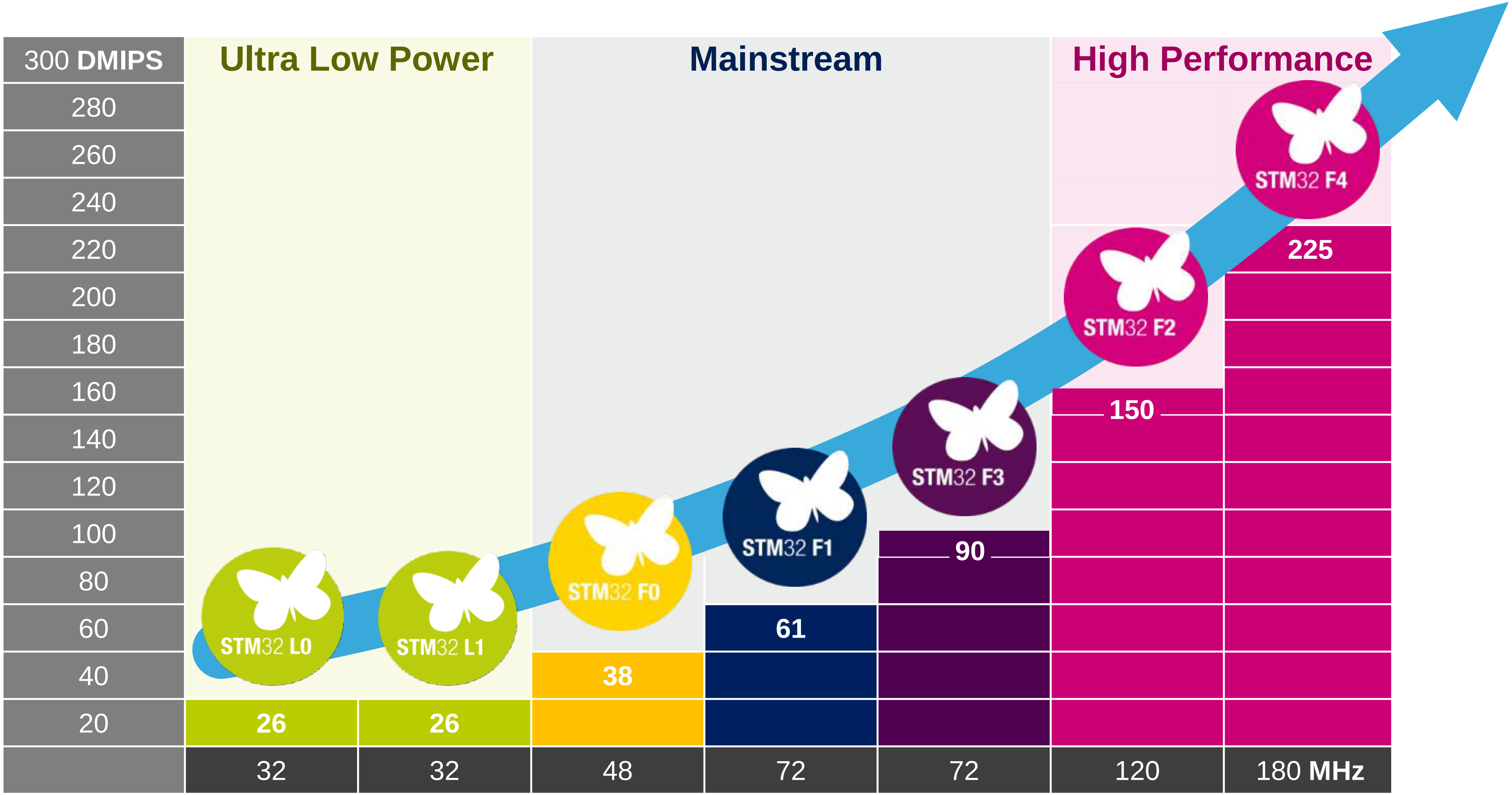
COST

High level of integration
F0 / L0 product series
Value line concept
Reduce development efforts
Easy application upgrades

CONSUMPTION

ULP Technology
Design efficiency
Optimized functional modes

Broadest 32-bit Product Portfolio → >500P/N

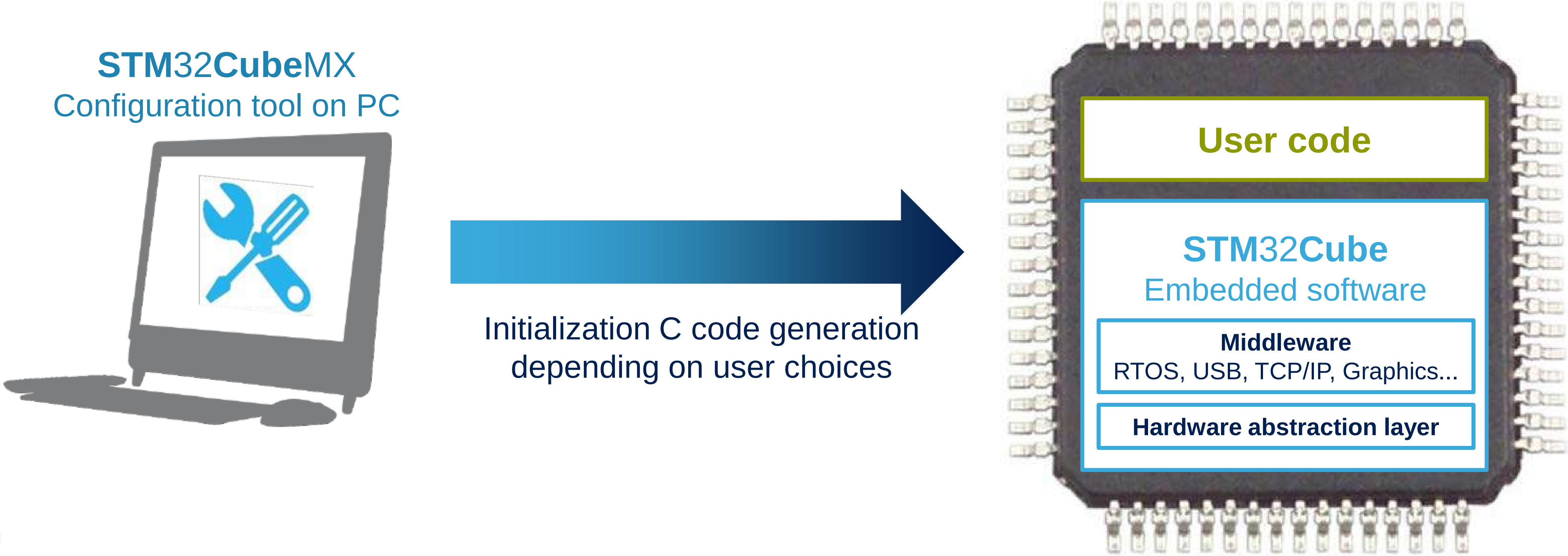


Focus on Development Tools - **Software**

STM32Cube

Get configuration code generated from STM32Cube and focus on your added-value software !

- 4 configuration wizards: pinout, clock, peripherals & middleware, power consumption
- Portable Hardware Abstraction layer, from one series to another
- Middleware with RTOS, USB, TCP/IP, File System, Graphics



STM32CubeMX
Configuration tool on PC

Initialization C code generation
depending on user choices

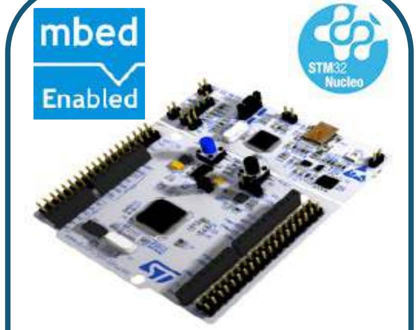
User code

STM32Cube
Embedded software

Middleware
RTOS, USB, TCP/IP, Graphics...

Hardware abstraction layer

Focus on Development Tools - **Hardware**



	STM32 Nucleo	Discovery kits	Evaluation boards	3rd parties
Typical use case	Flexible Prototyping, Community	Prototyping, Creative demos	Full feature evaluation	From full evaluation to open hardware
Extension possibilities	+ + +	+ +	+ + +	
Connectivity	Arduino™ ST Morpho	ST	ST	

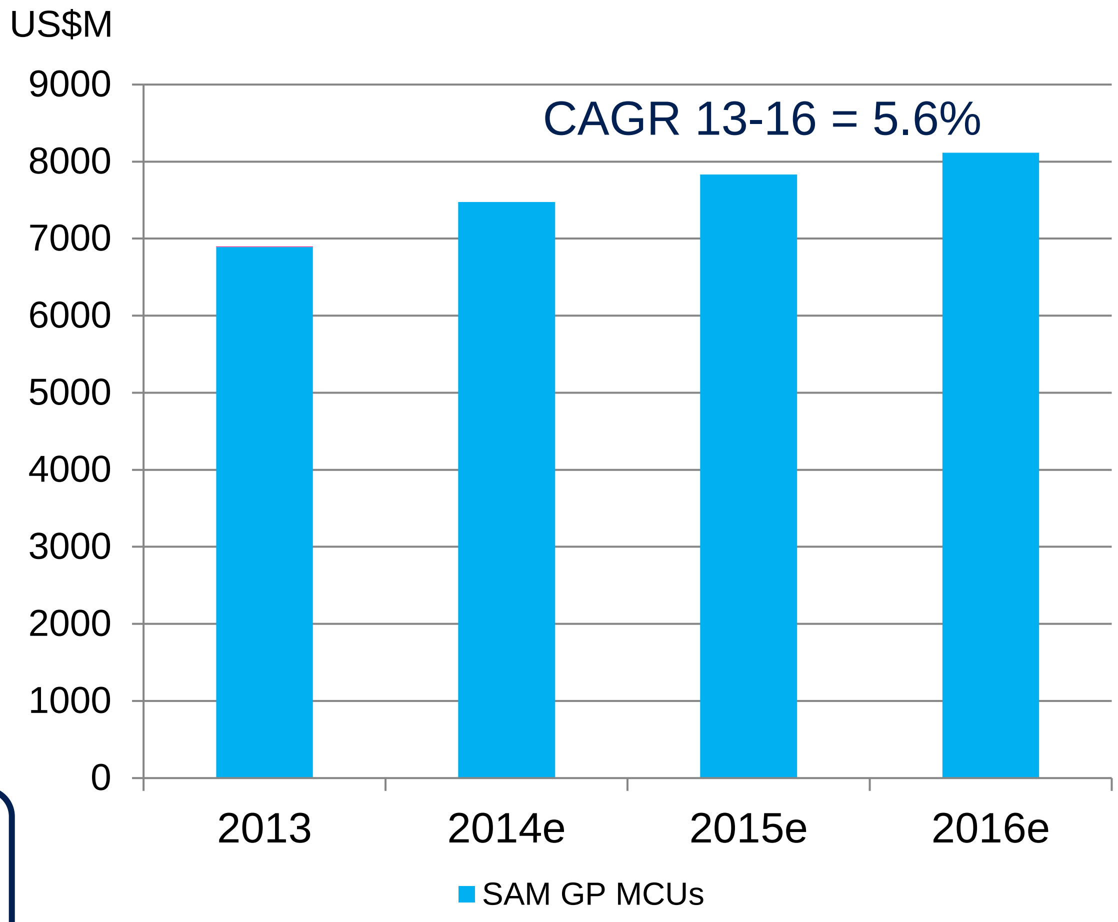
GP MCUs Objectives 2014-16

Expand STM32 portfolio focusing on
- Ultra low power
- High performance
- Connectivity

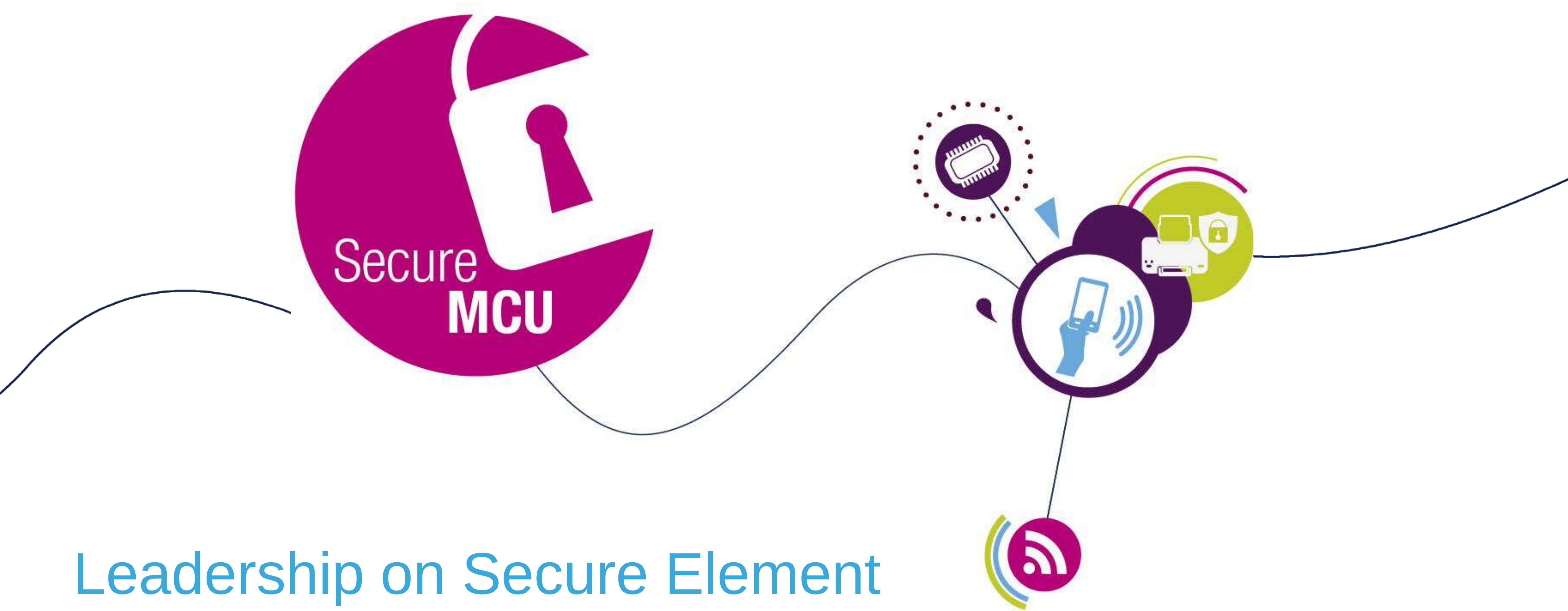
Target >10% share in a growing market

Ensure solid profitable growth driven by
- Wearable devices
- Internet of Things …

Strong focus on Mass Market
(~80% of total business in 2013)
- Target >40K WW customers



SAM : Source WSTS January 2014, excluding Automotive business



Leadership on Secure Element
Key player position on Contactless Secure market

Secure MCU Market

Market Dynamics

~ 6.0% CAGR 2013-16

- Growth initially driven by the Personal Security market (« Smartcards » business)
- New applications embedding security are emerging to address Mobile payment, NFC, M2M, Smartgrid, Trusted Platform, Healthcare, Brand Protection …
- Embedded Security growth driven by the mobile devices

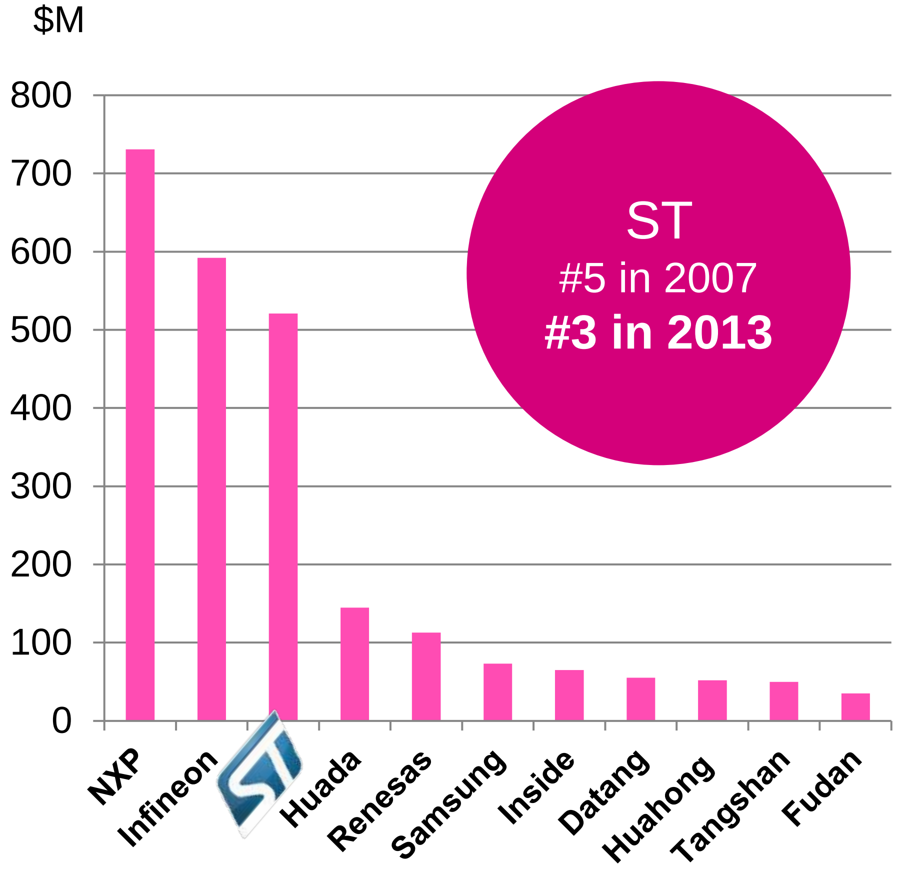
Customers

- Personal Security : few tens traditional card makers
- Embedded Security : new comers requiring highly secure turnkey solutions (application software in secure hardware platform)

Combined HW & SW to ensure the highest level of security

ST ➔ Turnkey Secure Solution provider

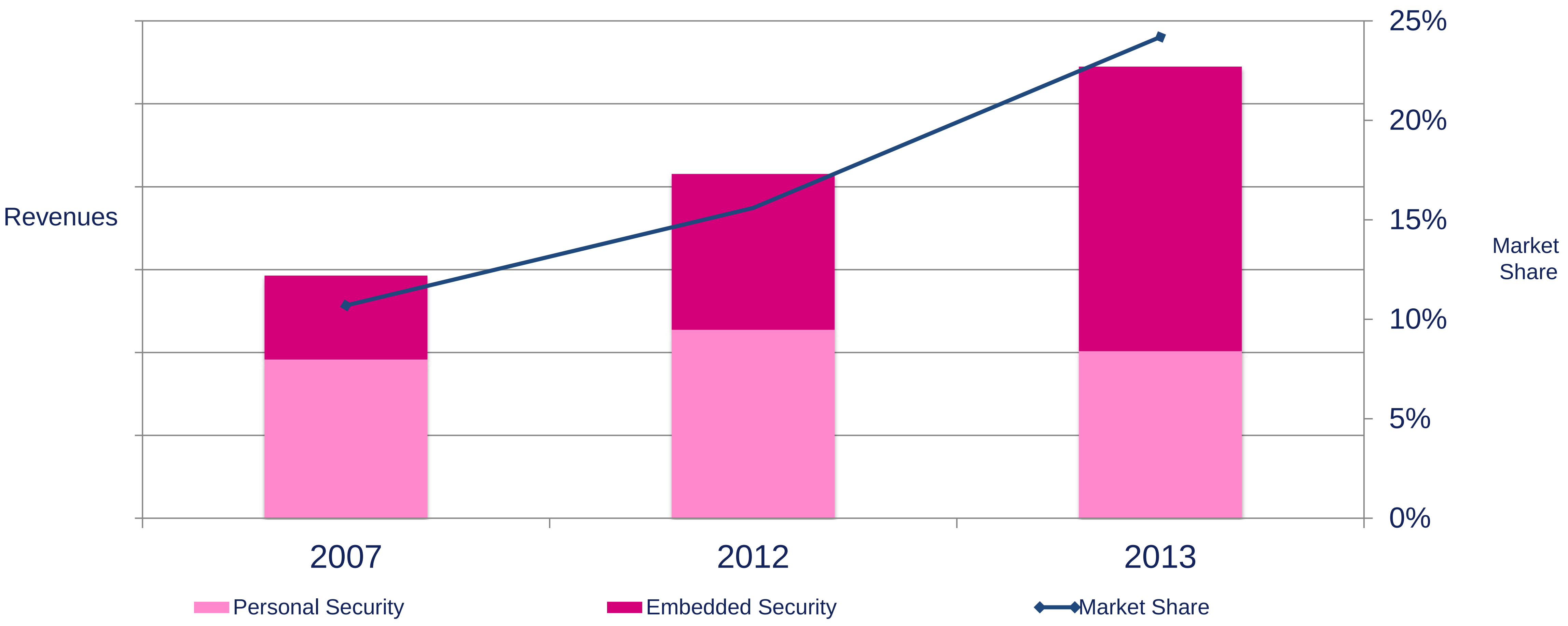
WW Ranking



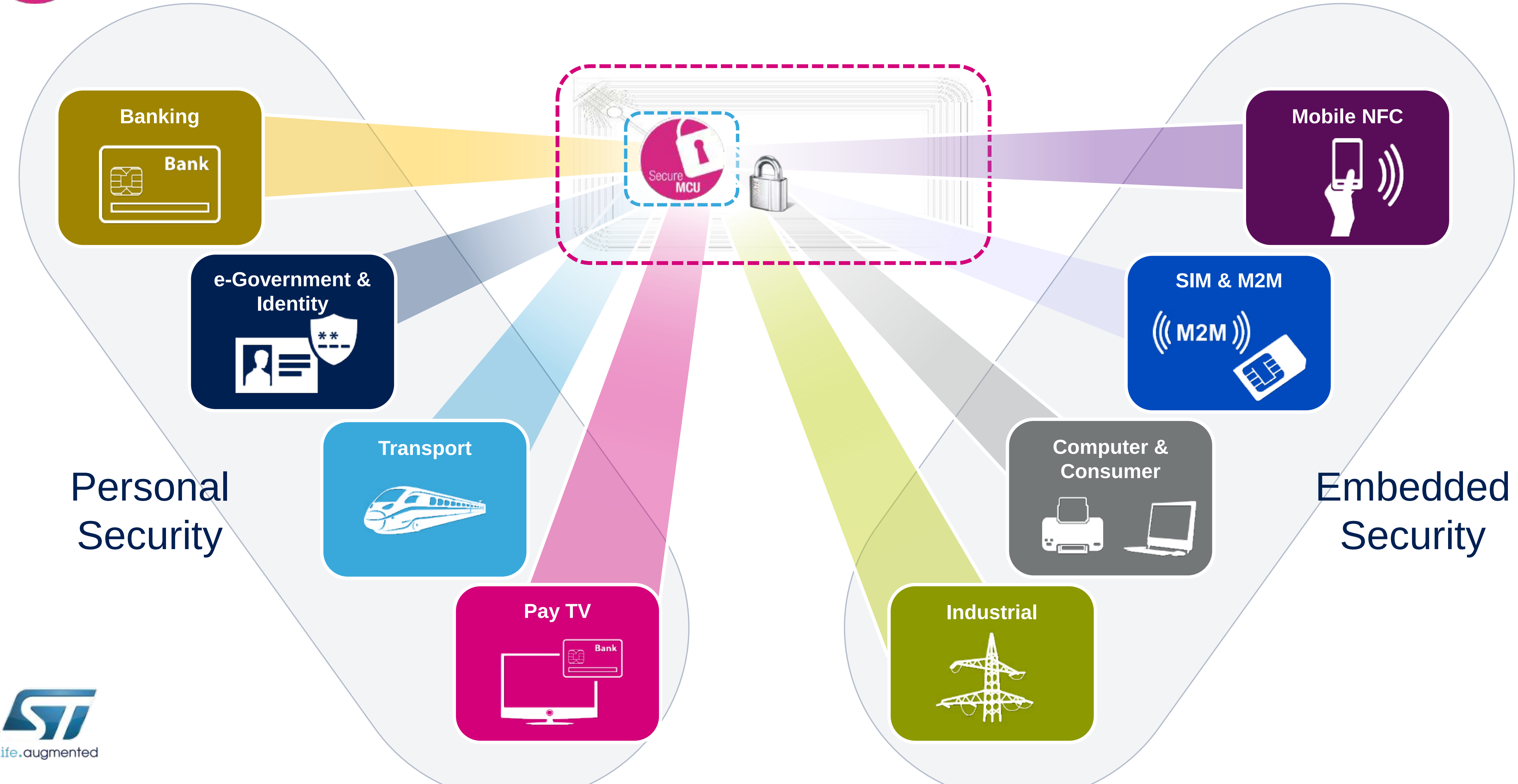
ST
#5 in 2007
#3 in 2013

Source: IHS iSuppli CLT March 10th 2014

Secure MCUs Revenue & Share Trend



Secure MCUs Perimeter



Banking

e-Government & Identity

Transport

Pay TV

Mobile NFC

SIM & M2M

Computer & Consumer

Industrial

Personal Security

Embedded Security

Secure MCUs Growth Drivers

Market growth driven by mobility, contactless convenience and an increasing need for security & authentication in the digital world (consumer, …)

Secure RF

eSE-NFC

eProtect

PERSONAL SECURITY

EMBEDDED SECURITY

SMARTCARD

Contactless platform: ST31
e-Flash flexibility

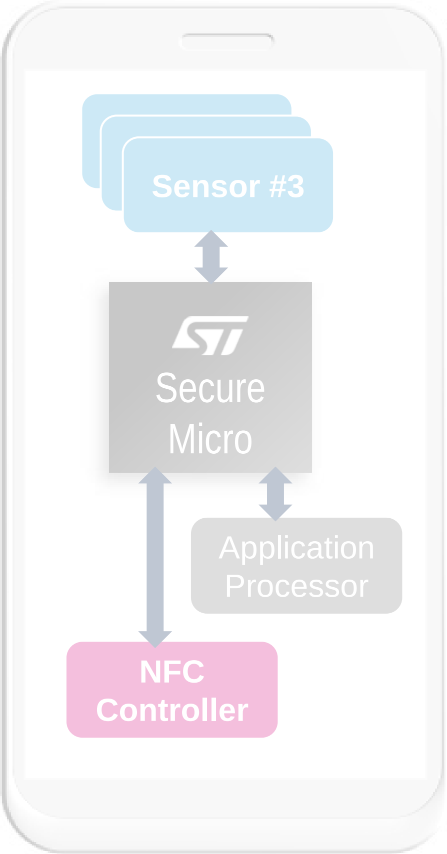
MOBILE

NFC secure element: ST33
NFC combo: SE + CLF

CONSUMER & INDUSTRIAL

End-to-end turn key solutions
Hardware, Software,
personalization

Discrete Secure Applications Market Still Growing




Payment


Transport


SIM

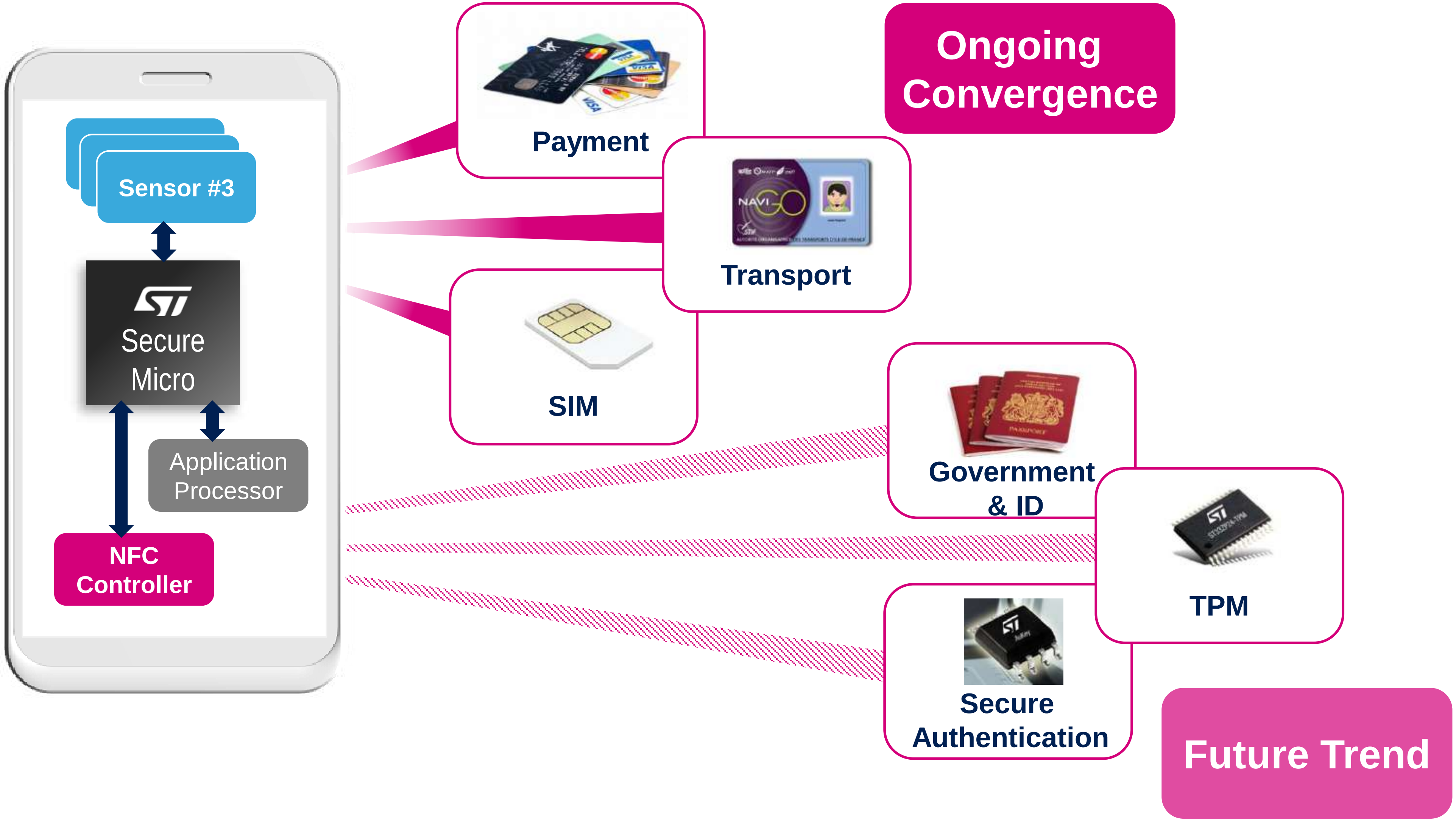

Gov & ID


TPM

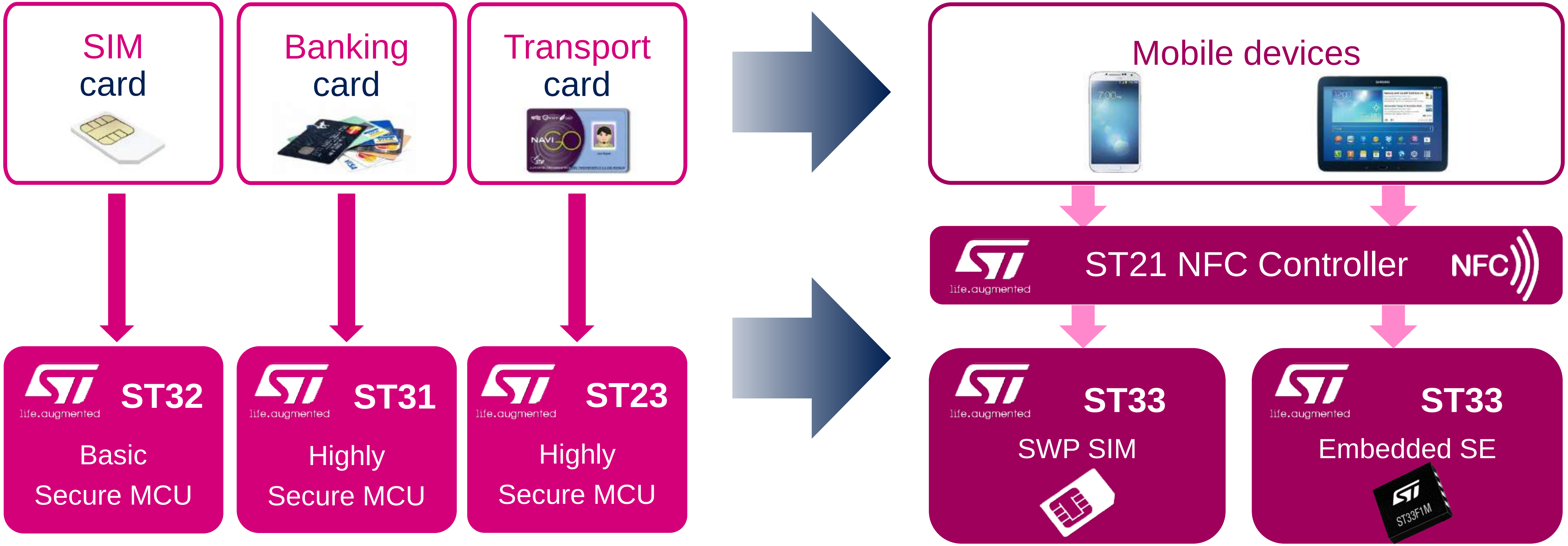

Secure Authentication

Discrete Secure Applications Market Still Growing While Convergence within Mobile Devices Started

Dedicated Secure Micro is the most secure place to host sensitive applications within a mobile phones, fully complying with stringent requirements from all stakeholders



Payment and Transport into Mobile



Discrete Smartcard applications

- SIM card → ST32 Basic Secure MCU
- Banking card → ST31 Highly Secure MCU
- Transport card → ST23 Highly Secure MCU

Secure Mobile Transactions

Mobile devices

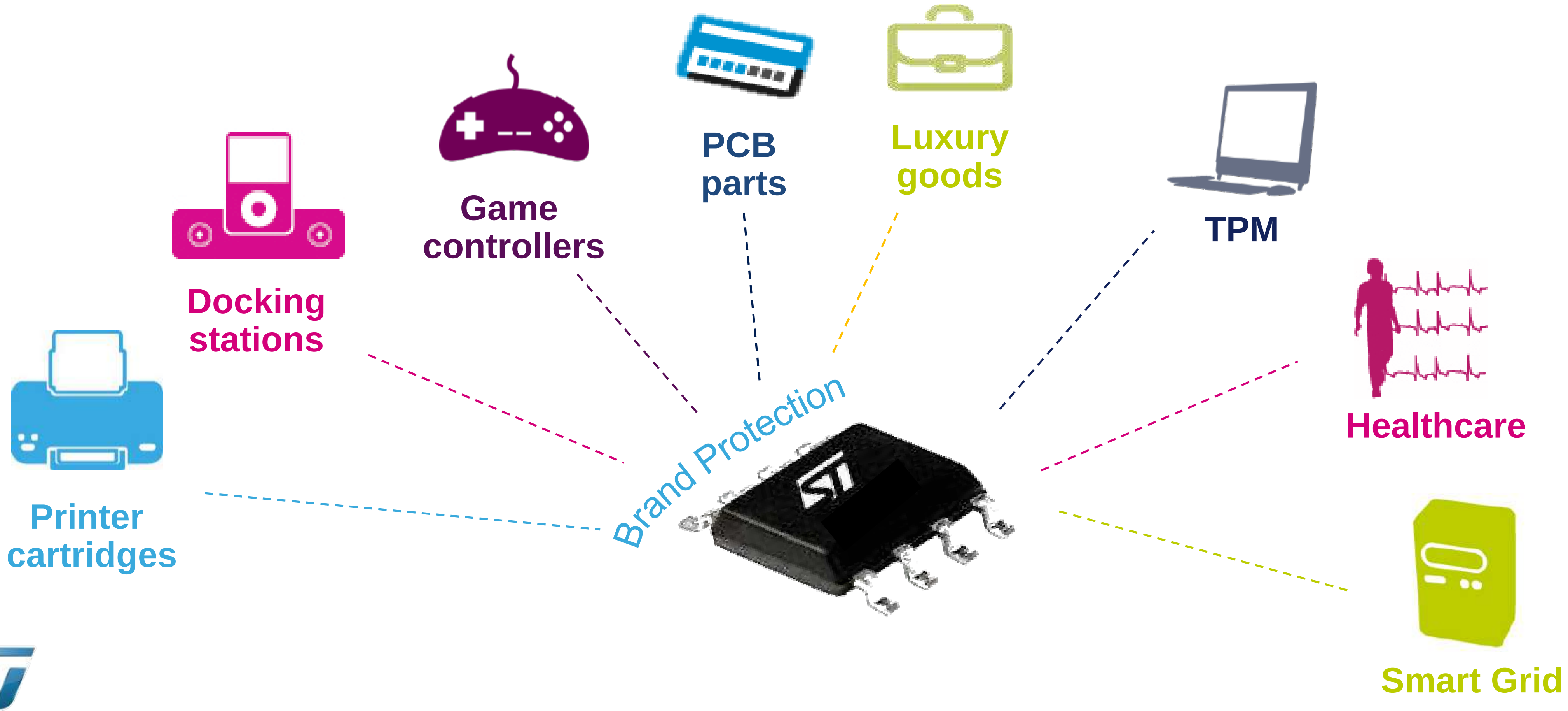
ST21 NFC Controller NFC

ST33 SWP SIM

ST33 Embedded SE

ePROTECT APPLICATIONS

Growing counterfeiting and cloning requires stronger authentication services



Brand Protection

Printer cartridges

Docking stations

Game controllers

PCB parts

Luxury goods

TPM

Healthcare

Smart Grid

Secure MCUs objectives 2014-16

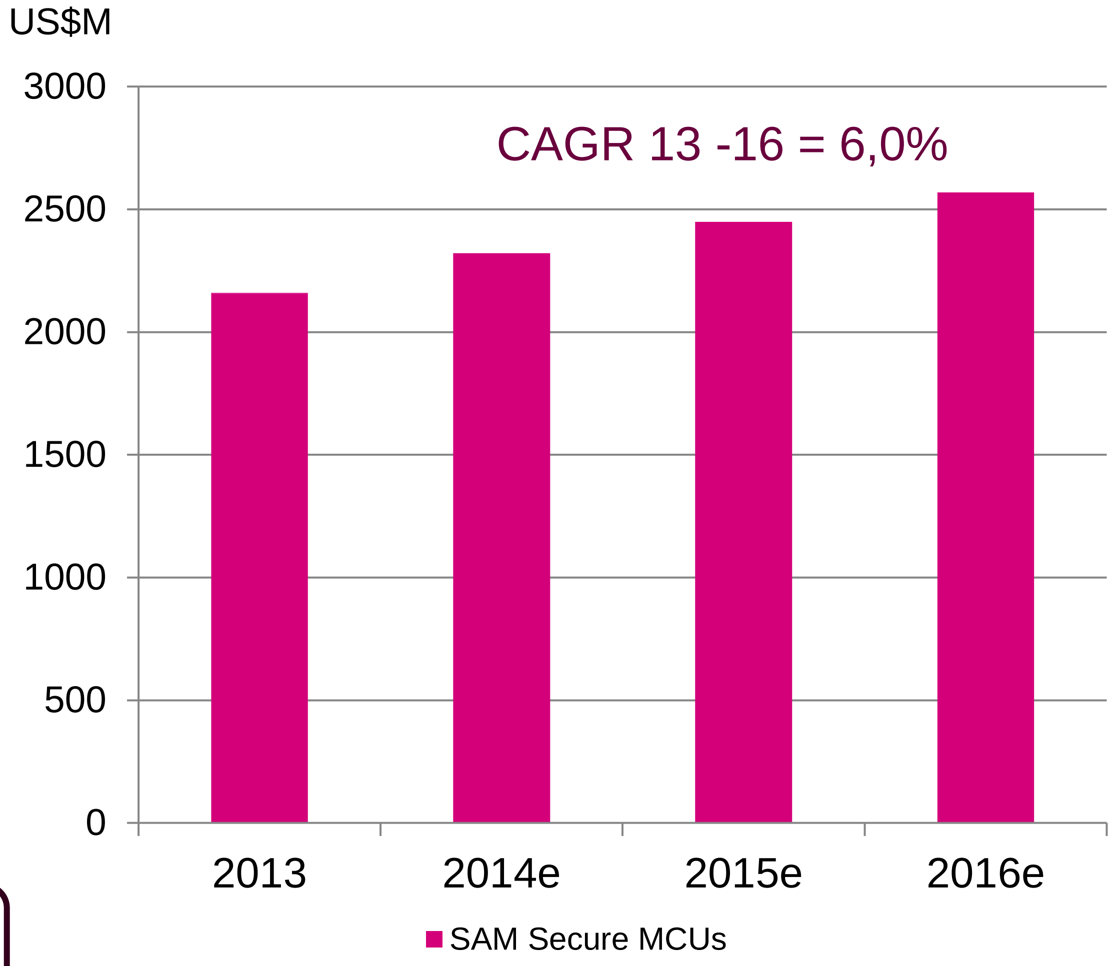
Consolidate leadership on secure element with new wave of products

Expand ST31 portfolio with strong focus on contactless

Target >20% share in a growing market

Profitable growth supported by Turn-Key Solutions

Enlarge customer base in consumer electronics & automotive



Source: WSTS January 2014, excluding Automotive business