

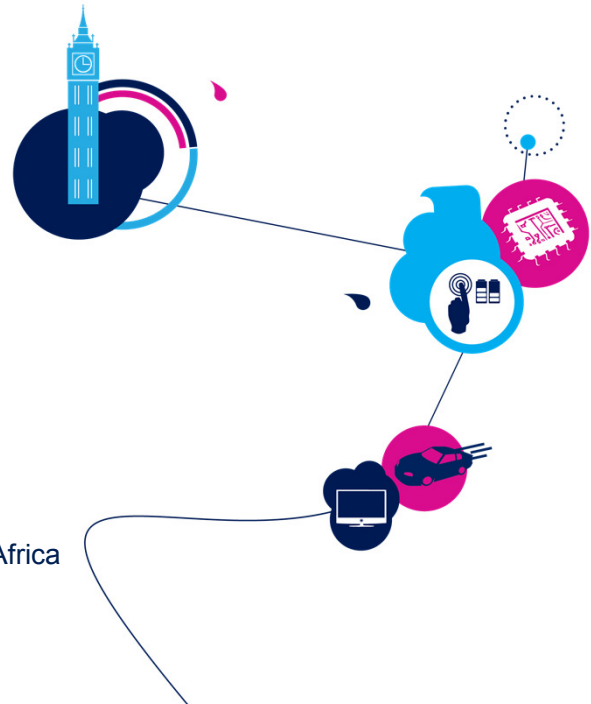
Automotive Product Group (APG)

Marco Monti

Executive Vice President,
General Manager, Automotive Product Group

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Executive Vice President, General Manager,
Sales & Marketing, Europe, Middle East and Africa



Automotive Product Group Highlights

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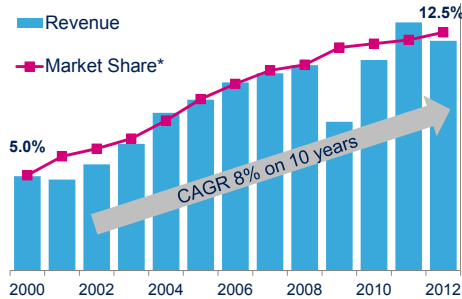
- Solid position in Automotive
 - #3 worldwide with leading positions in many applications
 - Outperforming market growth
- Opportunities to expand the top line
 - Proliferation of innovative systems in cars
 - Wins achieved in emerging markets
- Complete product portfolio offer
 - High innovation content
 - Existing offer now complemented by new MCUs
- Strong Technology portfolio
 - Thanks to alliances and partnerships, ST's technology R&D portfolio and manufacturing machine

ST Automotive product strategy aiming to consolidate market position, grow more than the market and improve profitability in the coming years



Automotive Product Group at a glance

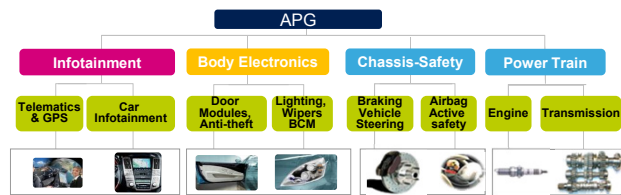
3



A leading market position

Total ST**		APG SAM**	
3	ST	2	ST
Smart Power**		ASIC**	
1	ST	1	ST
Infotainment**		Active safety***	
2	ST	1	ST

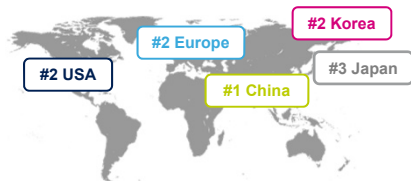
Broad range product offer



Covering all different automotive applications



*WSTS 2013, **IHS iSuppli, Auto 2013, ***Strategic Analytics, 2013



ST in Automotive today

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- Gaining market share in a moment of market downturn
- Well balanced geographical sales to absorb market fluctuations
- Market leadership in Smart Power with more than 25% share
- Market Leader in high value high complexity ASIC
- Market leader in fast growing infotainment, positioning & digital broadcasting applications
- Well recognized leader in technology and innovation for Automotive

Global and balanced presence



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Key Priorities

5



Grow More Than
the Market

Improving
Profitability

Addressing a \$22.4 billion market, APG gaining share



Source: Strategy Analytics, April 2013

Key Priorities

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Grow More Than
the Market

Addressing a \$22.4 billion market, APG gaining share

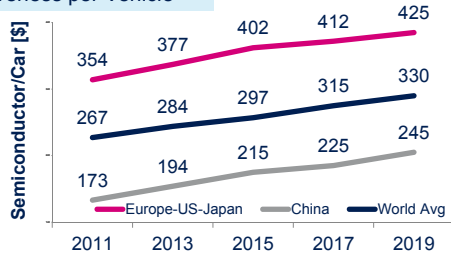


Source: Strategy Analytics, April 2013

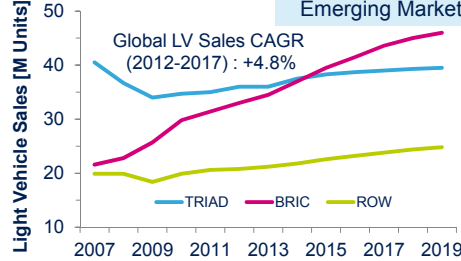
APG Market Growth Opportunities

7

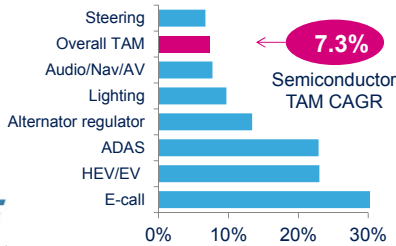
Pervasiveness per Vehicle



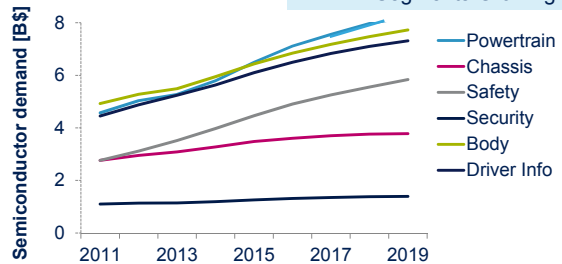
Emerging Markets Opportunity



Emerging Applications



All Segments Growing



Source: Strategy Analytics, IHS iSuppli, Automotive, April 2013

Pervasiveness per Vehicle: Key Opportunities

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Powertrain

- Direct Injection Engine** (~+30% content vs. traditional solutions)
 - CO₂ emission reduction, fuel saving and high-power output
 - 5 new ASICs entering in production in 2013
- Automatic Gearbox**
 - 2 new ASICs in 2013, traditional and dual clutch transmission
- Stop Start Engine components** for fuel saving



Safety

- Airbag** increased number of channels for more safety
 - New generation of modular multiple channel airbag system, optimized for low to hi-end, entering production in 2013
- Braking**
 - Electric Parking Brake brand new integrated solutions
 - High-end plug-and-play Vehicle Dynamic Control fully integrated IC solution
- Steering**
 - Single fully integrated IC for Active Power Steering



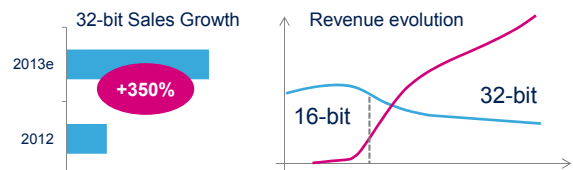
Body

- Market leadership in Lighting & Door Zone**
 - A new complete product family able to reduce wiring weight thus reducing CO₂ emissions now available for:
 - Xenon Discharge lamp
 - Interior and Exterior Bulb & LED's
 - Door Zone highly integrated solutions
- High efficiency motor drivers**
 - More than 100 motors in each car
 - 5 new products in 2013



32-bit microcontroller for Automotive

- Highest product growth in Automotive
- More than \$2.4B awarded business secured
- Specific solutions for Power Train, Safety, Body, Infotainment
- More than 60 part numbers entering in production in 2013

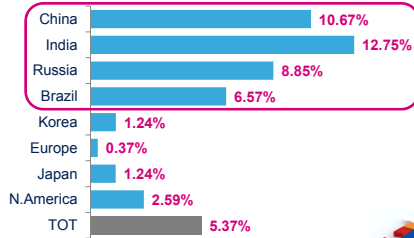


Emerging Market: Key Opportunities

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The highest growing market

Vehicle market growth CAGR 12-17



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 family of 32-bit microcontrollers
- Dedicated family of smart actuators for Body applications

Specific products for China

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
- Entry level positioning and navigation
- Entry level Infotainment

System Solutions

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

- Application and software support
- Tools and Reference Designs

Specific organization to support mid/small customers

Production grade SW library

- Positioning
- Infotainment
- Protocol management



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Source: Strategy Analytics, April 2013

Key Priorities

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Improving Profitability

Addressing a \$22.4 billion market, APG gaining share



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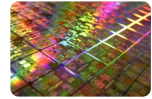
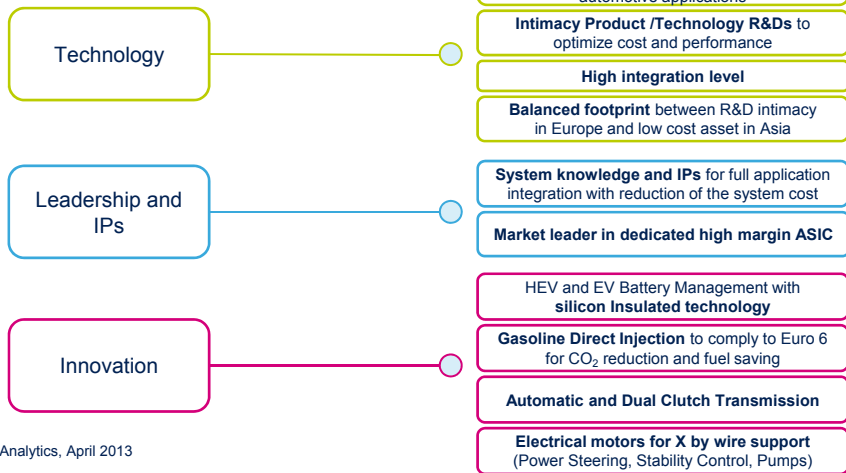
Source: Strategy Analytics, April 2013

Improving Profitability Driver: Smart Power

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Smart Power market

CAGR 2012-17: +5.7% (>\$4.7B in 2012*)



*Strategy Analytics, April 2013

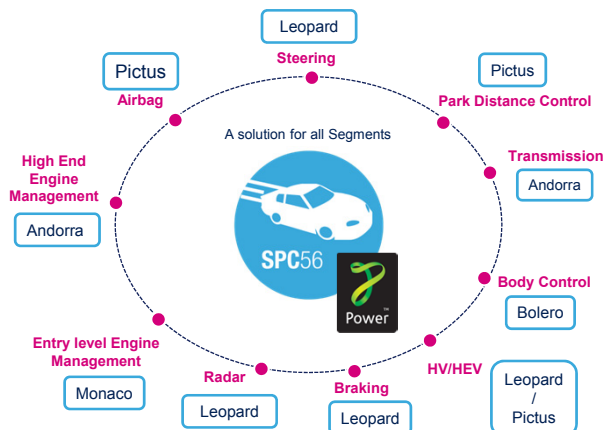
Improving Profitability Driver: 32-bit MCUs

12

32-bit MCUs market

CAGR 2012-17: +9.6% (>\$2.7B in 2012*)

- Proprietary 40nm Embedded Flash process with unique internal 12" 40nm and below capability in Europe and USA
- Target to be among the top players the fastest growing supplier in the 32-bit segment
- 60 new part numbers available to cover all the specific Automotive applications
- Functional Safety: Certified ISO26262 ASILD
- Continued innovation at process level with a breakthrough in non volatile memory with Phase Change Memory approach



*Strategy Analytics, April 2013, excluding infotainment

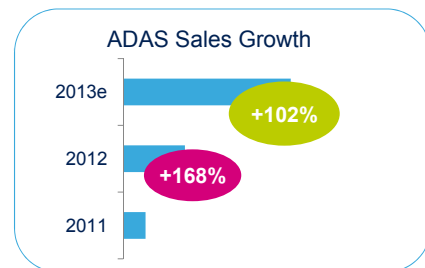
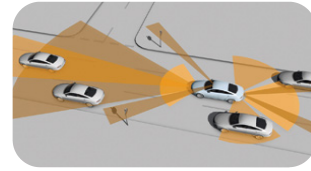
Improving Profitability Driver: Active Safety

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Active Safety market

CAGR 2012-17: +22.9% (>\$1.3B in 2017*)

- Market leader in Vision based solutions with presence in more than 20 car brands** resulting in more than 60% market share**
 - APG business is expected to double every year in the next 3 coming years
 - 3rd generation of Vision entering production in 2013
- Leading edge microwave SiGe BiCMOS technology perfectly fitting Short Range and Long Range Radar Automotive Systems
 - Market leader on 24GHz Radars for active cruise control
 - 77GHz version starting in 2013



*Strategy Analytics, April 2013
**ST data 1Q 2013

Improving Profitability Driver: Infotainment

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Infotainment market

CAGR 2012-17: +9.3% (>\$3.7 B in 2012*)

Audio

- Long time leader in Audio Power Amplifiers with >45% Market Share**
- 6 new products to be launched in 2013 to address the fast growing market of Digital Audio Amplifiers

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/EU and GLONASS/Russia. COMPASS support to be introduced in 2013 to address the Chinese high volume market

Tuners

- More than 20 years presence in Tuners for Automotive applications
- Undisputable leadership in Satellite Receivers thanks to long lasting partnership with SiriusXM
- A new Multi-standard (FM,DAB, HD, DRM) digital receiver to be launched in 2013



*Strategic Analytics and IHS iSuppli, infotainment
**April 2013

Innovations: A Few Examples

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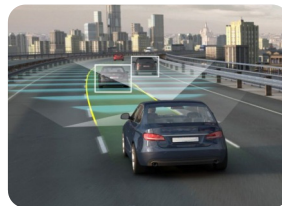
From Active Safety

To Autonomous Car

\$630M
TAM '13

- Blind Spot Detection
- Lane Departure Warning
- Obstacle Detection
- Emergency Braking

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



- Auto Steering
- Self-Adaptive Speed Control
- Traffic Light Detection
- Adaptive Braking

2020: Full-autonomous driving will become a standard equipment

Source: Strategy Analytics, April 2013

Recent Achievements

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- First win in Japanese OEM's with 32-bit MCU for chassis
- First win from a major American Car maker with our 32-bit MCU for Powertrain
- Design wins to achieve 40% market share in Power Train in China
- Design win for next generation Braking Platform from a major European Tier-1
- Design win for high volume Lighting BCM from a major Japanese Tier-1
- Design win at a major Tier-1 to further consolidate the dominant position in Door Zone
- Multiple wins with the first-to-market Multi-Constellation receiver to become a market leader in positioning

New Partnerships



HYUNDAI
AUTRON

to address radical innovation and open new growth opportunities



The APG Value Proposition

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A strong
Automotive
commitment

- Broad range system competence
- Wide technology portfolio
- Manufacturing machine committed to Automotive
- Consistent market growth and solid intimacy with key customers at WW level
- Long term commitment to Automotive

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

A wide
application
coverage in
Automotive



APG Main Growth Drivers & Expectations

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- Growth above market
 - Reinforce the Smart Power / Intelligent Power leadership
 - Gain market share in 32-bit microcontrollers with the Power Architecture on top of the \$2.4B already designed in
 - Increase the top line leveraging the pervasiveness of semiconductors in the car
 - Maintain the leadership in Body and Infotainment expanding the penetration in the emerging markets
- Focus on margin expansion to increase profitability
 - New 110nm BCD generation
 - 40nm eFLASH to support our microcontroller growth
 - Expand customer base thanks to a system approach and dedicated support structure
 - Lead high margin advanced safety with strong innovation contents

