



# **Renesas Efforts towards Further Growth in Profits**

Renesas Electronics Corporation

August 6, 2014

# Renesas Efforts towards Further Growth in Profits

**Renesas' mission: to develop society and industry**

Formulation of "Reform plan"  
Achieve double-digit operating profit ratio in FY 2017/03

1. Structural Reforms

Build absolutely profitable structure

2. Selection and Concentration

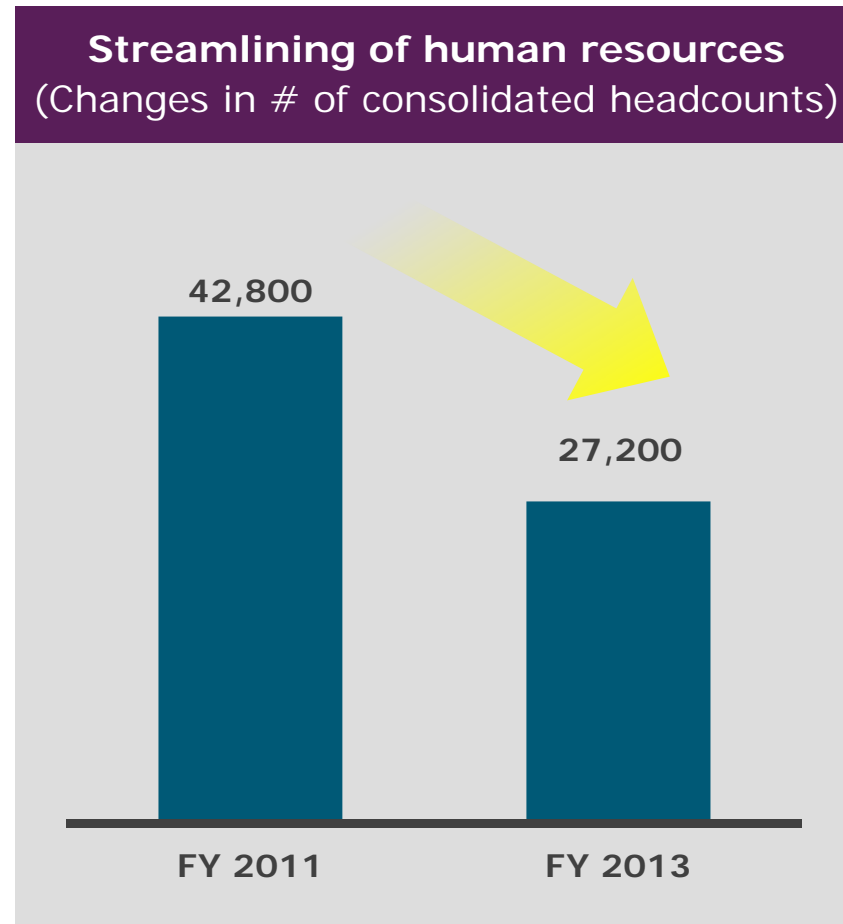
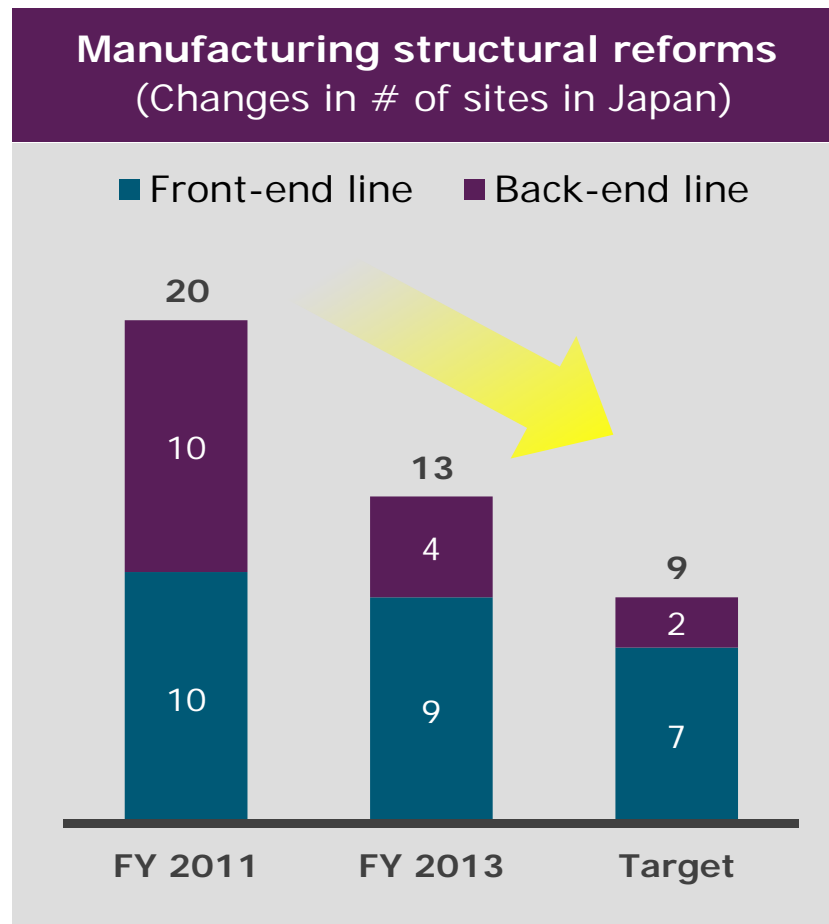
Focus on advantageous businesses

3. Operational Changes that support Business and Production reforms

Optimize management resources

# 1. Progress of Structural Reforms

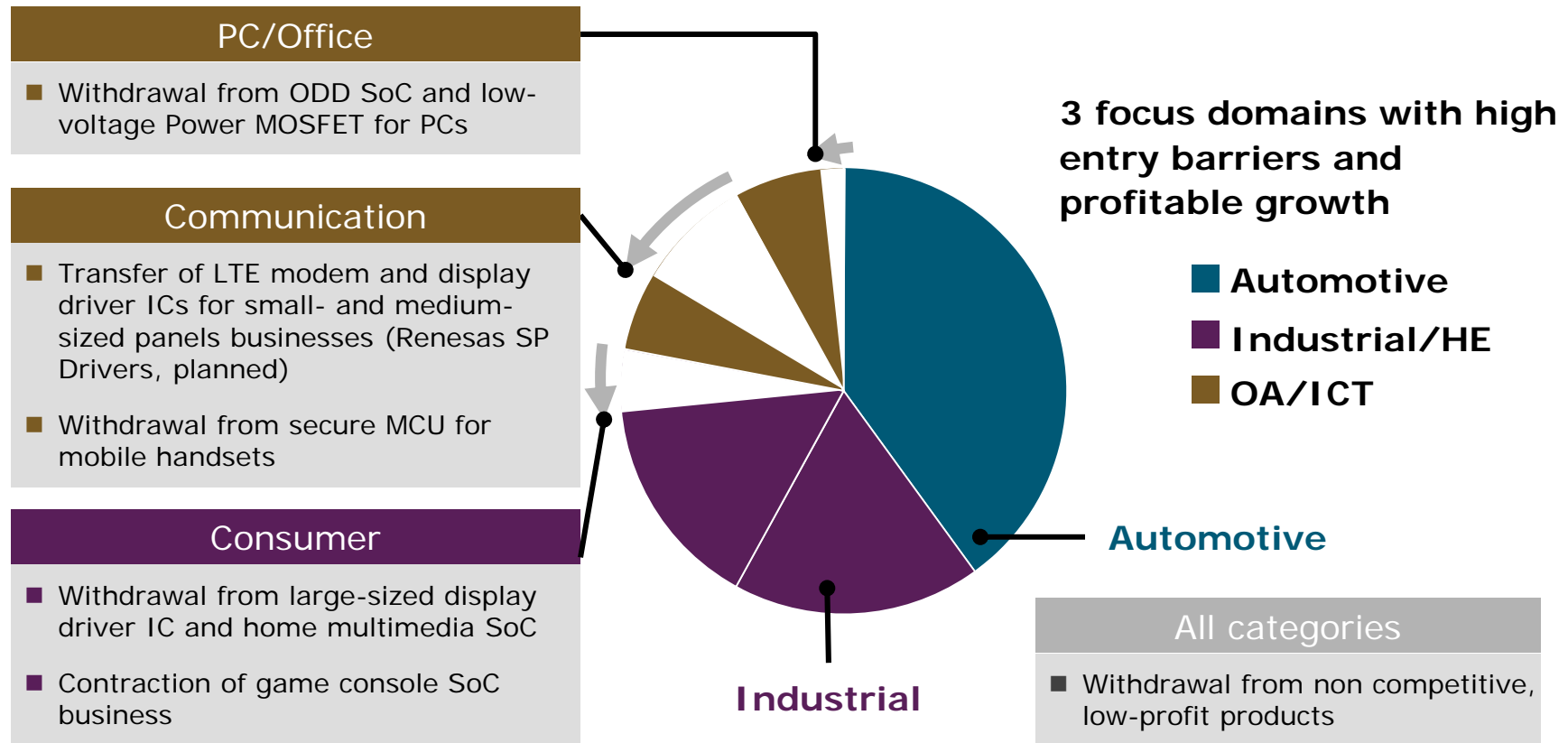
- Steadily advancing each and every structural reform measure to build a solid, profitable financial base



## 2. Selection and Concentration

- Enhance selection and concentration to three focus domains of “Automotive”, “Industrial/HE” and “OA/ICT”, the three domains with high entry barriers and profitable growth

### Reorganize non-focus domains



(Note 1) “Communication” includes mobile, network infrastructure, etc.

(Note 2) HE: Home Electronics, OA: Office Automation, ICT: Information Communication Technology

### 3. Operational Changes that support Business and Production Reforms (Future Renesas)

1. Customer-oriented/Increased value
2. Improved development and production efficiency
3. Rapid decision-making

#### Simplified organization

Simplified the structure of design sites and manufacturing companies, consolidated sales companies in Japan

- Corporate officers (16 → 8)
- Business units (7 → 5)
- Business divisions (49 → 34)
- Realignment of design sites

#### Reallocation of resources

Shift resources (human/financial) to focus domains, factories and markets

- Shift human resources of the mobile SoC business to automotive information business
- Optimization of design functions WW

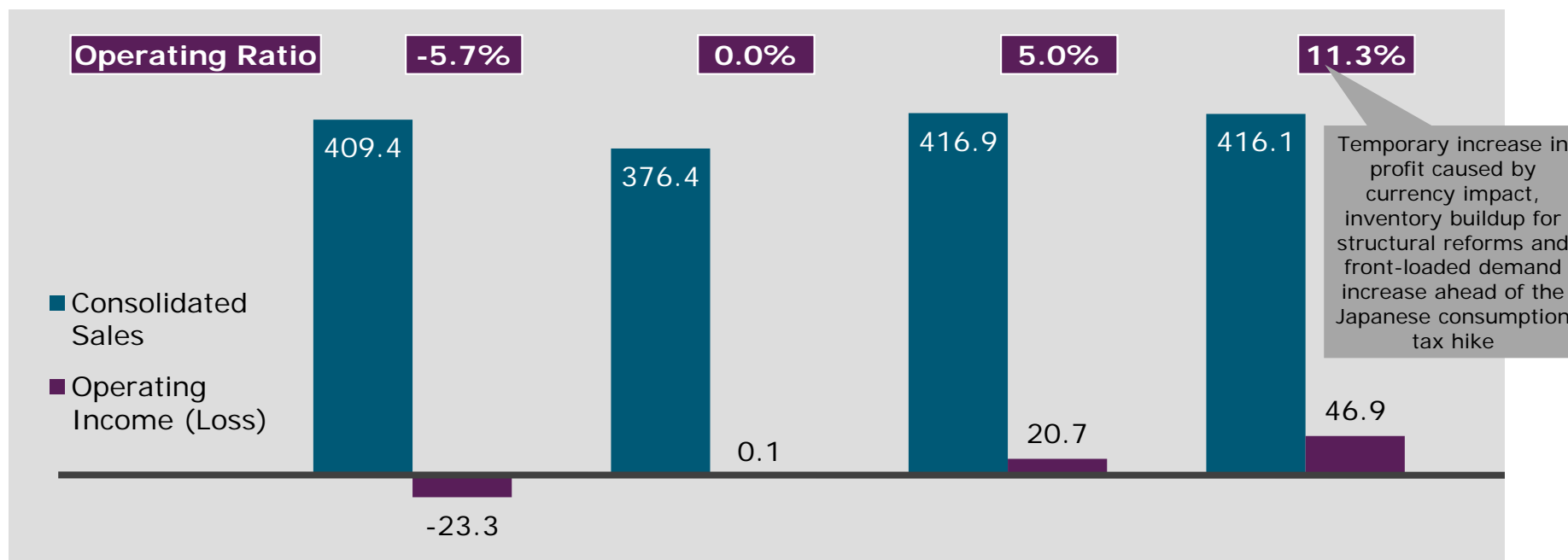
#### Revised personnel system

Adoption of new personnel system

- Thorough implementation of merit-based personnel system
- Global competitiveness

# Tangible Results of the Reform Plan

Profitable Financial Base, Back on Track for Growth



	FY 2012/1H (Sep. 30, 2012)	FY 2012/2H (Mar. 31, 2013)	FY 2013/1H (Sep. 30, 2013)	FY 2013/2H (Mar. 31, 2014)
Net Assets	106.8 B Yen	77.9 B Yen	221.8 B Yen	227.3 B Yen
Equity Ratio	13.0%	10.0%	26.2%	27.3%
D/E Ratio	2.46	4.59	1.38	1.26
Free Cash Flows	-34.0 B Yen	-63.3 B Yen	28.5 B Yen	46.0 B Yen

# As a Trusted Partner for Customers

- Sustain and enforce Renesas strengths by cultivating advanced technological development and by continuously supplying high quality products in tandem with structural reforms

## Lead the industry with advanced development strength

- World's first flash memory technology for 28nm MCU
- Launched 14 industry's first 40nm automotive MCUs
- Received ET award 2013 for "Integrated cockpit solution"
- Expanding adoption of "R-IN", an industrial Ethernet communication SoC supporting multiple protocols



## High-quality product supply

- Launched Product Longevity Program to provide product information for long-term supply products to support customers working in markets with long product life cycles
- Received the Supplier of the Year 2013 award from Continental



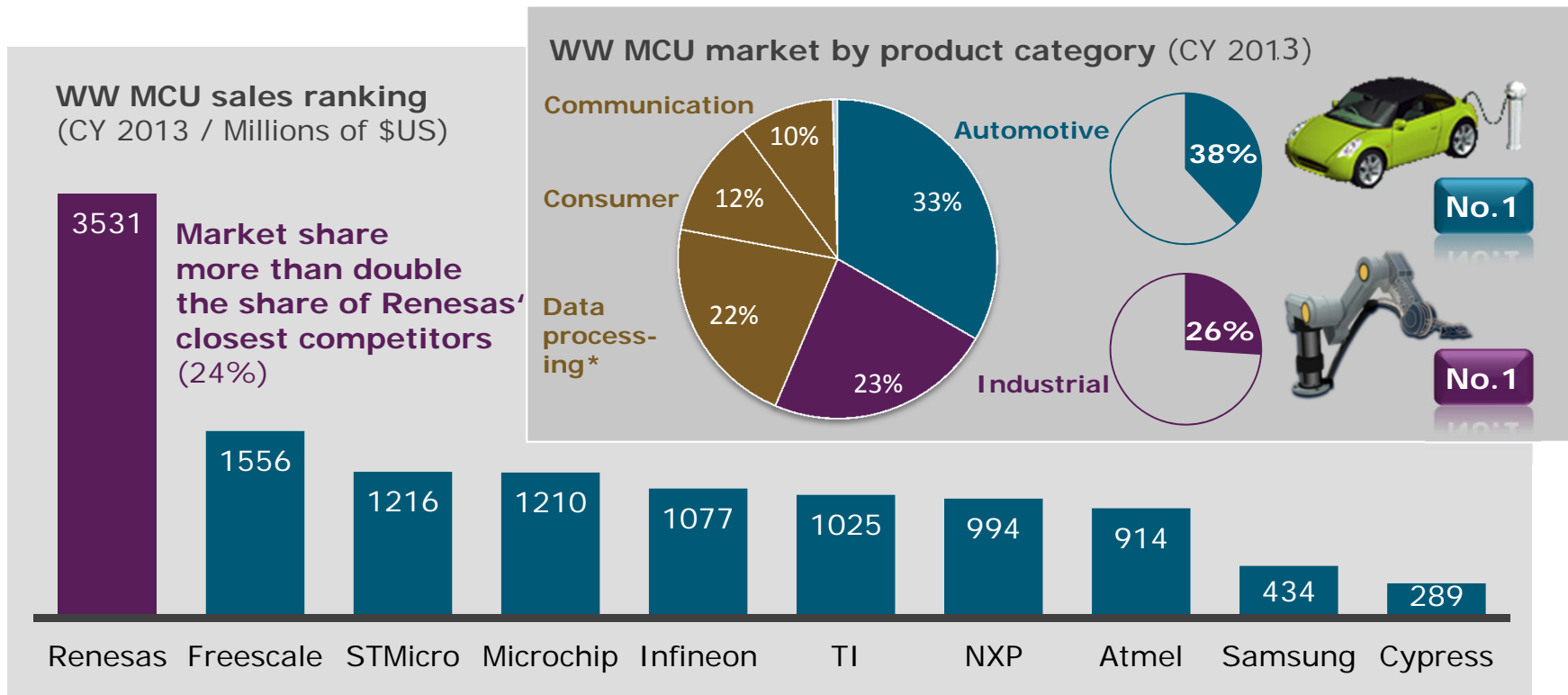
## Future Focus Domains

Efforts towards Further Growth in Profits



# Renesas Market Position





- No.1 MCU supplier in the world with more than double the shares of Renesas' closest competitors
- No. 1 in both the Automotive and Industrial product categories, the two largest categories in the global MCU market (56% of the whole market)



Source: Gartner, "Market Share: Semiconductor Applications, Worldwide, 2013" 31 March 2014 Chart created by Renesas Based on Gartner data  
 \* "Data processing" includes "Compute" and "Storage". "Communication" includes "Wired communication" and "Wireless Communication".  
 "Industrial" includes Industrial/Medical/Others.

# Renesas Strength on the Global Stage

- No. 1 supplier of automotive semiconductors in the world
- Achieved market share increase in North America, Europe and emerging countries with sales growth outpacing the market

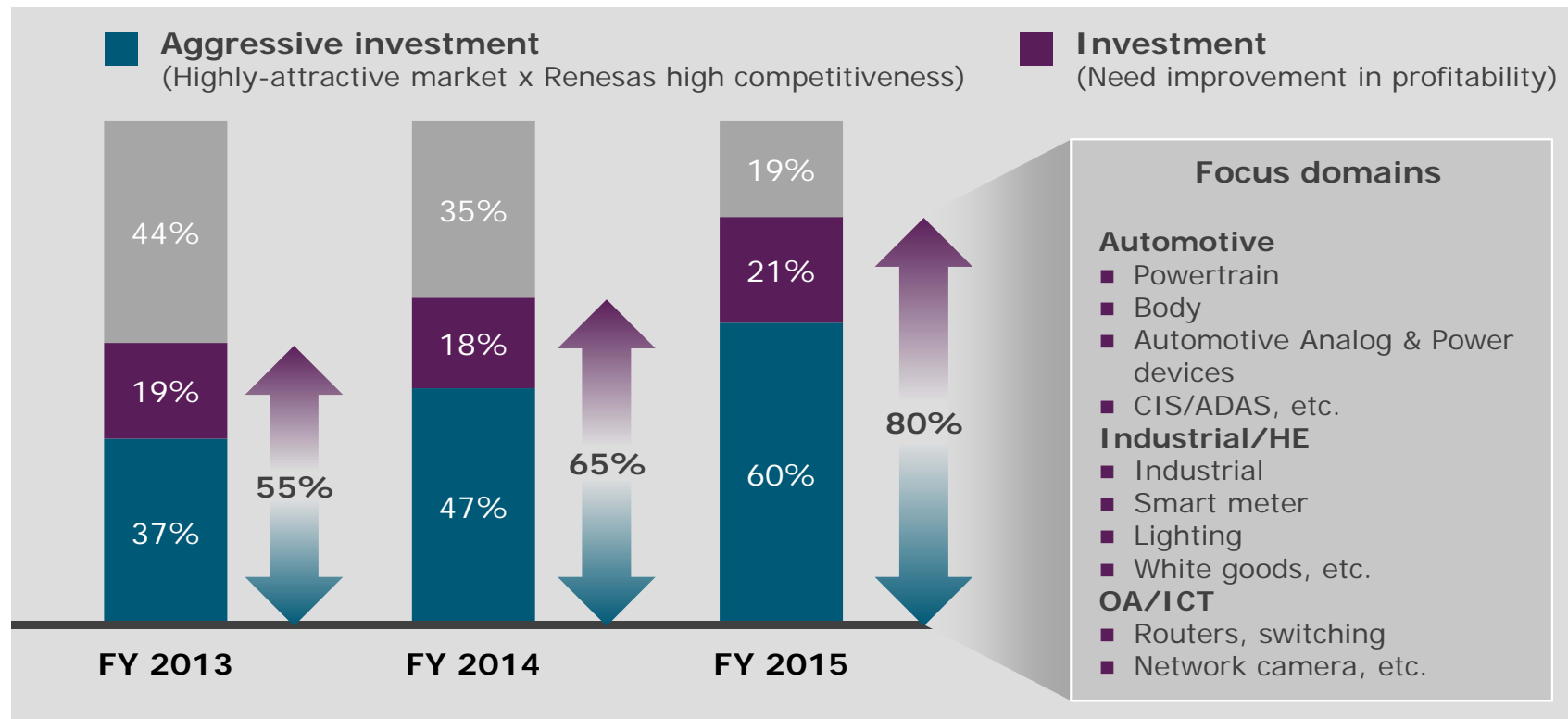
W/W Automotive Semiconductor			Automotive Semiconductor CAGR by region/Renesas share (CY 2007-2013)			
		CY 2013		CY 2007-2013 WW market CAGR	CY 2007-2013 Renesas sales CAGR	CY 2013 Renesas share
1	<b>Renesas</b>	<b>13.3%</b>	North America	1.9%	<b>4.3%</b>	<b>8.1%</b> 
2	Infineon	9.6%	Europe	2.2%	<b>3.1%</b>	<b>7.3%</b> 
3	ST	7.9%	Emerging Countries*	12.5%	<b>14.4%</b>	<b>10.6%</b> 
4	Freescale	7.4%	Japan	0.6%	<b>0.6%</b>	<b>33.2%</b> 
5	NXP	6.5%				

Source: Strategy Analytics

\*Emerging countries include countries in the WW market excluding North America, Europe and Japan.

# Accelerate R&D Investment in Focus Domains

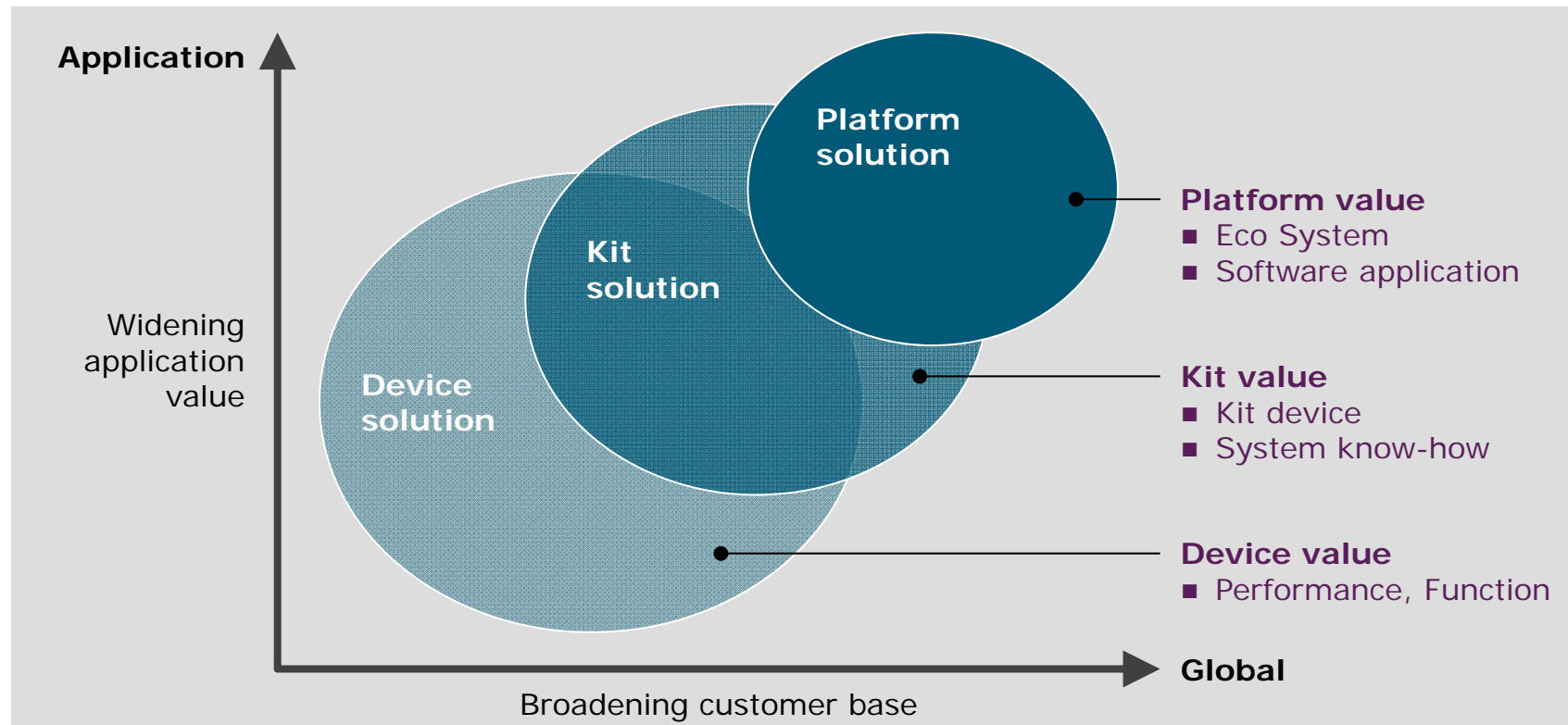
- Aggressively invest the funds acquired through third-party share allotment in competitive focus domains
- Plan R&D investment in FY 2014 on development of next-generation automotive platform and industrial communication platform, etc.









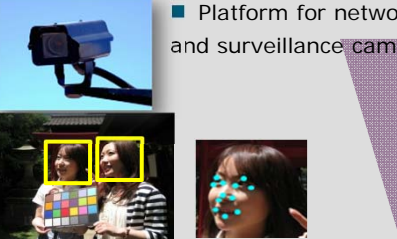
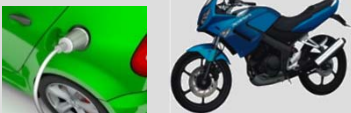

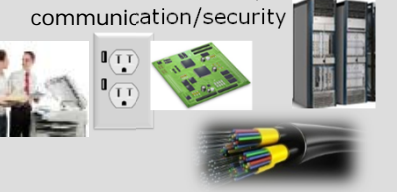






# R&D Direction:

## Evolving Value Proposal for Focus Domains

- Change the focus domains to shift from product-orientation to application-orientation and provide three-level solution offerings
- To widen application value and to broaden the customer base, expand solution lineups through aggressive investment of R&D cost



# 3 Solution Offerings from Focus Domains

Automotive	Industrial/HE	OA/ICT	
 <ul style="list-style-type: none"> <li>■ Integrated cockpit</li> <li>■ Car navigation + ADAS</li> <li>■ Eco system collaboration</li> </ul> 	 <ul style="list-style-type: none"> <li>■ Industrial Ethernet</li> <li>■ Industry-standard platform</li> </ul>  	 <ul style="list-style-type: none"> <li>■ Platform for network and surveillance camera</li> </ul> 	<p><b>Platform value</b></p> <p>Eco System Software, Application</p>
<ul style="list-style-type: none"> <li>■ New solution for e-Mobility</li> <li>■ MCU + power device kit solution for two wheel vehicles in emerging countries</li> </ul> 	<ul style="list-style-type: none"> <li>■ MCU + power kit solution for motor control</li> <li>■ Kit solution for smart meter measurement/communication</li> </ul> 	<ul style="list-style-type: none"> <li>■ Kit solution for office, communication/security</li> </ul> 	<p><b>Kit value</b></p> <p>Kit device, System know-how</p>
<ul style="list-style-type: none"> <li>■ Automotive analog &amp; power devices</li> <li>■ DRIVING, STEERING, BREAKING</li> </ul>  	<p><b>General-purpose MCU for embedded systems</b></p> <ul style="list-style-type: none"> <li>■ Power semiconductors for industrial</li> </ul>  	<ul style="list-style-type: none"> <li>■ Network memory</li> <li>■ MCU for OA/camera</li> </ul>  	<p><b>Device value</b></p> <p>Per- formance Function</p>

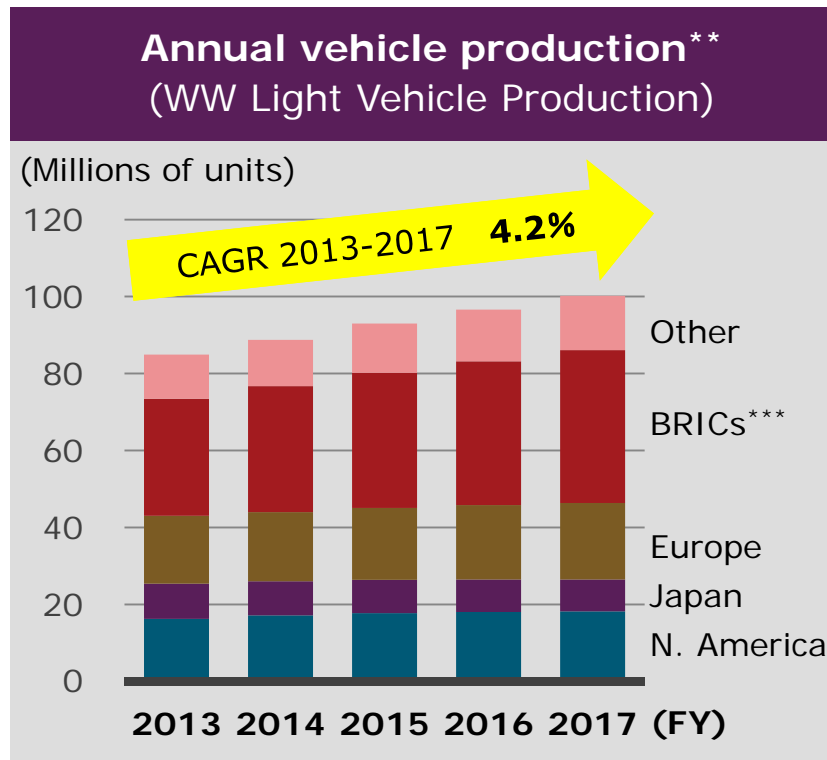
(Note) HE: Home Electronics, OA: Office Automation, ICT: Information Communication Technology

# Market Growth of Focus Business Domains:

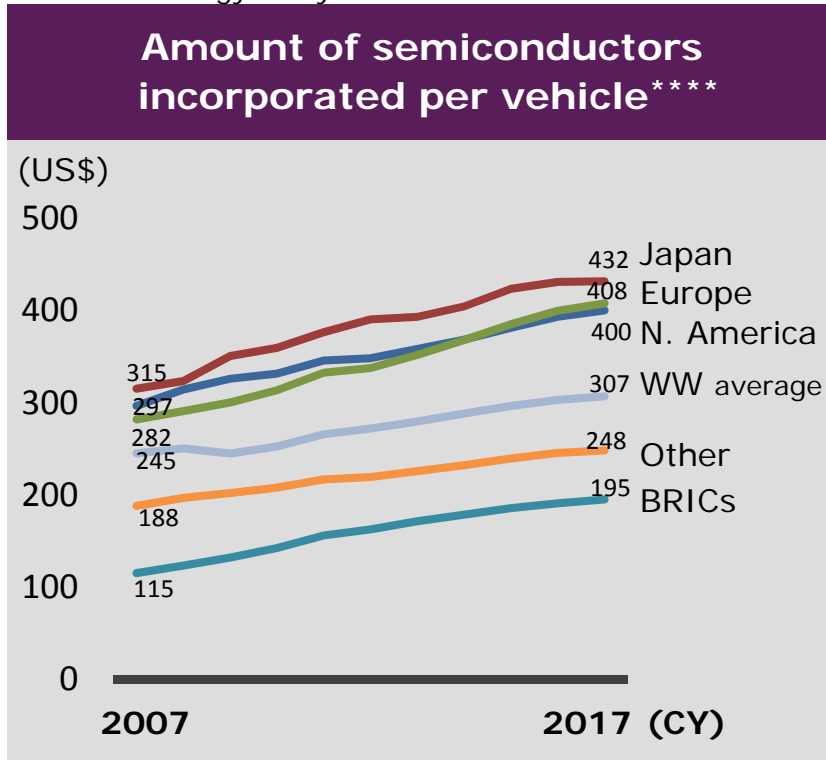
## Automotive

- Annual vehicle production in FY2014 to FY2017 is expected to increase by 4.2% pushed by growth from the emerging countries
- The amount of semiconductors incorporated per vehicle increased to the 190 (emerging countries) to 400 US\$ (Europe, U.S, Japan) range
- Automotive semiconductor market grew at CAGR of 7.2% in CY2013 to CY2017 \*

Source: Renesas



Source: Strategy Analytics



\*Source: Strategy Analytics

\*\*Target vehicles: Light vehicle (= vehicle + light-weight truck) / \*\*\*Brazil, Russia, India, China / \*\*\*\*Excluding sensors



# Renesas Core Competence in Focus Domains: Automotive

	Automotive Control			Automotive Information / Driver Assistance	
	Powertrain	Chassis/Safety	Body	Driver information	A D A S ****
<b>Semiconductor Market Scale*</b>	4,898 M US\$	6,558 M US\$	5,646 M US\$	5,446 M US\$	648 M US\$
<b>Market Growth Rate**</b>	+8.1%	+7.5%	+5.7%	+8.4%	+20.5%
<b>Renesas Share***</b> (Share of MCU+SoC)	15% (39%)	9% (22%)	16% (46%)	9% (43%)	--- *****
<b>Renesas Core Competence</b>	<ul style="list-style-type: none"> <li>Next-generation combustion system</li> <li>Motor MCU+ Power kit solution for HEV/EV</li> </ul>	<ul style="list-style-type: none"> <li>Automotive safety MCU</li> <li>Leading-edge 90nm BiCD analog</li> </ul>	<ul style="list-style-type: none"> <li>Automotive network (CAN-FD, etc.)</li> <li>Integration of MCU and Analog</li> </ul>	<ul style="list-style-type: none"> <li>Multi-screen processing for automobiles</li> <li>Security gateway</li> </ul>	<ul style="list-style-type: none"> <li>Image recognition engine</li> <li>V2X communications *****</li> </ul>
	World's state-of-the-art flash MCU process technology (28/40nm) High-speed processing/ High-reliability/Low power consumption			Integrated cockpit (Convergence of control and IT, Support V2X)	
				Extensive ecosystem with support for multiple OS (R-Car platform)	
	Rich and market-proven functional safety solution lineup, Automotive security				

\*Market scale in CY2013 (Source: Strategy Analytics)      \*\*CAGR in CY2013 to CY2017 (Source: Strategy Analytics)

\*\*\* Renesas market share in CY2013 (Renesas estimate calculated based on data from Strategy Analytics)

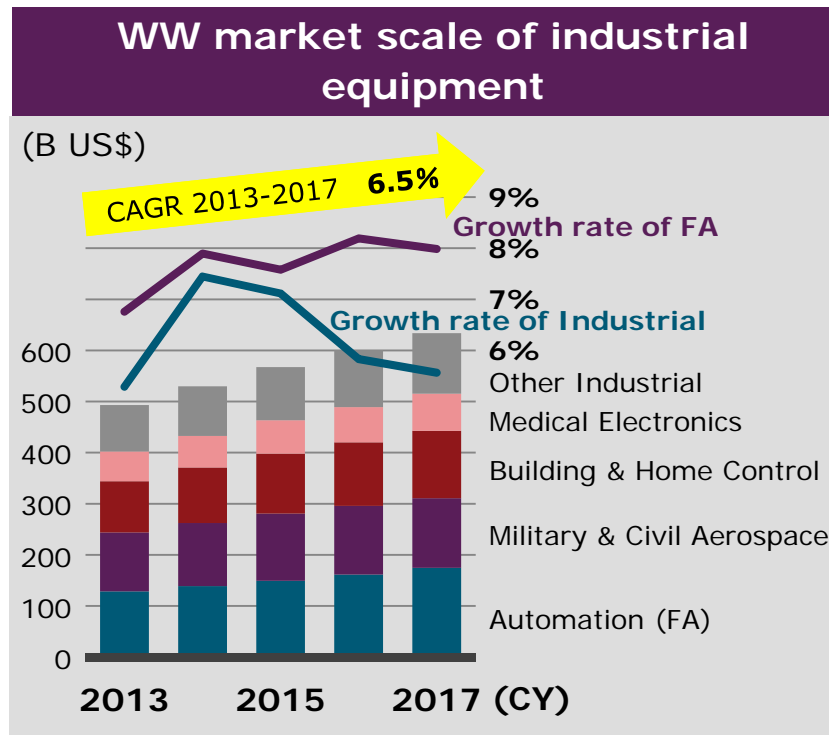
\*\*\*\*Under the Strategy Analytics classification, ADAS includes "Distance Warning", "LDWS", "Park Assist", "Blindspot", "Drowsiness Monitor" and "Night Vision".

\*\*\*\*\* No data is available at the present stage due to the small scale of the market.

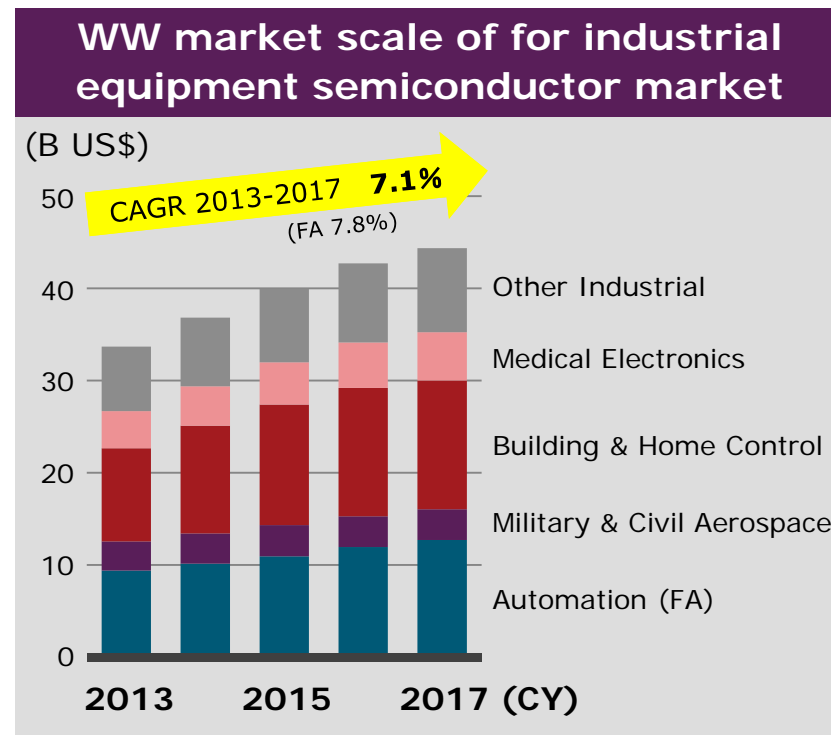
\*\*\*\*\*V2X= Vehicle-to-Vehicle/Road-to-Vehicle communications

# Market Growth of Focus Domains: Industrial

- Industrial equipment market is expected to show stable growth in the medium term. FA in particular will continue to grow outpacing the growth of total industrial equipment
- Expect the industrial equipment semiconductor market to outgrow the industrial equipment market



Source: IHS



Source: IHS



# Renesas Core Competence in Focus Domains: Industrial/HE and OA/ICT

HE: Home Electronics, OA: Office Automation, ICT: Information Communication Technology

	Industrial/HE		OA/ICT
	Industrial	Consumer	Communication data processing*
<b>Semiconductor Market Scale**</b>	28.7 B US\$	38.2 B US\$	218.0 B US\$
<b>Market Growth Rate***</b>	7.4%	2.8%****	4.3%
<b>Renesas MCU Position (Share)****</b>	1st (26%)	2nd (14%)	3rd (9%)
<b>Target Application</b>	FA, Smart meter	White goods, Lighting	Network security, network camera
<b>Renesas Core Competence</b>	<ul style="list-style-type: none"> <li>Multi-protocol SoC (R-IN) to realize high-speed/low-power industrial Ethernet networking applications</li> <li>Smart meter kit solutions supporting multiple communication protocols (wired/wireless)</li> </ul>	<ul style="list-style-type: none"> <li>Highly-efficient motors and inverters through the world's No. 1 MCU technologies</li> <li>Wi-SUN Alliance certified-wireless communications platform for IoT</li> <li>LED lighting for BEMS***** + DALI communication solution</li> </ul>	<ul style="list-style-type: none"> <li>Network security kit leveraging high-end search engine technology and high-speed memory core technology</li> <li>USB power delivery to evolve electricity infrastructure at offices and homes</li> </ul>

Source: \*1 & \*4: Gartner "Market Share: Semiconductor Applications, Worldwide, 2013" 31 March 2014 Chart created by Renesas based on Gartner data  
\*2, \*3 & \*5: Gartner "Semiconductor Forecast Database, Worldwide, 2014 Update" 25 June 2014 Chart created by Renesas based on Gartner data

\*Under the Gartner classification, Communication data processing includes "Data Processing-Compute", "Data Processing-Storage", "Wired Communication", and "Wireless Communication" \*\*Estimated market scale in FY2013 (Source: Gartner)

\*\*\*CAGR in FY2013 to FY2018 (Renesas estimate calculated based on the data from Gartner)

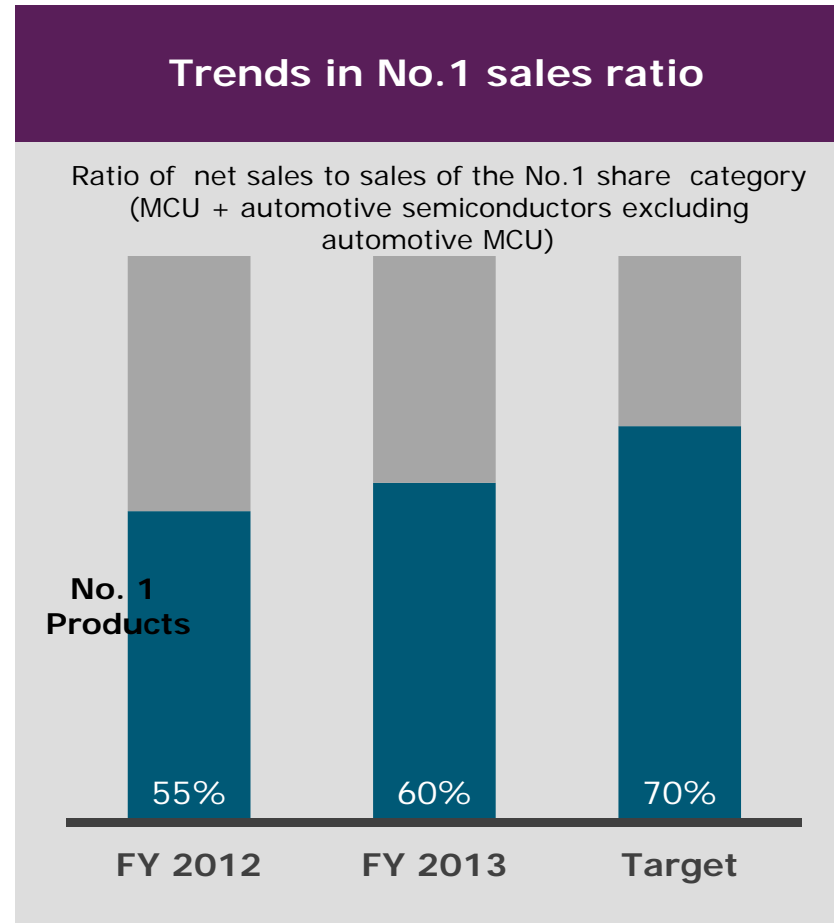
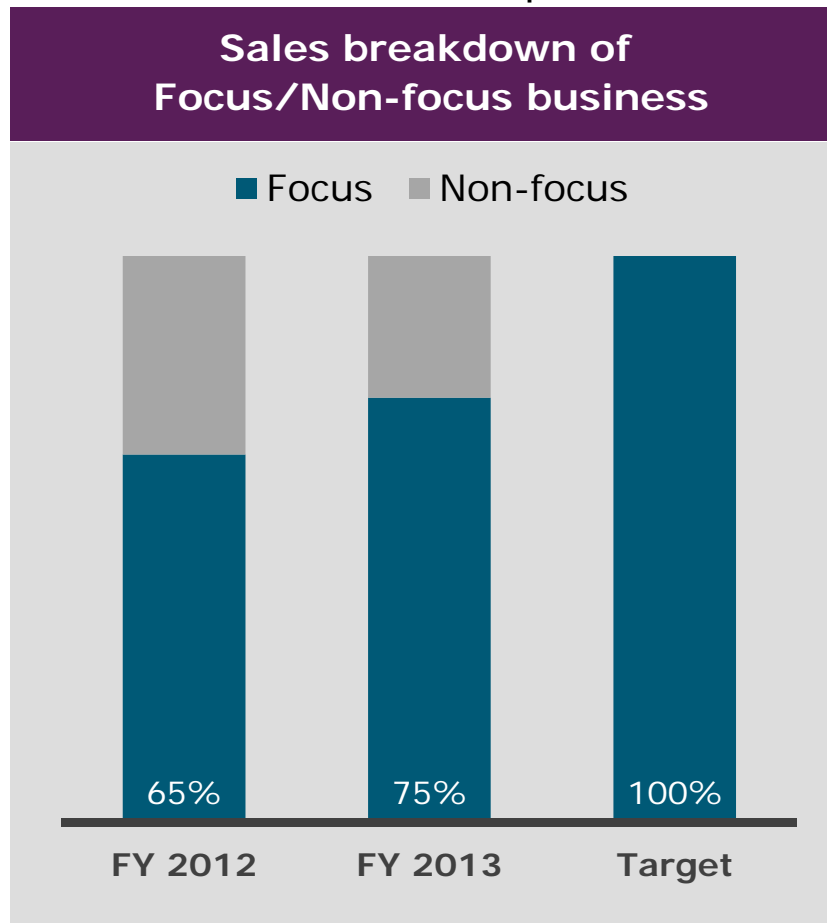
\*\*\*\*Renesas market share in FY2013 (Source: Gartner) \*\*\*\*\*Average annual growth rate of consumer appliances in FY2013 to FY 2018

\*\*\*\*\*BEMS: Building Energy Management System

# Future Renesas Management Benchmarks

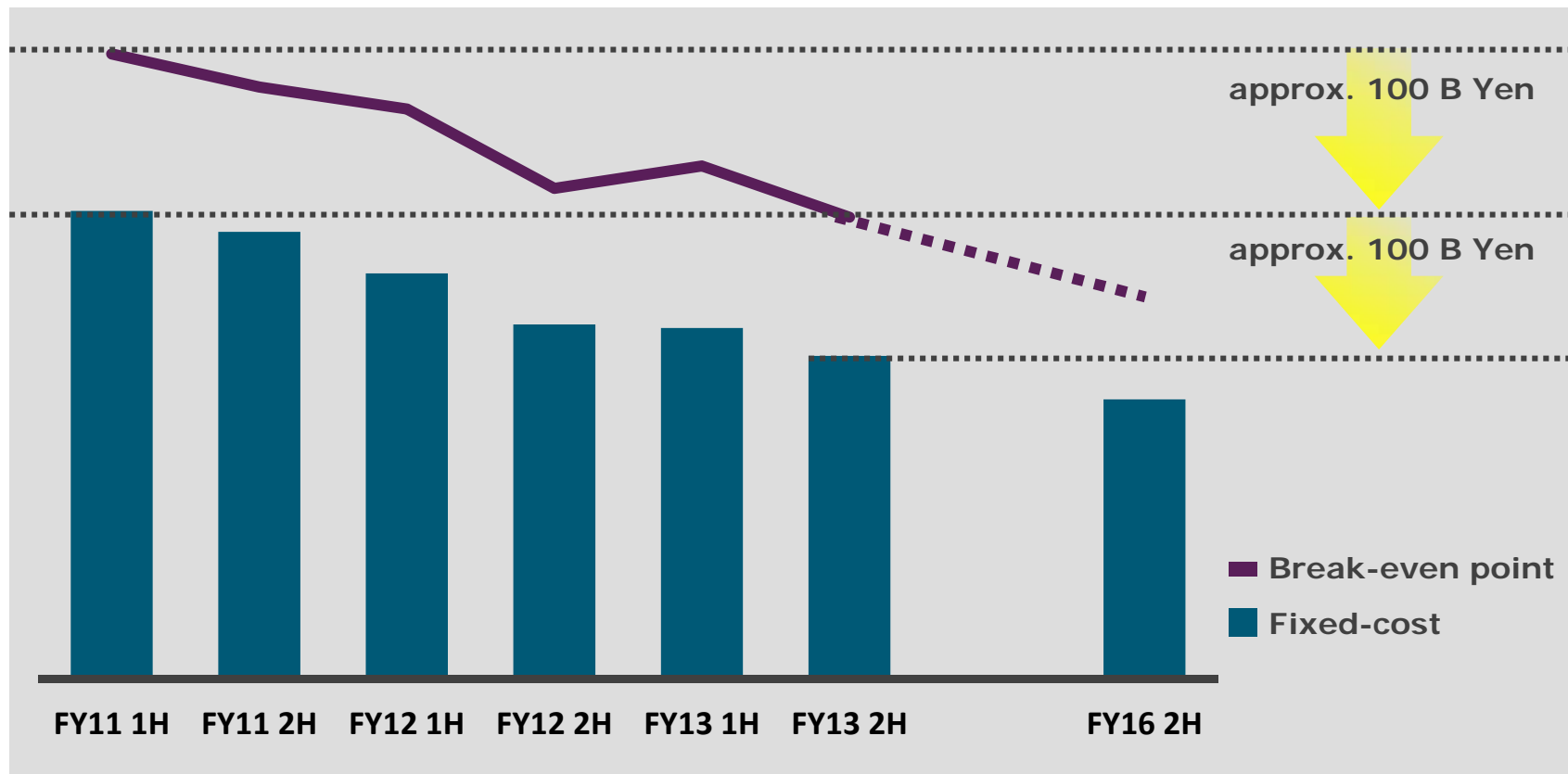
# Further Selection and Concentration on Focus Domains

- Sales of non-focus businesses will decrease from acceleration of selection and concentration, at the same time sales of products with No. 1 market share will increase and realize improvement of product mix



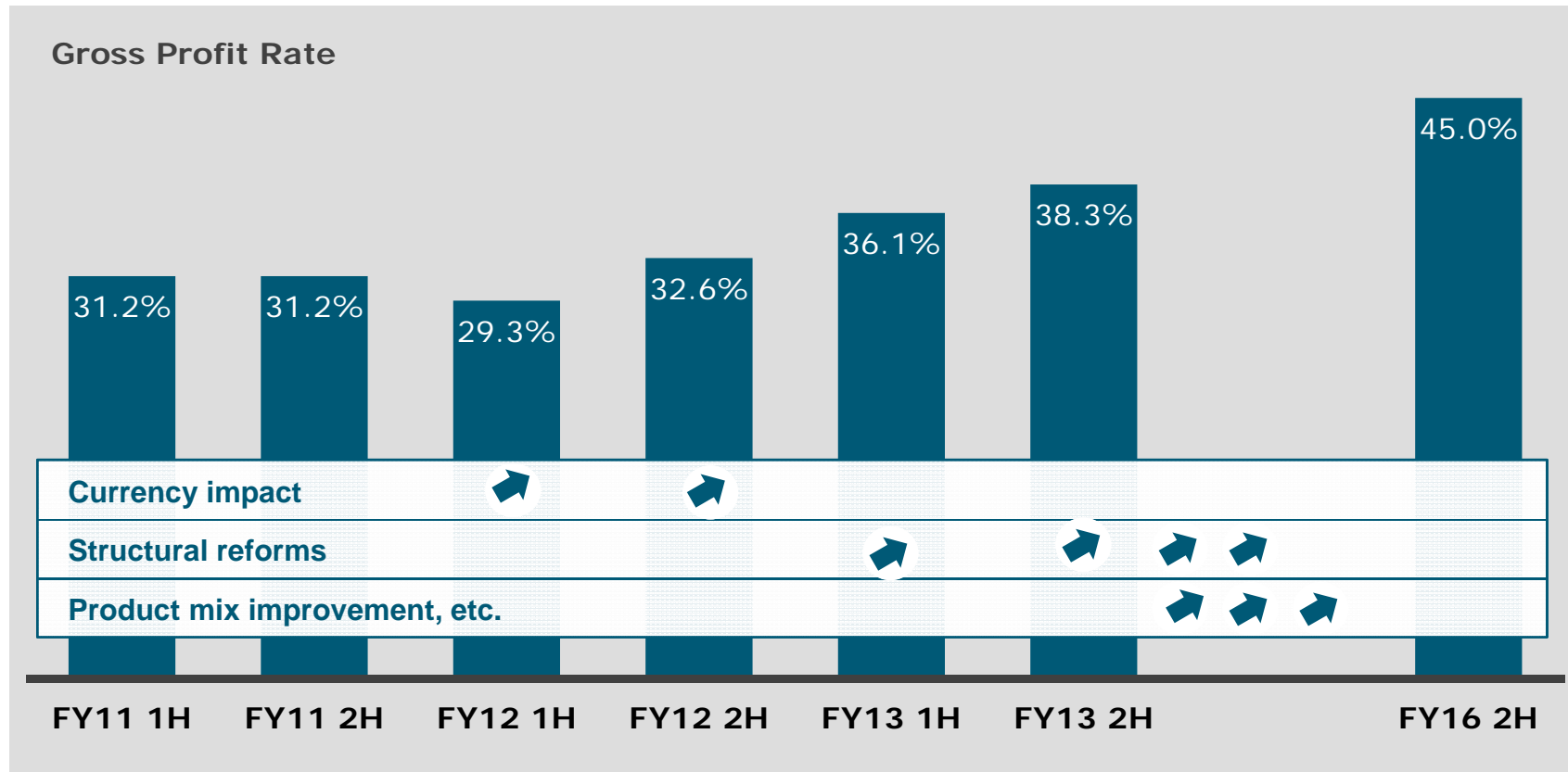
# Trend in Fixed-Costs and Break-Even Point

- Aim to achieve further fixed-cost reductions and improve the break-even point through selection and concentration into highly-competitive focus domains and acceleration of manufacturing structural reforms



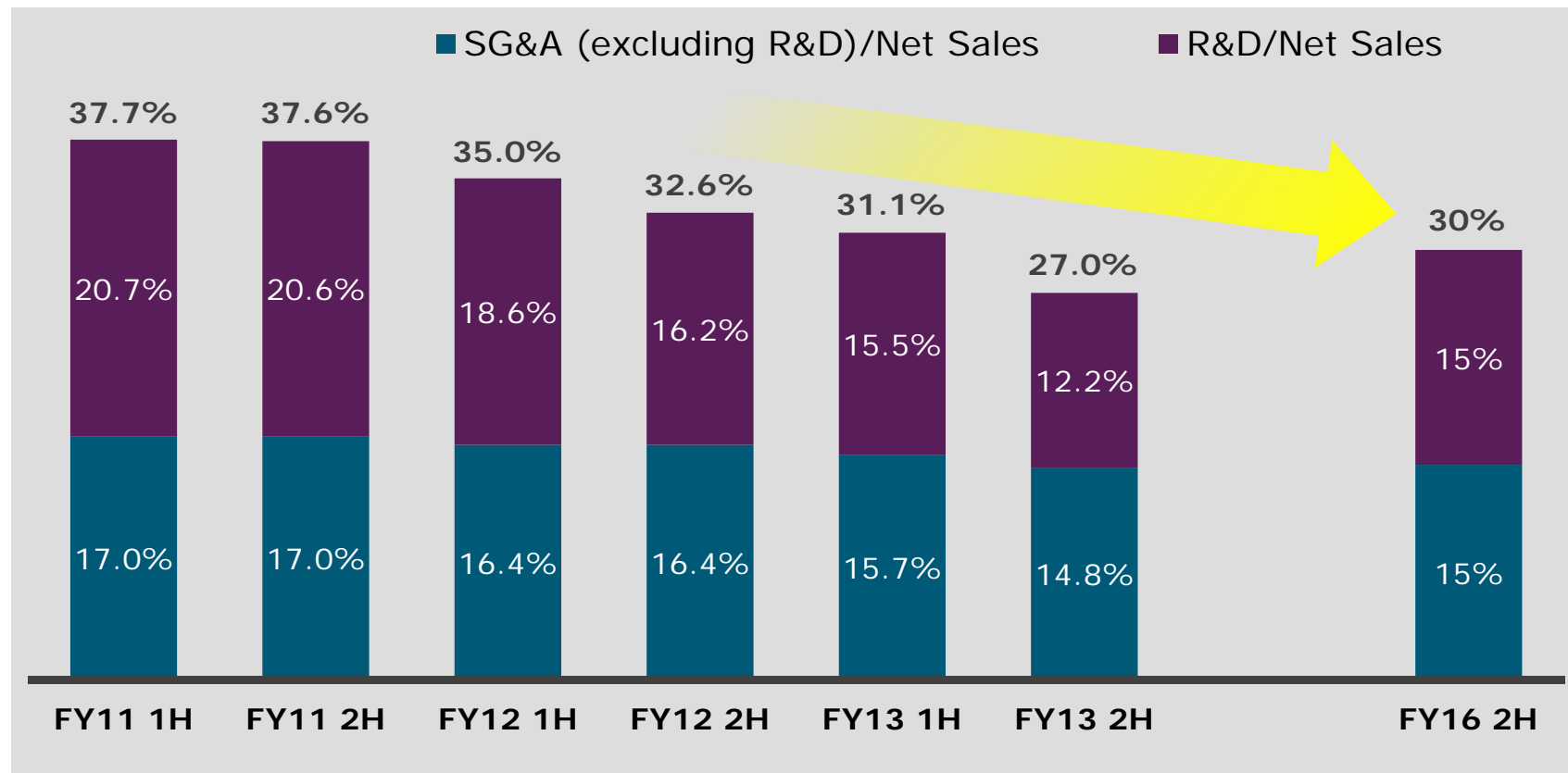
# Gross Profit Ratio Improvement

- Gross profit rate is increasing, supported by strict cost management



# Optimization of R&D and SG&A

- Despite a temporary cost cutback from the selection of businesses, aim to expand growing strength by concentrating R&D cost on focus domains
- SG&A-to-sales ratio will be maintained at the 15% level



\*R&D: Research and Development, SG&A: Selling, general and administrative expenses

# Targeted Financial Model

(Billion yen / In comparison with net sales)

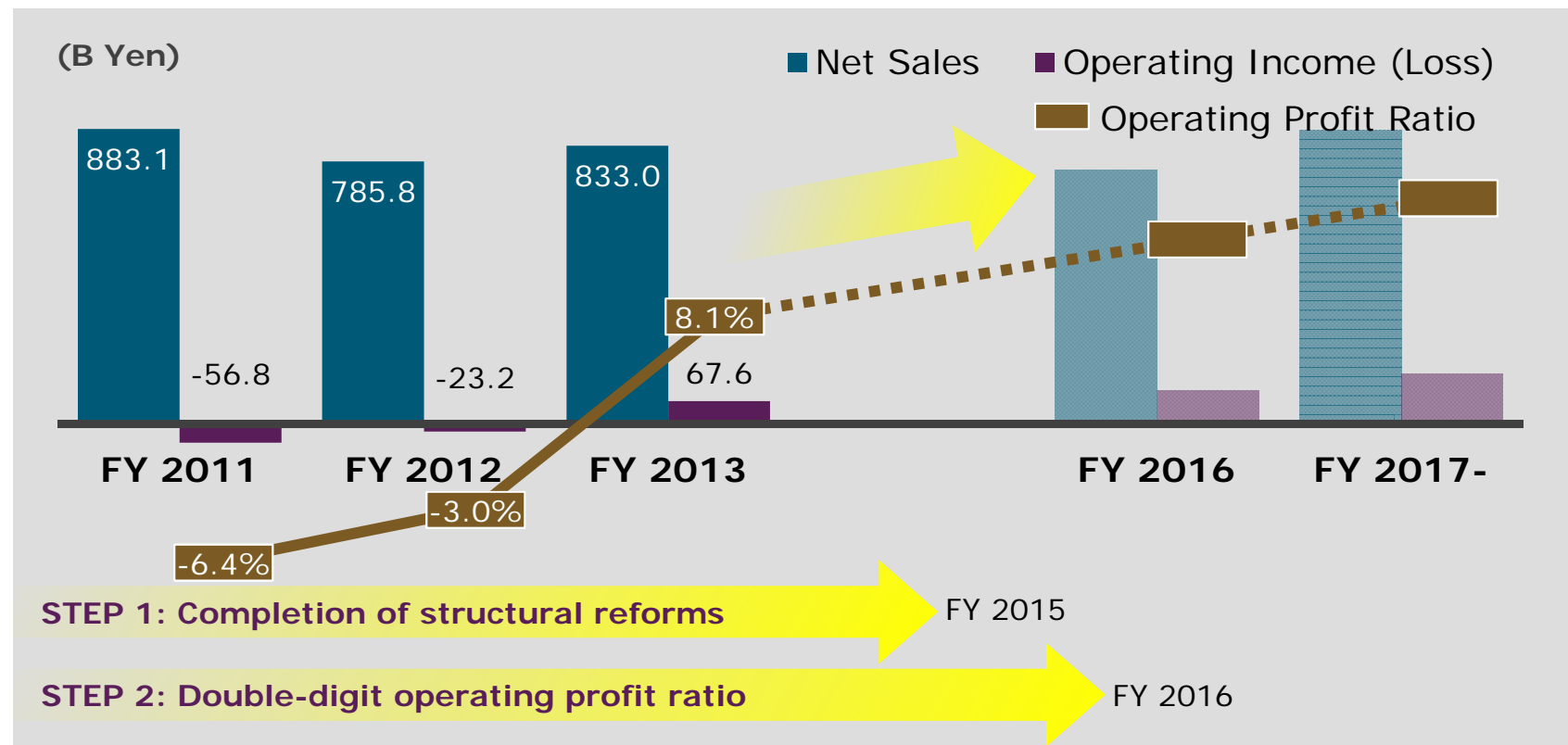
	FY 2011	FY 2012	FY 2013	FY 2016
<b>Net Sales</b>	883.1	785.8	833.0	Aim: Focus domains will outperform their markets
<b>Gross Profit (Ratio)</b>	31.2%	30.9%	37.2%	45.0%
<b>R&amp;D (Ratio)*</b>	20.7%	17.5%	13.8%	15.0%
<b>Selling, general and administrative expenses (Ratio)**</b>	17.0%	16.4%	15.2%	15.0%
<b>Operating Profit (Ratio)</b>	-6.4%	-3.0%	8.1%	Over 10%

\*R&D: Research and Development

\*\*SG&A: Selling, general and administrative expenses  
Excludes R&D cost

# Reform Plan Milestones

- Complete structural reforms by FY2015 and arrive at stable and profitable cost structure
- Complete withdrawal from non-focus domains and return to growth after FY2016





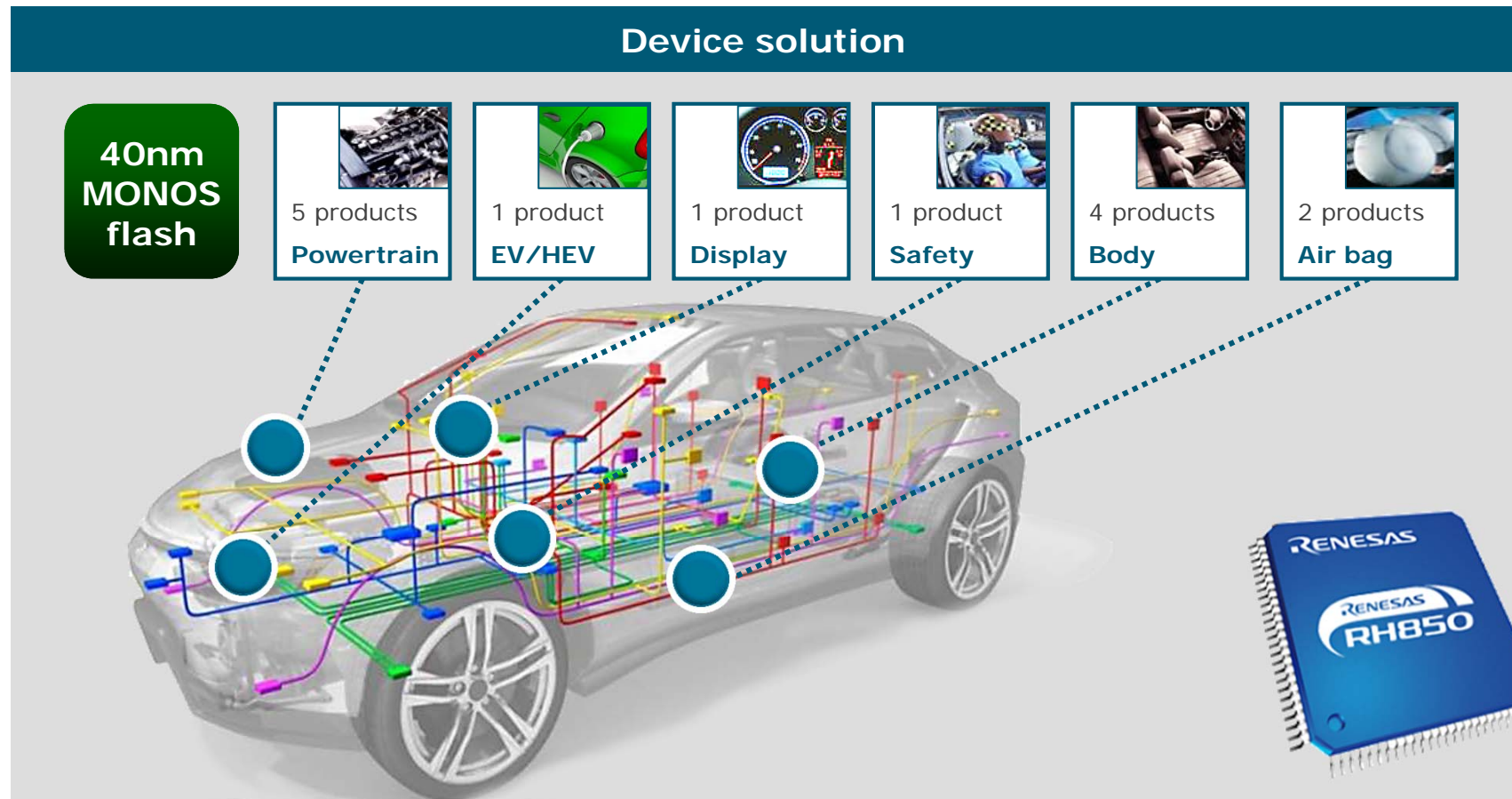


Renesas Electronics Corporation

# Appendix

# Appendix: Automotive Control MCU - World's State-of-the-Art 40nm Product Lineup -

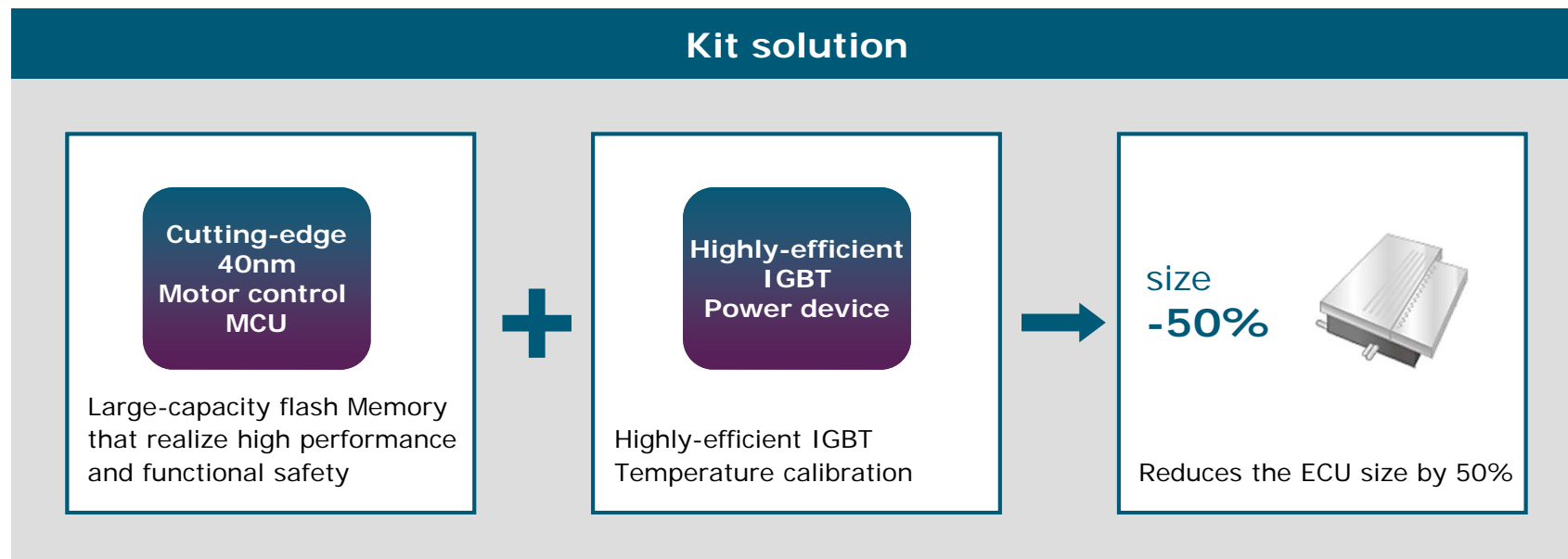
- First and only chip firm ready to begin mass production
- Expanding design-in worldwide



# Appendix: Compact and Light ECU for HEV/EV

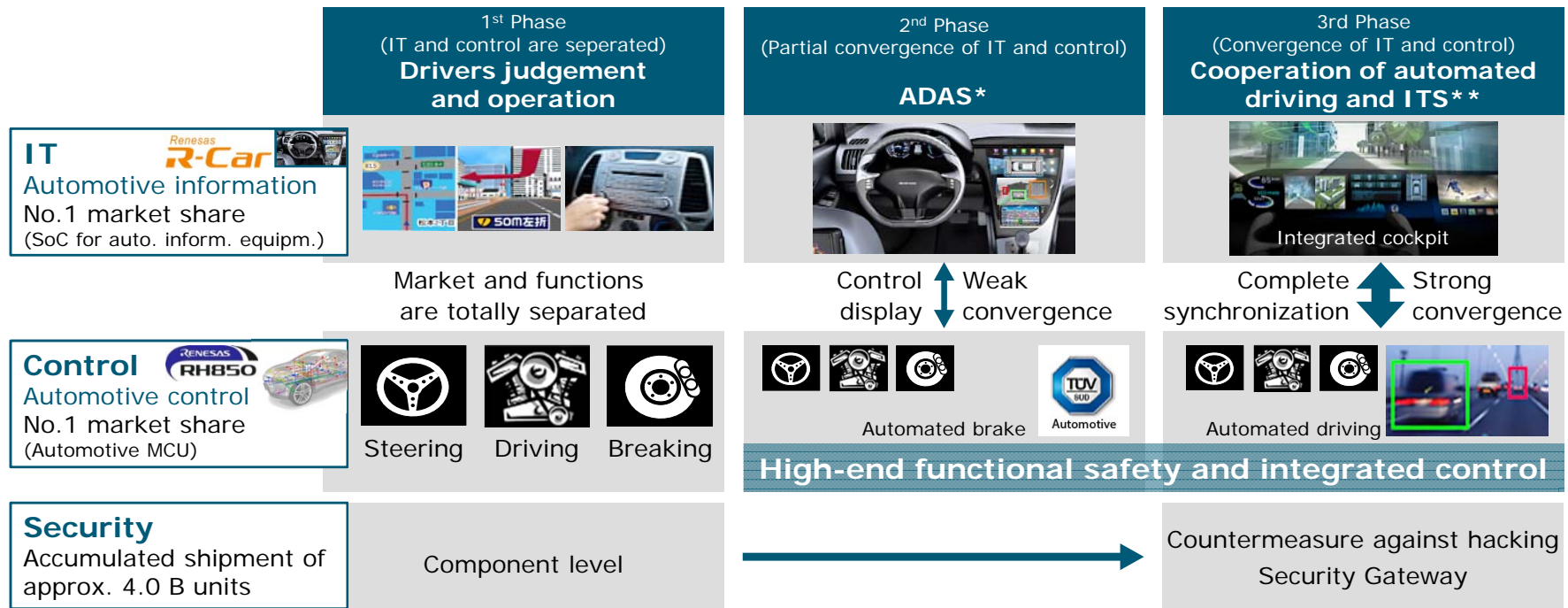
## Optimal kit solution offerings that realize compact and light

- Highly-efficient control with motor control MCU
- Optimized kit solution of MCU and power devices and tuning tool offerings
- Ease the thermal design burden through temperature calibration



# Appendix: Convergence of Automotive Information (IT)

- Leveraging the technologies of the No. 1 market share, advance convergence of IT and control for the realization of future safe, secure and comfortable automotive society
- Security functions are essential to guard against rapid increase in external threat from advancement of “in-car” IT
- Brace for a possible hacking attack by developing a security gateway when synchronizing IT and Control



\*ADAS: Automotive driver assistance systems \*\*ITS: Intelligent transport systems

# Appendix: Power Efficiency through Industrial Ethernet Controller

- R-IN dramatically improves in-plant network performance and also allows customers to easily set up the environment by supporting multiple protocols
- Contributes to realization of smart society by applying R-IN to the factory's upper layer and improving productivity of the overall factory

