

# Growth Strategy to Enhance Corporate Value

-Receiving of Joint Investment from The Innovation  
Network of Corporation of Japan and 8 Other Companies-

Renesas Electronics Corporation

December 10, 2012

Yasushi Akao, President



# Today's Agenda

1. Overview and Aim of Capital Increase through Third-party Allotment to INCJ (Innovation Network of Corporation of Japan) and 8 Other Companies
2. Strategy to Enhance Competitive Strength for Future Growth

# Revised FY13/3 Consolidated Financial Forecasts

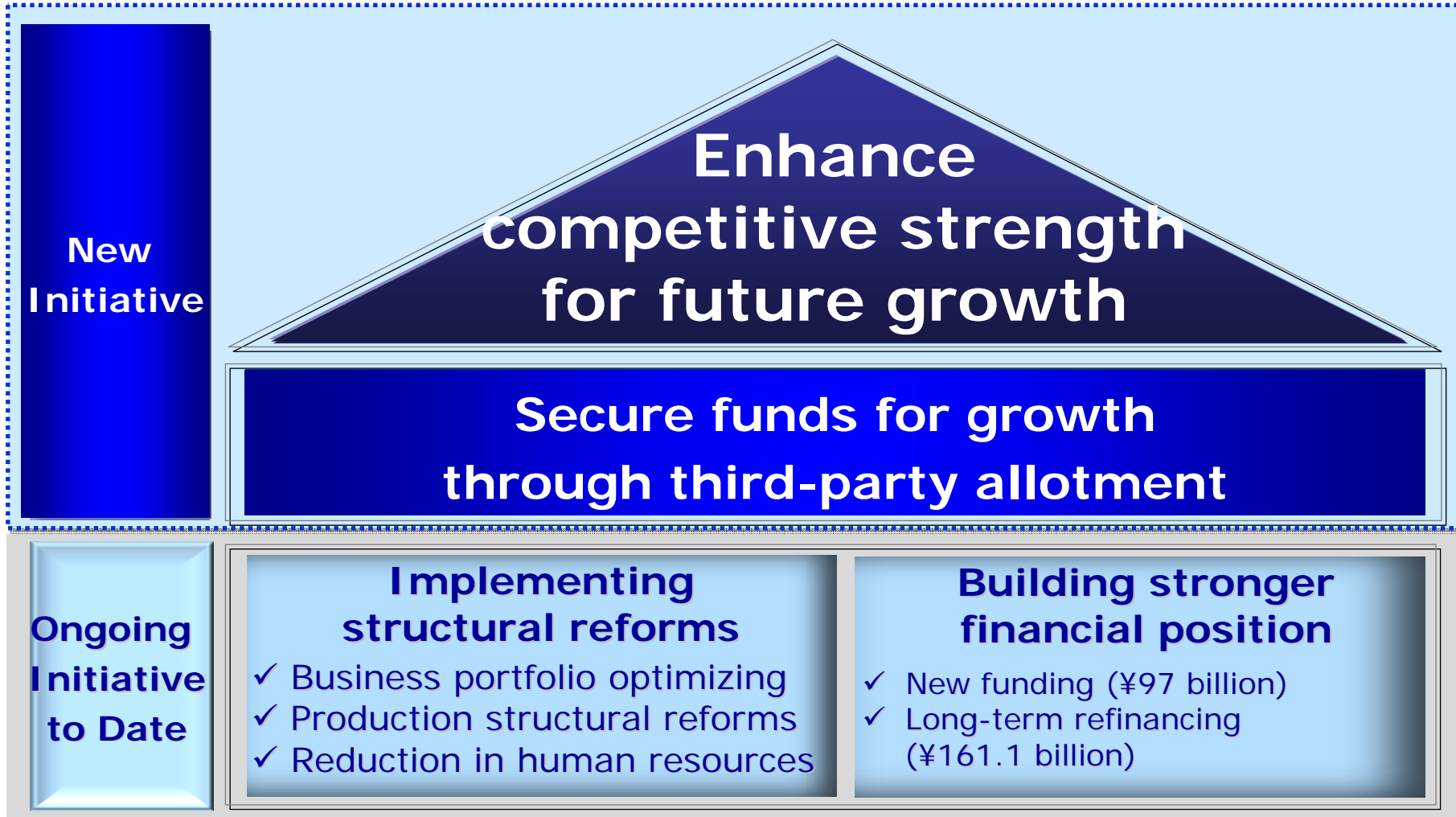
- Lowered full-year sales forecasts as factors including prolonged debt worries in Europe, further market slowdown in China and other emerging economies as well as increased uncertainty of Japan-China relations might impact on demand
- Maintain full-year income forecasts unchanged from the previous forecasts despite sales decrease by streamlining production and further expense reduction measures

(B yen)	FY2012/3			FY2013/3				
	1H Actual	2H Actual	Full-year Actual	1H Actual	2H Forecasts	Full-year Forecasts	Previous Full-year Forecasts*	Difference from Previous Forecasts (YoY)
Net Sales	450.5	432.6	883.1	409.4	410.6	820.0	868.0	-48.0 (-63.1)
Semiconductor Sales	402.2	383.8	786.0	373.6	386.4	760.0	811.0	-51.0 (-26.0)
Operating Income (Loss)	-29.2	-27.6	-56.8	-23.3	44.3	21.0	21.0	±0 (+77.8)
Ordinary Income (Loss)	-33.3	-27.8	-61.2	-24.4	34.4	10.0	10.0	±0 (+71.2)
Net Income (Loss)	-42.0	-20.6	-62.6	-115.1	-34.9	-150.0	-150.0	±0 (-87.4)
1US\$=	81 yen	78 yen	79 yen	80 yen	81 yen	80 yen	78 yen	-
1 Euro=	115 yen	104 yen	109 yen	102 yen	105 yen	103 yen	100 yen	-

# **Capital Increase through Third-party Allotment to INCJ and 8 Other Companies**

# Objectives of the Capital Increase

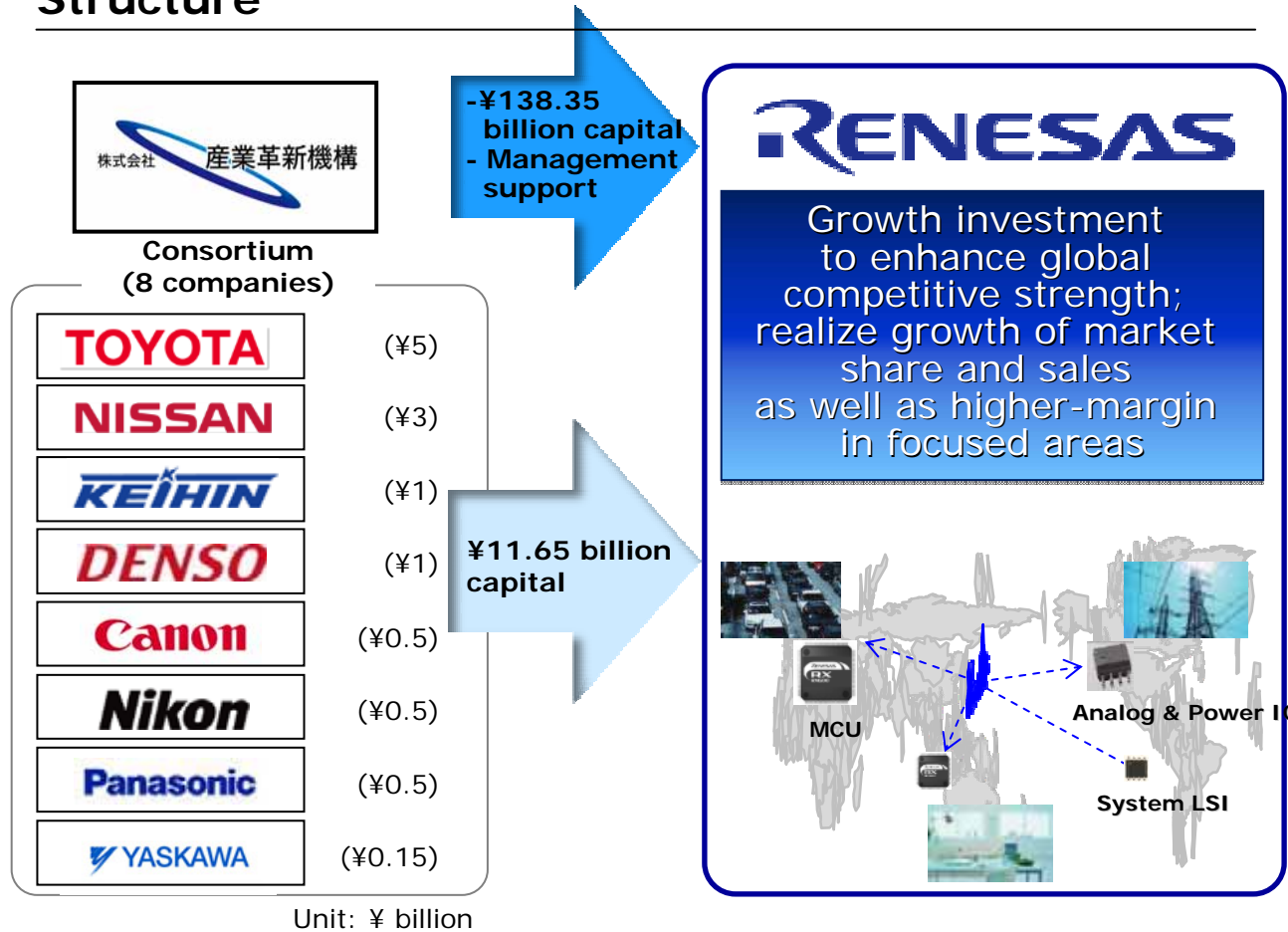
- Build on the measures already taken to strengthen our earnings base and strengthen competitive strength for future growth



# Overview of the Capital Increase

- Renesas will procure ¥150 billion in capital increase through third-party allotment, underwritten by INCJ and a consortium of 8 other companies

## Structure



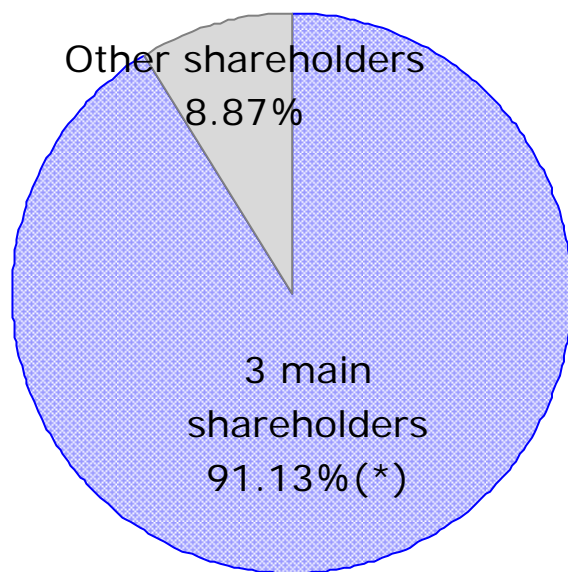
## Outline

Method	Third-Party allotment
Type of share	Common shares
Number of shares to be newly issued	1.25 billion shares
Issue price	¥120 per share
Amount to be procured	¥150 billion
Issue period	February 22, 2013 through September 30, 2013
Other	Conditions: 1) Approval at extraordinary meeting of shareholders 2) Valid securities filing in line with of the FIEA* 3) Approval from competition authorities

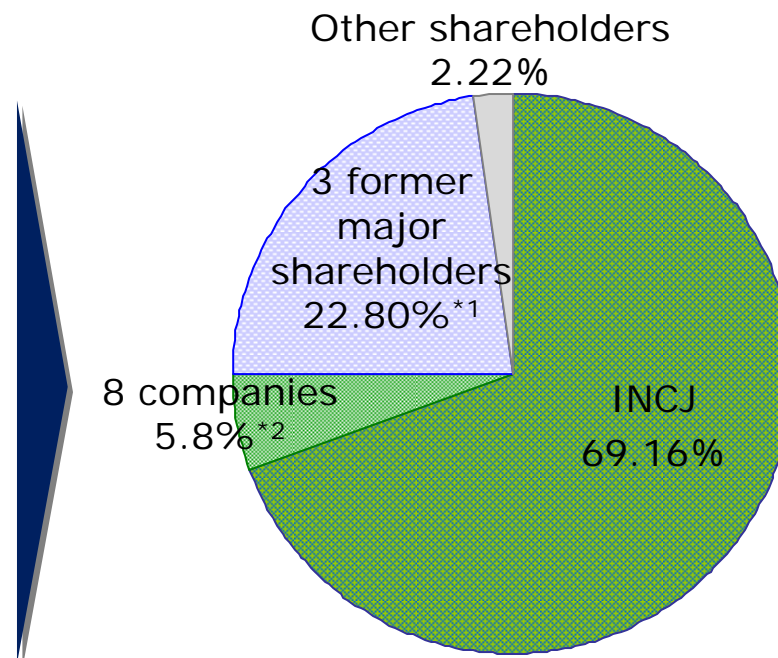
\*Financial Instruments and Exchange Act

# Shareholder Composition after Execution of Third-party Allotment (% of Voting Rights)

- The INCJ will become a major shareholder, the largest with more than two-thirds of voting rights after the third-party allotment, while the 8 companies will collectively have 5.82% voting rights
- The voting rights of the current three largest shareholders (NEC, Hitachi, Mitsubishi Electric) will each be under 10%, removing their current classification as major shareholders under the Financial Instruments & Exchange Act



\* NEC (35.46%), Hitachi (30.62%), Mitsubishi Electric( 25.05%)



\*1) NEC(8.87%), Hitachi(7.66%), Mitsubishi Electric(6.27%)

\*2) Toyota( 2.50%), Nissan(1.50%), Keihin (0.50%)  
Denso (0.50%), Canon (0.25%), Nikon (0.25%)  
Panasonic (0.25%), Yaskawa Electric (0.07%)

# Overview of Need to Raise Funds, and Reason for Choosing this Scheme

- The need to invest in growth is increasing in order to secure a financial base that can withstand severe, non-cyclical changes in the market, and for R&D, capex, M&A to drive earnings recovery
  - Methods considered to secure our financial foundation and growth capital included additional borrowing, public offering, a rights offering, and capital increase through third-party allotment
  - Various proposals for third-party allotments from Japan and abroad were received and compared
- The proposal from INCJ, which was premised on building a consortium of our customers, was considered comprehensively, and viewed favorably for being able to secure swiftly a large amount of funding rapidly, in a lump sum, with potential for synergies with the third-party allotment subscribers
  - The capital increase by third-party allotment proposal, led by INCJ, was selected as the best scheme to increase our corporate and shareholder value from a mid-and-long-term perspective



# Invest in Growth Areas (Use of Funds)

¥150 Billion Capital Increase through Third-party Allotment



## Enhance Competitive Strength for Future Growth

Strengthen core competencies		Strengthen semiconductor solution provision capabilities		Increase resistance to rapid market changes
R&D	Capex	Automotive semi. solution	Industrial semi. solution	Rebuild management base
¥40 billion	¥20 billion	¥40 billion	¥40 billion	¥10 billion
<ul style="list-style-type: none"> <li>➢MCUs</li> <li>✓Capex for development and test production at 28nm</li> <li>✓Development to increase efficiency at 40nm</li> <li>✓Joint development of embedded memory</li> <li>➢Analog &amp; power semiconductors</li> <li>✓Wafer enlargement (300mm)</li> <li>✓Capex for production at 90nm</li> </ul>		<ul style="list-style-type: none"> <li>➢Strengthen power semiconductor module technology</li> <li>➢M&amp;A to enhance analog IP line-up</li> <li>➢M&amp;A to enhance embedded OS</li> <li>➢M&amp;A to strengthen business of mechatronical integration</li> <li>➢Accelerate to develop technology for next-generation car</li> <li>➢Strengthen solution marketing for emerging markets</li> </ul>		<ul style="list-style-type: none"> <li>➢Improve business evaluation system</li> <li>➢Enhance BCP*</li> <li>✓Improve equipment resistance to seismic activity</li> <li>✓Build "multi-fab" network</li> </ul>

\*Business Continuity Plan

# Strategy for Enhancing Competitive Strength for Future Growth

# Three Pillars for Future Growth

1. Strengthen Core Competencies
2. Strengthen semiconductor solution provision capabilities
3. Increase resistance to rapid market changes



Become a platform leader in a Smart Society,  
combining MCU and A&P semiconductors

# Future Vision of Business Model

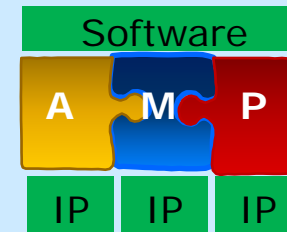
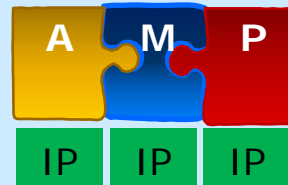
Smart Society

Product supplier

Kit solution supplier

Platform supplier

Analog (sensing)    MCU (controlling)    Power (driving)



Business model based on provision of individual products

Business model offering kit solutions centering on MCUs

Business model offering platform centering on MCUs

Total solutions incorporating software

Strengthen line-up to accelerate providing kit solutions

Grow sales

Improve competitiveness through R&D and capex for individual products

# Our Concept of “Kit Solution”

- Offer “kit solutions” combining Analog (sensing) + MCU (controlling) + Power (driving) which are optimized for each system

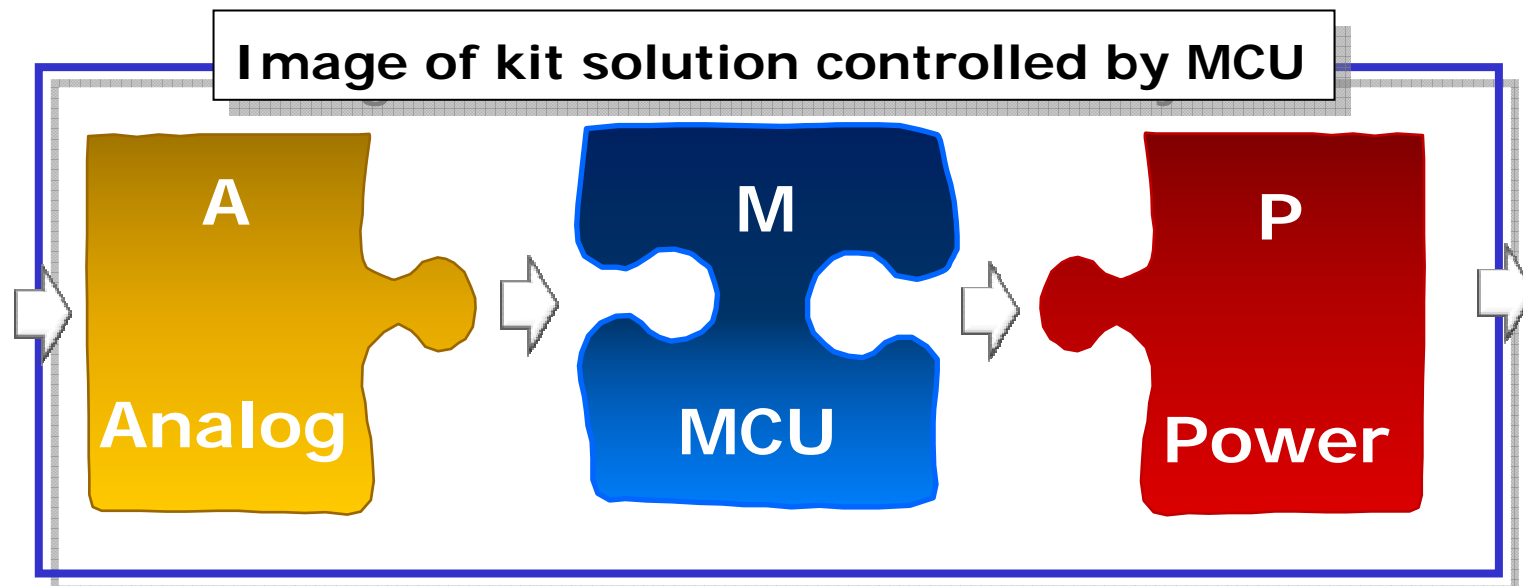
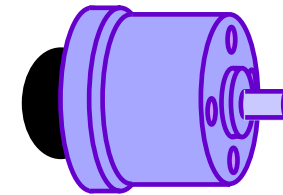
**Analog**  
(Sensing)



**MCU**  
(Controlling)

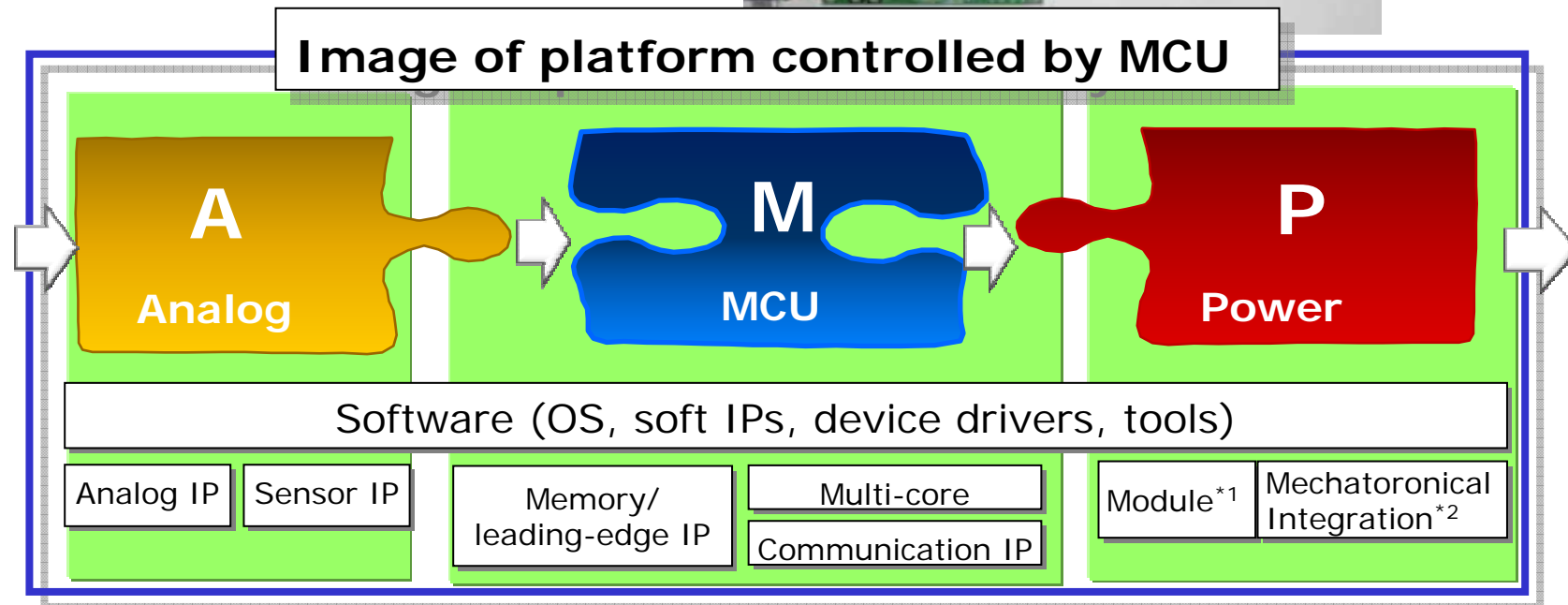
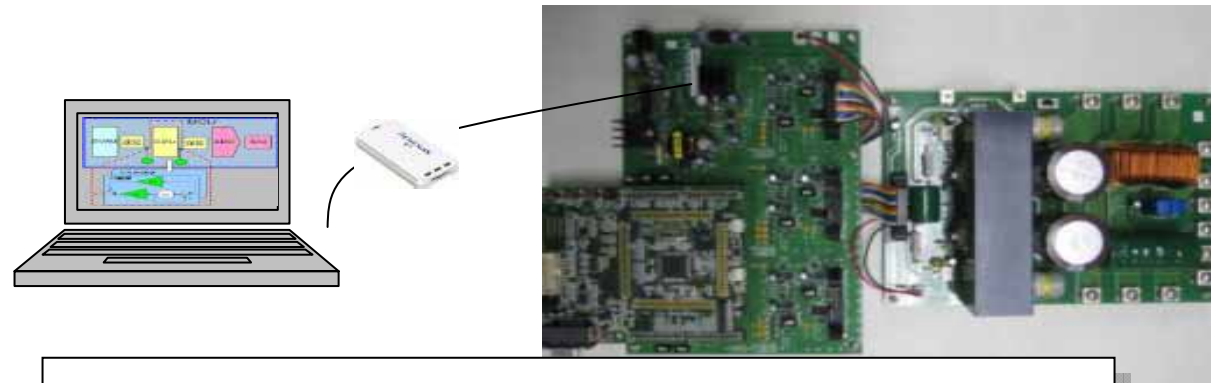


**Power**  
(Driving)



# Our Concept of "Platform"

- Offer "platforms" optimized for each system, building the total system based on "kit solutions" combining software, etc



\*1) A block of components having a certain function as a piece of system

\*2) Enhancement of functions combining mechatronics and electronics

# Strategy for Enhancing Competitive Strength for Future Growth

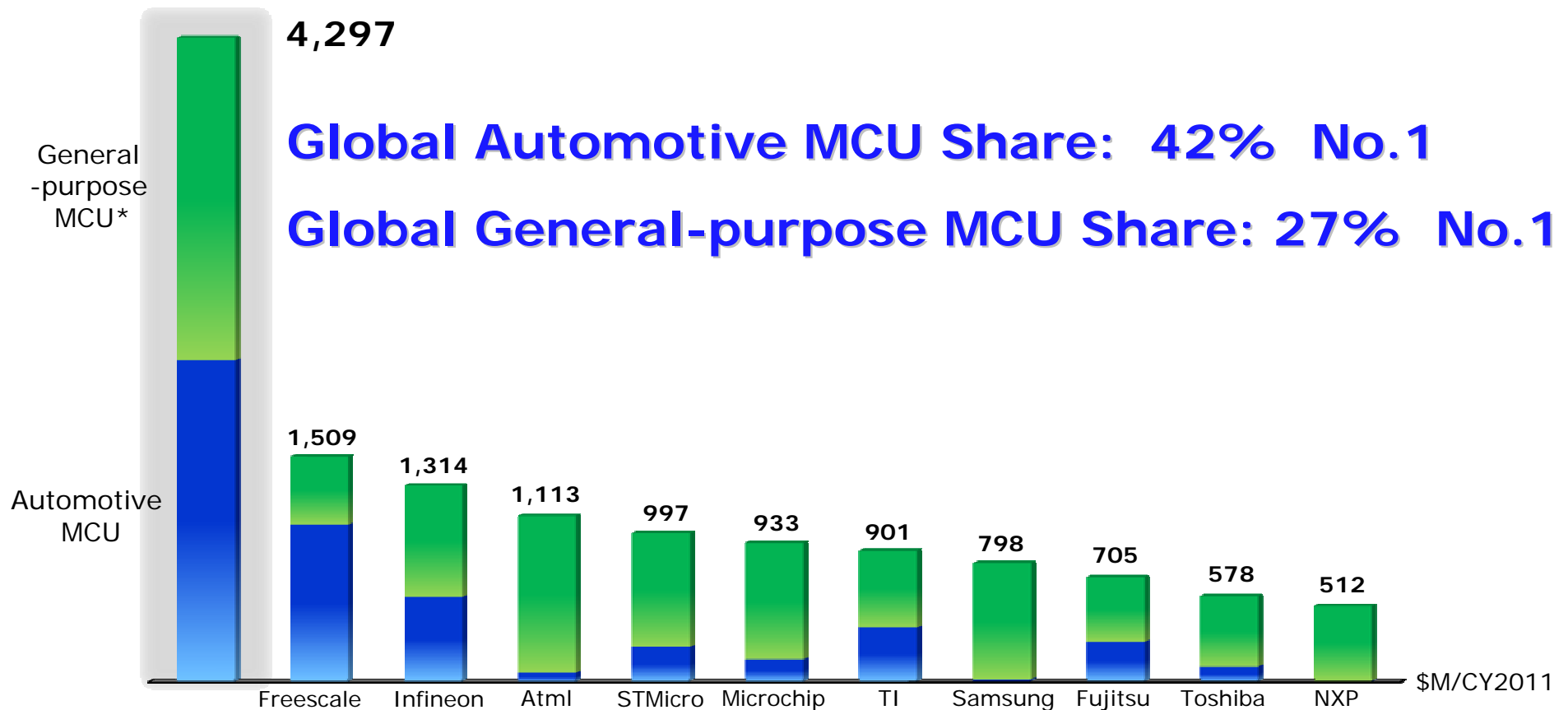
## 1. Strengthen Core Competencies

### Enhance Competitive Strength for Future Growth

Strengthen core competencies		Strengthen semiconductor solution provision capabilities		Increase resistance to rapid market changes
R&D	Capex	Automotive semi. solution	Industrial semi. solution	Rebuild management base
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# Maintain Dominance in MCU Market

- Firmly maintain dominant global No.1 position in the MCU market with leading-edge technology



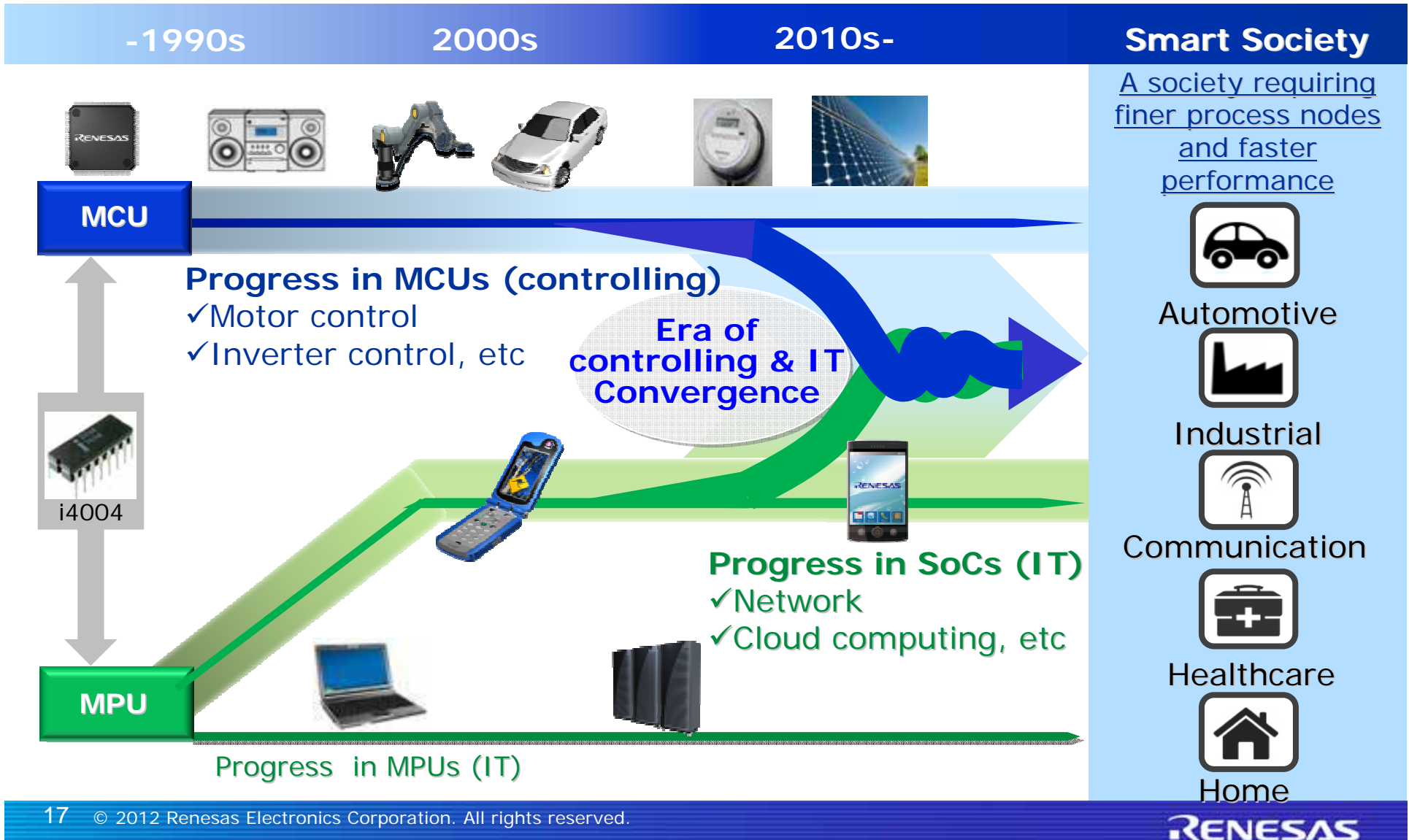
Source: IHS iSuppli Competitive Landscaping Tool (CLT)





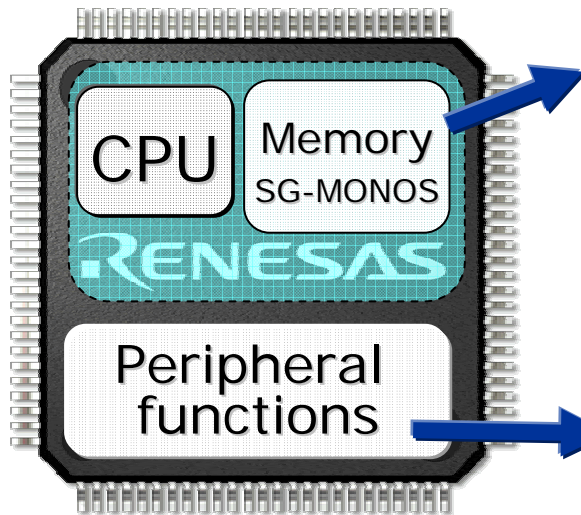
# Create New Markets with MCUs

- Convergence of controlling (MCU) and IT (MPU/SoC) is accelerated for a Smart Society



# Enhance Competitiveness of Core Competence (MCU)

Image of an MCU



**Dominant  
No. 1  
position**

## Leader in MCU's finer process nodes

- Develop and invest for leading-edge process technology (40/28nm)

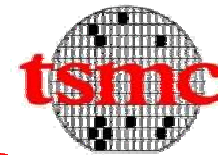
Prepare required technology for convergence of controlling & IT to realize a Smart Society

- ✓ Address to the explosion of software processing
- ✓ Address to increasingly complex control hardware

## Extensive line-ups of peripheral functions

- Build massive IP library

**RENESAS**



**No.1**

Top MCU supplier  
**Extensive control-related IP**

**No.1**

Top foundry  
**Extensive IT-related IP**

# Push MCUs to New Heights with Enhanced Core Competencies

Past → Present → Smart Society

Global No.1 MCU share  
(All applications,  
all product groups)

RENESAS



A society requiring security/safe, eco-friendliness and convenience/comfort

- Higher Safety
- Higher Reliability
- Lower Power
- Higher Performance
- Higher Integration

Example of automotive

- ✓ Automatic driving
  - ✓ New safety system
  - ✓ Drastic cut in CO2
- ↓
- ✓ Explosion of software
  - ✓ Large-capacity embedded memory
  - ✓ Fail-safe test

150nm

90nm

40nm

Established technology first in the world

28nm

Develop next-generation technology

Large-capacity embedded memory (SG-MONOS)

Multi-core

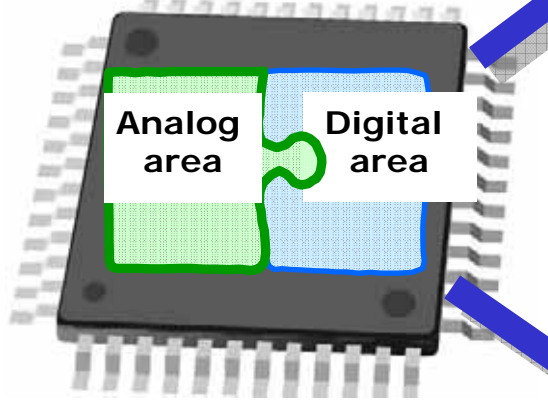
Lower Power

Higher Reliability

Promote Collaboration

# Enhance Competitiveness of Analog Products

- Drive market by pursuing finer process nodes and larger wafers for automotive analog products



Mixed Signal Analog IC for Automotive

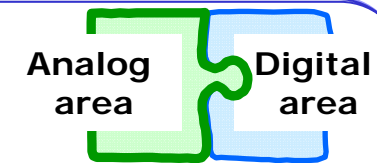
## Finer process nodes



- Capex for equipment for 90nm process  
Achieve higher integration in digital area (digital rich)

- ✓ Meet demand for functional safety as automobiles become more electronic
- ✓ Enhance analog functionality amid diversification of automotive sensors

## Larger wafers



- Capex for 300mm production line

- ✓ Improve cost competitiveness

# Enhance Competitiveness of Power Devices

- Expand potential market with enhanced product competitiveness by applying new materials to high-voltage power devices and modularization

above 600V (High-voltage)

IGBT, High-volt. Power-MOS

below 150V (Low-voltage)

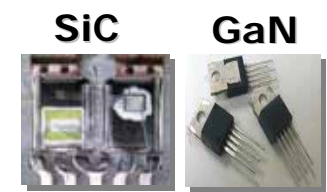
Low-volt. Power MOS

**No.1**

Source : Marketing Eye Co., LTD

## New Materials (Beyond the Silicon)

- Accelerate development of next-generation materials (SiC, GaN)



- Strengthen product competitiveness with enhanced higher-efficiency

## Modularization

- Enhance power device module technology



- Expand potential market with IGBT modularization

Competitor	High-volt. Power	Module Package	PFC Control IC	Insulation Element (Coupler)	MCU
Company A			x	x	x
Company B				x	
Company C			x		
<b>Renesas</b>		x			

# Strategy for Enhancing Competitive Strength for Future Growth

## 2. Strengthen Semiconductor Solution Provision Capabilities

### Enhance Competitive Strength for Future Growth

Strengthen core competencies		Strengthen semiconductor solution provision capabilities		Increase resistance to rapid market changes
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# Renesas' Solutions to Accelerate a Smart Society

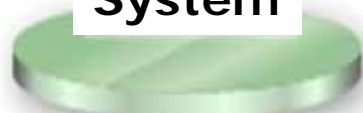
■ Semiconductor innovations with enhanced solution provision capabilities contribute to social innovations

## Smart Society



Next-generation cars, smart grid, eco housing, etc

## System

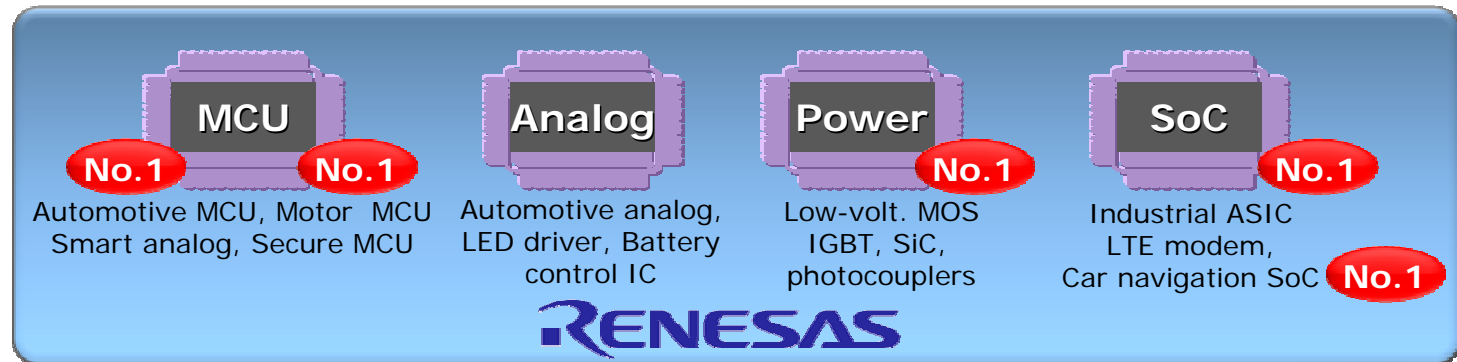


EV/HEV, motor control, green appliance, smart meter, sensor network, etc

## Semiconductor



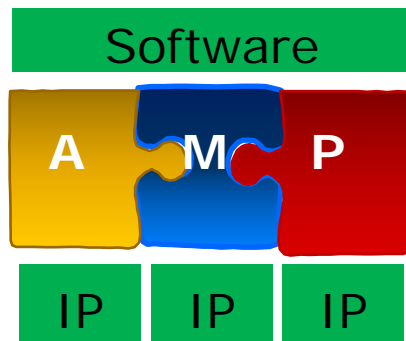
Low-power MCU, analog & power, etc



\*Market share is based on Renesas estimates

# Enhance Automotive Semiconductor Provision Capabilities

Automotive



## Stronger proposals

IP

Software  
(Application)

- Enhance line-ups of sensor technology and analog IP
- Strengthen mechatronical integration technology<sup>\*1</sup>

✓ Use M&A to acquire technology and businesses  
timely business development

## Leader in leading-edge technology with R&D investment

IP

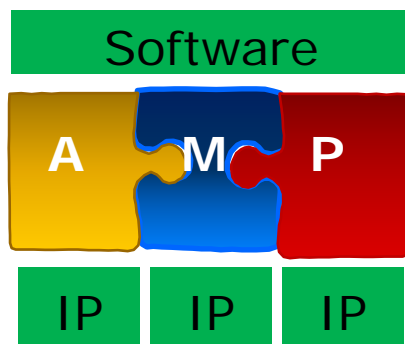
- R&D investment to achieve the practical use of ADAS<sup>\*2</sup>
- Secure development resources to enhance advanced technical strength

✓ Lead industry toward the practical use with our  
strengths in quality and reliability

\*1) Enhancement of functions combining mechatronics and electronics    \*2) Advanced Driver Assistance System

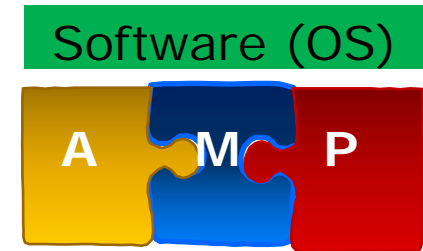


# Enhance Industrial Semiconductor Provision Capabilities



## Stronger proposals

- Enhance module technology
- Enhance embedded OS technology



- ✓ Expand platform business domain

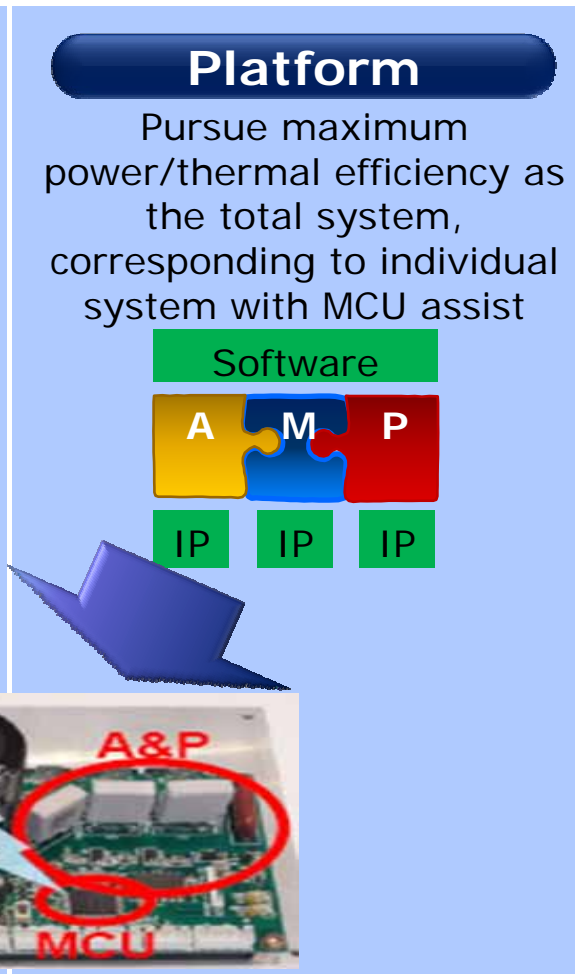
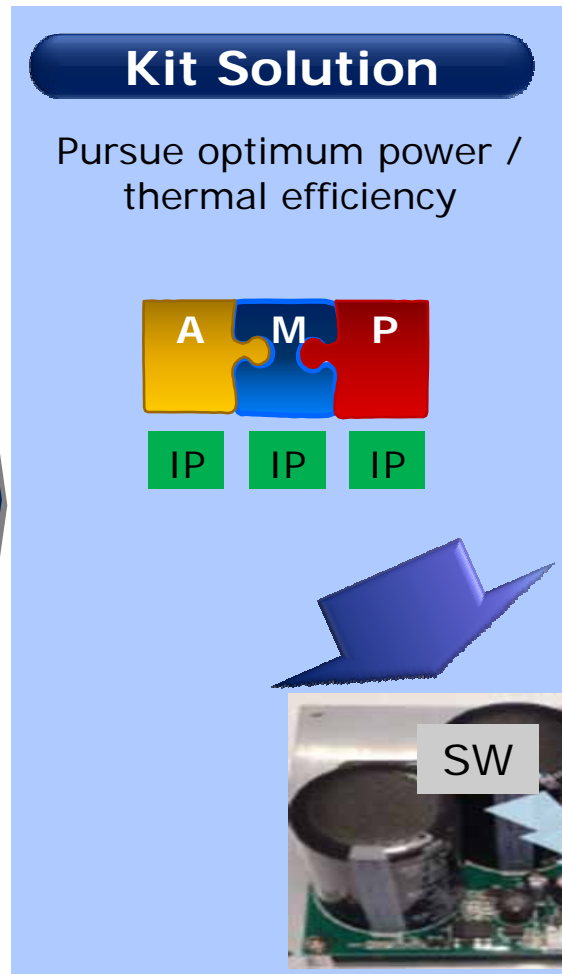
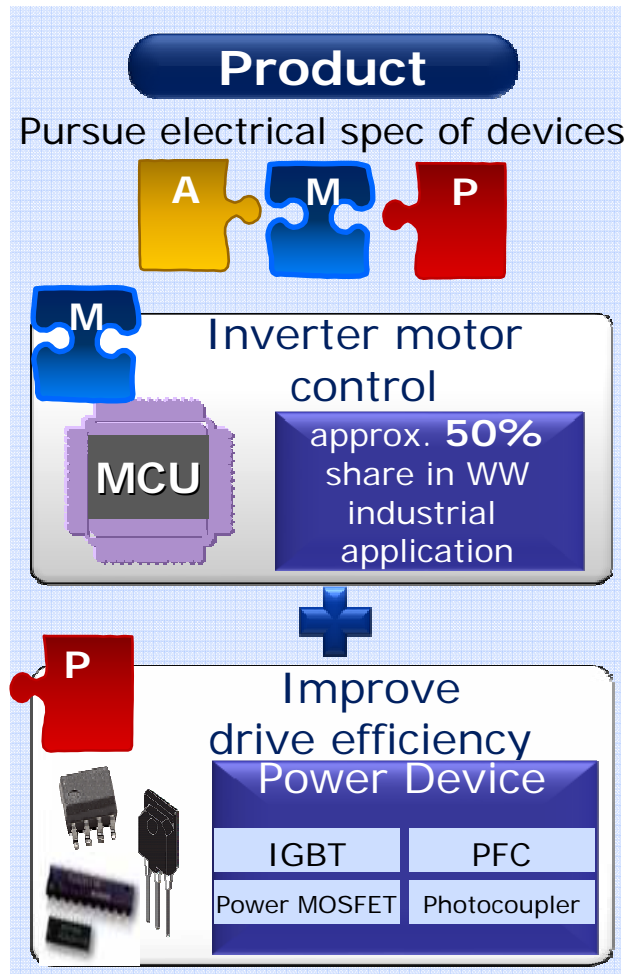
## Stronger marketing including logistics

- Collaboration and M&A with independent design house in emerging countries
- Enhance e-commerce system and customer service

- ✓ Increase sales in in emerging and other growing markets

# Platform Business Case-1 : Inverter Motor

- Offer platforms for inverter motors which are optimized for energy saving, combining power devices and software with MCUs competitive in inverter control

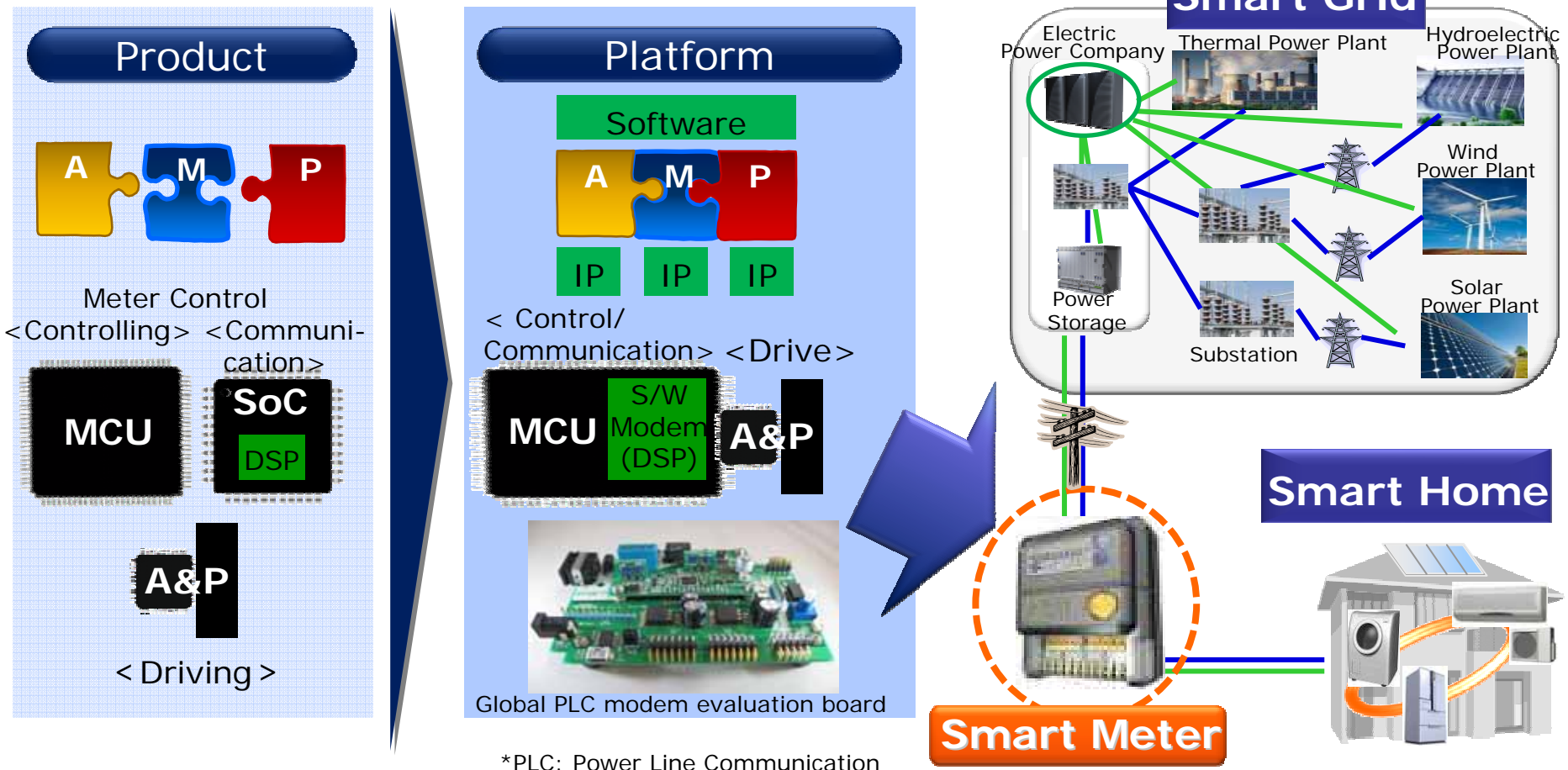


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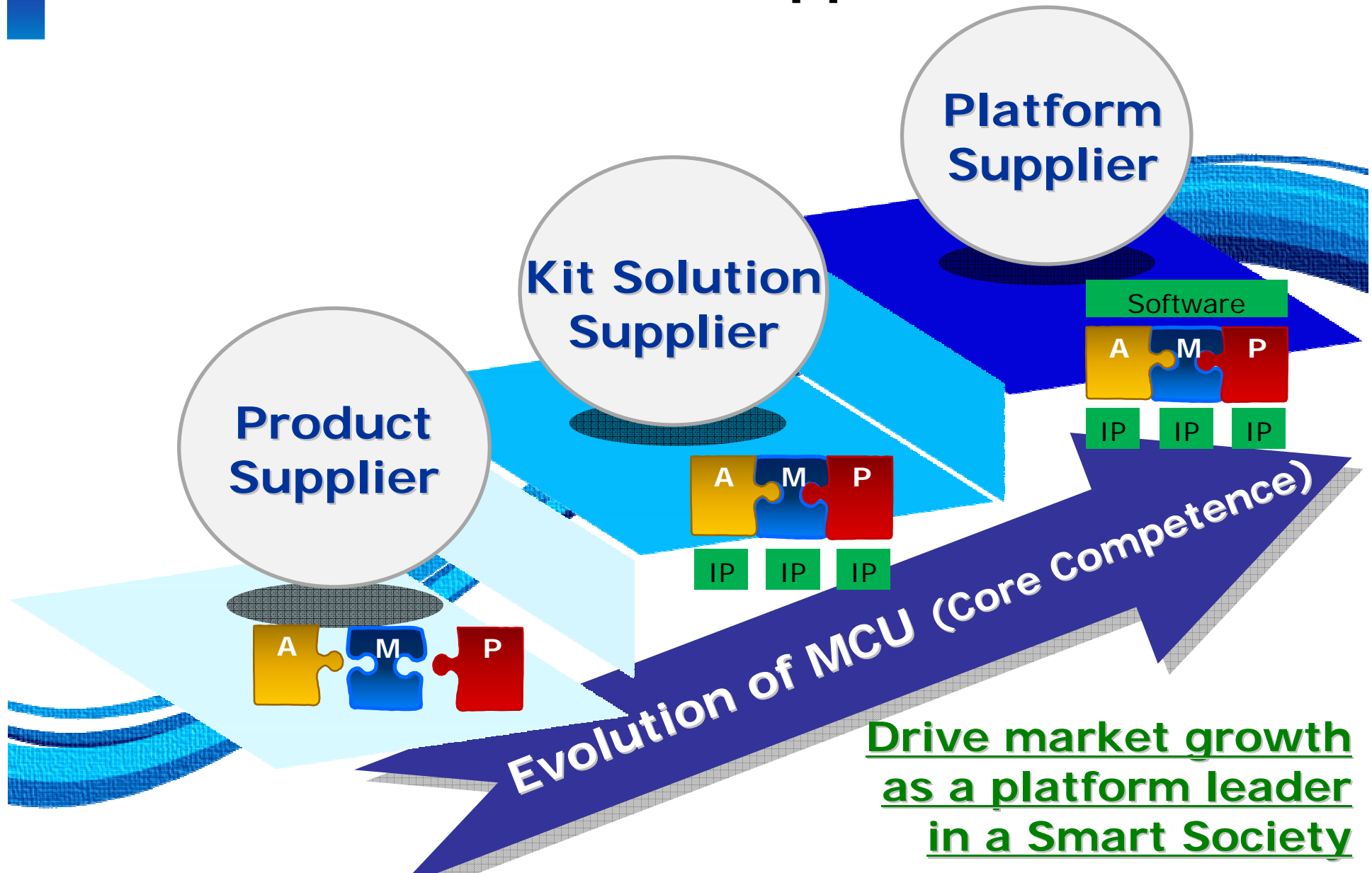
\*IGBT: Insulated Gate Bipolar Transistor, PFC: Power Factor Correction

# Platform Business Case-2 : Smart Meter

- Offer platforms to combine optimum semiconductors based on MCUs with software corresponding to individual communication protocol/needs in the world
- Realize a "Smart Home", "Smart Grid" with convergence of control and communication (IT)



# Aim to be a Platform Supplier



# Strategy for Enhancing Competitive Strength for Future Growth

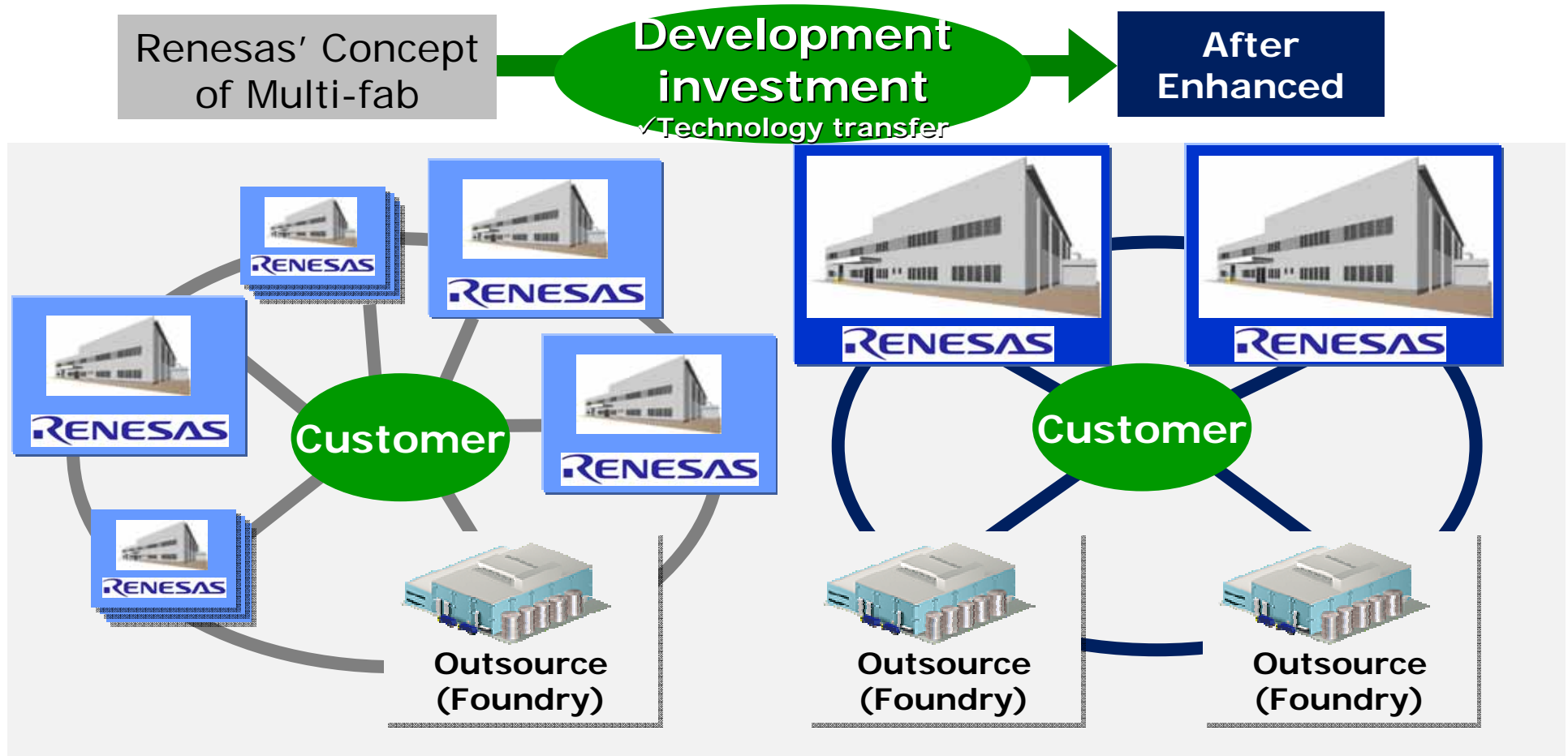
## 3. Increase resistance to rapid market changes

### Enhance Competitive Strength for Future Growth

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# Build and Enhance Further Stable Product Supply Network

- Enhance secure, safe and stable product supply network by establishing multi-fab concept including major foundries even for mainstream production nodes of 90/40nm



# Summary

# Summary

- ✓ **Enhance competitive strength for future growth by utilizing funds gained through third-party allotment, in addition to measures to date in order to strengthen earnings base**
- ✓ **Establish kit solutions and platform solutions based on MCUs with enhanced core competence, along with A&P semiconductors**
- ✓ **Pursue improvement in sales and profit by stably offering high value-added solutions for a Smart Society**