

# Business Strategy of the Cable Materials Company

Hitachi Metals IR Day 2017

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Hitachi Metals, Ltd.

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Executive Officer

President of the Cable Materials Company

# Business Strategy of the Cable Materials Company

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## Strengthened profit structure through portfolio remodeling

### ■ Concentrated injection of managerial resources in three growth areas

Rolling  
Stock

Strengthened global supply system and solutions sales system  
(China: Facility expanded in Jun. 2016; Czech Republic: Facility established in Oct. 2016)

Medical  
Devices

Launched new plant, started mass production at HTP-Meds  
(Sep. 2016)

Automotive  
Electronic  
Components

Introduced a new production line for sensors and harnesses  
(Japan: Launched in Jul. 2016; Mexico: Launched in Apr. 2016)

Accelerated growth of the rolling stock, medical devices and automotive electronic components areas

### ■ Steady implementation of business structural reforms

Transferred the information systems business (Dec. 2016)

Sold the lead frame business; made the copper product business a wholly owned subsidiary (Jan. 2017)

Accomplish the business structural reforms and shift to a growth phase

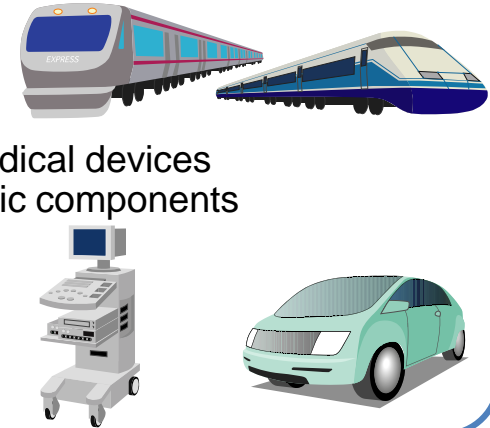
## Core Products

- Main product groups:
- Wires/cables for construction
  - Wires/cables for electronics
  - Magnet wires
  - Industrial rubber
  - Brake hoses



## Growth Areas

- Main product groups:
- Wires/cables for rolling stock
  - Wires/cables for medical devices
  - Automotive electronic components



Wires,  
Cables &  
Related Products:  
FY2016  
Revenues:  
¥241.4 bn

- Information systems business  
(Transferred Dec. 2016)
- SH Copper Products  
(Transferred to the Specialty Steel Company Jul. 2017)

Adjusted operating income : ¥14.7 bn  
Adjusted operating margin : 6.1%

## Growth Areas

Wires/cables for rolling stock



Wires/cables for medical devices



Automotive electronic components



## Core Products

Wires/cables for construction



Enhance competitiveness through *monozukuri* innovation

Magnet wires



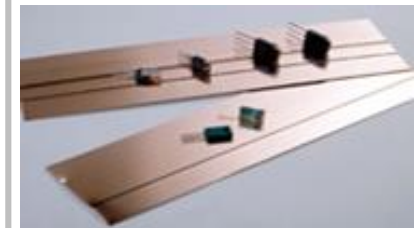
Seek synergies with the Magnetic Materials Company in the EV\* market

Brake hoses



Enhance global production system

Copper strips



Transferred to the Specialty Steel Company and achieved synergies

\*Including term for hybrid electric vehicles (HEV) and plug-in hybrid electric vehicles (PHEV)

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### ■ Basic Policy and Growth Strategy of the Cable Materials Company

#### Change to a high-profit structure by strengthening core products and expanding growth areas

- Enhance competitiveness of core products through technical innovation
- Concentrate injection of managerial resources into three growth areas
- Seek synergies with other Companies in the EV and FA areas

### ■ FY2018 Medium-term Management Plan: Goals

	FY2016 Actual (¥108=US\$1)	FY2018 Goal* (¥110=US\$1)	Change vs. FY2016
Revenues	¥241.4 bn	¥210.0 bn	-13%
Adjusted operating income	¥14.7 bn	¥20.0 bn	+ ¥5.3 bn
Adjusted operating margin	6.1%	9.5%	+3.4%
Overseas sales as a percentage of total sales	34%	40%	+6%

\*Figures include the impact of the transfer of SH Copper Products Co., Ltd.

### ■ Main Action Plan

Core Products		<p>Enhance competitiveness through manufacturing process innovation</p> <ul style="list-style-type: none"><li>▪ New continuous casting and rolling line</li><li>▪ Innovative production line for magnet wires</li></ul>
Growth Areas	Rolling Stock	<ul style="list-style-type: none"><li>▪ Reinforce manufacturing bases that address markets around the world</li><li>▪ Strengthen proposal of products + solutions</li></ul>
	Medical Devices	<ul style="list-style-type: none"><li>▪ Expand the tube business</li><li>▪ Enhance cost competitiveness of probe cables</li></ul>
	Automotive Electronic Components	<ul style="list-style-type: none"><li>▪ Expand the EPB* harness business</li><li>▪ Strengthen the global supply system</li></ul>

\*EPB:Electric Parking Brake



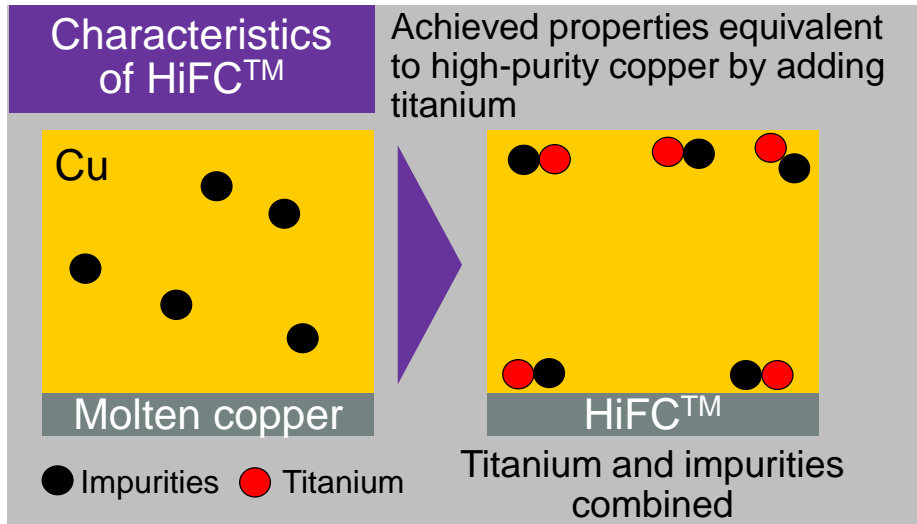
## ■ Introduce a new continuous casting and rolling line

(Scheduled for operation in Apr. 2018)

Conductor manufacturing line that uses the latest control technology (IoT)

Significant improvement in energy efficiency and productivity

Full-scale mass production of HiFC™ (new copper alloy) through introduction of new process



Example of application	Advantage of application
Magnet wires	Improved weldability 2%* lighter weight
Wires/cables for construction Wires/cables for electronics	Improved operability Smaller diameter, lighter weight

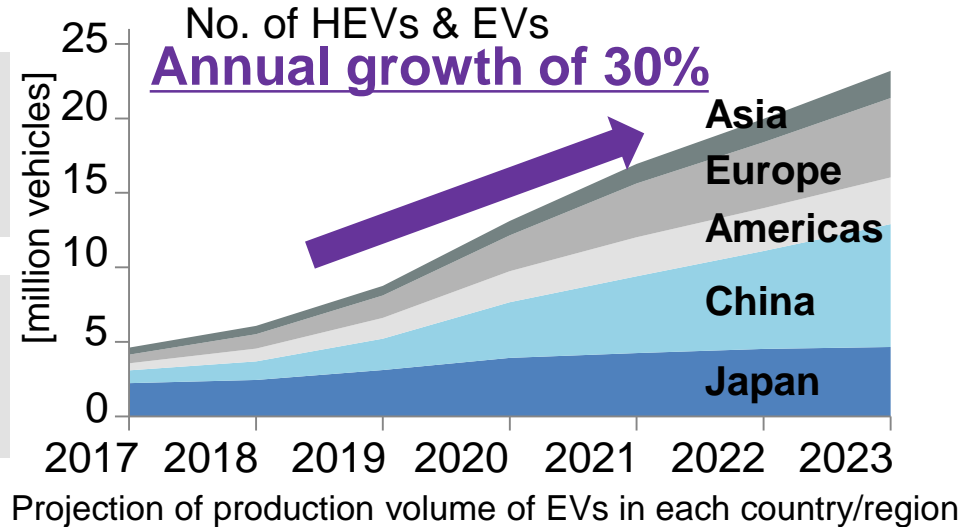
Enhance competitiveness of core products by introducing innovative equipment

\*Hitachi Metals estimate

## Expand business in EV market

Generate synergies with the Magnetic Materials Company

Contributes to higher voltage of motors, smaller size and lighter weight, longer life



## Enhance product competitiveness through differentiation

	Conductor	Insulation	Process	
Characteristics	HiFC™	Surge resistance High PDIV*	Innovative production line → Fast speed production	

**FY2025 magnet wire sales: 1.5 times (vs. FY2016)**

Source: Hitachi Metals' estimate based on various materials  
\*PDIV: Partial Discharge Inception Voltage

## 2-5. Market Environment of Growth Areas

<b>High-speed railway</b>	Various countries around the world have plans to build high-speed railways. Average annual growth of around 3% is projected over the next 20 years.
<b>Medical devices</b>	Average annual growth of 5% is projected until 2021 as a result of the aging of society and increasing sophistication of medical devices.
<b>Automotive</b>	Average annual growth of 2% is projected until 2023 along with the growth of EV.

	Technical trends	Hitachi Metals' compatible products
Rolling stock	<ul style="list-style-type: none"> <li>■ Smaller diameter, lighter weight</li> <li>■ Address int'l (EN) standards</li> </ul>	<ul style="list-style-type: none"> <li>■ Wires/cables for rolling stock</li> <li>■ Thinner high voltage cable</li> <li>■ Silicone termination</li> </ul>
Medical devices	<ul style="list-style-type: none"> <li>■ Low invasiveness</li> <li>■ Smaller diameter, greater flexibility</li> </ul>	<ul style="list-style-type: none"> <li>■ Medical tube</li> <li>■ Probe cable for ultrasonic diagnosis device</li> </ul>
Automotive	<ul style="list-style-type: none"> <li>■ Acceleration in electronification</li> <li>■ Growth of EV</li> </ul>	<ul style="list-style-type: none"> <li>■ Harness for combined EPB</li> <li>■ Magnetic field sensor, etc.</li> <li>■ Magnet wires</li> </ul>

## Reinforce manufacturing bases that address markets around the world

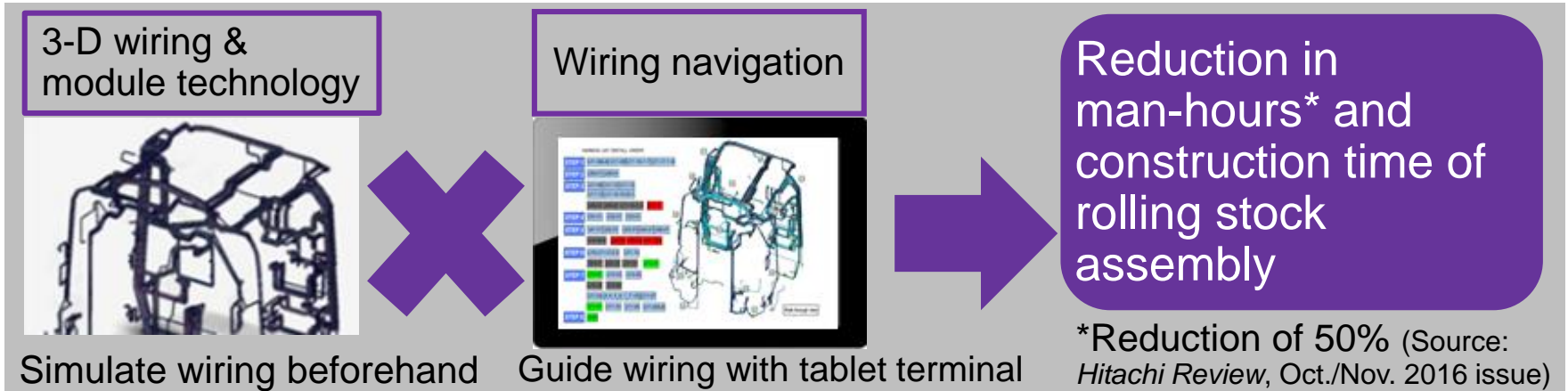
**China** Enhance and expand sales of innovative electric wire and cable manufacturing line (Operation in 2H FY2017)

**Europe** Mass production and sales expansion of harness in Czech Republic base (Launched FY2016)



● Hitachi Metals manufacturing base ■ Deliveries made ○ Future projects

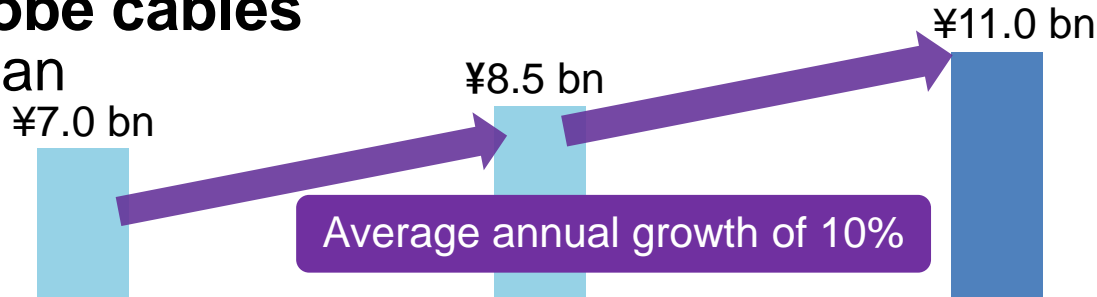
## Strengthen proposals of products + solutions



Sales goal for the rolling stock area:  
 ¥10.0 billion (FY2016) ⇒ ¥14.0 billion (FY2018)

## Expand the tube business + enhance cost competitiveness of probe cables

Sales plan

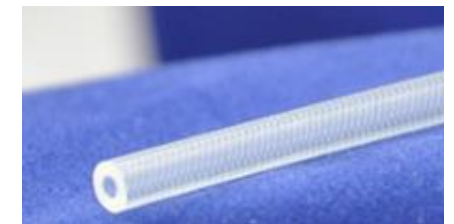


	FY2016	FY2018	FY2021
Production	<ul style="list-style-type: none"> <li>Launch of new tube plant</li> </ul>	<ul style="list-style-type: none"> <li>Enhancement of tube assembly capacity</li> </ul>	
	<ul style="list-style-type: none"> <li>Concentrate probe manufacturing bases</li> </ul>		
Product	<ul style="list-style-type: none"> <li>Start shipment of new catheter for circulatory organs</li> </ul>		
	<ul style="list-style-type: none"> <li>Develop wires/cables and tube complex products</li> </ul>		
Sales expansion	<ul style="list-style-type: none"> <li>Commercialization of probe cables for antifouling sheath</li> </ul>		
	<ul style="list-style-type: none"> <li>Strengthen North American human resources</li> <li>Expand customer base in North America</li> <li>Cultivate market in regions other than North America (Japan, etc.)</li> </ul>		

### Characteristic technologies



Tubes with irregular forms



Pressure-resistant braiding tubes



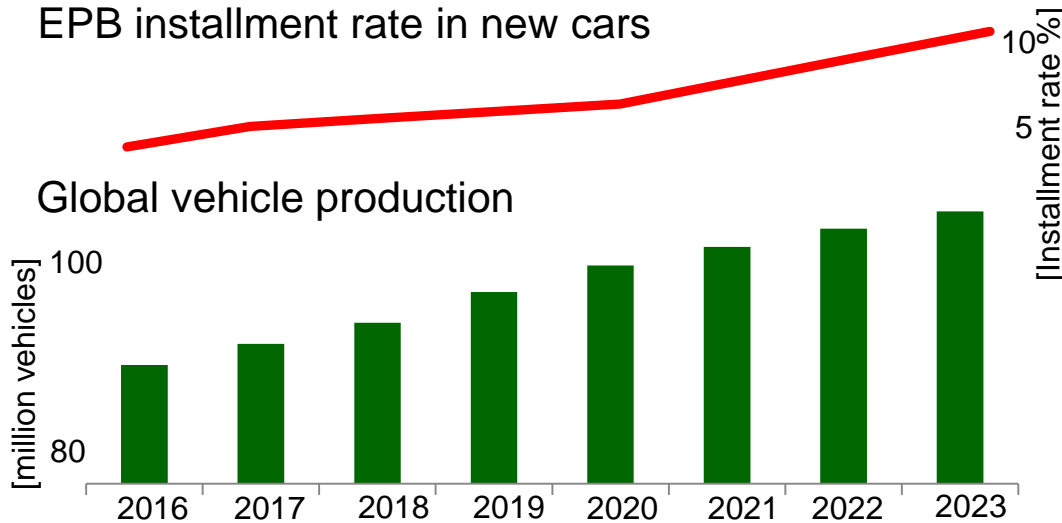
High-precision mold components

Sales goal for the medical devices area:  
 ¥7.0 billion (FY2016) ⇒ ¥11.0 billion (FY2021)

# 2-8. Growth Strategy and Action Plan (5): Automotive Electronic Components

## Expand the EPB harness business

EPB installment rate in new cars



## Differential product

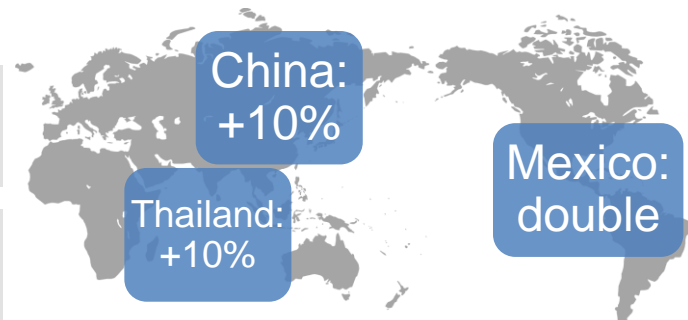


Inject EPB harness integrated with ABS

## Strengthen global supply system for automotive electronic components

Further strengthening of bases in Mexico, Thailand, and China (FY2017)

Accelerate development of new sensors



Comparison of sales between FY2016 and FY2018

Sales goal for the automotive electronic components area:  
¥27.5 billion (FY2016) ⇒ ¥31.0 billion (FY2018)

### ■ Investment plan

#### Investment in growth

- Strengthen the rolling stock and medical devices areas, also keeping M&A in mind
- Enhance an innovative electric wire and cable manufacturing line (Scheduled for operation in the 2H of FY2017)
- Strengthen global supply system for automotive electronic components

#### Strengthening core products

- Introduce a new continuous casting and rolling line  
(Scheduled for operation in Apr. 2018)
- Introduce an innovative production line for magnet wires  
(Scheduled for operation in the 1H of FY2018)

Capital expenditures:  
¥22.0 billion (cumulative total for FY2016–FY2018)

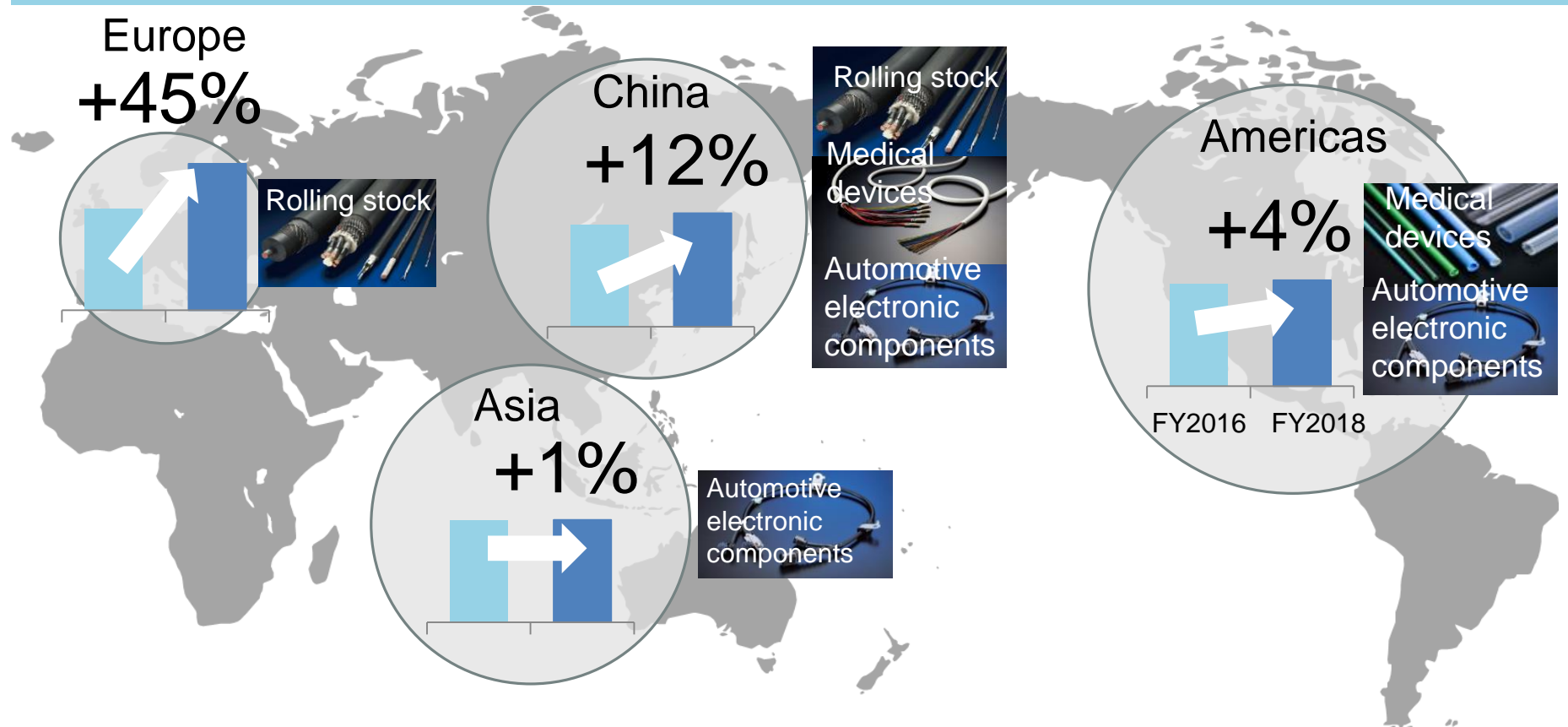
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## Seek to expand overseas sales mainly in growth areas



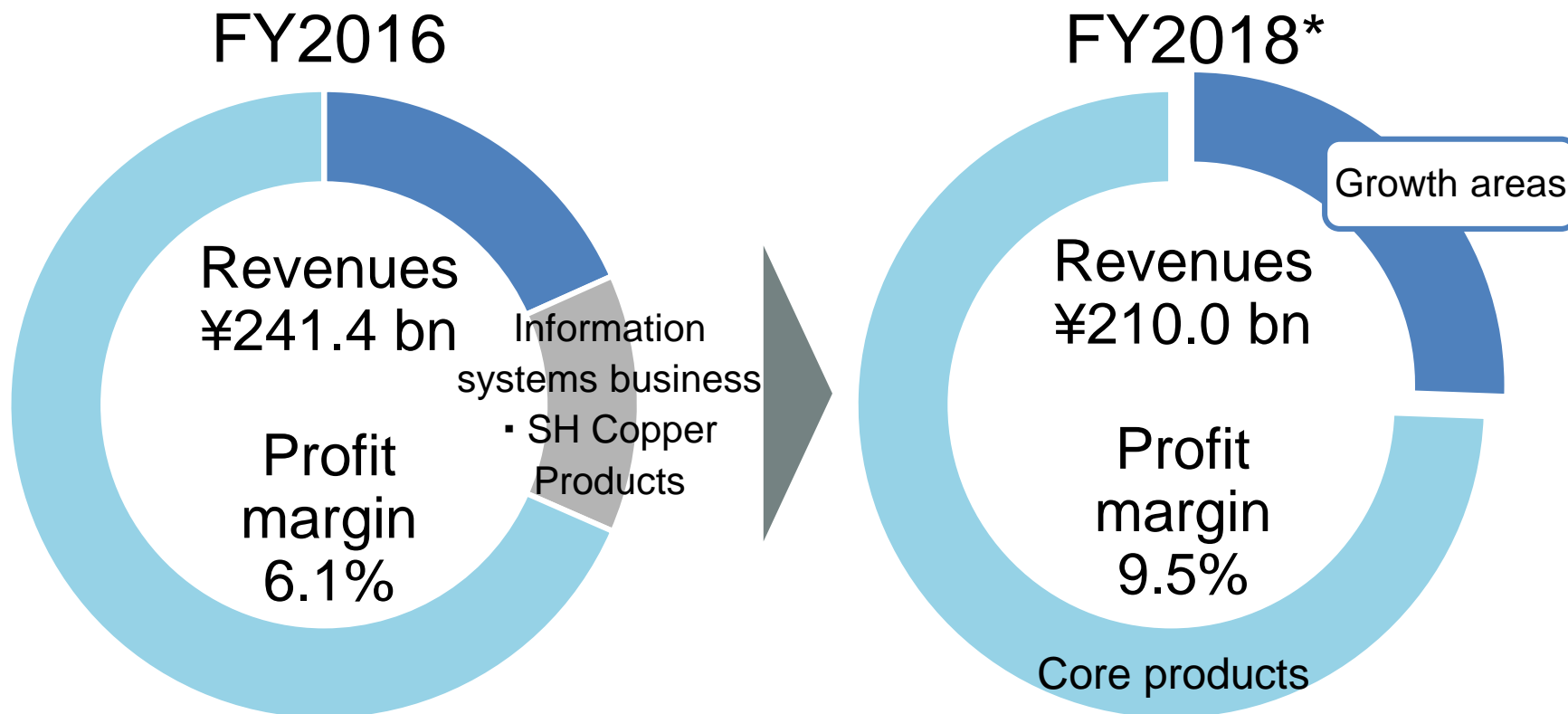
Overseas sales as a percentage of total sales:

34% (FY2016) ⇒ 40% (FY2018)

The charts indicate comparison of sales between FY2016 and FY2018, with sales in FY2016 as 1.

## 3-2. Business Portfolio Restructuring (FY2018)

Strengthen profitability of core products and further expand business in growth areas



Revenues of growth areas:  
¥44.5 billion (FY2016) ⇒ ¥53.5 billion (FY2018)

\*Figures include the impact of the transfer of SH Copper Products Co., Ltd.

**Change to a high-profit structure by strengthening core products and expanding growth areas**

### **Cable Materials Company FY2018 Plan\***

**Revenues: ¥210.0 billion**

**Adjusted operating income: ¥20.0 billion (9.5%)**

\*Figures include the impact of the transfer of SH Copper Products Co., Ltd.

This document contains forward-looking statements—such as results forecasts and management plans—that are not historical facts. All such forward-looking statements are based upon all available information and upon assumptions and projections that were deemed reasonable at the time the Company prepared this document. Changes to the underlying assumptions or circumstances could cause the actual results to differ substantially. The factors causing such differences include, but are not limited to, the following:

- Changes in economic conditions and regulations in the main markets where the Company operates, particularly Japan, the Americas, Asia and Europe
- Sudden changes in technological trends
- Changes in competitive advantage and the capabilities of the Company and its subsidiaries and affiliates to develop and commercialize new products and businesses
- Fluctuations in the status of product markets, exchange rates and international commodity markets
- Changes in financing environment
- The capability of the Company and its subsidiaries and affiliates to cope with fluctuations in product supply and demand, the status of product markets, exchange rates and international commodity markets
- Protection of the Company's intellectual property, and securing of licenses to use the intellectual property of other parties
- Changes in the status of alliances with other parties for product development, etc.
- Fluctuations in Japanese stock markets



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