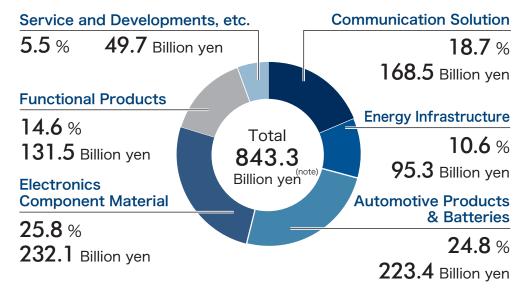
# **Business Report**

## Percentage of net sales by segment (As of March 2017)



(note) Figures excludes intersegment transactions

N	Δŧ	sa	عما
IΝ	eι	54	162

(Billion yen)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Infrastructure	_	_	_	252.7	263.8
Communication Solution	_	_	_	159.1	168.5
Energy Infrastructure	_	_	_	93.5	95.3
Automotive Products & Materials	_	_	_	491.1	455.5
Automotive Products & Batteries	_	_	_	234.1	223.4
Electronics Component Material	_	_	_	257.0	232.1
Functional Products	_	_	_	136.3	131.5
Service and Developments, etc.	_	_	_	51.5	49.7
Eliminations	_	_	_	- 56.7	<b>- 57.0</b>
Total	924.7	931.8	867.8	874.9	843.3

## Operating income

(Billion yen)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Infrastructure	_	_	_	7.7	14.3
Communication Solution	_	_	_	8.0	14.2
Energy Infrastructure	_	_	_	- 0.3	0.1
Automotive Products & Materials	_	_	_	10.5	12.8
Automotive Products & Batteries	_	_	_	8.0	10.1
Electronics Component Material	_	_	_	2.4	2.7
Functional Products	_	_	_	8.5	11.7
Service and Developments, etc.	_	_	_	0.4	- 0.1
Eliminations	_	_	_	0.1	-0
Total	17.8	25.5	17.9	27.1	38.6

## Operating income (Ratio to net sales)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Infrastructure	_	_	_	3.1%	5.4%
Communication Solution	_	_	_	5.0%	8.4%
Energy Infrastructure	_	_	_	-0.3%	0.2%
Automotive Products & Materials	_	_	_	2.1%	2.8%
Automotive Products & Batteries	_	_	_	3.4%	4.5%
Electronics Component Material	_	_	_	1.0%	1.2%
Functional Products	_	_	_	6.2%	8.9%
Service and Developments, etc.	_	_	_	0.8%	-0.3%
Eliminations	_	_	_	- 0.1%	0.1%
Total	1.9%	2.7%	2.1%	3.1%	4.6%

 $<sup>^*\</sup>mbox{We}$  have changed the category of reporting segments since fiscal 2016.

## Communication Solution

# **Business** divisions

Optical Fiber and Cable Products, FITEL Products Broadband Solutions

### Fiscal 2016 Settlement of Accounts

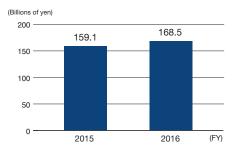
Consolidated sales 168.5 billion yen (5.9% up year-on-year)

Consolidated operational profit 14.2 billion yen (78.0% up year-on-year)

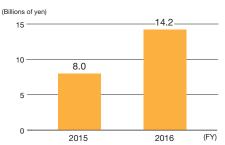
Based on high demand for optical fiber cables centered in Europe, America, and China, price levels for our Communications Solutions business have taken a favorable turn, and sales of low transmission loss optical fiber for submarine cables, a value-added product, have increased. Sales of digital coherent related products have also shown steadily positive performance.

In April of this year, we established an optical semiconductor device manufacturing company (60% capital investment ratio by our company) and a planar light wave circuit product manufacturing company (20% capital investment ratio by our company) through a joint venture with NTT Electronics Corporation. By creating combinations of technology with individual characteristics and efficiently distributing management resources, we will build production systems able to respond to increases in demand for optical components, and raise our profitability.

#### Net sales



### Operating income



## **Fiscal 2016 Main Topics**

Nov.

▶ OFS Receives Emmy Award for the "Pioneering Invention and Deployment of Fiber Optic Cable"

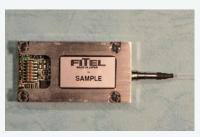


Dec.

 Notice of Joint Incorporation-Type Company Split with NTT Electronics Corporation

Mar.

Sampling of Narrow Linewidth & High Output Power Micro ITLA for beyond-100Gbps optical digital coherent transmission



Narrow Linewidth/High Output Micro ITLA

# **Energy Infrastructure**

# **Business** divisions

Power Cable, Industrial Cable & Power Cable Accessories

#### Fiscal 2016 Settlement of Accounts

Consolidated sales 95.3 billion yen (1.8% up year-on-year)

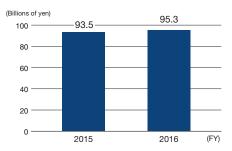
Consolidated operational profit

0.1 billion yen (¥0.4 billion Improvement year-on-year)

In October of last year, our Energy Infrastructure business received a transfer of the domestic Japanese divisions for the underground power transmission line and submarine power transmission line businesses from VISCAS Corporation, a joint corporation with Fujikura Ltd. While this has led to an increase in sales, profits were subjected to some pressure from the temporary generation of business integration expenses and a drop in demand for power transmission and distribution components intended for domestic power companies.

By operating these divisions in unison with overseas divisions accepted from the same company in April of the year before last, we will accelerate our activities to secure projects in ultra-high voltage power businesses both domestically and overseas.

### Net sales



#### Operating income



## **Fiscal 2016 Main Topics**

Jul.

Furukawa Electric Receives an Order for a Very Large Scale Ultra-high Voltage Power Cable Laying Project in Singapore



Laying site of ultra-high voltage power cables

First Ultralight Low Voltage Branch
Aluminum Power Cable Supplied



Ultralight Hybrid BH Cable installed

Oct.

Furukawa Electric Co., Ltd. acquired the underground undersea power transmission line business of VISCAS Corporation, a joint venture company formed with Fujikura Ltd.

# **Automotive Products & Batteries**

# **Business** divisions

### **Automotive Products & Batteries**

### Fiscal 2016 Settlement of Accounts

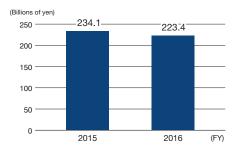
Consolidated sales 223.4 billion yen (4.6% down year-on-year)

Consolidated operational profit 10.1 billion yen (25.3% up year-on-year)

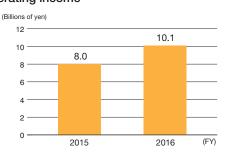
In our Automotive Products business, while domestic sales of wire harnesses were sluggish, the effects of production efficiency improvement activities, executed from the previous fiscal year in locations such as our manufacturing bases in Mexico, could be seen.

Management companies engaged in design and sales in China and Thailand will promote sales expansion in China and ASEAN regions, while efforts will be made to raise profitability by optimizing wire harness production systems in individual regions.

### Net sales



## Operating income



## **Fiscal 2016 Main Topics**

Jan.

- New Vehicle-mounted Perimeter Monitoring Radar with the World's Most Advanced Detection Performance has Entered Mass Production
- Expected to significantly contribute to making future automatic operating systems –



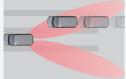
Perimeter Monitoring Radar

This radar uses the pulse method to accurately and simultaneously detect vehicles, bicycles, pedestrians, and other obstacles.



Proximity detection driving a car in reverse





Blind spot detection

Lane changing support

# **Electronics Component Material**

Business divisions

Electric Conductor, Magnet Wire, Copper & High Performance Material Products, Copper Tube

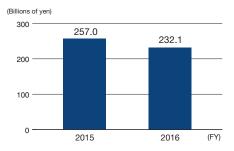
#### Fiscal 2016 Settlement of Accounts

Consolidated sales 232.1 billion yen (9.7% down year-on-year)

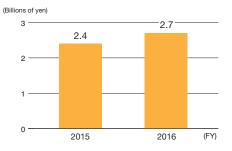
Consolidated operational profit 2.7 billion yen (12.1% up year-on-year)

In our Copper & High Performance Material Products business, the sales quantities of wrought copper products have recovered to the level they were at before the snow damage which occurred at our Nikko Works in February 2014. However, factors including a reduction in net sales due to the effects of a decline in copper base metal prices have caused temporary increases in the development costs of some products. In our Magnet Wire business, we carried out a joint venture with the Superior Essex Inc. Group of the U.S.A. in March of this year, allowing us to establish a manufacturing and sales company in Germany (49% capital investment ratio by our company) for highvoltage resistant rectangular magnet wire used in automobile drive motors and other applications. We will construct systems able to produce and sell these products in areas of demand, and will enter the European market for magnet wire used in EVs and PHVs.

#### Net sales



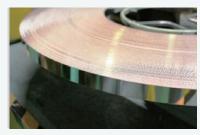
#### Operating income



## **Fiscal 2016 Main Topics**

Mar.

► Furukawa Electric Develops Heatresistant Low Insertion Force Cu-Sn Plating for Automobile Terminals

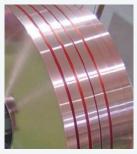


Heat-resistant Low Insertion Force Cu-Sn Plating

➤ Superior Essex and Furukawa Complete European Joint Venture Establishment



Furukawa Electric is First in Japan to Obtain JIS Standard Certification for "C1011" Oxygen-free Copper



C1011 coil

## **Functional Products**

# Business divisions

AT & Functional Plastics, Thermal Management Solution & Products, Memory Disk, Copper Foil

### Fiscal 2016 Settlement of Accounts

Consolidated sales 131.5 billion yen (3.5% down year-on-year)

Consolidated operational profit 11.7 billion yen (38.1% up year-on-year)

Our AT & Functional Plastics business showed increased sales of tape for semiconductor production. Additionally, in the Copper Foil business there were increases in demand and effects of structural reforms such as the relocation of manufacturing to Taiwan, as well as an increase in sales of high value-added products such as foil for high-frequency applications. In our Thermal Management Solution & Products business, however, demand for items including heat-dissipation products for PCs was stagnant.

Regarding foam products, we are intending to develop markets directed toward building materials and automobiles in Europe and North America, centered around our German subsidiary Trocellen GmbH.

## **Fiscal 2016 Main Topics**

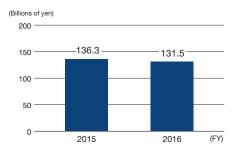
#### Mar.

- ► Furukawa Electric Develops New Semiconductor Tape that Can Significantly Improve Semiconductor Quality
- Will begin mass production of materials for laser grooving and plasma dicing –



Semiconductor tape

#### Net sales



### Operating income

