

Fiscal 2016 Business Results

DOWA HOLDINGS CO.,LTD.

May 17, 2017

Overview of Operating Results

■ Consolidated Income Statements

Billion yen

	FY2015 Results			FY2016 Results			Changes					
	H1	H2	Full Year	H1	H2	Full Year	H1		H2		Full Year	
Net Sales	208.2	198.3	406.5	184.7	225.7	410.5	(23.5)	△ 11%	27.4	14%	3.9	1%
Operating Income	20.2	14.8	35.0	13.3	20.6	33.9	(6.9)	△ 34%	5.8	39%	(1.0)	△ 3%
Ordinary Income	20.6	14.4	35.0	13.5	22.9	36.5	(7.0)	△ 34%	8.4	59%	1.4	4%
Net Income	12.0	9.7	21.8	9.8	16.2	26.1	(2.1)	△ 18%	6.5	67%	4.3	20%

- ✓ In the second half of FY2016, higher prices of metals such as zinc and strong sales of core products resulted in a 1.4 billion yen increase in ordinary income compared with the previous fiscal year. Net income meanwhile rose 4.3 billion yen year on year due to a decrease in the extraordinary loss.

■ Metal prices and foreign exchange rates

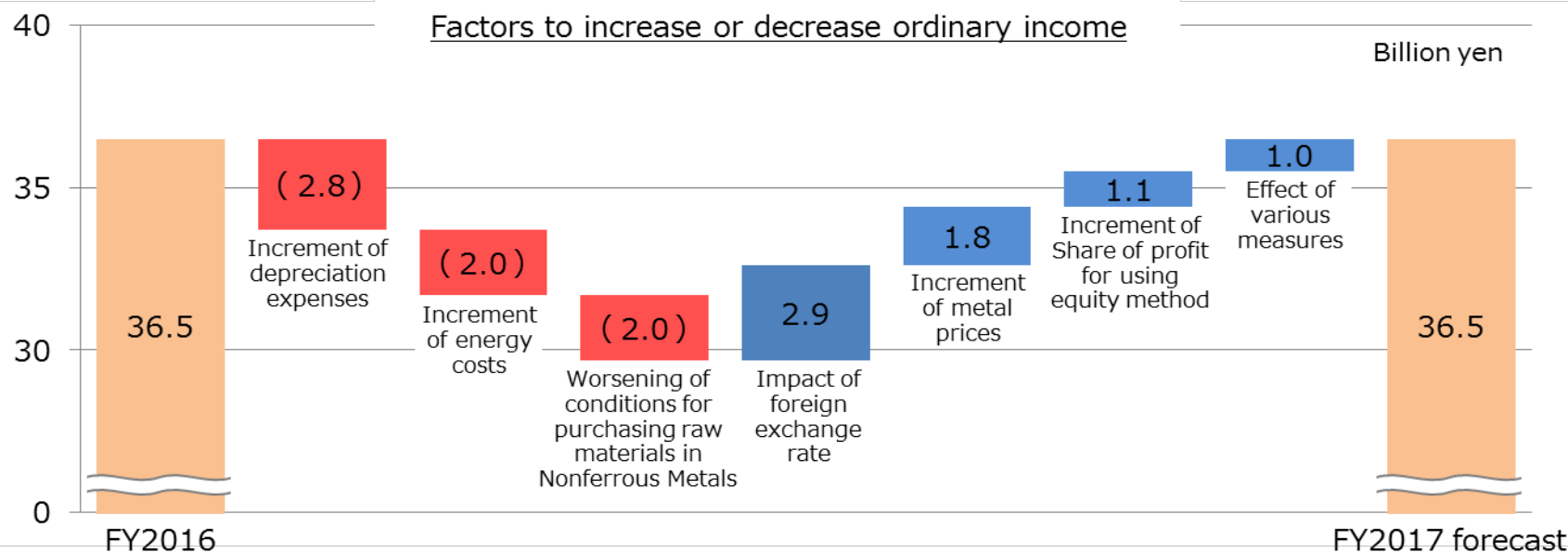
	FY2015 Average			FY2016 Average		
	H1	H2	Full Year	H1	H2	Full Year
Exchange Rate: (¥/\$)	121.8	118.5	120.1	105.3	111.5	108.4
Copper: (\$/t)	5,653	4,778	5,215	4,752	5,557	5,154
Zinc: (\$/t)	2,019	1,643	1,831	2,084	2,650	2,367
Indium: (\$/kg)	369	235	302	222	192	207

Forecast for Fiscal 2017

Billion yen

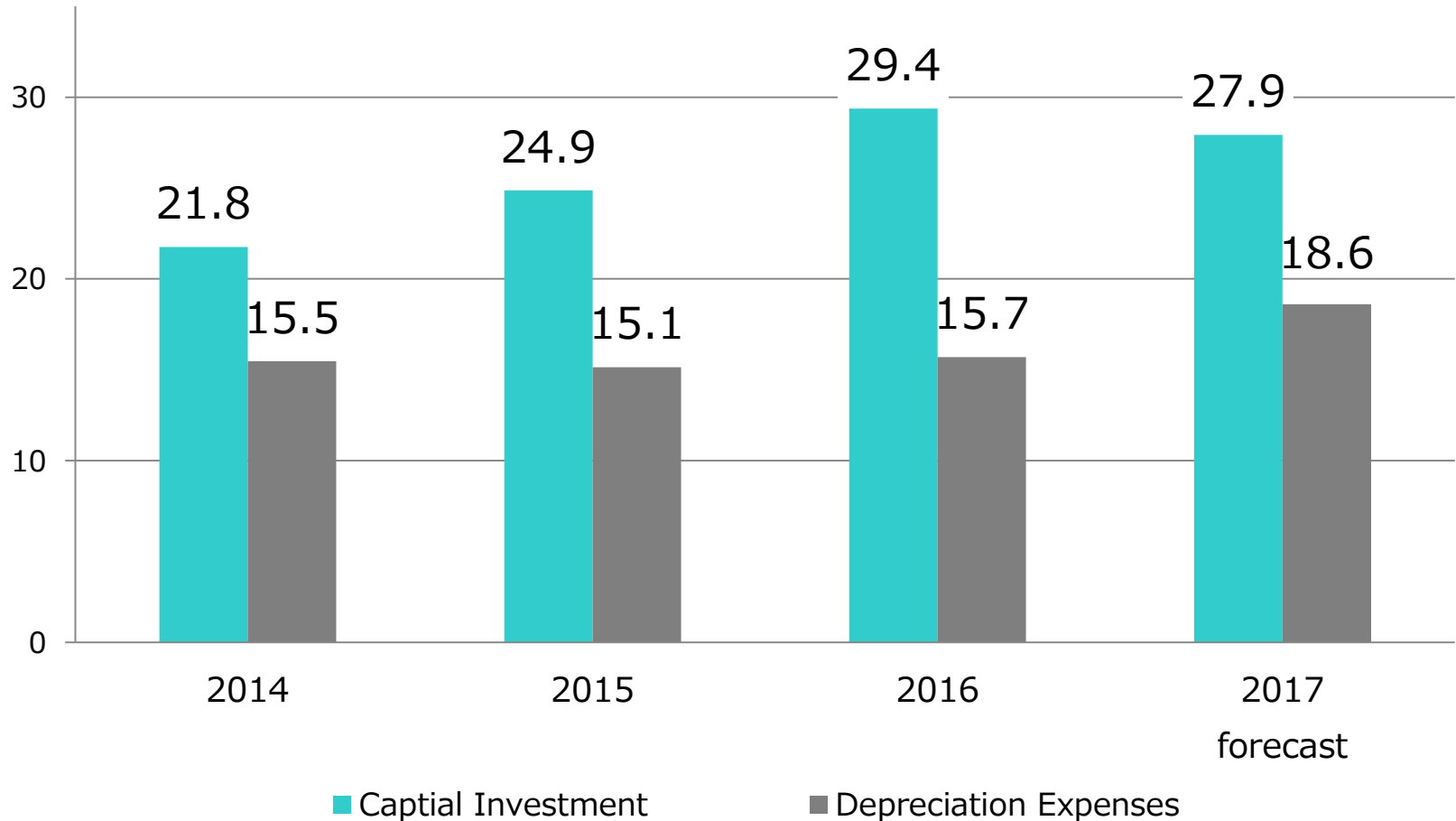
	FY2016 results	FY2017 forecast	Change
Net Sales	410.5	434.0	23.4
Operating Income	33.9	34.0	–
Ordinary Income	36.5	36.5	–
Net Income	26.1	26.0	(0.1)

- ✓ Despite some factors reducing profit, including higher depreciation expenses incurred for investment in growth, profit is expected to remain at the same level as in the previous fiscal year thanks to the benefits of exchange rates and metal prices, the effect of measures taken, and other factors.



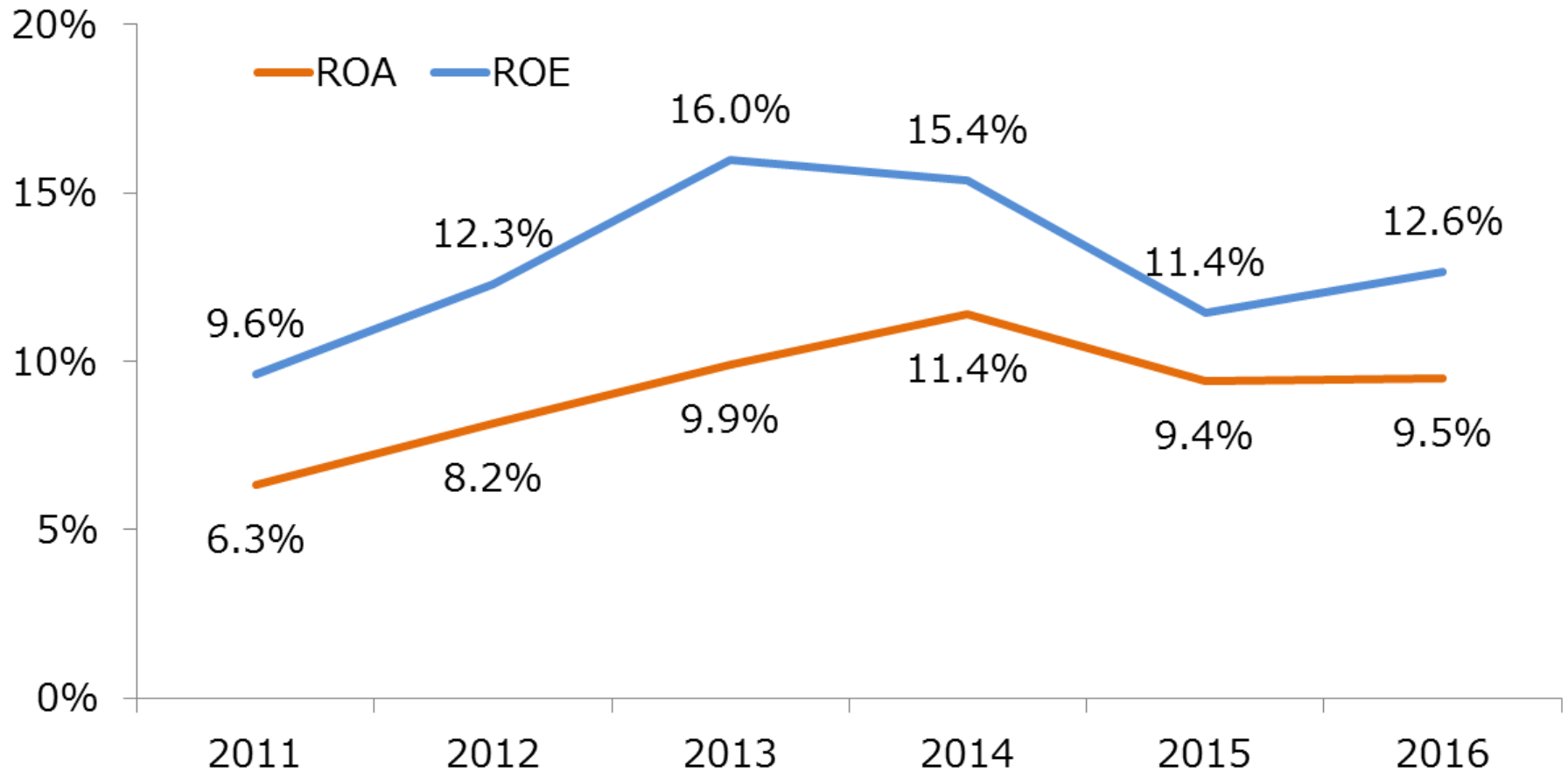
Capital Investment and Depreciation Expenses

(billion yen)



- ✓ Growth-oriented investments set forth in the Mid-Term Plan were steadily implemented and will continue in FY2017.

Return on Assets(ROA) and Return on Equity(ROE)



✓ With both total assets and net assets increasing, ROA and ROE will be maintained at high levels.

*Formula

ROA : $\text{Ordinary income} \times 100 / (\text{Total Assets at Beginning of Period} + \text{Total Assets at End of Period}) \div 2$

ROE : $\text{Profit Attributable to Owners of Parent} \times 100 / (\text{Equity at Beginning of Period} + \text{Equity at End of Period}) \div 2$

FY2017 Outline for Each Segment and Progress of Key Measures

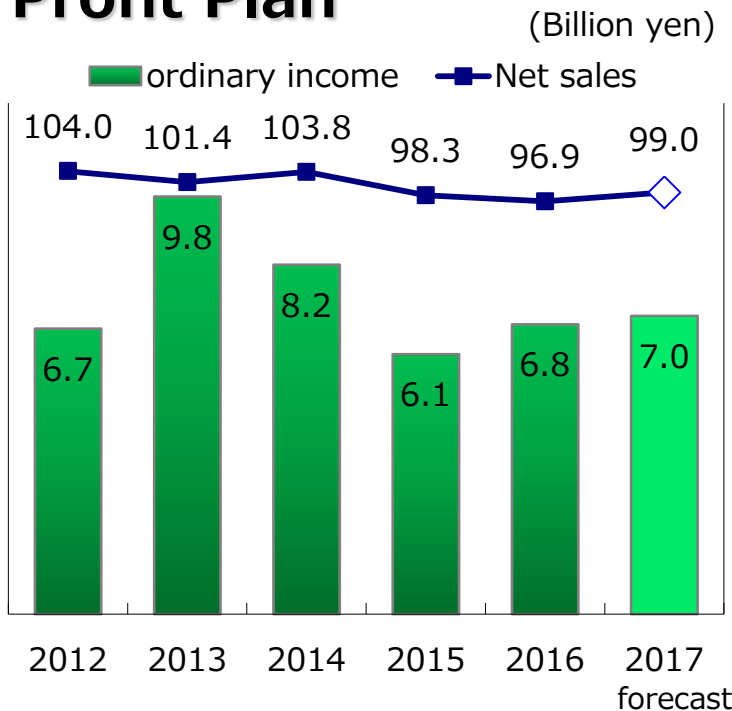
Environmental Management and Recycling (1)

FY2017 Outline

◆ Market Trends

- Domestic waste emission remains flat
- Infrastructure-related investment in soil remediation has increased slightly
- Waste emission in Southeast Asia continues to increase

◆ Profit Plan



Major Product Trends

(FY2015 = 100)

	2015	2016	2017
Intermediated Waste Processing Volume in Japan	100	98	100
Recycling Materials Collection Volume(Kosaka)	100	106	103
Waste Processing Amount in Southeast Asia	100	107	112

[Key Points for FY2017 Profits]

- Steady volume of waste collected in Southeast Asia
- Increased treatment of low-contaminated PCB waste, slight drop in treatment unit prices

Environmental Management and Recycling (2)

Progress of Key Measures

◆ Expansion of Waste Treatment Business in Southeast Asia

Final Disposal

Indonesia

- Existing disposal facilities
Steady expansion of waste collection volume
- Plans for new disposal facilities (East Java)
Completion of environmental assessment and start of construction scheduled for FY2017

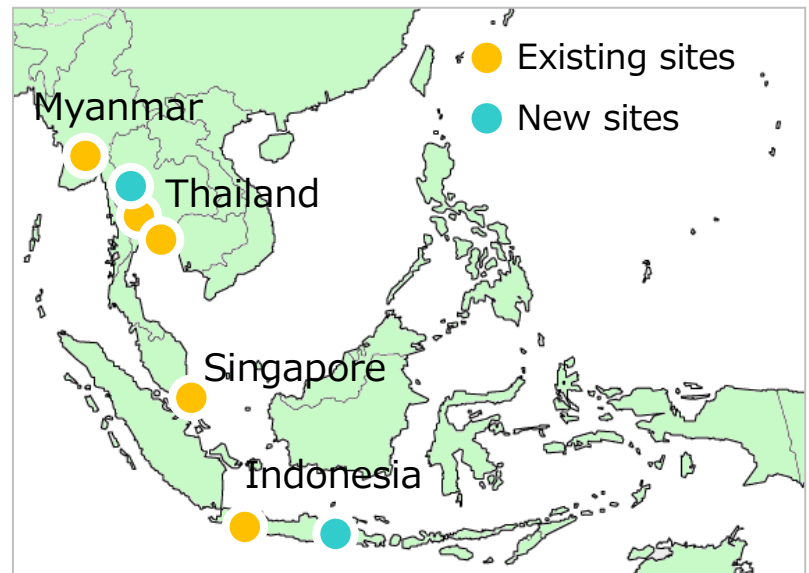
Thailand

- Expansion of existing disposal facilities
Environmental assessment scheduled for completion in FY2017
- Joint venture with local companies
Construction of hazardous waste treatment facility under consideration

Intermediate Treatment

Singapore

- New furnace scheduled to commence operation in May
- Expand treatment of hazardous waste from chemical and pharmaceutical manufacturers, which are expected to grow



Promote the Establishment of New Sites and the Expansion / Augmentation of Existing Sites

Environmental Management and Recycling (3)

Progress of Key Measures

◆ Promote commercialization of naturally contaminated soil remediation

Features of Dry Magnetic Extraction Method

Treatment does not use water
Compact remediation facilities

Treatment at contamination site
Ability to reuse decontaminated soil

Establish a track record in treatment through small-scale projects in FY2017

In the future, we will target the large volume of construction waste soil generated by large-scale infrastructure construction

There are places to construct three domestic remediation facilities

◆ Expand domestic waste treatment business

Low-contaminated PCB

Akita: Start of batch-fed incinerator operation (2016)

Okayama: Enhance prior dismantlement capabilities and increase treatment of large-scale equipment (2017)

→ Support treatment of various forms of electrical equipment waste across multiple sites

Municipal Waste: Expand ash melting and recycling business (launch of Iwaki Site from early 2017)



Waste electrical equipment including Low-contaminated PCB waste

Nonferrous Metals (1) FY2017 Outline

◆ Market Trends

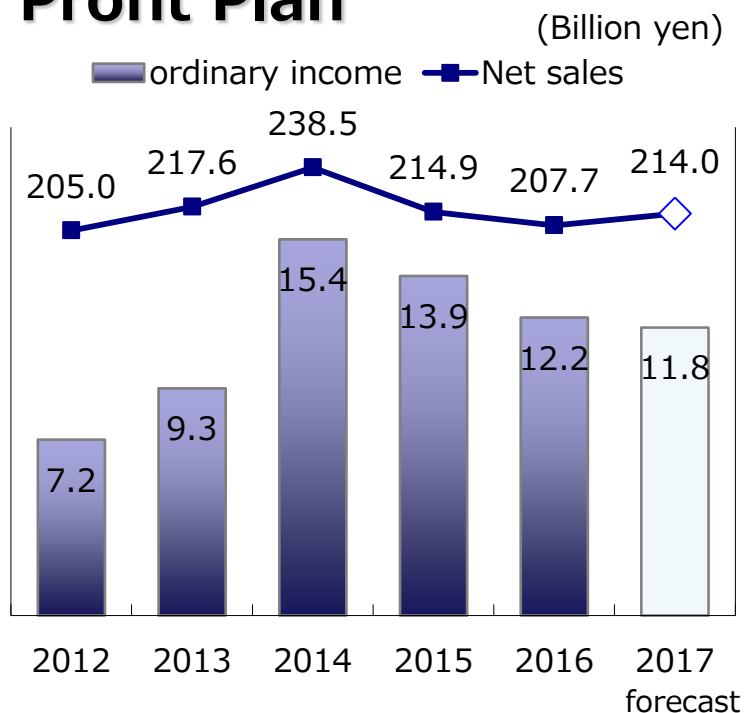
- Metal prices have remained mostly strong. Exchange rates are unpredictable.
- Domestic demand for base metals is flat
- Generation of platinum group raw materials increasing worldwide, and competition for collection has also intensified

Major Product Trends

(FY2015 = 100)

	2015	2016	2017
Copper Production (Kosaka・Onahama)	100	80	65
Zinc Production (Akita)	100	97	99

◆ Profit Plan



[Key Points for FY2017 Profits]

- While metal prices generally have a positive impact, zinc raw material purchasing condition have worsened
- Increased depreciation expenses due to expansion of platinum group recycling facilities and construction of a new roaster, and electricity rates have also risen

Nonferrous Metals (2) Progress of Key Measures

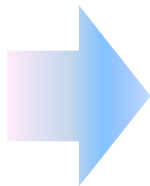
◆ Promotion of Mining Projects: Raise percentage of zinc from Dowa's proprietary mines to 50%

Los Gatos Zinc-Silver-Lead Project: Chihuahua, Mexico

December 2014: Participation in project, launched feasibility study

- Added reserves and improved accuracy by more than 200 additional test drillings
- Acquired 30% of project interest and rights to collect entire volume of zinc concentrate

Feasibility study was completed in January 2017



2017: Obtain licenses and permits, build financing scheme → begin construction
Around 2019 – 2020: Scheduled start of operation

Palmer Zinc and Copper Project: Alaska, United States

Began project participation in 2011, exploration activities ongoing

- Obtained 49% project interests and rights to collect entire volume of zinc concentrate



Los Gatos Project Site

Nonferrous Metals (3) Progress of Key Measures

◆ Expand recycling of platinum group metals from vehicle exhaust catalyst

Collection of Raw Materials

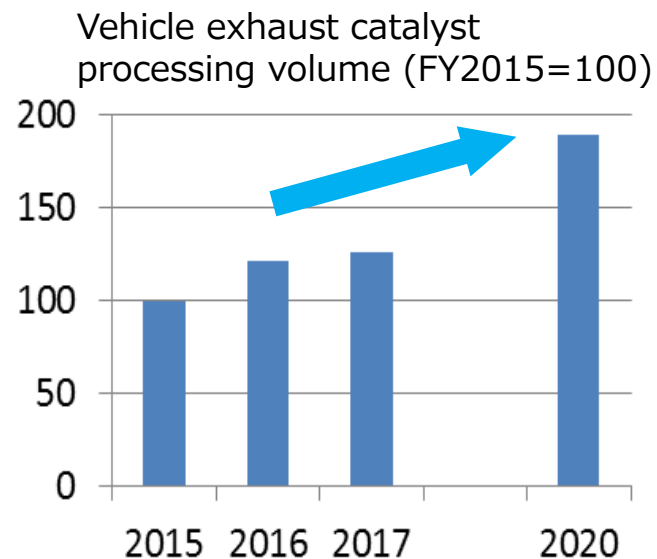
North America: Acquire collection companies and expand collection network

Europe: Increase collection inside and outside Europe using site in Czech Republic as a base

Treatment Capacity

New incinerator began operation in 2016

→ Capacity is being increased in stages and will achieve a 40% increase by 2020



◆ Enhancing Smelting Complex Infrastructure

Strengthen coordination with Kosaka Smelting & Refining and Akita Zinc and expand recovery of by-product metals from a wide range of raw materials

Kosaka Smelting & Refining: Improve profitability and enhance raw material handling ability by expanding recovery of tin and antimony

Akita Zinc: New construction and updating of important facilities such as a roaster, expanding processing of zinc recycling raw materials

Electronic Materials (1) FY2017 Outline

◆ Market Trends

- Demand for sensor LEDs and smartphone materials is flat, applications in healthcare equipment is expanding
- Silver powder for solar panels increasing steadily
- Demand for magnetic powder used in data tapes is steady

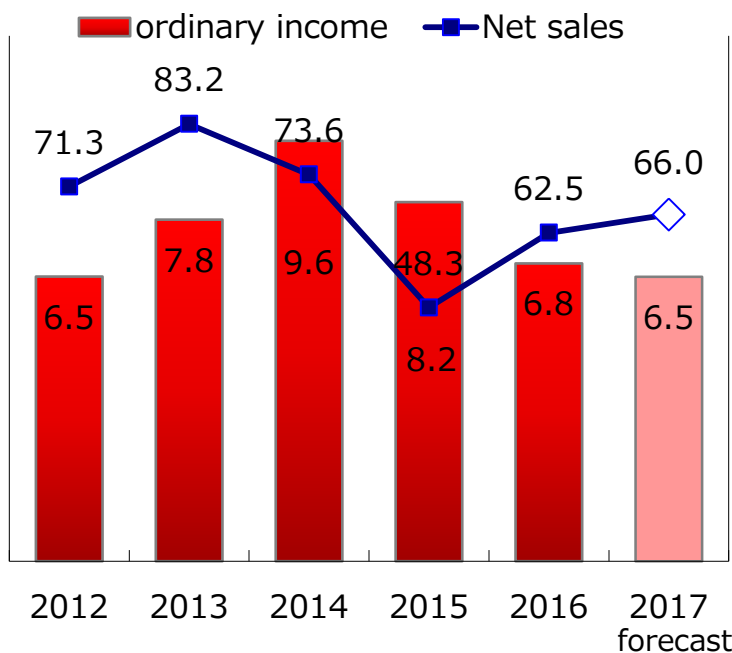
Major Product Trends

(FY2015 = 100)

	2015	2016	2017
LED Sales Volume	100	59	62
Silver Powder Sales Volume	100	121	133

◆ Profit Plan

(Billion yen)



[Key Points for FY2017 Profits]

- Increased sale of silver powder due to continued market expansion
- Increased depreciation expenses due to investments to boost production of silver powder, etc.
- Increased future-oriented R&D expenses

Electronic Materials (2) Progress of Key Measures

◆ Silver Powder: Maintain high market share on strength of supply capabilities and quality

Expanded Supply Capabilities

The market will continue to expand in the current fiscal year and beyond

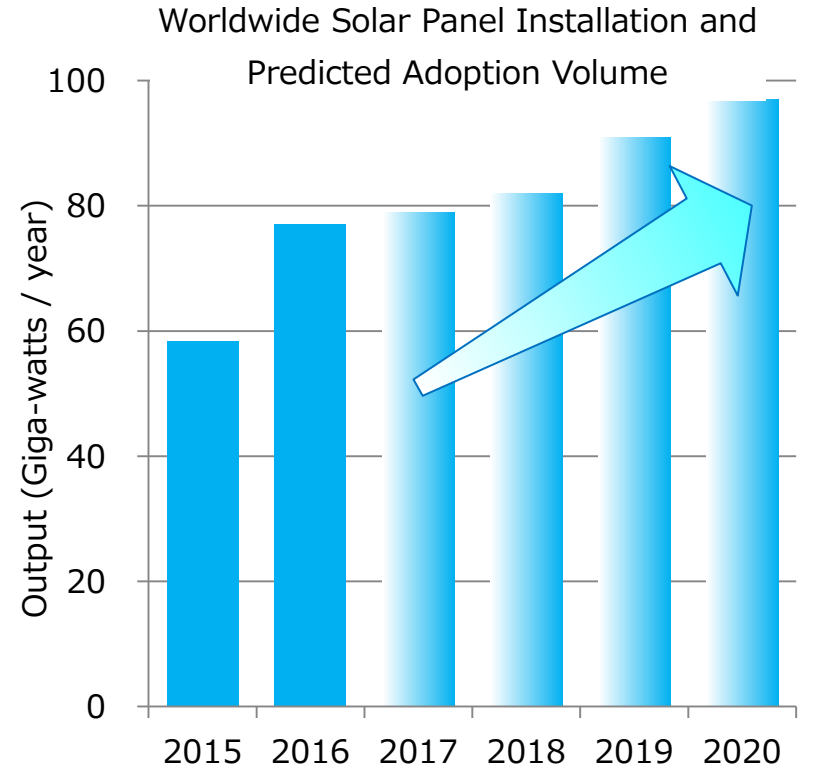
→ Invest in increased production to meet demand

Support for Next-generation Solar Panels

Moving forward, the percentage of next-generation solar panels with high generating efficiency will increase

The properties demanded of silver powder will also become more advanced

→ Continue to improve properties by utilizing our technical strengths to capture demand for next-generation solar panels



(Data Source: IHS)

Maintain a high market share in the ever-expanding market for solar panels

Electronic Materials (3) Progress of Key Measures

◆ Development of New Products

Ultraviolet LED

- Expanded used in medical devices

Optimize output of deep UV LEDs
Improve reliability through longer service life



Expand number of sample workpieces

Expected to service as a replacement light source for mercury lamps. Further expansion of applications will accelerate.



Ultraviolet LED

Applications of Magnetic Materials

- For vehicles and electronic devices, the number of integrated electronic components per unit will increase
- To boost detection accuracy and prevent malfunction, measures against electromagnetic noise will become increasingly important



Heightened demand for magnetic materials with excellent electromagnetic absorption properties

Utilize DOWA powder technologies to promote the development of new products



Metal Processing (1) FY2017 Outline

◆ Market Trends

- Copper rolled products: Strong demand for automotive and information communication devices such as smartphones
- Electroplating: Increased demand due to spread of electric vehicles
- Metal-ceramic substrates: market for industrial machinery is recovering

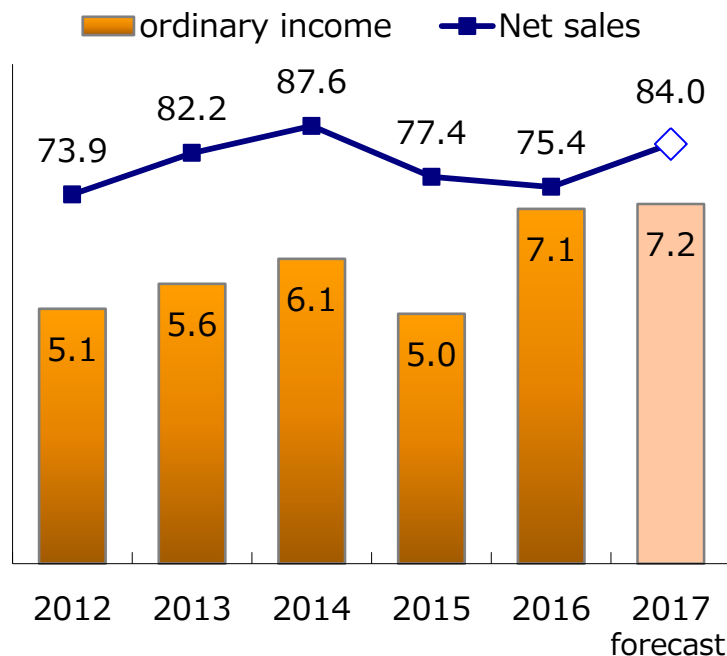
Major Product Trends

(FY2015 = 100)

	2015	2016	2017
Copper Alloy Sales Volume (For Automobile)	100	105	108
Copper Alloy Sales Volume (For information and communication devices)	100	106	120

◆ Profit Plan

(Billion yen)



[Key Points for FY2017 Profits]

- Expanded sales of copper rolled products, primarily for smartphones
- Increased depreciation expenses due to investment to boost copper rolled product production
- Increased costs due to rising energy prices

Metal Processing (2) Progress of Key Measures

◆ Expanded Sales for Vehicles

Increase in electric vehicles → heightened demand for high thermal resistance and high conductivity

- Develop and expand sales of high-performance copper alloys and new plating for high-voltage terminals
- Invest in increased production of metal-ceramic substrates for inverters (increased production from 2019 onwards)

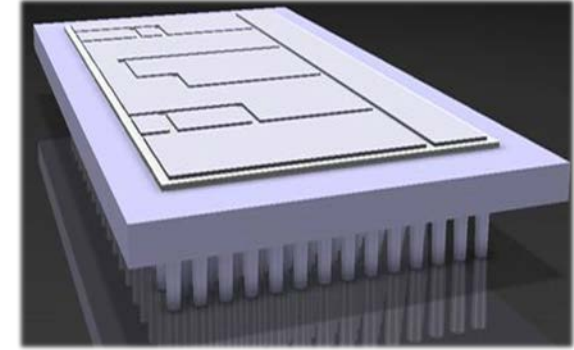
Spread of electric vehicles → higher number of connectors and switches incorporated

- Mass production of new plating for wire harnesses (late 2017)
- Boost production of precious metal spot-area plating and expand sales

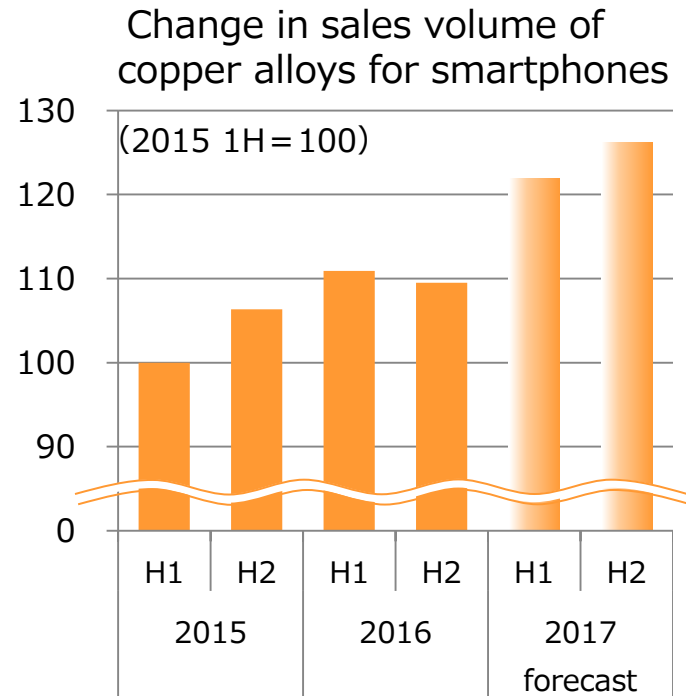
◆ Expanded Sales for Smartphones

More sophisticated functionality to address migration to next-generation communication protocols and faster charging times

- Expand sales of high-strength copper alloys to capture increasing demand for components



Metal-ceramic substrates for inverters



Metal Processing (3) Progress of Key Measures

◆ Expanding Business in Asia

Expanding local processing and supply capabilities → capture growing demand in Asia

Shanghai Site

Expand sales for vehicles and smartphones by leveraging strengths in cutting and plating to handle various product specifications and short lead times

Taiwan Site

Expand sales of press-processed products in Asian market in partnership with the local copper manufacturer

Thailand Site

Investments in increased production for precious metal plating and press working were made in FY2016 and are now online

→ Leverage strengths in integrated production to expand orders received from automotive parts manufacturers



Heat Treatment (1) FY2017 Outline

◆ Market Trends

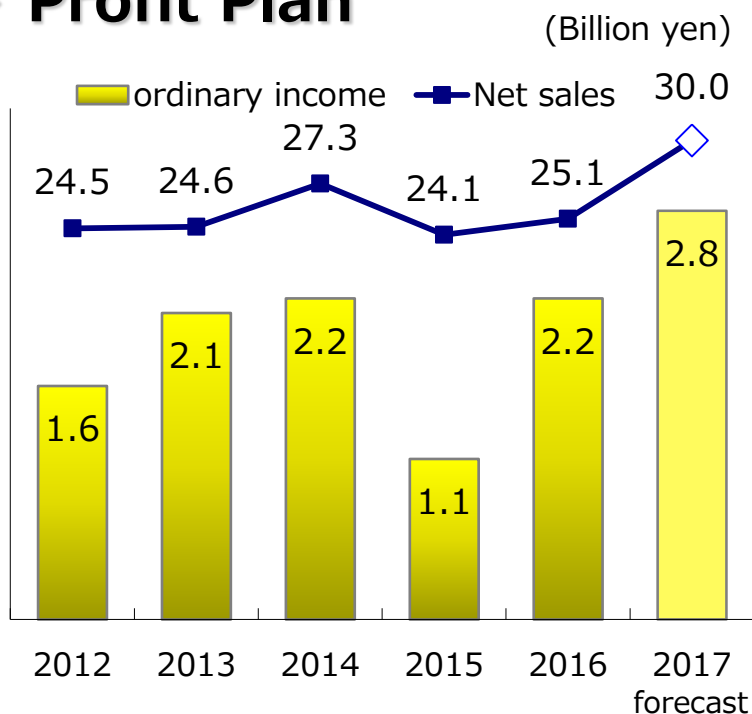
- Automotive production: Slight increase domestically, expanded demand overseas primarily in China, India and Indonesia
- Construction machinery: Domestic and export markets both bottoming out

Major Product Trends

(FY2015 = 100)

	2015	2016	2017
Heat Treatment Sales Amount	100	109	129
Industrial Furnaces Sales Amount	100	97	113

◆ Profit Plan



[Key Points for FY2017 Profits]

- Capture steady domestic and overseas demand for automotive applications, and increase revenue for heat treatment processing and industrial furnaces
- Increased depreciation expenses due to investment in higher production in Japan and overseas

Heat Treatment (2) Progress of Key Measures

◆ Expanding Overseas Business

India Healthy domestic and export demand for automotive production

New heat treatment plants under construction

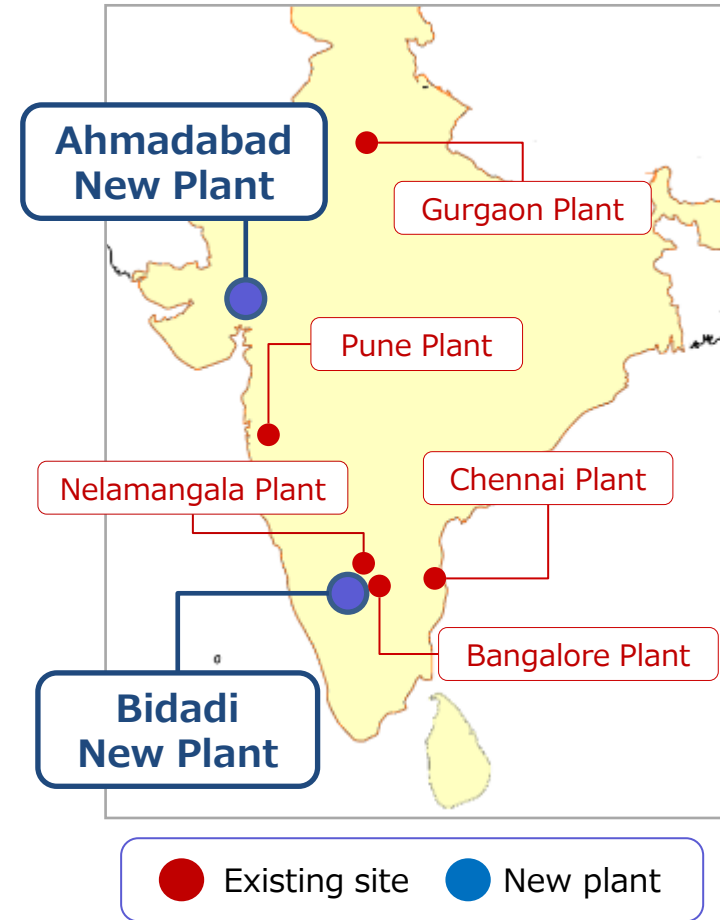
- Ahmadabad: Start of operation in Q2 2017
- Bidadi: Start of operation in FY2018

Expand business in India with a total of seven heat treatment processing sites

China and Southeast Asia

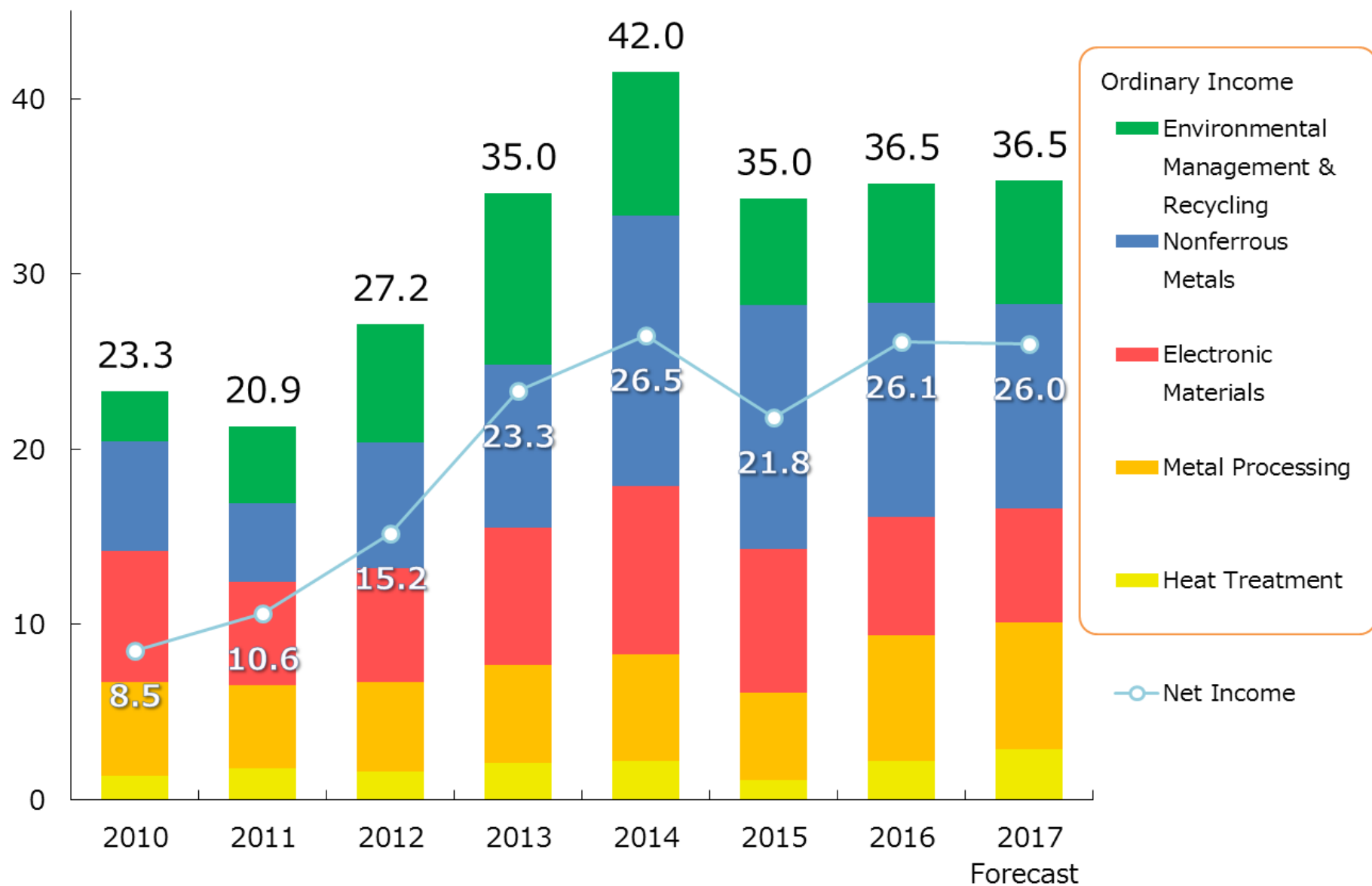
Increase processing volume and expand processing operations to meet robust demand

Respond to increasing demand for automobiles.



Ordinary Income and Net Income

(Billion yen)



DOWA

* Forward-looking statements made in this document, such as business forecast, are based on the information available at this time and on certain premises that the Company assumes to be reasonable. Actual performance may differ materially from such forecasts due to a variety of factors.