

**DOWA**

# Fiscal 2013 Business Results

**May 12, 2014**

**DOWA HOLDINGS CO.,LTD.**

\* Forward-looking statements made in this document, such as business forecasts, 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.

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# **1. Overview of Fiscal 2013 Operating Results and Forecasts for Fiscal 2014**

# Highlights of Income Statements

## ■ Consolidated Income Statements

Billion yen

	FY2012 Results			FY2013 Results			Change					
	H1	H2	Full Year	H1	H2	Full Year	H1		H2		Full Year	
<b>Net Sales</b>	<b>193.2</b>	<b>226.1</b>	<b>419.3</b>	<b>211.8</b>	<b>232.0</b>	<b>443.9</b>	18.6	10%	5.9	3%	24.5	6%
<b>Operating Income</b>	<b>11.3</b>	<b>13.2</b>	<b>24.5</b>	<b>16.3</b>	<b>15.4</b>	<b>31.7</b>	5.0	45%	2.1	17%	7.2	29%
Non-operating Income/Expenses	1.0	1.6	2.7	1.4	1.7	3.2	0.4	-	0.0	-	0.5	-
<b>Ordinary Income</b>	<b>12.3</b>	<b>14.9</b>	<b>27.2</b>	<b>17.8</b>	<b>17.2</b>	<b>35.0</b>	5.5	45%	2.2	15%	7.7	29%
Extraordinary Income/Loss	(2.7)	(0.6)	(3.4)	(0.2)	(1.8)	(2.0)	2.4	-	(1.1)	-	1.3	-
<b>Net Income</b>	<b>5.8</b>	<b>9.3</b>	<b>15.2</b>	<b>11.7</b>	<b>11.5</b>	<b>23.3</b>	5.9	101%	2.1	23%	8.0	53%

- Both sales and income rose year on year in all segments, bolstered by business growth, largely as a result of the expansion of the waste treatment business in Japan and overseas and the capturing of demand for multifunctional portable devices, in addition to the effect of a weaker yen in the nonferrous metals segment.

- Similarly, both sales and income exceeded the forecasts announced on October 11, 2013.

	Forecasts	Results	Change
Net Sales	426.0	443.9	17.9
Operating Income	30.5	31.7	1.2
Ordinary Income	33.0	35.0	2.0
Net Income	19.0	23.3	4.3

# Business Environment

## ■ Market situation

- Environmental Management & Recycling-related market: Waste volume remained at the same level in Japan, but expanded overseas, especially in Asia.
- Automotive-related market: Domestic production, including production for export, was firm and, at the end of the fiscal year, a last-minute surge in demand before the consumption tax increase was seen. In North America, sales remained strong but, in Asia, growth appeared to slow.
- Electronic Materials and Semiconductor-related market: While the markets for computers, TVs and flip phones continued to stagnate, demand for multifunctional portable devices such as smartphone grew.

## ■ Metal prices and foreign exchange rates

- Metal prices: Prices remained weak generally. In particular, precious metal prices fell by around 20% to 30% on average.
- Foreign exchange rates: The correction of the excessively strong yen became firmly established, with the yen hovering around 100JPY/USD.

	FY2012 Average			FY2013 Average		
	H1	H2	Full Year	H1	H2	Full Year
Exchange Rate: (¥/\$)	79.4	86.8	83.1	98.9	101.6	100.2
Copper: (\$/t)	7,792	7,918	7,855	7,112	7,095	7,104
Zinc: (\$/t)	1,908	1,992	1,950	1,850	1,969	1,910
Indium: (\$/kg)	494	505	499	565	683	624

# Trends in Major Products

Indexes (100 for Q1 of FY2012)

		FY2012				FY2013			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
<b>Environmental Management &amp; Recycling</b>	Intermediate waste processing volume in Japan	100	106	110	109	115	110	119	104
	Recycling materials collection volume (Kosaka)	100	117	130	101	110	112	119	120
	Waste processing amount in South East Asia	100	94	100	127	109	125	122	119
<b>Nonferrous Metals</b>	Silver production (Kosaka)	100	96	117	119	125	120	142	129
	Zinc production (Akita)	100	75	104	99	108	75	106	104
<b>Electronic Materials</b>	Compound semiconductor materials sales volume	100	83	78	59	86	94	85	95
	LED sales volume	100	111	106	100	130	114	101	117
	Silver power sales volume	100	59	52	69	93	83	111	109
<b>Metal Processing</b>	Copper alloy strip products sales volume	100	98	87	87	98	97	103	100
<b>Heat Treatment</b>	Heat treatment processing volume	100	94	94	99	100	103	102	101

# Year-on-Year Comparison by Segment

Billion yen

	FY2012 Results			FY2013 Results			Change			Details of Changes to Operating Income
	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	
Environmental Management & Recycling	104.0	6.4	6.7	<b>101.4</b>	<b>9.4</b>	<b>9.8</b>	(2.5)	3.0	3.0	<ul style="list-style-type: none"> <li>- Expansion of waste treatment business, including low-contaminated PCB waste</li> <li>- Business Expansion in Southeast Asia</li> <li>- Decline in net sales attributable to falling metal prices</li> </ul>
Nonferrous Metals	205.0	4.6	7.2	<b>217.6</b>	<b>7.0</b>	<b>9.3</b>	12.5	2.3	2.1	<ul style="list-style-type: none"> <li>- Brisk copper and zinc smelter operations</li> <li>- Increased recovery of new metals such as tin</li> <li>- Boost to profit from a weaker yen</li> <li>- Higher costs due to rising electricity charges</li> </ul>
Electronic Materials	71.3	5.7	6.5	<b>83.2</b>	<b>6.7</b>	<b>7.8</b>	11.8	0.9	1.2	<ul style="list-style-type: none"> <li>- Expansion in sales of products such as LEDs and silver powder to growth markets</li> <li>- Inventory adjustments for functional materials</li> </ul>
Metal Processing	73.9	4.8	5.1	<b>82.2</b>	<b>5.3</b>	<b>5.6</b>	8.2	0.5	0.5	<ul style="list-style-type: none"> <li>- Firm demand for automotive terminals and connectors</li> <li>- Growth in demand for metal-ceramic substrates used in industrial machinery</li> </ul>
Heat Treatment	24.5	1.5	1.6	<b>24.6</b>	<b>2.2</b>	<b>2.1</b>	0.0	0.7	0.5	<ul style="list-style-type: none"> <li>- Overseas expansion in response to increase in overseas auto production</li> <li>- Improvement in productivity of domestic plants</li> </ul>
Other/ Elimination	(59.6)	1.1	(0.0)	<b>(65.1)</b>	<b>0.8</b>	<b>0.2</b>	(5.4)	(0.2)	0.3	
Total	419.3	24.5	27.2	<b>443.9</b>	<b>31.7</b>	<b>35.0</b>	24.5	7.2	7.7	

# Factor Analysis of Ordinary Income

Billion yen

FY2012 – FY2013	Environmental Management & Recycling	Nonferrous Metals	Electronic Materials	Metal Processing	Heat Treatment	Other	Total
Effect of various measures, increase/ decrease in sales, etc.	2.9	(0.6)	1.0	0.5	0.6	(0.3)	4.1
Of the above, free metal income difference (volume difference)	–	(1.4)	–	–	–	–	(1.4)
Free metal income difference (price difference)	–	2.0	–	–	–	–	2.0
Conditions of raw material (changes in exchange rate and base conditions)	–	1.5	–	–	–	–	1.5
Difference between the market value and book value at sale, and between market value and valuation prices at end of period	–	0.2	–	–	–	–	0.2
Electricity charges, etc.	–	(1.5)	–	–	–	–	(1.5)
Depreciation	0.1	0.7	(0.0)	0.0	0.1	(0.0)	0.8
Increase/decrease in operating income	3.0	2.3	0.9	0.5	0.7	(0.2)	7.2
Effect of non-operating income/expenses							
- Equity method income or loss	0.1	(0.8)	(0.0)	0.1	–	0.2	(0.4)
- Other	(0.1)	0.6	0.3	(0.1)	(0.2)	0.4	1.0
Increase/decrease in ordinary income	3.0	2.1	1.2	0.5	0.5	0.3	7.7

# Financial Highlights (1)

## ■ Consolidated Balance Sheets

Billion yen

	March 31, 2013	March 31, 2014	Change		March 31, 2013	March 31, 2014	Change
Current Assets	171.2	173.9	2.7	Current Liabilities	133.1	131.8	(1.3)
				Noncurrent Liabilities	74.2	59.9	(14.3)
Noncurrent Assets	178.5	184.8	6.3	Equity	133.5	158.3	24.7
				Minority Interests	8.8	8.7	(0.0)
Total Assets	349.7	358.8	9.0	Total Liabilities and Net Assets	349.7	358.8	9.0

- Total assets increased, reflecting the establishment of an overseas subsidiary and an increase in the amount of investment securities held by the Group due to a rise in their market value.
- Interest-bearing debt was reduced from ¥107.1 billion in the previous fiscal year to ¥99.6 billion.
- The equity ratio rose from 38.2% in the previous fiscal year to 44.1%, due to the repayment of liabilities and an increase in retained earnings.



# Financial Highlights (2)

## ■ Consolidated Statements of Cash Flows

Billion yen

	FY2012	FY2013	Change
<b>Cash Flows from Operating Activities</b>	<b>34.9</b>	<b>30.1</b>	<b>(4.7)</b>
Income before income taxes and minority interest	23.8	32.9	9.1
Depreciation	17.5	16.7	(0.7)
Income taxes paid	(3.4)	(9.1)	(5.7)
Other, net	(2.9)	(10.3)	(7.4)
<b>Cash Flows from Investing Activities</b>	<b>(19.3)</b>	<b>(18.6)</b>	<b>0.6</b>
Acquisition of property, plant and equipment	(17.8)	(16.3)	1.5
Other investments	(1.4)	(2.3)	(0.8)
<b>Cash Flows from Financing Activities</b>	<b>(14.9)</b>	<b>(12.3)</b>	<b>2.6</b>
Total	0.6	(0.8)	(1.4)

- As in the previous fiscal year, around ¥20 billion of the approximately ¥30 billion in cash flows from operating activities was applied to investments and around ¥10 billion was applied to the repayment of debt and dividends.

# (Ref.) Consolidated Income Statements

Million yen

	Previous Term (FY2012)			Current Term (FY2013)			Change		
	H1	H2	Full Year	H1	H2	Full Year	H1	H2	Full Year
<b>Net Sales</b>	193,242	226,147	419,390	211,885	232,099	443,985	18,642	5,951	24,594
Cost of Sales	167,652	198,311	365,963	180,698	201,381	382,079	13,045	3,069	16,115
<b>Gross Profit</b>	25,590	27,836	53,427	31,187	30,718	61,905	5,596	2,881	8,478
Selling, General, and Administrative Expenses, R&D Expenses	14,272	14,591	28,863	14,831	15,280	30,111	558	688	1,247
<b>Operating Income</b>	11,318	13,245	24,564	16,356	15,438	31,794	5,037	2,192	7,230
Other Income	2,833	3,751	6,584	2,922	3,814	6,736	89	62	152
Interest and dividend income	( 326)	( 253)	( 579)	( 366)	( 332)	( 699)	( 39)	( 79)	( 119)
Equity in earnings of affiliates	( 1,189)	( 1,935)	( 3,125)	( 930)	( 1,741)	( 2,672)	(△ 258)	(△ 194)	(△ 452)
Other income	( 1,316)	( 1,562)	( 2,879)	( 1,625)	( 1,739)	( 3,364)	( 308)	( 177)	( 485)
Other Expenses	1,812	2,058	3,871	1,425	2,049	3,475	△ 387	△ 8	△ 395
Interest expenses	( 866)	( 830)	( 1,697)	( 761)	( 755)	( 1,517)	(△ 104)	(△ 75)	(△ 179)
Equity in losses of affiliates	( -)	( -)	( -)	( -)	( -)	( -)	( -)	( -)	( -)
Other expenses	( 946)	( 1,227)	( 2,174)	( 663)	( 1,294)	( 1,957)	(△ 283)	( 66)	(△ 216)
<b>Ordinary Income</b>	12,338	14,938	27,277	17,853	17,202	35,055	5,514	2,263	7,778
Extraordinary income	412	54	466	195	294	490	△ 216	240	24
Gain on sales of noncurrent assets	( 88)	( 24)	( 112)	( 29)	( 45)	( 74)	(△ 58)	( 20)	(△ 37)
Gain on sale of investment securities	( -)	( -)	( -)	( 55)	( -)	( 55)	( 55)	( -)	( 55)
Compensation income	( 262)	( 12)	( 275)	( 83)	( -)	( 83)	(△ 179)	(△ 12)	(△ 192)
Other	( 61)	( 17)	( 78)	( 27)	( 249)	( 277)	(△ 33)	( 232)	( 198)
Extraordinary loss	3,157	735	3,893	457	2,100	2,557	△ 2,700	1,364	△ 1,336
Loss on retirement of noncurrent assets	( 226)	( 379)	( 606)	( 142)	( 255)	( 397)	(△ 84)	(△ 124)	(△ 209)
Loss on disposal of noncurrent assets	( -)	( -)	( -)	( -)	( 1,457)	( 1,457)	( -)	( 1,457)	( 1,457)
Loss on valuation of investment securities	( 2,552)	( -)	( 2,552)	( -)	( -)	( -)	(△ 2,552)	( -)	(△ 2,552)
Impairment loss	( 58)	( 64)	( 122)	( 48)	( 3)	( 52)	(△ 9)	(△ 60)	(△ 70)
Business structure improvement expenses	( -)	( 457)	( 457)	( -)	( -)	( -)	( -)	(△ 457)	(△ 457)
Loss on disaster	( 147)	(△ 90)	( 56)	( 246)	( -)	( 246)	( 98)	( 91)	( 189)
Other	( 172)	(△ 74)	( 98)	( 19)	( 383)	( 402)	(△ 152)	( 457)	( 304)
<b>Income Before Income Taxes and Minority Interests</b>	9,592	14,257	23,850	17,592	15,397	32,989	7,999	1,139	9,139
Income Taxes	3,649	4,560	8,210	5,688	3,855	9,544	2,039	△ 704	1,334
Minority Interests in Income	111	314	426	169	△ 35	134	57	△ 349	△ 292
<b>Net Income</b>	5,831	9,382	15,213	11,733	11,576	23,310	5,902	2,194	8,096
<b>Depreciation</b>	7,996	8,988	16,985	7,684	8,521	16,205	△ 311	△ 467	△ 779

# (Ref.) Consolidated Balance Sheet

Million yen

Accounts	March 31, 2013	March 31, 2014	Change	Accounts	March 31, 2013	March 31, 2014	Change
<b>Assets</b>				<b>Liabilities</b>			
<b>Current Assets</b>	171,287	173,998	2,711	<b>Current Liabilities</b>	133,125	131,803	(1,322)
Cash and deposits	6,163	5,857	(305)	Notes and accounts payable-trade	42,403	34,502	(7,901)
Notes and accounts receivable-trade	71,829	71,838	8	Short-term loans payable	52,514	41,521	(10,993)
Inventories	80,282	77,773	(2,509)	Commercial papers		10,000	10,000
Deferred tax assets	3,287	4,713	1,425	Current portion of bonds		10,000	10,000
Other	9,783	13,893	4,110	Income taxes payable	5,353	7,630	2,276
Allowance for doubtful accounts	(59)	(77)	(18)	Ingot leasing liabilities	9,519	2,953	(6,566)
				Other	23,335	25,196	1,861
<b>Noncurrent Assets</b>	178,500	184,719	6,219	<b>Noncurrent Liabilities</b>	74,260	59,927	(14,333)
Property, plant and equipment	103,647	103,890	243	Bonds payable	10,000		(10,000)
Intangible assets	11,217	11,841	624	Long-term loans payable	44,623	38,142	(6,481)
Investment securities	56,187	61,612	5,425	Provision for retirement benefits	10,990	12,230	1,239
Deferred tax assets	3,976	3,527	(449)	Deferred tax liabilities	2,969	2,940	(29)
Other	3,638	3,988	349	Other	5,676	6,614	937
Allowance for doubtful accounts	(165)	(139)	26	<b>Total Liabilities</b>	<b>207,386</b>	<b>191,730</b>	<b>(15,655)</b>
				<b>Net Assets</b>			
				<b>Shareholders' Equity</b>	125,291	144,910	19,619
				Capital stock	36,437	36,437	
				Capital surplus	26,362	26,362	
				Retained earnings	68,180	87,806	19,626
				Treasury stock	(5,688)	(5,695)	(6)
				<b>Accumulated Other Comprehensive Income</b>	8,302	13,343	5,040
				Valuation difference on available-for-sale securities	8,990	10,947	1,956
				Deferred gains or losses on hedges	89	315	226
				Foreign currency translation adjustment	(777)	2,604	3,381
				Retirement benefit adjustment		(523)	(523)
				<b>Minority Interests</b>	8,807	8,733	(73)
				<b>Total Net Assets</b>	<b>142,400</b>	<b>166,987</b>	<b>24,586</b>
<b>Total Assets</b>	<b>349,787</b>	<b>358,717</b>	<b>8,930</b>	<b>Total Liabilities and Net Assets</b>	<b>349,787</b>	<b>358,717</b>	<b>8,930</b>
				Interest-bearing debt	107,138	99,663	(7,474)
				Cash and deposits	6,163	5,857	(305)
				Actual balance	100,975	93,806	(7,169)
				Equity ratio	38.2%	44.1%	5.9%
				ROA	8.1%	9.9%	1.7%

# (Ref.) Consolidated Statements of Cash Flows

	Million yen		
	FY2012	FY2013	Change
<b>I. Cash Flows from Operating Activities</b>			
Income before income taxes and minority interests	23,850	32,989	9,139
Adjustments (non-cash)			
Depreciation	17,504	16,725	(779)
Equity in (earnings) losses of affiliates	(3,125)	(2,672)	452
Change of business, impairment loss	580	52	(527)
(Gain) loss due to sale or disposal of securities, property, plant and equipment	528	1,728	1,200
Loss on valuation of investment securities	2,552		(2,552)
Increase in allowance for doubtful accounts	663	418	(245)
Interest income and expenses and dividends	1,566	3,265	1,698
Income taxes paid	(3,432)	(9,133)	(5,701)
Other, net	915	(87)	(1,002)
Total for profit/loss items	41,603	43,286	1,683
Increase/decrease in assets/liabilities			
Increase/decrease in trade receivable/payable	(4,859)	(7,796)	(2,936)
Increase/decrease in inventories	(6,837)	3,020	9,857
Other, net	5,063	(8,322)	(13,385)
Total for balance sheet items	(6,633)	(13,097)	(6,464)
<b>Net cash provided by operating activities</b>	<b>34,970</b>	<b>30,189</b>	<b>(4,780)</b>
<b>II. Cash Flows from Investing Activities</b>			
Acquisition of property, plant and equipment	(17,871)	(16,330)	1,540
Sale and acquisition of securities	(1,742)	(2,271)	(529)
Change in loans	(310)	(651)	(340)
Proceeds from disposal and sale of noncurrent assets	643	95	(547)
Other, net	(74)	468	542
<b>Net cash used in investing activities</b>	<b>(19,354)</b>	<b>(18,689)</b>	<b>664</b>
<b>III. Cash Flows from Financing Activities</b>			
Change in borrowings and corporate bonds	(11,466)	(8,264)	3,202
Purchases of treasury stock and issuance of common stock	(1)	(6)	(4)
Cash dividends paid	(3,167)	(3,754)	(586)
Other, net	(346)	(315)	31
<b>Net cash used in financing activities</b>	<b>(14,982)</b>	<b>(12,341)</b>	<b>2,641</b>
Effect of Exchange Rate Changes on Cash and Cash Equivalents	261	433	171
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	<b>894</b>	<b>(408)</b>	<b>(1,302)</b>
Cash and Cash Equivalents of Newly Consolidated Subsidiaries	446	102	(344)
Cash and Cash Equivalents at Beginning of Term	4,788	6,129	1,341
Cash and Cash Equivalents at End of Term	6,129	5,823	(306)
			(For reference)
<b>Free cash flow</b>	<b>17,098</b>	<b>13,858</b>	<b>(3,240)</b>
			<b>Balance of interest-bearing debt</b>
			<b>107,138</b>
			<b>99,663</b>
			<b>(7,474)</b>

# Forecasts for Fiscal 2014

Billion yen

	FY2013 Results	FY2014 Forecasts	Change
Net Sales	443.9	470.0	26.0
Operating Income	31.7	36.5	4.7
Ordinary Income	35.0	38.0	2.9
Net Income	23.3	25.0	1.6

## ■ Market outlook

### ➤ Environmental management & recycling-related market

The domestic market is expected to remain unchanged, while continued growth in demand for waste and soil remediation and recycling in Asia is forecast.

### ➤ Automotive-related market

Domestic auto production is likely to remain roughly on the same level as the previous year, while overseas production is predicted to expand, especially in the North America and Asia markets.

### ➤ Electronic materials and semiconductor-related market

While markets related to multifunctional portable devices and new forms of energy are likely to expand and demand for LCD TVs is predicted to increase slightly, demand for computers is expected to continue trending downward.

# Fiscal 2014 Assumptions and Sensitivities (full year)

Sensitivity (Operating Income/Year)			Million yen
	Assumptions	Fluctuation	Sensitivity
¥/\$	100.0 ¥/\$	±¥1 /\$	<b>380</b>
Copper	6,500 \$/t	±100 \$/t	<b>30</b>
Zinc	2,000 \$/t	±100 \$/t	<b>400</b>
Indium	600 \$/kg	±100 \$/kg	<b>600</b>

\*Sensitivity is based on assumptions that the Company assumes to be reasonable at the time of publication. Actual effects may differ materially due to a variety of factors.

## Exchange rate and metal prices

	FY2013 Average		FY2014 Estimate		(Ref.) Nearest
	H1	Full Year	H1	Full Year	April Average
Exchange rate: (¥/\$)	98.9	100.2	100.0	100.0	102.6
Copper: (\$/t)	7,112	7,104	6,500	6,500	6,671
Zinc: (\$/t)	1,850	1,910	2,000	2,000	2,031
Indium: (\$/kg)	565	624	600	600	720

# Year-on-Year Comparison by Segment

Billion yen

	FY2013 Results			FY2014 Forecasts			Change		
	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income
Environmental Management & Recycling	101.4	9.4	9.8	<b>107.0</b>	<b>10.0</b>	<b>10.0</b>	5.5	0.5	0.1
Nonferrous Metals	217.6	7.0	9.3	<b>227.0</b>	<b>8.7</b>	<b>10.3</b>	9.3	1.6	0.9
Electronic Materials	83.2	6.7	7.8	<b>88.0</b>	<b>7.6</b>	<b>8.2</b>	4.7	0.8	0.3
Metal Processing	82.2	5.3	5.6	<b>83.0</b>	<b>6.0</b>	<b>6.1</b>	0.7	0.6	0.4
Heat Treatment	24.6	2.2	2.1	<b>29.0</b>	<b>3.2</b>	<b>3.0</b>	4.3	0.9	0.8
Other/ Elimination	(65.1)	0.8	0.2	<b>(64.0)</b>	<b>1.0</b>	<b>0.4</b>	1.1	0.1	0.1
Total	443.9	31.7	35.0	<b>470.0</b>	<b>36.5</b>	<b>38.0</b>	26.0	4.7	2.9

# Investment

Billion yen

	FY2011 Results			FY2012 Results			FY2013 Results			FY2014 Forecasts		
	Capital and stock investment	R&D investment	Total	Capital and stock investment	R&D investment	Total	Capital and stock investment	R&D investment	Total	Capital and stock investment	R&D investment	Total
Environmental Management & Recycling	5.4	0.4	5.8	5.8	0.4	6.2	5.6	0.4	6.0	6.0	0.4	6.4
Nonferrous Metals	5.1	0.7	5.9	2.8	0.6	3.5	3.0	0.9	3.9	2.0	0.9	2.9
Electronic Materials	4.1	2.9	7.0	3.6	2.8	6.5	3.1	2.6	5.8	2.5	2.7	5.2
Metal Processing	1.6	0.3	1.9	1.9	0.4	2.3	2.8	0.4	3.3	4.0	0.5	4.5
Heat Treatment	4.2	0.2	4.4	4.0	0.3	4.3	2.1	0.3	2.4	4.0	0.3	4.3
Companywide, Other	0.7	0.0	0.6	1.7	0.0	1.6	2.0	0.0	1.9	1.5	0.0	1.4
Total	21.3	4.6	25.9	20.1	4.6	24.7	18.8	4.6	23.5	20.0	5.0	25.0

## (Ref.) Depreciation Expenses

	FY2011 Results	FY2012 Results	FY2013 Results	FY2014 Forecasts
Environmental Management & Recycling	5.0	4.7	4.7	4.5
Nonferrous Metals	6.0	5.0	4.3	3.8
Electronic Materials	2.7	2.7	2.6	2.8
Metal Processing	2.3	2.2	2.2	2.4
Heat Treatment	1.6	1.7	1.7	1.8
Companywide, Other	0.4	0.4	0.4	0.9
Total	18.3	16.9	16.2	16.5

### Major capital investments during fiscal 2013

#### Environmental Management & Recycling:

- Expansion of waste treatment operation in Southeast Asia
- Construction of low-concentration PCB waste pre-treatment facilities

#### Electronic Materials:

- Increased production of high output LED chips





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# **2. Challenges in Our Business and Focus for the Futures**

# Environmental Management & Recycling

## Outlook for FY2014 (Year-on-Year Comparison)

### ◆ Waste treatment

Net sales: 85% for H1 and 110% for H2  
(Ample waste volume as a result of modest improvement in business conditions.)

### ◆ Soil remediation

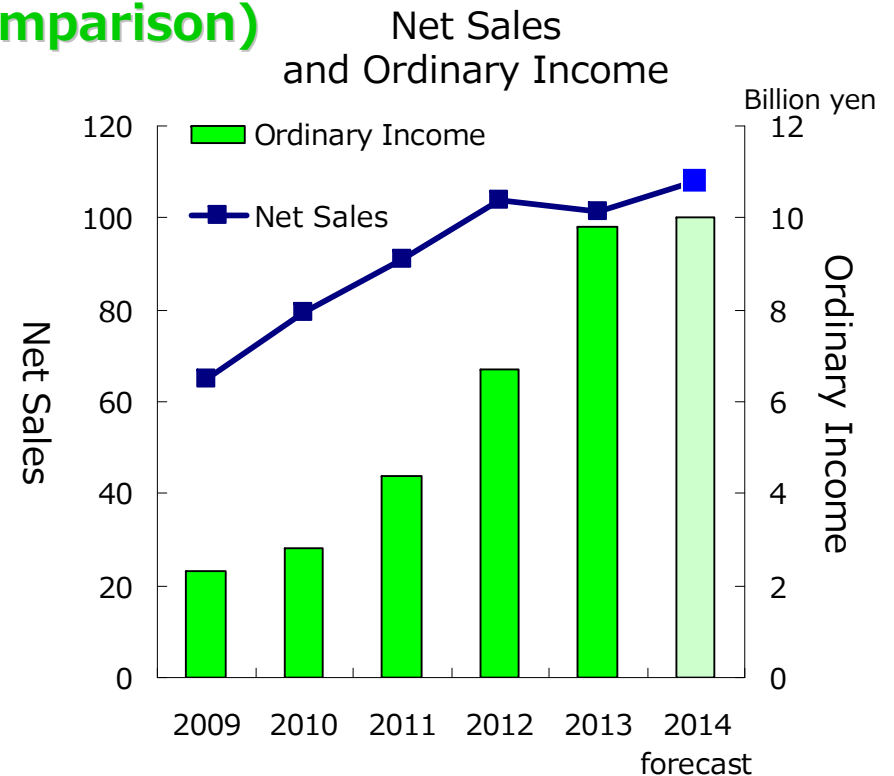
Net sales: 170% for H1 and 120% for H2  
(Growth in contracts as a result of public spending and revitalization of the real estate market)

### ◆ Recycling

Net sales: 100% for H1 and 100% for H2  
(Increased collection from North America and Asia, offsetting slight decline in Japan)

## Future actions

- **Waste treatment**
  - Expand collection and increase treatment, focusing on the Kanto area.
  - Strengthen collection system for low-contaminated PCB waste and collect from diverse clients.
- **Soil remediation**
  - Improve response to soil with low levels of contamination associated with infrastructure development.
- **Recycling**
  - Continue efforts to expand collection of recycling materials worldwide.
- **Southeast Asia**
  - Expand oil drilling sludge management business in Indonesia and Thailand.
  - Step up efforts to develop new locations for final treatment facilities.



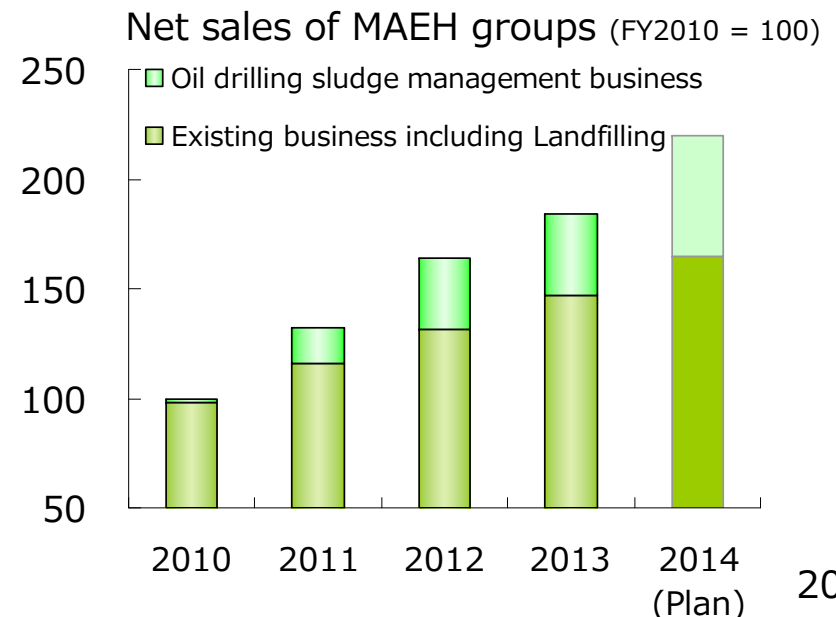
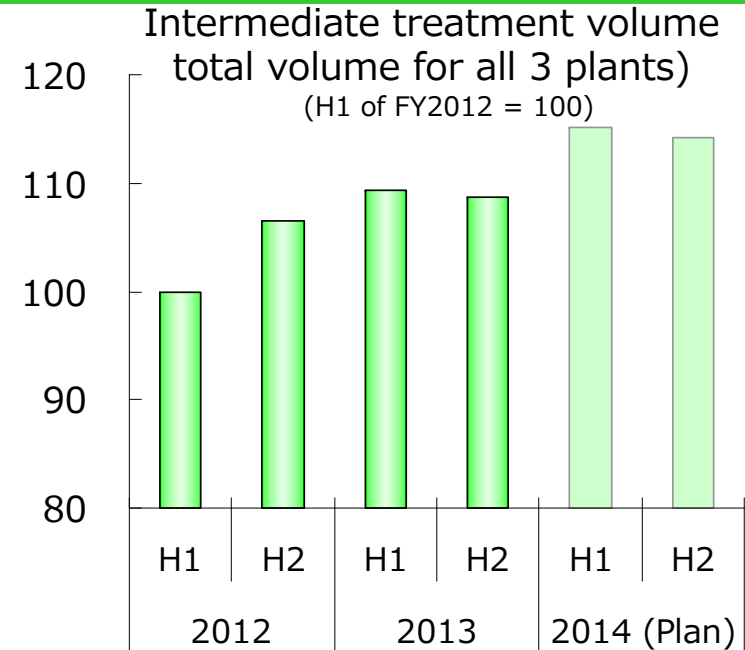
# Expanding Waste Treatment Business

## ■ Japan

- Increased treatment at Eco-System Chiba by 20% year-on-year, as planned, in FY2013.
  - Maintaining high operation rates at Eco-System facilities, including those in Akita and Sanyo and planning to increase treatment by around 10% in FY2014.
- ⇒ Tapping into the improvement of business conditions in Japan and strengthening the profitability of the waste treatment business.

## ■ Southeast Asia

- Starting oil drilling sludge management business in Thailand in FY2014, in addition to Indonesia.
- ⇒ Steadily working to expand the waste market in Southeast Asia by moving into the resource development and manufacturing business.



# Nonferrous Metals

## Outlook for FY2014 (Year-on-Year Comparison)

### ◆ Copper

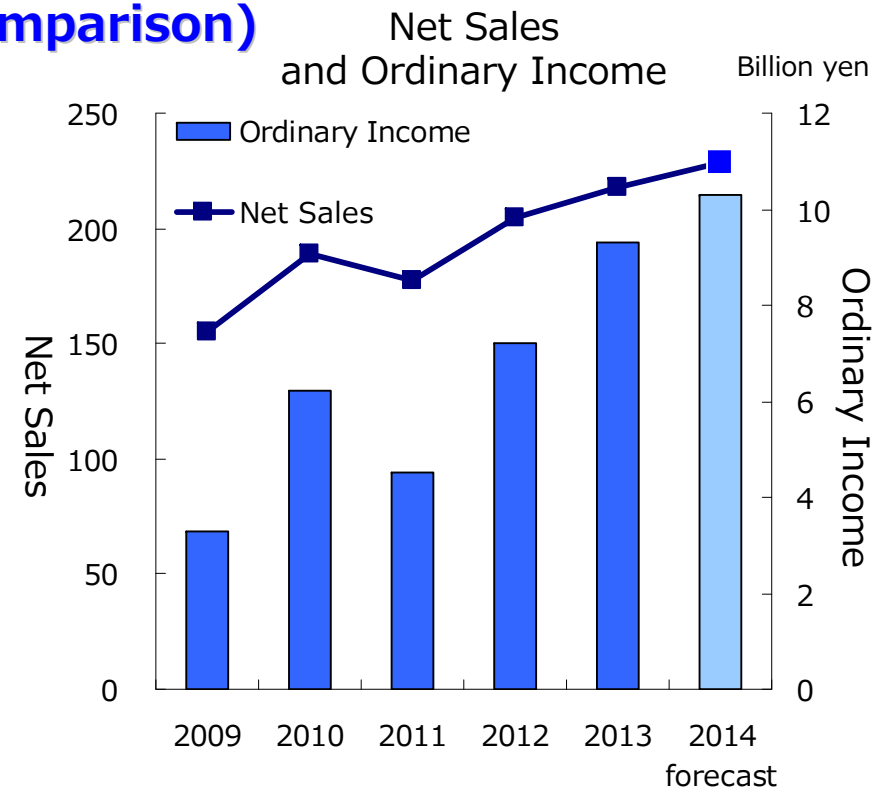
**Sales volume: 95% for H1 and 105% for H2**  
 (Same level of domestic demand in the construction and automobile sectors)

### ◆ PGM

**Collection of raw materials: 110% for H1 and 115% for H2**  
 (Active collections from overseas, including North America)

### ◆ Zinc

**Sales volume: 105% for H1 and 105% for H2**  
 (Slight decline in domestic demand for automobiles, etc., firm demand in Asia)



## Future actions

### ■ Precious metals and copper

- Kosaka Smelting & Refining: Expand treatment of recycling materials at the TSL furnace.
- Increase profits through improvement of concentrate purchase conditions.

### ■ PGM

- Expand collections from overseas and increase treatment by improving facilities.

### ■ Zinc

- Strengthen the competitiveness of Akita Zinc through increased production of zinc and indium.
- Begin full-scale operation at zinc processing plant in Thailand.

### ■ Resources

- Palmer zinc and copper mine project: Expand inferred ore reserves through exploration.

# Strengthening of foundation for Smelting & Refining Business

## ■ Start-up of zinc processing plant in Thailand

November 2013 Construction work completed

→ Went into full-scale operation in March 2014, following trial operation and obtaining permits and licenses.

Zinc alloy for galvanized steel plate: Acquired user authorization ahead of schedule and preparing for full-scale shipments

Zinc alloy for die-casting: Steady inquiries mainly in automobile sector

Zinc wire: Marketing focussed on the Thai domestic market



Start of full-scale operations ⇒ Expansion of sales in Southeast Asia market centered on Thailand

## ■ Efforts to secure resources ~Palmer exploration project

- Beneficiation test results confirmed high-grade concentrates especially zinc concentrates.
  - Confirmed existing ore reserves and ore potential in exploration operations (inferred ore reserves of around 5.5 million tons)
- ⇒ Continue exploration, aiming to develop mine.

Increase the proprietary ore ratio by obtaining raw materials for Akita Zinc and our other smelters

# Electronic Materials

## Outlook for FY2014 (Year-on-Year Comparison)

### ◆ Semiconductors

Net sales: 100% for H1 and 115% for H2  
(Firm demand for LEDs used in sensors)

### ◆ Electronic materials

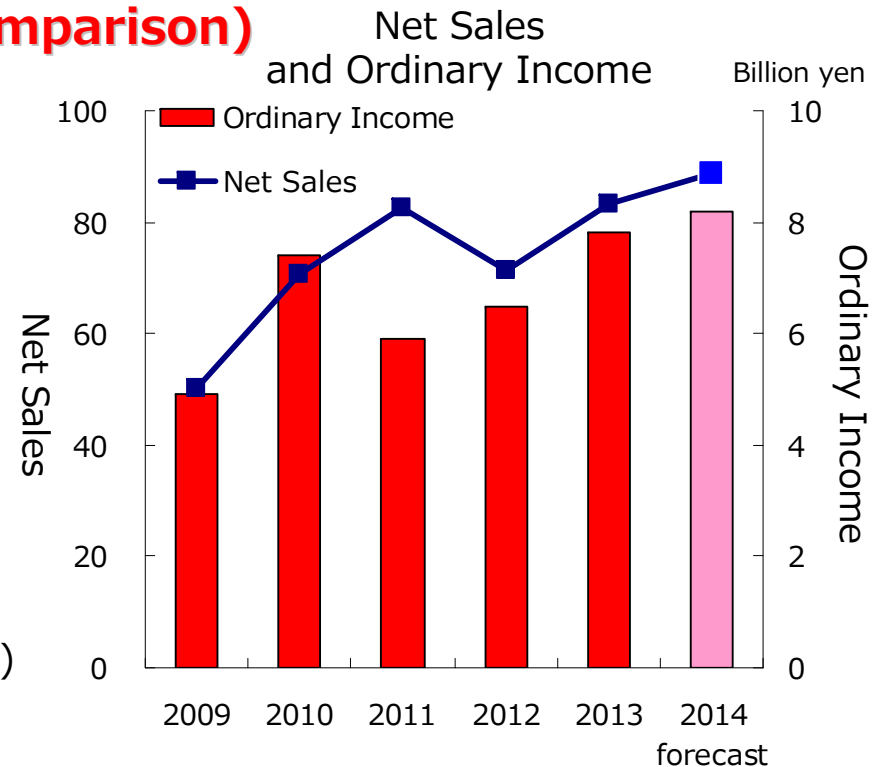
Sales volume of silver powder:  
130% for H1 and 110% for H2  
(Solid demand for electrode materials)

### ◆ Magnetic materials

Sales volume of metal powder:  
105% for H1 and 140% for H2  
(Recovery in demand for data tape)

Sales volume of carrier powder:  
105% for H1 and 95% for H2

(A nearly flat trend of the printing equipment market)



## Future actions

- **Semiconductors** - Strengthen production system for high output LEDs used in proximity sensors and medical sensors
  - Increase productivity for nitride semiconductors and acquire authorization from new users.
- **Electronic materials** - Expand production capacity for silver powder and enhance product line-up through new development.
- **Magnetic materials** - Pursue development of next-generation recording materials for data tape.
  - Improve properties of carrier powder for printers and acquire authorization from new users.
- **New development** - Expand sales of electrode materials for use in fuel cells and promote development of conductive alloy powders, etc.

# Stronger focus on conductive materials

## ■ Silver powder for electrode materials

- The market will continue growing by at least 10% annually, driven by applications related to new forms of energy.
  - Working to further expand market share by expanding capacity and developing next-generation products.
- ⇒ Increase sales volume by 20% in FY2014.

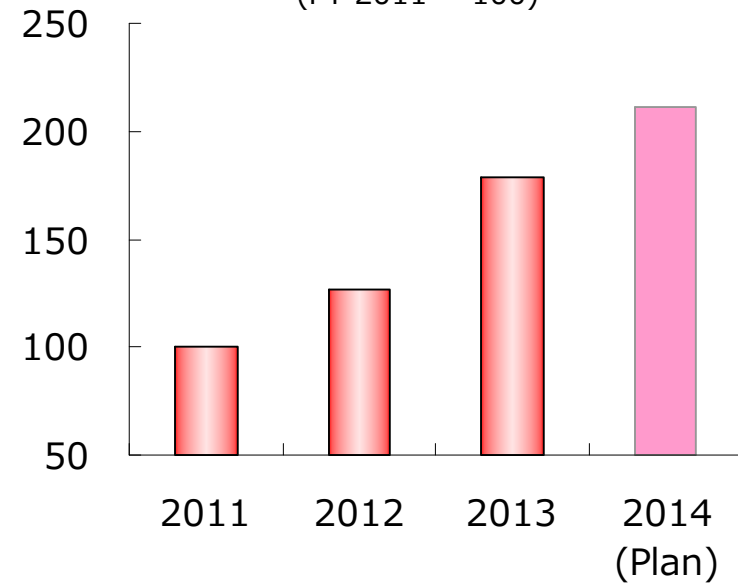
## ■ Newly development products

Diversification of required properties as a result of changes in substrate material quality and thickness and circuit thinning

- ⇒ Improve properties of newly developed products, for example, lower resistance and sintering temperature, and aim to develop applications and achieve early commercialization.
- Nanosilver: Fine wiring material, jointing material that replaces solder, electrode material with low sintering temperature for flexible substrates, etc.
  - Alloy powder: Electrode material for touch panels, etc.

Silver powder sales volume

(FY 2011 = 100)



Conductive alloy powder





# Metal Processing

## Outlook for FY2014 (Year-on-Year Comparison)

### ◆ Copper strip products

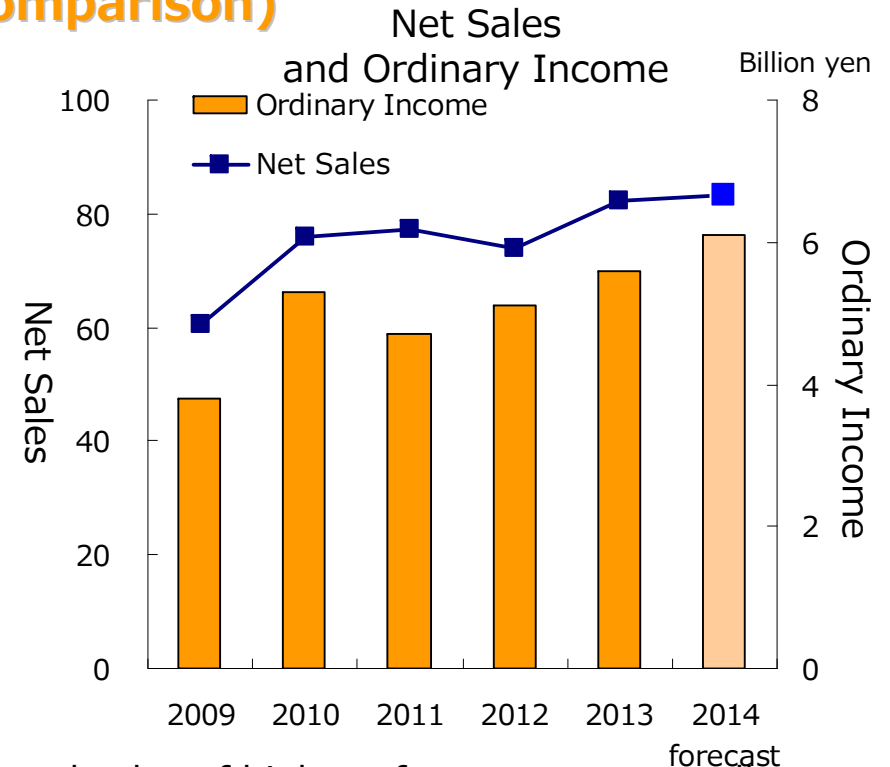
**Sales volume: 105% for H1 and 100% for H2**  
 (Firm demand for use in automobiles, driven by overseas production; firm demand for use in smartphone despite same level of demand for use in computers)

### ◆ Electroplating

**Processing sales: 100% for H1 and 100% for H2**  
 (Firm demand for use in automobiles, driven by overseas production)

### ◆ Metal-ceramic substrates

**Net sales: 110% for H1 and 110% for H2**  
 (Recovery of demand for use in industrial machinery, expansion of demand for use in railways)



## Future actions

- **Copper strip products** - Improve properties and expand sales of high performance copper alloy for hybrid cars, etc.
  - For use in semiconductors and electronic components: Improve productivity of connector materials and expand sales to new users.
- **Electroplating**
  - Tap into demand for local procurement in Southeast Asia through expansion of production in Thailand.
  - Expand sales through advancement of local plating technology, and develop new products for hybrid cars, etc.
- **Metal-ceramic substrates** - Improve properties and expand sales of substrates for industrial machinery and railways.
  - Improve properties and new development of high performance substrates

# Actions in Copper Alloy Strip Products Business

## Future Measures and Outlook for FY2014

### DOWA Metal Products

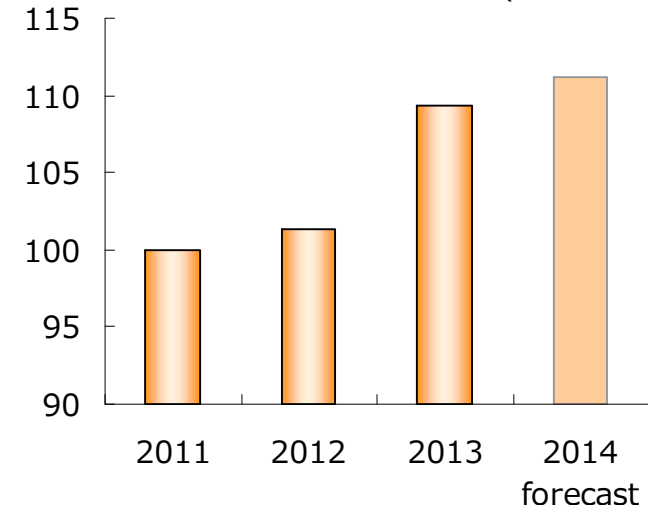
- Develop and expand sales of performance copper alloy for automobiles, especially hybrid cars and electric vehicles.
  - Steadily tap into demand for local procurement using production bases in China and Thailand, etc.
  - Strengthen cost competitiveness and increase productivity by improving yield,
- ⇒ **Maintain steady sales focusing on the automobile sector.**

### DOWA Metanix Products

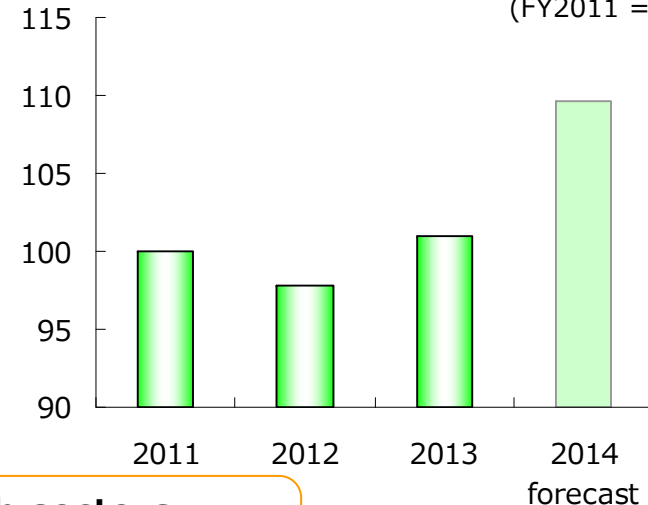
- Expand share of the market for smartphone connectors by expanding sales to new users, and develop new sectors such as the automobile sector.
  - Increase productivity through operation of new production line, and increase cost competitiveness.
- ⇒ **Sales are expected to increase by 10% year-on-year in FY2014.**

**Continue to sell products to growth sectors and strengthen business in the growing Asia market.**

Sales volume of DOWA Metal products  
(FY2011 = 100)



Sales volume of DOWA Metanix products  
(FY2011 = 100)



# Heat Treatment

## Outlook for FY2014 (Year-on-Year Comparison)

### ◆ Industrial furnaces

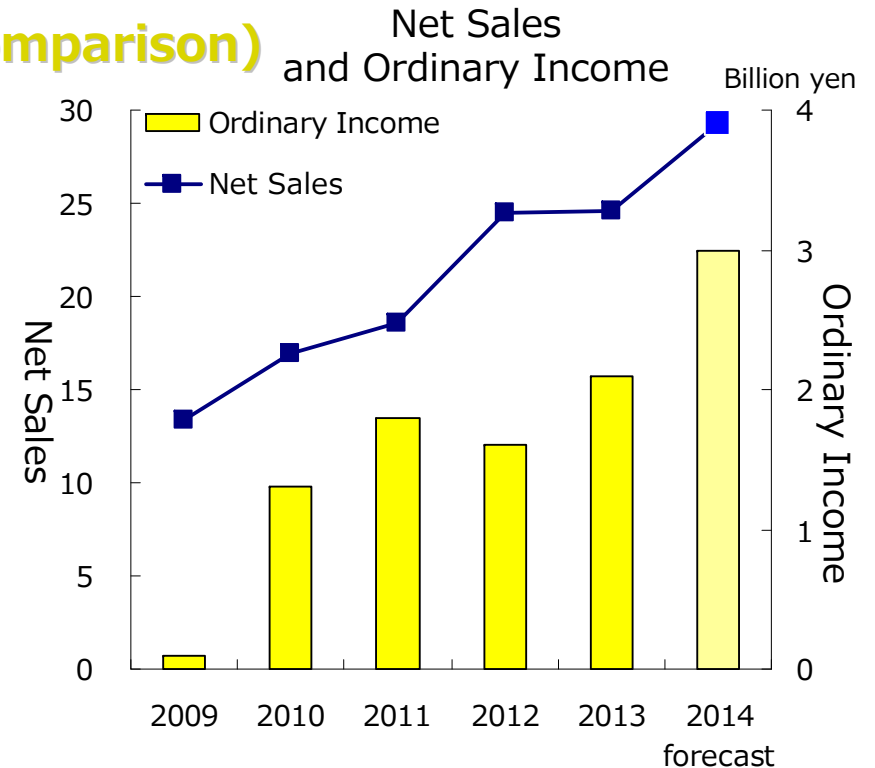
Net sales: 145% for H1 and 125% for H2

(Firm demand for new furnaces for overseas production)

### ◆ Heat Treatment

Net sales: 110% for H1 and 110% for H2

(Expansion of demand in the automobile sector both in Japan and overseas, and same level of demand in the construction machinery sector)



## Future actions

- **Overseas business** - Increase facilities and expand production capacity at base in Indonesia started up in 2013.
  - Expand business in the Asia region in collaboration with bases in Thailand, Indonesia, India and China.
- **Domestic business** - Increase operation of heat treatment plants by winning new contracts, focusing on the automobile sector.
  - Improve cost competitiveness by integrating plant heat treatment lines
- **R&D**
  - Develop and market heat treatment furnaces capable of low-cost, small-lot production.

# Overseas business expansion

## Indonesia

- Launched heat treatment, industrial furnace installation work and maintenance business at local subsidiary in second half of FY2013.
- Plan to further expand plant and increase facilities (increase number of heat treatment furnaces from 8 to 14) in FY2014.

## Thailand

- Expand sales by bringing in products transferred from Japan.
- Expand orders received for plant maintenance in neighboring countries.
- Focus on further plant expansion.

## North America

- Expanded plant and installed 5 additional furnaces in FY2013-2014.
- Expand sales of Japanese manufacturer components and next-generation model components.

## India

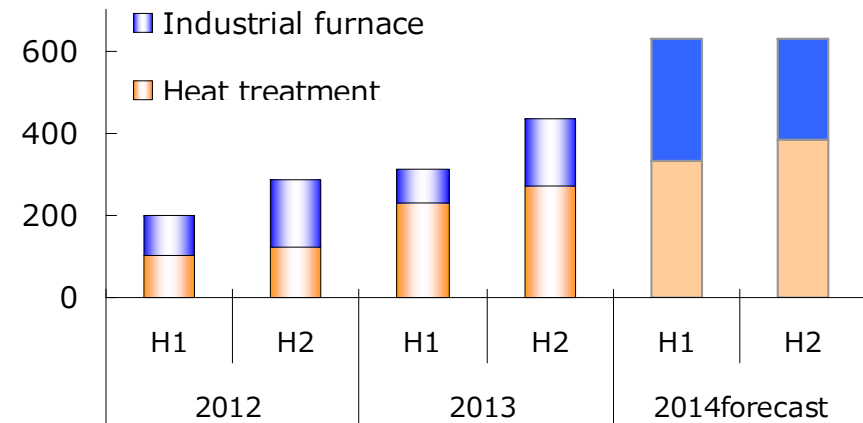
- Strengthen production capacity focusing on Bangalore base.

DOWA Thermotech Indonesia  
(Introduced furnaces built by Hightemp India)



## Net Sales of Overseas Bases

(H1 of FY2012 = 100)



⇒ Accelerate overseas business expansion targeting growing automobile markets mainly in Asia and North America.

# Changes in ordinary income and net income

Billion yen

