

Toyo Tanso Co., Ltd.

***Results for the First Half of the Fiscal Year Ending December 31, 2015***

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**August 2015**  
**Toyo Tanso Co., Ltd.**

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# 1. Key Points of the Results for the First Half of the Fiscal Year Ending December 31, 2015

## *Point 1*

Net sales were in line with the previous revised forecasts. Although net sales rose over the same period of the previous fiscal year, they were essentially flat year on year when excluding the effect of exchange rates, and accordingly net sales fell far short of our initial forecast.

## *Point 2*

Profits undercut forecasts and declined year on year as a result of increases in some manufacturing costs, costs incurred to improve the business results of subsidiaries and the posting of inventory valuation losses.

## *Point 3*

Overall, the market environment is improving and orders are on the rise, but growth in demand has not been robust for any application. Segments in which we had anticipated growth, such as SiC coating (chemical compounds, Si-Epi), carbon for industrial furnace and mechanical applications, struggled.

## *Point 4*

By region, net sales grew in Japan and North America, but were flat in Europe and Asia. By segment, profits increased in Japan, but fell in the US, Europe and Asia. Costs incurred to improve business results at a subsidiary in the US had an impact.

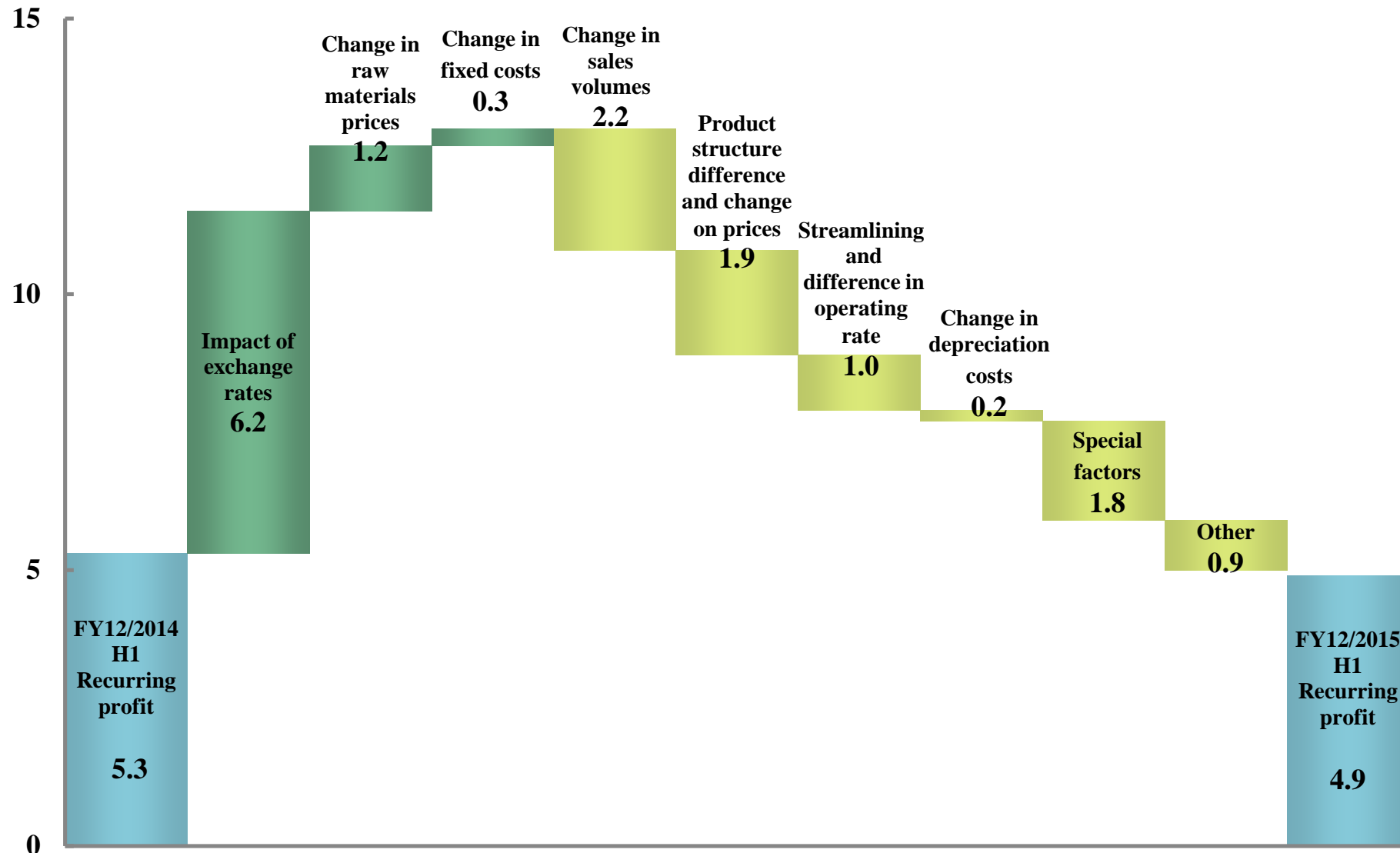
## 2. Results for the First Half of the Fiscal Year Ending December 31, 2015

(Unit: Yen, millions)	FYE Dec. 2014 H1	FYE Dec. 2015 H1	Change
<b>Net sales</b>	<b>17,070</b>	<b>17,673</b>	<b>602 / 3.5 %</b>
<b>Operating profit</b>	<b>585</b>	<b>353</b>	<b>(232) / (39.7) %</b>
(Ratio of operating profit to net sales)	<b>3.4%</b>	<b>2.0%</b>	
<b>Recurring profit</b>	<b>530</b>	<b>499</b>	<b>(31) / (5.9) %</b>
(Ratio of recurring profit to net sales)	<b>3.1%</b>	<b>2.8%</b>	
<b>Net income</b>	<b>914</b>	<b>387</b>	<b>(526) / (57.6) %</b>
<b>Net income per share</b>	<b>44.09 yen</b>	<b>18.70 yen</b>	
<b>Exchange rate</b>	102.5 yen/\$ 140.4 yen/€ 16.7 yen/CNY	120.2 yen/\$ 134.2 yen/€ 19.3 yen/CNY	

### 3. Factors Affecting Changes in Recurring Profit

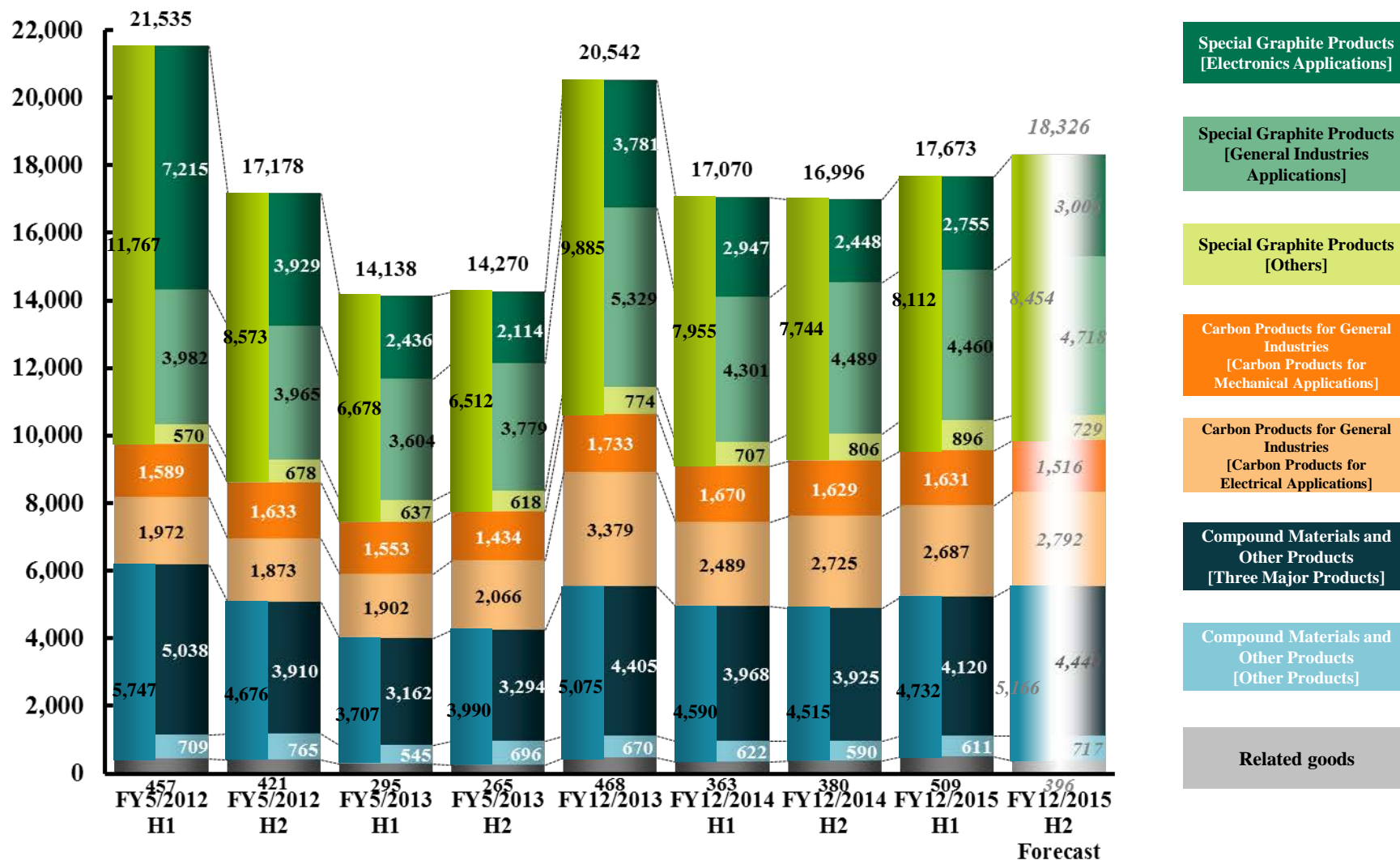
(First half of fiscal year ended December 2014 vs. first half of fiscal year ending December 2015)

(Unit: Yen, 100 millions)



# 4. Net Sales by Product and Segment

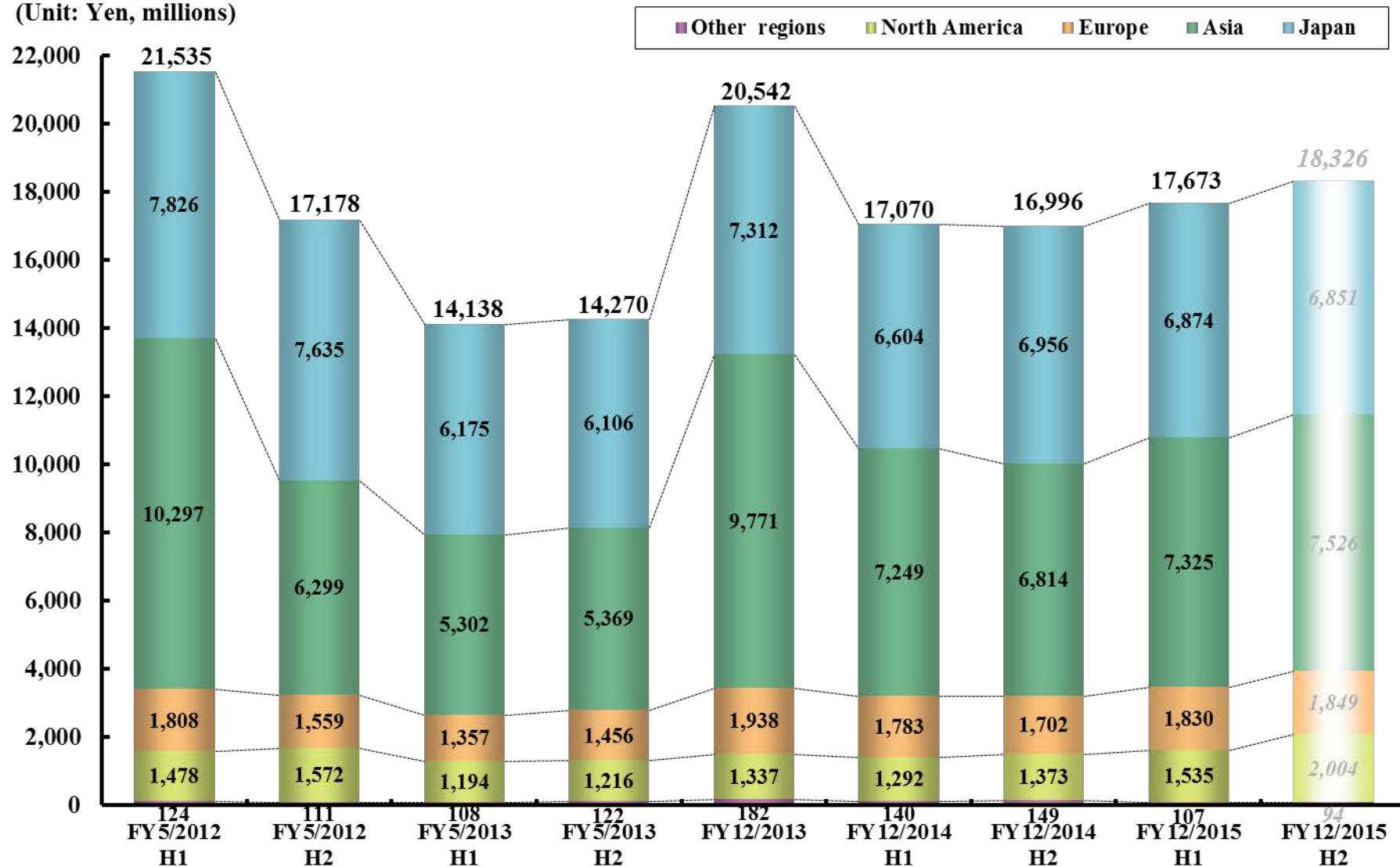
(Unit: Yen, millions)



Note: The final day of the fiscal period was changed from May 31 to December 31 as of the fiscal year ended December 31, 2013. For this reason, the fiscal year ended December 31, 2013 was an irregular seven-month fiscal period (nine months for some subsidiaries).

# 5. Sales Trends by Region

(Unit: Yen, millions)



Note: The final day of the fiscal period was changed from May 31 to December 31 as of the fiscal year ended December 31, 2013.

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# 6. Full-year Forecast for the Fiscal Year Ending December 31, 2015

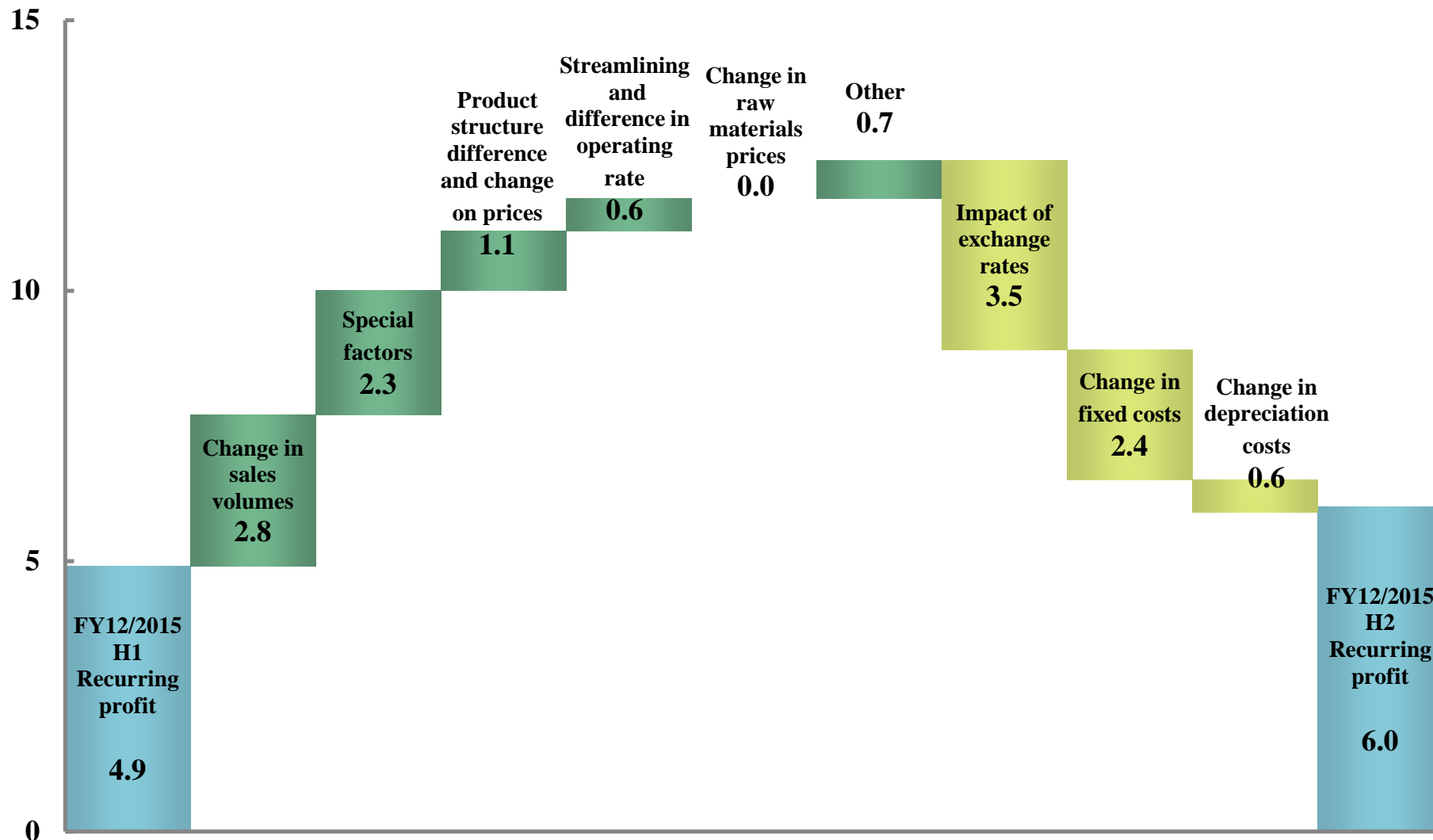
(Unit: Yen, millions)	FYE Dec. 2014	FYE Dec. 2015		Change	
		Forecast	Breakdown		
Net sales	34,066	36,000	H1 result	17,673	1,933 / 5.7 %
			H2 forecasst	18,326	
Operating profit	1,140	1,100	H1 result	353	(40) / (3.5) %
			H2 forecasst	746	
(Ratio of operating profit to net sales)	3.3%	3.1%			
Recurring profit	1,501	1,100	H1 result	499	(401) / (26.7) %
			H2 forecasst	600	
(Ratio of recurring profit to net sales)	4.4%	3.1%			
Net income	1,327	700	H1 result	387	(627) / (47.3) %
			H2 forecasst	312	
Net income per share	64.02 yen	33.76 yen	H1 result	18.70 yen	
			H2 forecasst	15.06 yen	
Exchange rate	105.9 yen/\$	115 yen/\$	H1 result	120.2 yen/\$	
	140.4 yen/€	130 yen/€		134.2 yen/€	
	17.2 yen/CNY	18.5 yen/CNY	H2 forecasst	19.3 yen/CNY	
				115 yen/\$	
				130 yen/€	
				18.5 yen/CNY	



# 7. Factors Affecting Changes in Recurring Profit

(Results in first half of fiscal year ending December 2015 vs. forecasts for second half of fiscal year ending December 2015)

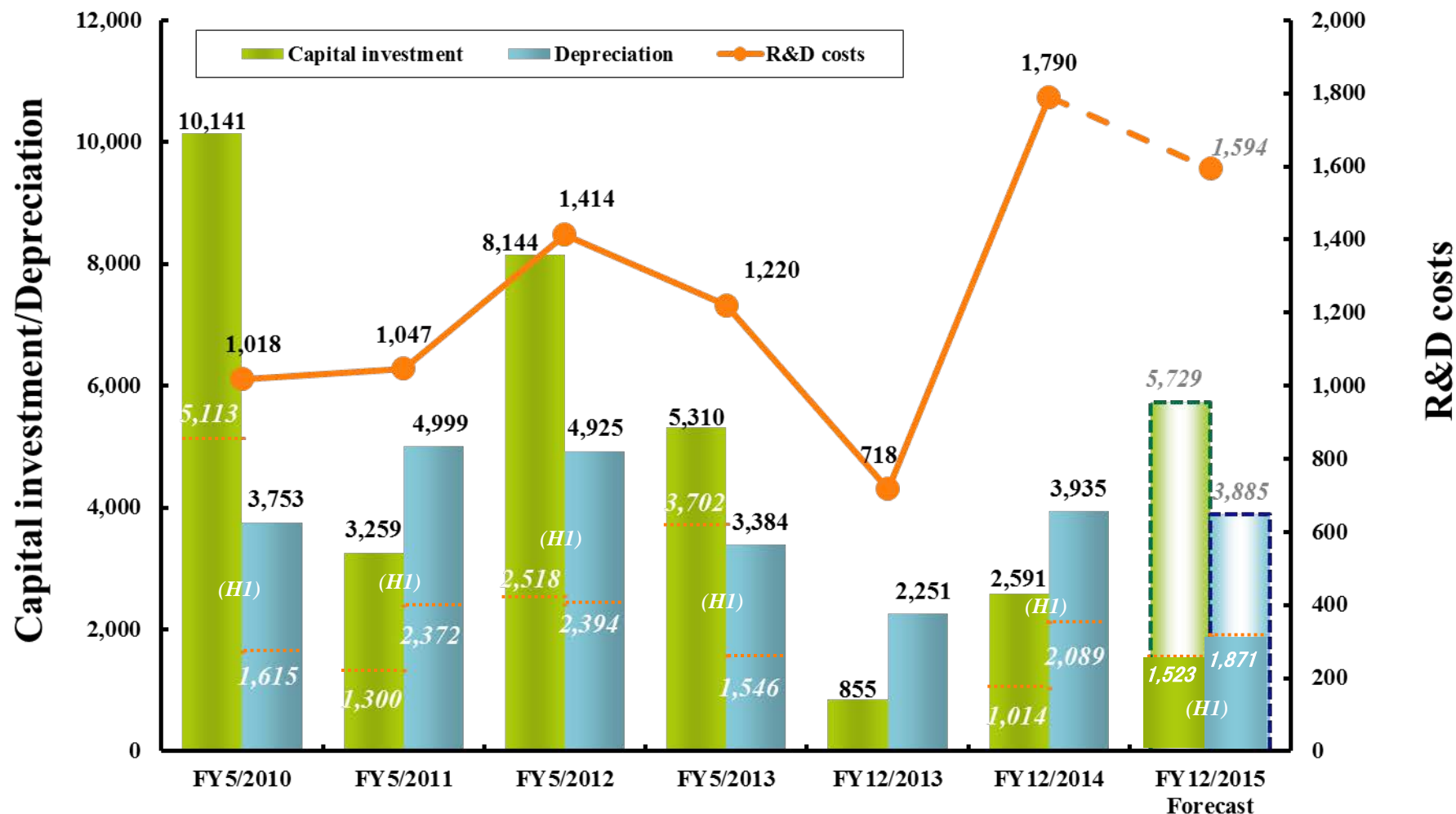
(Unit: Yen, 100 millions)



# 8. Trends in Capital Investment, Depreciation and R&D Costs

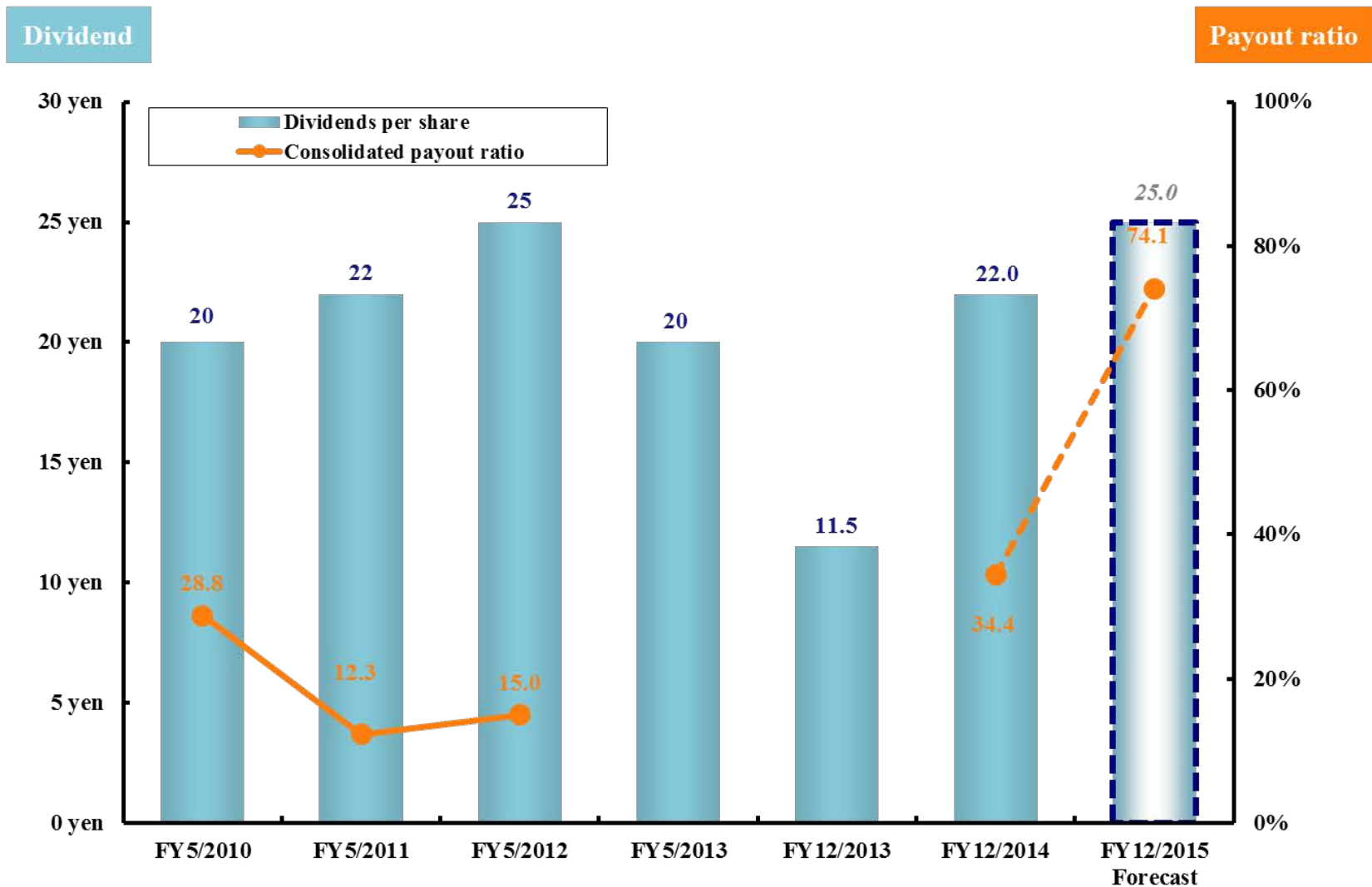
(Unit: Yen, millions)

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Note: The final day of the fiscal period was changed from May 31 to December 31 as of the fiscal year ended December 31, 2013.  
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# 9. Dividend



Note: 1. The final day of the fiscal period was changed from May 31 to December 31 as of the fiscal year ended December 31, 2013. For this reason, the fiscal year ended December 31, 2013 was an irregular seven-month fiscal period (nine months for some subsidiaries).  
 2. Since net income was negative in the fiscal year ended in May 2013 and the fiscal year ended in December 2013, information on consolidated payout ratio is excluded here.

# 10. Consolidated Balance Sheet and Statement of Cash Flows for the First Half of the Fiscal Year Ending December 31, 2015

Consolidated Balance Sheet	(Unit: Yen, millions)			Consolidated Statement of Cash Flows	(Unit: Yen, millions)	
	Jun. 30, 2014	Dec. 31, 2014	Jun. 30, 2015		FYE Dec. 2014 H1	FYE Dec. 2015 H1
<b>Total assets</b>	<b>72,051</b>	<b>75,831</b>	<b>73,963</b>	<b>Cash and cash equivalents at the end of the period</b>	<b>6,172</b>	<b>8,101</b>
Trade notes and accounts receivable	13,256	13,660	13,326	Changes in cash and cash equivalents	(699)	(959)
Inventory	17,840	18,209	17,808	<b>Cash and cash equivalents at the beginning of the period</b>	<b>6,871</b>	<b>9,061</b>
Tangible fixed assets	28,667	28,850	28,396	CF from operating activities	2,605	2,900
<b>Total liabilities and net assets</b>	<b>72,051</b>	<b>75,831</b>	<b>73,963</b>	CF from investing activities	(1,116)	(1,806)
Interest-bearing debt	5,953	4,992	3,404	CF from financing activities	(1,939)	(2,080)
Capital	7,692	7,692	7,692			
Net assets	58,178	60,918	61,037			
<b>Equity ratio</b>	<b>78.3%</b>	<b>78.0%</b>	<b>80.0%</b>			

# 11. Fiscal Year Ending December 31, 2015: Key Areas for Improvement to Address Factors Preventing H1 Operating Profit Forecasts from Being Reached

## ➤ Difference between operating profit forecasts and actual results for first half of fiscal year ending December 2015

(Unit: Yen, millions)	Forecasts *Disclosed on May 14, 2015	Results		Difference	
		Segment breakdown			
<b>Operating profit</b>	<b>1,200</b>	<b>353</b>	Japan	658	<b>(846) / (70.5) %</b>
			United States	(266)	
			Europe	54	
			Asia	83	
			Adjusted amount	(175)	

### Reasons for differences

- Positive factors 50 million yen
  - Exchange rates
  
- Negative factors 900 million yen  
(Breakdown)
  - Decrease in marginal income as a result of lower sales: 150 million yen
  - Increase in some manufacturing costs (subcontracted processing costs, etc.): 270 million yen
  - Costs incurred to improve profitability of US subsidiary: 100 million yen
  - Increase in sales, general and administrative expenses (sales promotion costs, etc.): 120 million yen
  - Posting of inventory valuation losses and elimination of unrealized inventory gains: 260 million yen

### Measures and initiatives for improvements

- Consolidated  
Identify customer and technical areas for improvement to boost share and growth of three applications, strengthen competitiveness of materials for metallurgical applications, automate processing for SiC coating graphite products and improve its technology
- Japan  
Enhance efficiency of resource allocation by application, reduce delivery time and increase shipment volume by optimizing processing bases
- US  
Improve processing efficiency, improve yield and manufacturing capacity for SiC coating graphite products
- Europe  
Expand sales regions, applications and share for non-semiconductors, attract major target customers
- Asia  
Regain market share from major solar cell companies, increase sales by establishing core non-semiconductor applications

# 12. Future Measures and Initiatives with Core Products, Sectors and Applications

Core products, sectors and applications		First half of fiscal year ending December 31, 2015		Measures and initiatives in H2 2015		
		Market trends	Company issues	Sales improvements	Technical improvements	
Special Graphite Products	Metallurgical and general-purpose applications	Sluggish auto production in Japan and Southeast Asia	Price competition	Expansion in sales channels in China and emerging economies	Decrease in unit cost of materials	
	New applications	—	Application development	Focusing on Japan first (major users)		
Carbon Products for Mechanical Applications	Bearings and seals for pumps	Flat	Expand overseas sales	Expand China and US's share/shorten delivery time	Strengthen molding and impregnation techniques	
Carbon Products for Electrical Applications	Carbon brush	Solid in both Japanese and US markets	Price competition	Optimize global sales chain	Improve manufacturing technology	
Compound Materials and Other Products	SiC coating graphite products	Chemical compound and Si Epi	Semiconductors are solid globally	Production capacity/efficiency/yield	Strengthen sales to device manufacturers/reinforce Europe, the US and Asia	Improvements to SiC coat manufacturing method
	C/C composite products		Thermal processing	Sluggish auto production in Japan and Southeast Asia	Solid growth/expansion in compliant applications	Develop markets in Asia and Southeast Asia

# 13. Medium-term Business Plan: Strategies geared toward Second Half of Term

Under the following strategy, prioritize **cutting-edge technology markets with volume**

**Q: Enhance quality to match applications**

**C: Price strategy tailored to application**

**D: Improve delivery time and revenue with optimal mix of in-house and subcontracted processing**

**S: Enhance technical services by improving development and marketing resource allocation and expertise**

**V: Improve profitability with volume and variation in sales applications**



⇒In particular, endeavor to improve profits in semiconductor sector (single-crystal silicon manufacturing and solar cell applications), EDM electrodes and metallurgical applications.

Term of medium-term business plan	Target sales	Results/forecast	Achievement
2013	19.7 billion yen	20.5 billion yen	First fiscal year of medium-term plan: Target achieved
2014	34.0 billion yen	34.0 billion yen	Achieved through contributions from three main applications (thermal processing, carbon products for mechanical applications, carbon brushes)
2015	40.0 billion yen	36.0 billion yen	10% delay →Boost with start of business division system and company-wide strategy
2017-2018	50.0 billion yen	—	Strengthen ROE by improving total asset turnover ratio

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# 14. Medium-term Business Plan: Progress and Initiatives to Strengthen New Products, Newly Developed Products and New Businesses

		2015		2016	2017	2018
		Progress in H1	Initiatives in H2			
<b>Improvements in product development methods</b>		<ul style="list-style-type: none"> <li>Take inventory of newly developed products following shift to business division system</li> </ul>	<ul style="list-style-type: none"> <li>Overhaul of structure and goal-setting (new product classifying)</li> <li>Refinement of core technology development themes</li> </ul>			Under development
<b>New products and newly developed products</b>	<b>Porous carbon CNovel</b>	<ul style="list-style-type: none"> <li>Expand reach to new B-to-C users by exhibiting products at demonstrations and selling sample kits</li> <li>Develop new markets for different products, such as medical products and cosmetics, in addition to battery storage devices and fuel cell-related products</li> </ul>	<ul style="list-style-type: none"> <li>Expand variation with product planning that identifies needs for each application, attract B-to-B users</li> <li>Strengthen technical approach to development field</li> </ul>			
	<b>Green innovation</b>	<ul style="list-style-type: none"> <li>The NEDO subsidy scheme ended in March 2015. EPI-ready surface processing technology using the thermal etching method was developed and the goal achieved. The results of the evaluation by the evaluation committee were also favorable.</li> <li>Applying this technology, we succeeded in developing the world's first high-quality thin wafer. Customers were pleased with its effectiveness as a key technology in raising the yield of SiC power devices.</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of technology for mass production with a view to commercialize</li> <li>We plan to present results at academic seminars and international conferences such as ICSCRM 2015: International Conference on Silicon Carbide and Related Materials</li> </ul>			
<b>New business</b>		<ul style="list-style-type: none"> <li>Internal evaluations and evaluation activities with universities and research organizations in the fields of agricultural and functional cutting-edge compound materials and water treatment field</li> </ul>	<ul style="list-style-type: none"> <li>In addition to universities and research organizations, increase on-site evaluation activities at companies.</li> <li>M&amp;A, joint commercialization with venture companies, proactive consideration of open innovation</li> </ul>			5.0 billion yen



	<b>Progress in H1 2015</b>	<b>Initiatives in H2 2015</b>
<b>High-temperature gas reactors in China (HTR-PM) Project</b>	<b>Work under way to complete processing and installation in 2016</b>	<b>Ongoing efforts to improve processing and installation, activities to compile information to bring in new projects</b>
<b>Establish factories in emerging markets (Indonesia, Mexico)</b>	<b>Preparations under way to start processing in December</b>	<b>Cultivation of new customers focusing on autos and metallurgy</b>
<b>New brush factory in China</b>	<b>Start construction</b>	<b>Preparations under way to start mass production in December</b>
<b>Increase production of carbon materials for mechanical applications</b>	<b>Progress toward start of mass production in first half of 2017</b>	<b>Progress in acquiring approval from overseas customers, particularly in US and China</b>
<b>Start of business division system</b>	<b>Full transition to system organized around four business divisions from July 2015</b>	<b>Integration of strategies for each business division and company-wide strategies, improvements to profitability of product businesses and fixed costs</b>

# TOYO TANSO

Inspiration for Innovation

**Note: This presentation contains “forward-looking statements” and forecasts of business results. These statements are not historical facts but instead represent the Company’s beliefs regarding future events, many of which, by their nature, are inherently uncertain and out of the Company’s control. It is possible that the Company’s actual results may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements.**

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