

FY 2017 Analyst Meeting Material

February 16, 2018



Tokai Carbon Co., Ltd.

Table of Contents

I. FY 2017 Financial Summary	P3
II. Earnings Forecast for FY 2018	P16
III. Progress Report on Mid-Term Management Plan	P22



I. FY 2017 Financial Summary

FY 2017 (January-December 2017)

■ Business Environment

- Carbon Black: Environmental regulations in China have created a tight supply in both raw materials and production.
Order inquiries from tire manufacturers remained at a high level.
- Graphite Electrodes: The strengthening of environmental regulations in China and the tight supply of raw materials put pressure on supply and demand. The market will begin to reflect a turn toward the better from 2018 shipments.
- Fine Carbon: Demand in the solar cell and semiconductor markets was strong and demand increased for graphite materials and CVC/CC products.
Profitability improved substantially owing to the benefits from business restructuring last year and a price increase.

■ Operating Trends

- Sales: Carbon black sales rose 19.9% YoY due to growth in volume and an increase in sales prices for carbon black, among other factors.
The production plant in North America contributed to November and December sales of graphite electrodes (¥2.18 billion).
- Operating income: Growth in sales volume, improvement in profit margins, and emerging benefits from structural reforms resulted in operating income growth of 915.1% YoY.
- Main extraordinary Income/loss factors:
- | | |
|---|---------------------------------|
| Gain on the sale of a golf driving range and other lands: | ¥2,567 million (special income) |
| Gain on the dissolution of two unconsolidated subsidiaries: | ¥ 522 million (special income) |
| Loss on the sale of interest in two equity-method affiliates: | ¥ 470 million (special loss) |

Summary of Consolidated Results

- The structural reforms implemented in FY 2016 improved the business base and operating results rebounded.
- The rebound in the business environment for carbon black also boosted results.

	(Millions of yen)			
	Jan-Dec 2016	Jan-Dec 2017	YoY Change	% Change
Net Sales	88,580	106,252	17,671	19.9%
Operating Income	1,131	11,486	10,355	915.1%
Ordinary Income	1,702	13,249	11,546	678.3%
Net Income Attributable to Owners of the Parent Company	(7,929)	11,816	19,745	

Group companies (As of December 31, 2017)

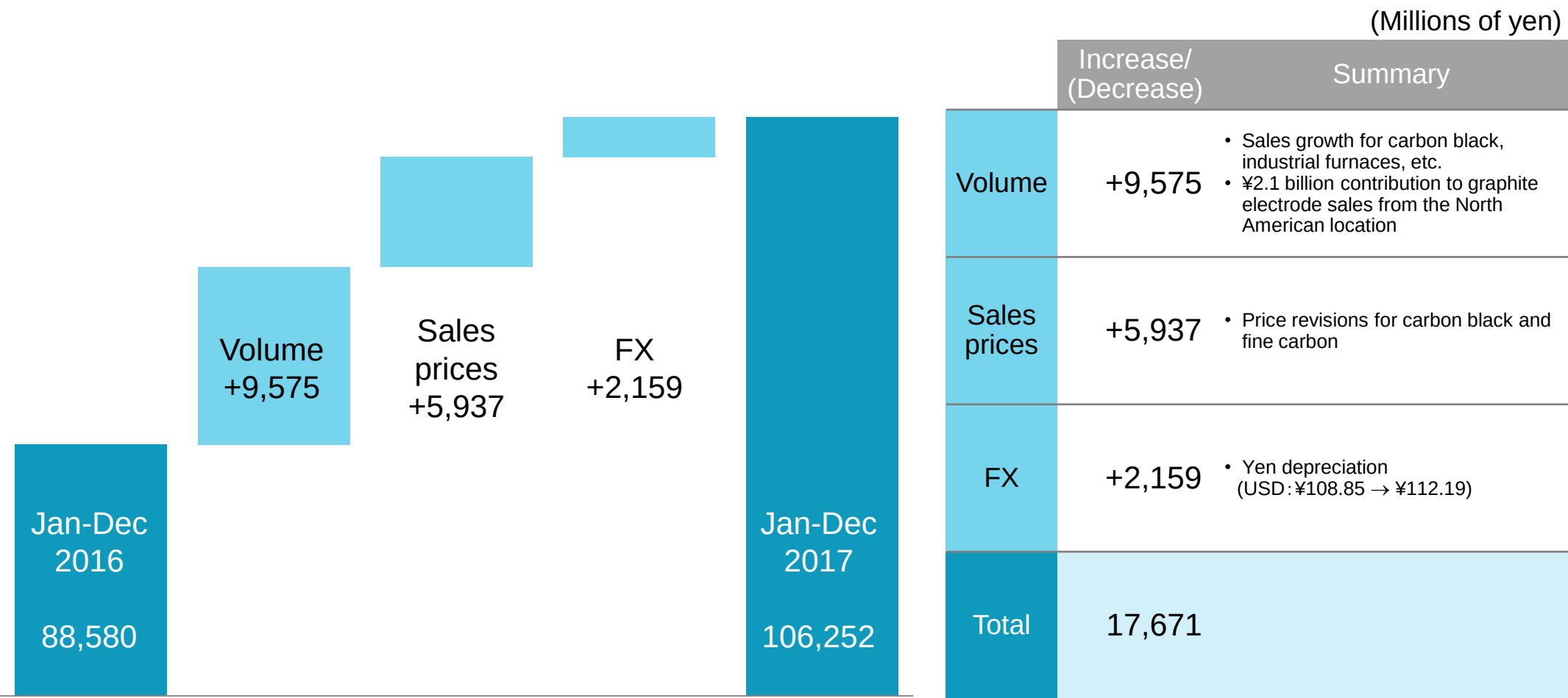
- Consolidated subsidiaries: 27 (+3)
- Equity method affiliates: 3 (-2)

Average exchange rates:

- 2016 \$1 = ¥108.85
- 2017 \$1 = ¥112.19

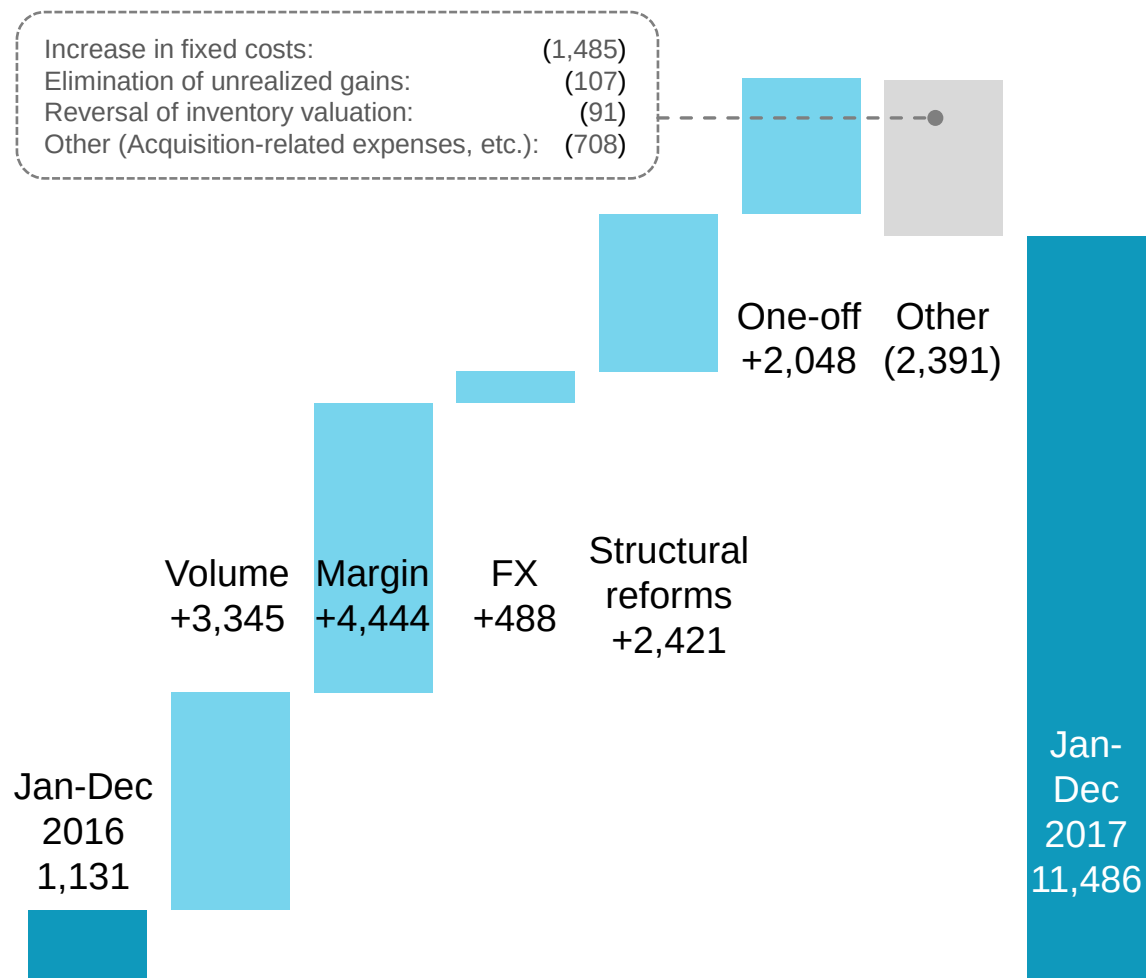
YoY Analysis: Net Sales

- Net sales increased by 19.9% YoY and all business divisions recorded growth in sales.
- The main reason for the growth was the carbon black business. Industrial furnaces also saw strong growth. Newly acquired North American graphite electrode company contributed to the sales from November onward.



YoY Analysis: Operating Income

- Operating income rebounded.
- Profit margins rebounded in main businesses as benefits derived from structural reforms, etc. emerged.



	(Millions of yen)	
	Increase/ (Decrease)	Summary
Volume	+3,345	• Carbon black, industrial furnaces, etc.
Margin	+4,444	• Positive effect from price increases on carbon black and fine carbon • Cost reduction for graphite electrodes
FX	+488	• Yen depreciation (USD: ¥108.85→¥112.19)
Structural reforms	+2,421	• Fixed cost reduction: +1,375 • Inventory reduction: +1,046
One-off	+2,048	• Provision of allowance for doubtful accounts, one-time R&D expenses posted last fiscal year
Other	(2,391)	• Increase in fixed costs, etc.
Total	10,355	

Net Sales and Operating Income by Segment

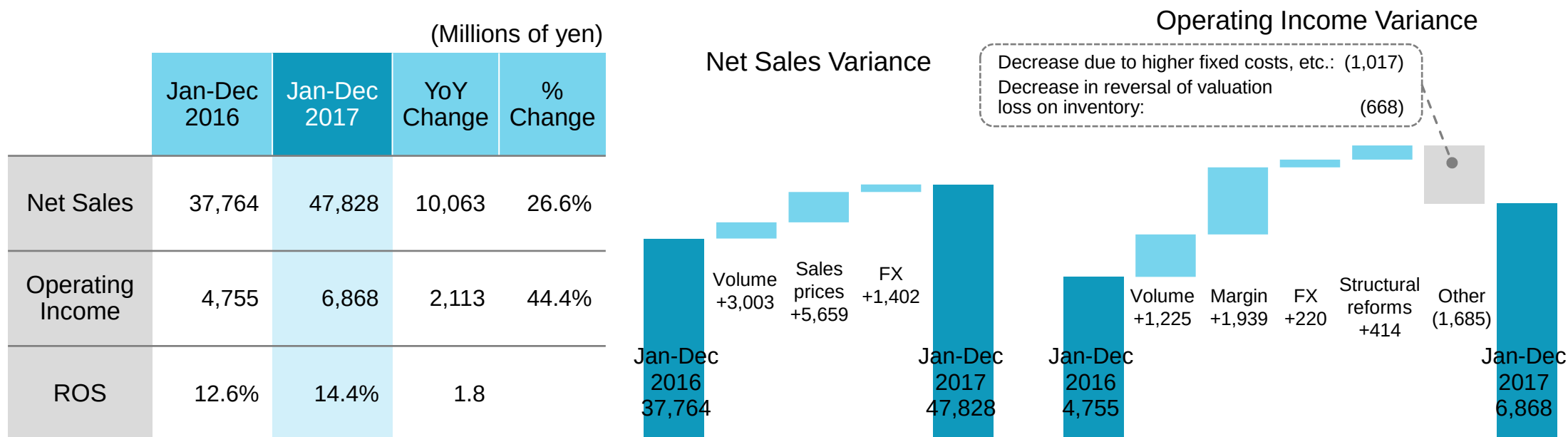
- On a segment basis, carbon black saw growth in both sales and profits and made a substantial contribution to financial results.
- Profit margins improved substantially due to the emergence of benefits derived from structural reforms and other factors. The market for graphite electrodes also rebounded from the fourth quarter onward.

(Millions of yen)

		Net Sales			Operating Income		
		Jan-Dec 2016	Jan-Dec 2017	YoY Change	Jan-Dec 2016	Jan-Dec 2017	YoY Change
Carbon Black		37,764	47,828	10,063	4,755	6,868	2,113
Graphite Electrodes		20,714	23,610	2,896	(1,290)	1,748	3,038
Fine Carbon		12,925	14,447	1,522	(1,825)	1,738	3,563
Industrial Furnaces and Related Products		5,243	6,823	1,579	516	1,342	826
Other Operations	Friction materials	7,606	8,671	1,065	—	—	—
	Anode materials	4,131	4,640	509	—	—	—
	Others	195	230	36	—	—	—
		11,932	13,542	1,609	522	858	335
Inter-segment eliminations		—	—		(1,546)	(1,069)	477
Total		88,580	106,252	17,671	1,131	11,486	10,355

Carbon Black

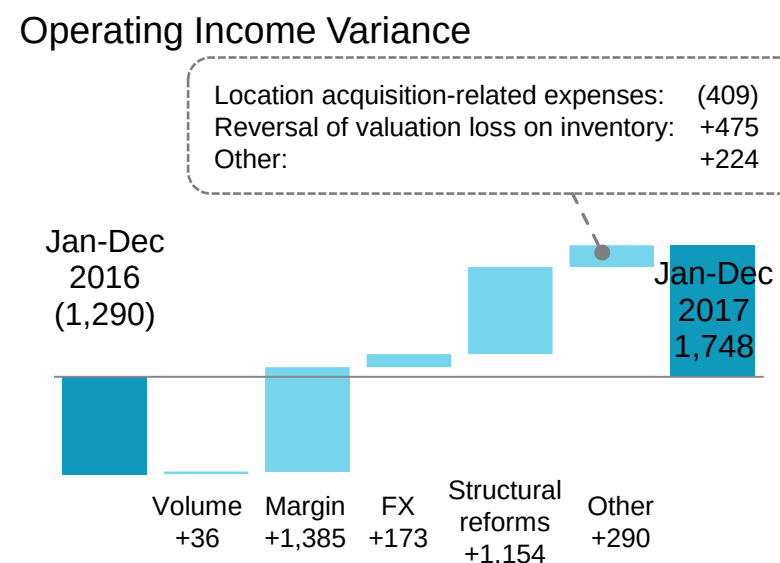
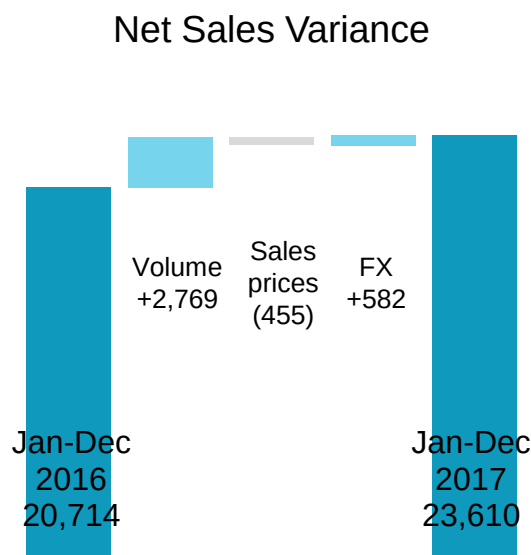
- Order inquiries from tire manufacturers continued to increase as the offensive drive by Chinese carbon black manufacturers abated, resulting in growth in sales volume. Net sales increased by roughly 30% YoY due to an increase in sales prices in keeping with the increase in the price of crude oil.
- Increased sales volume and improvement in the operating margin for overseas subsidiaries led to substantial growth in operating income over last fiscal year.
- Other: Factors having a negative effect on operating income were a decrease of in reversal valuation losses on inventory (of approx. ¥700 million) and an increase in labor costs and other fixed costs of (around ¥1.0 billion).



Graphite Electrodes

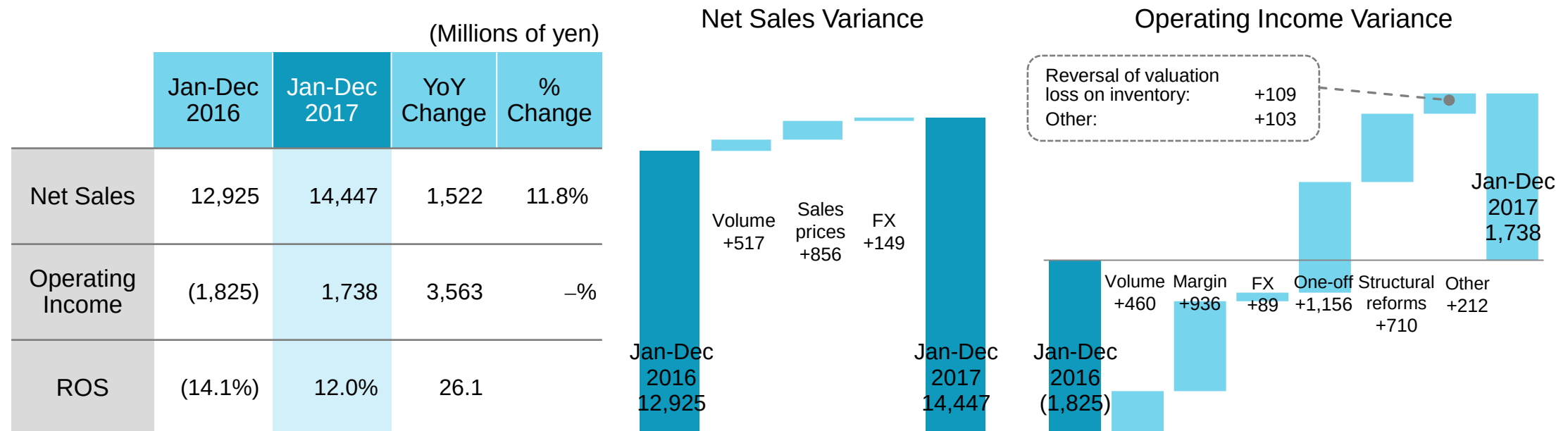
- Graphite electrodes saw growth in both sales and profits. The main factor behind the growth in net sales was an increase in volume sales. The benefits derived from structural reforms boosted operating income.
- ¥2.18 billion of the contribution to net sales was provided by the North American location, which became a consolidated subsidiary in November 2017.
- Structural reforms (reduction in fixed costs, etc.) and dedicated efforts to reduce costs boosted the operating margin despite the year-on-year decline in sales prices on a global basis.
- A ¥400 million expense associated with the acquisition of the North American location was recognized as a factor in the operating income variance from last fiscal year.

	(Millions of yen)			
	Jan-Dec 2016	Jan-Dec 2017	YoY Change	% Change
Net Sales	20,714	23,610	2,896	14.0%
Operating Income	(1,290)	1,748	3,038	—%
ROS	(6.2%)	7.4%	13.6	



Fine Carbon

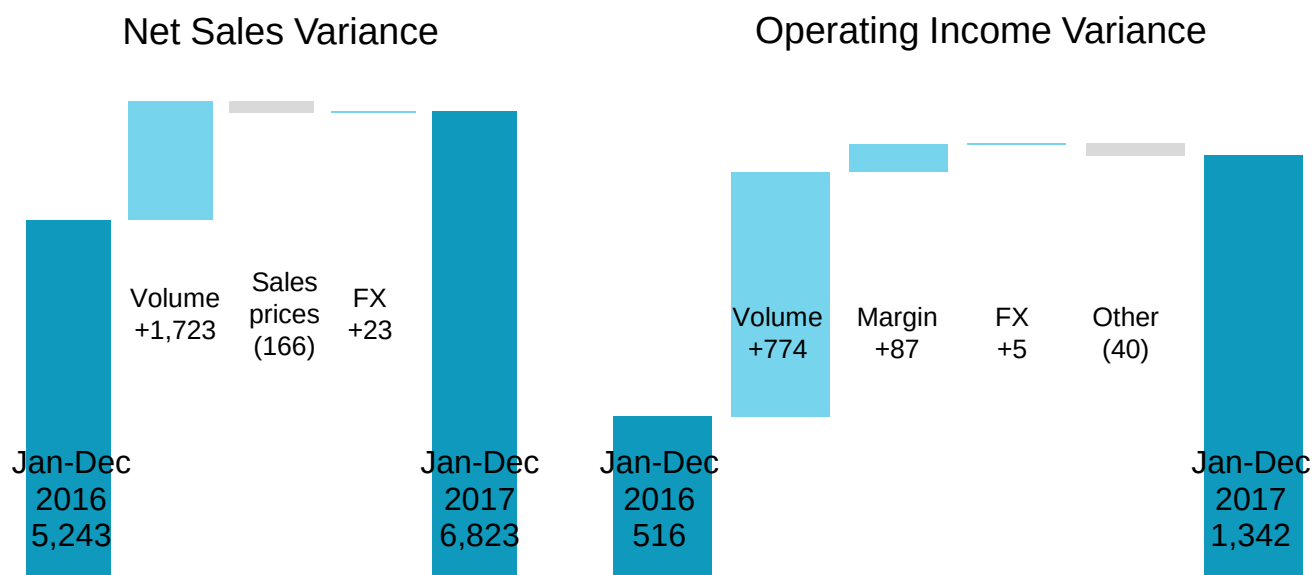
- Both volume sales and prices rose due to the increase in demand for graphite materials and CVD/CC products, boosting net sales 11.8% year-on-year.
- Operating income grew substantially owing to a reduction in labor costs and depreciation expenses due to structural reforms, and a decrease in one-off expenses.
 - * Decrease in one-off expenses: Provision of approximately ¥800 million to the allowance for doubtful accounts due to concerns over the collection of receivables due from a U.S. customer, a valuation loss of ¥300 million on slow-moving inventory



Industrial Furnaces and Related Products (Tokai Konetsu Kogyo Co., Ltd.)

- Industrial furnaces recorded growth in both sales and profits due to an increase in capital investment in IT and energy-related sectors, the main sources of demand.
- Ceramic products recorded growth in both sales and profits due to strong demand for heating elements and other components for the electronic components and glass industries.

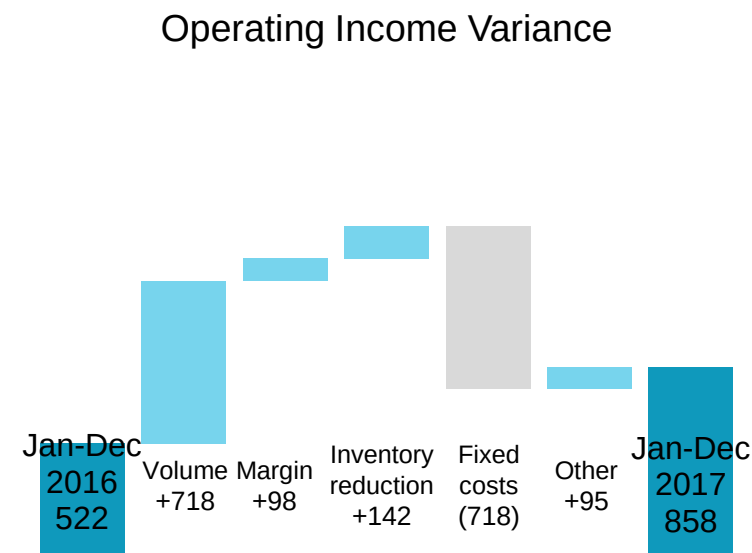
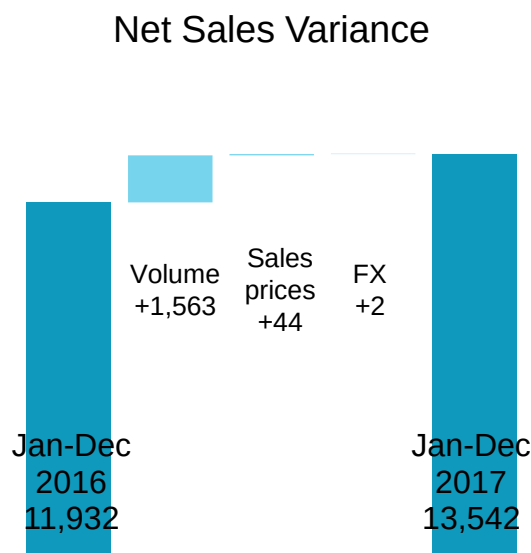
	(Millions of yen)			
	Jan-Dec 2016	Jan-Dec 2017	YoY Change	% Change
Net Sales	5,243	6,823	1,579	30.1%
Operating Income	516	1,342	826	160.0%
ROS	9.8%	19.7%	9.9	



Others (Friction Materials, LiB, Real Estate)

- Friction materials sales rose 14.0% over last fiscal year due to increased production of construction and agricultural machinery by customers.
- Growth in the sales volume of anode materials used in secondary lithium-ion batteries boosted sales by 12.3% year-on-year.

	(Millions of yen)			
	Jan-Dec 2016	Jan-Dec 2017	YoY Change	% Change
Net Sales	11,932	13,542	1,609	13.5%
Operating Income	522	858	335	64.3%
ROS	4.4%	6.3%	1.9	



Cash Flows

(Millions of yen)

Major Cash Flow Items

	Jan-Dec 2016	Jan-Dec 2017	Summary
Cash flows from operating activities	17,505	10,543	
Net income (loss) before income taxes	(7,938)	15,927	
Depreciation and amortization	8,124	6,605	
Impairment loss	10,707	—	
Loss (gain) on sale of property, plant and equipment	(1,383)	(2,567)	
Decrease (increase) in trade receivables	2,179	(4,586)	
Decrease (increase) in inventories	12,611	(3,253)	
Increase (decrease) in accounts payable-trade	(1,440)	3,212	
Income tax paid	(4,149)	(2,252)	
Cash flows from investing activities	(3,622)	(14,039)	
Purchase of property, plant and equipment	(5,168)	(4,336)	
Proceeds from sale of property, plant and equipment	1,610	2,704	
Expenditure for acquisition of TCGE	—	(12,964)	
Cash flows from financing activities	(7,613)	(4,534)	
Net increase (decrease) in short-term loans payable	(4,156)	9,019	
Repayment of long-term loans payable	(2,068)	(10,042)	
Payment of dividends	(1,279)	(1,918)	
Cash and cash equivalents at end of period	28,521	22,145	

Balance Sheet

(Millions of yen)

Major Balance Sheet Items

	December 31, 2016	December 31, 2017	Summary
Total assets	158,824	182,972	
Current assets	77,645	85,241	• Tangible fixed assets (increase of ¥5,324 million from the end of the previous period) Capital expenditures: ¥4,282 million (decrease of ¥1,730 million from the end of the previous period) Depreciation and amortization: ¥6,605 million (decrease of ¥1,518 million from the end of the previous period) Consolidation of TOKAI CARBON GE HOLDING LLC: Increase of ¥6,965 million • Intangible fixed assets (increase of ¥7,211 million from the end of the previous period) Goodwill for TOKAI CARBON GE HOLDING LLC: Increase of ¥7,271 million
Cash and cash equivalents	16,528	22,152	
Notes and accounts receivable	24,220	30,265	
Merchandise and finished goods	7,516	9,257	
Work in process	7,886	10,063	
Raw materials and supplies	5,330	8,041	
Fixed assets	81,178	97,731	
Tangible fixed assets	43,122	48,447	
Intangible fixed assets	10,534	17,746	
Investments and other assets	27,521	31,537	
Total liabilities	45,834	56,372	
Current liabilities	29,028	36,870	• Interest-bearing debt of ¥16,144 million (decrease of ¥903 million from the end of the previous period)
Long-term liabilities	16,806	19,501	
Total net assets	112,989	126,599	
Shareholder's capital	99,693	109,588	• Capital-to-asset ratio: 68.8% (End of previous period: 69.9%)
Other accumulated comprehensive income	11,296	16,276	
Non-controlling interests	1,998	763	
Total liabilities and net assets	158,824	182,972	



II. Earnings Forecast for FY 2018

Consolidated Earnings Forecast for FY 2018

- Net Sales: ¥174.0 billion
- Operating Income: ¥ 43.0 billion
- The graphite electrode market will rebound rapidly in addition to strong sales in the carbon black business.

(Millions of yen)

	FY 2017 Results			FY 2018 Forecast			Change	% Change
	1H	2H	Full Year	1H	2H	Full Year		
Net Sales	49,184	57,067	106,252	79,200	94,800	174,000	+67,748	+63.8%
Operating Income	4,228	7,258	11,486	16,700	26,300	43,000	+31,514	+274.3%
Ordinary Income	4,924	8,324	13,249	17,000	27,000	44,000	+30,751	+232.1%
Net Income Attributable to Owners of the Parent Company	5,854	5,961	11,816	12,000	18,000	30,000	+18,155	+153.9%
ROS	8.6%	12.7%	10.8%	21.1%	27.7%	24.7%	—	—
ROIC	—	—	8.0%	—	—	25.5%	—	—
ROE	—	—	10.0%	—	—	23.6%	—	—

Group companies

- Consolidated subsidiaries: 27
- Equity method affiliates: 3

Average exchange rates:

- 2017 \$1 = ¥112.19
- 2018 \$1 = ¥105.00

Net Sales and Operating Income Forecast by Segment

(Millions of yen)

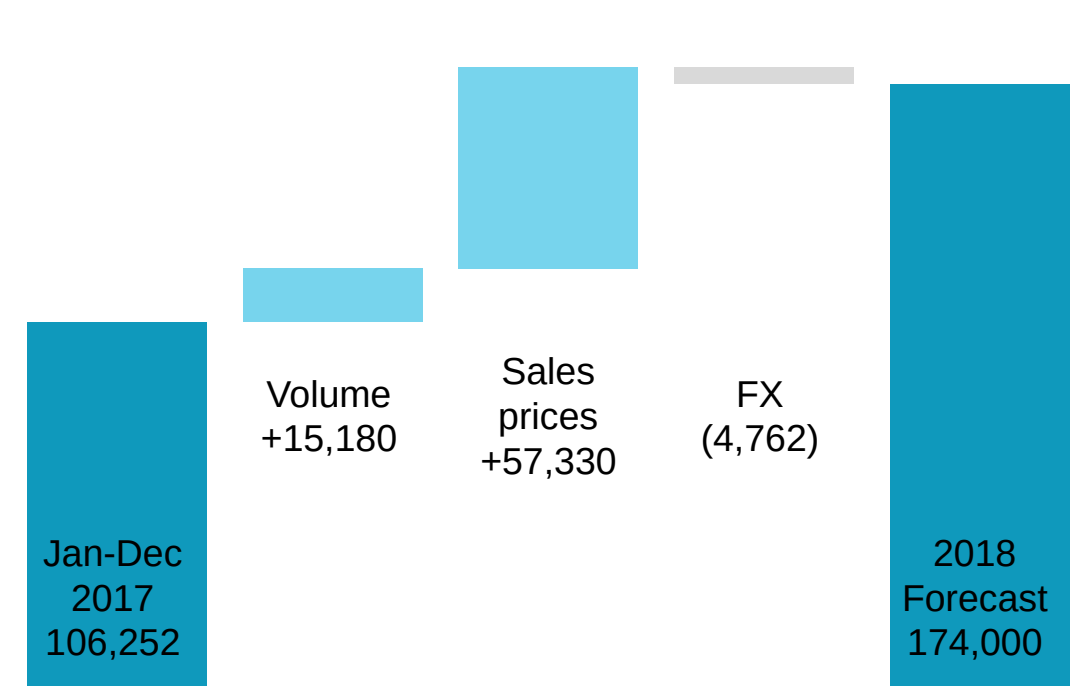
		FY 2017 Results			FY2018 Forecast			Change	% Change
		1H	2H	Full Year	1H	2H	Full Year		
Net Sales		49,184	57,067	106,252	79,200	94,800	174,000	+67,748	+63.8%
Carbon Black		23,504	24,323	47,828	24,600	25,100	49,700	+1,872	+3.9%
Graphite Electrodes		9,657	13,952	23,610	35,300	50,700	86,000	+62,390	+264.2%
Fine Carbon		6,845	7,602	14,447	7,000	7,100	14,100	(347)	(2.4%)
Industrial Furnaces and Related Products		2,822	4,000	6,823	4,800	3,900	8,700	+1,877	+27.5%
Other Operations	Friction materials	4,146	4,524	8,671	4,700	4,800	9,500	+829	+9.6%
	Anode materials	2,082	2,557	4,640	2,700	3,100	5,800	+1,160	+25.0%
	Others	125	105	230	100	100	200	(30)	(13.2%)
	Total Others	6,354	7,187	13,542	7,500	8,000	15,500	+1,958	+14.5%
Operating Income		4,228	7,258	11,486	16,700	26,300	43,000	+31,514	+274.3%
Carbon Black		3,397	3,471	6,868	3,450	3,550	7,000	+132	+1.9%
Graphite Electrodes		25	1,722	1,748	11,400	21,000	32,400	+30,652	+1753.5%
Fine Carbon		390	1,348	1,738	1,050	1,050	2,100	+362	+20.8%
Industrial Furnaces and Related Products		512	829	1,342	850	650	1,500	+158	+11.7%
Other Operations		451	406	858	500	600	1,100	+242	+28.2%
Inter-segment eliminations		(548)	(520)	(1,069)	(550)	(550)	(1,100)	(31)	–

Analysis of Variance from Previous Fiscal Year: Net Sales

- Strong order inquiries for carbon black and tight supply for graphite electrodes will cause prices to rise.
- The North American location will contribute to graphite electrode sales for the full year (net sales growth of roughly ¥22 billion over last fiscal year).

Net Sales Variance

(Millions of yen)



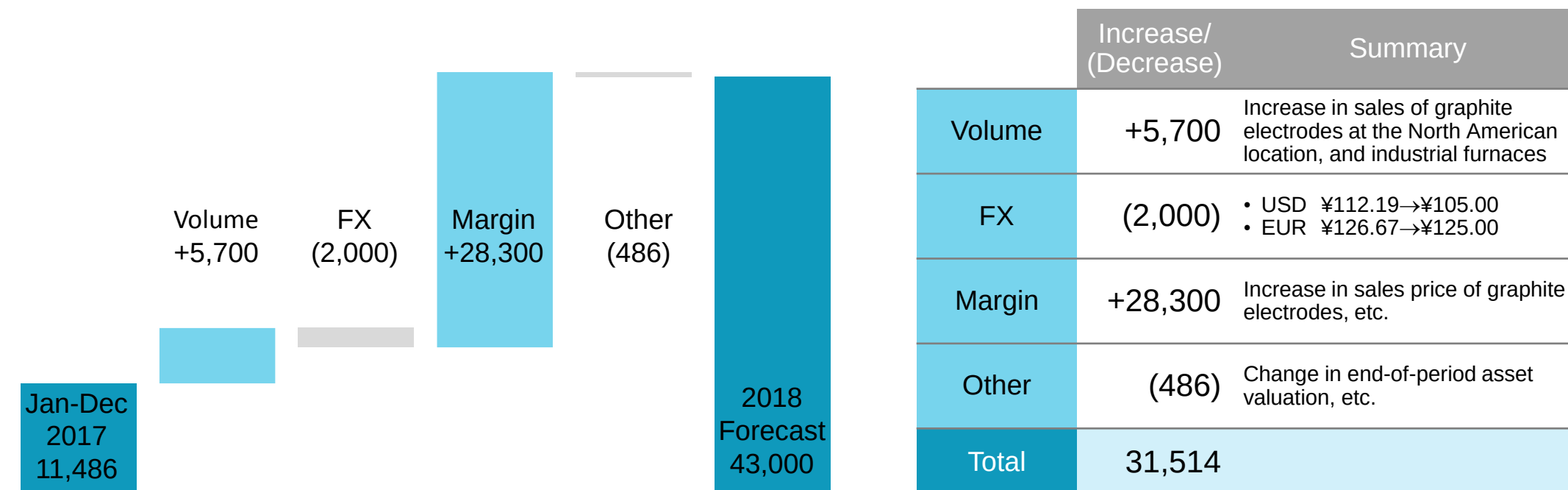
	Increase/ (Decrease)	Summary
Volume	+15,180	• Volume sales growth in industrial furnaces, carbon black, anode materials, etc. and contribution of North American location to graphite electrode sales
Sales prices	+57,330	• Rebound in demand for graphite electrodes and tight coke supplies will cause prices to rise.
FX	(4,762)	• USD ¥112.19→¥105.00 • EUR ¥126.67→¥125.00
Total	+67,748	

Analysis of Variance from Previous Fiscal Year: Operating Income

- Operating income is forecast to increase by 274.3% compared to last fiscal year.
- The graphite electrode business will contribute over ¥30 billion in profit due to the rise in sales price and the contribution from the acquisition of the North American location.

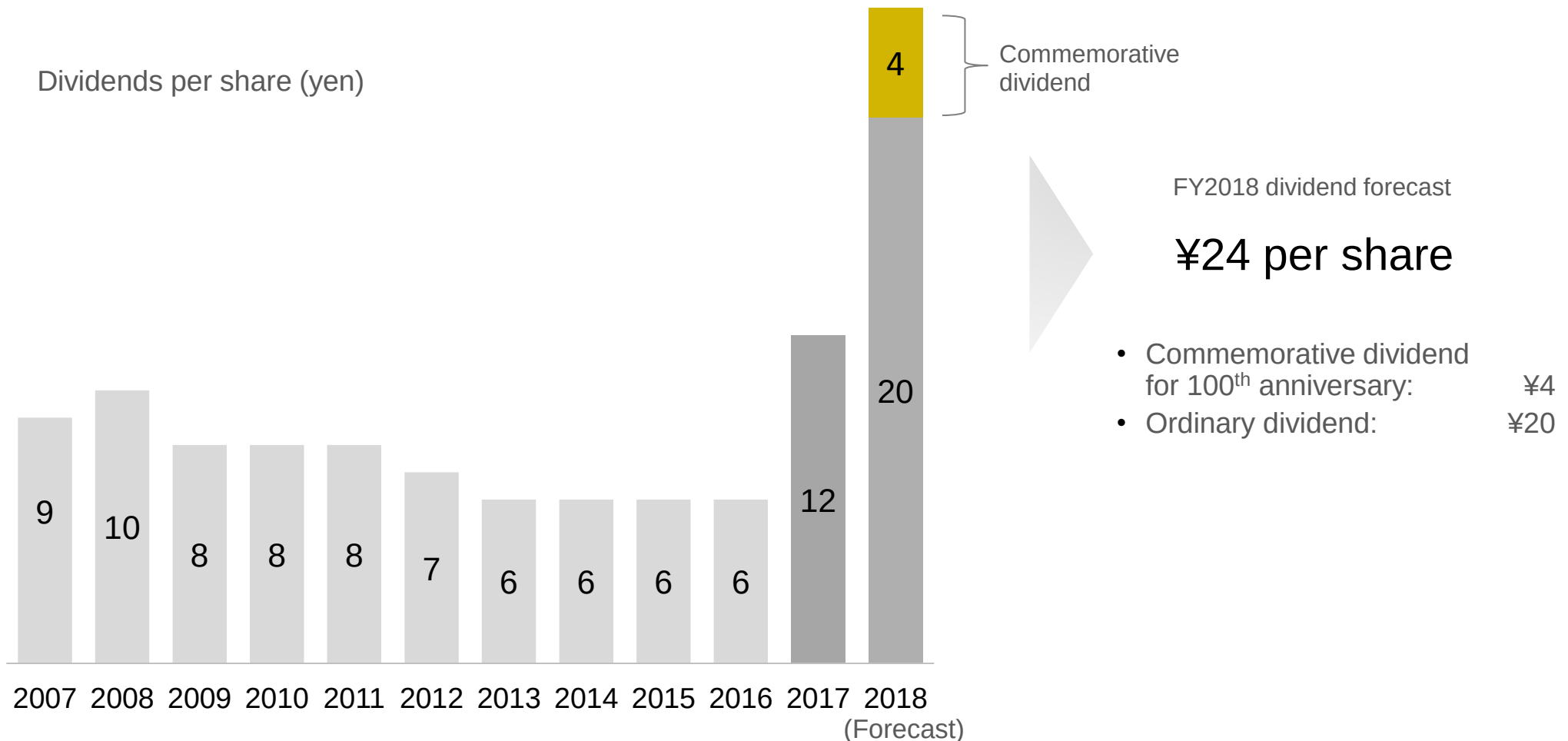
Operating Income Variance

(Millions of yen)



Dividend Forecast

- The company aims to pay stable, sustainable dividends that take the earnings forecasts and financial position for each period into consideration, and has set a target dividend payout ratio of 30%.
- Dividends per share are forecast at ¥24 for the full year, including a ¥4 commemorative dividend.



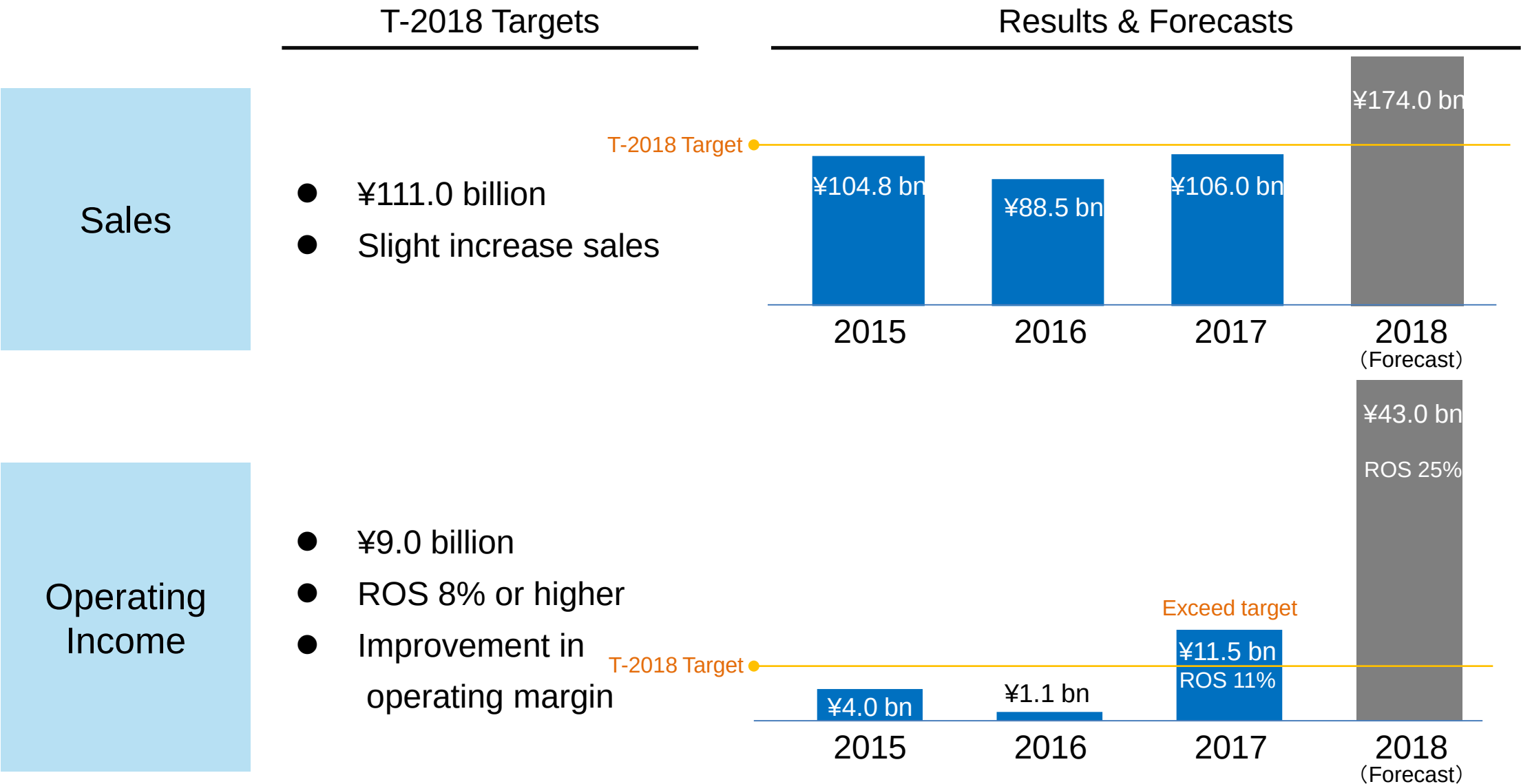


III. Progress Report on Mid-Term Management Plan

Prologue to the Next hundred

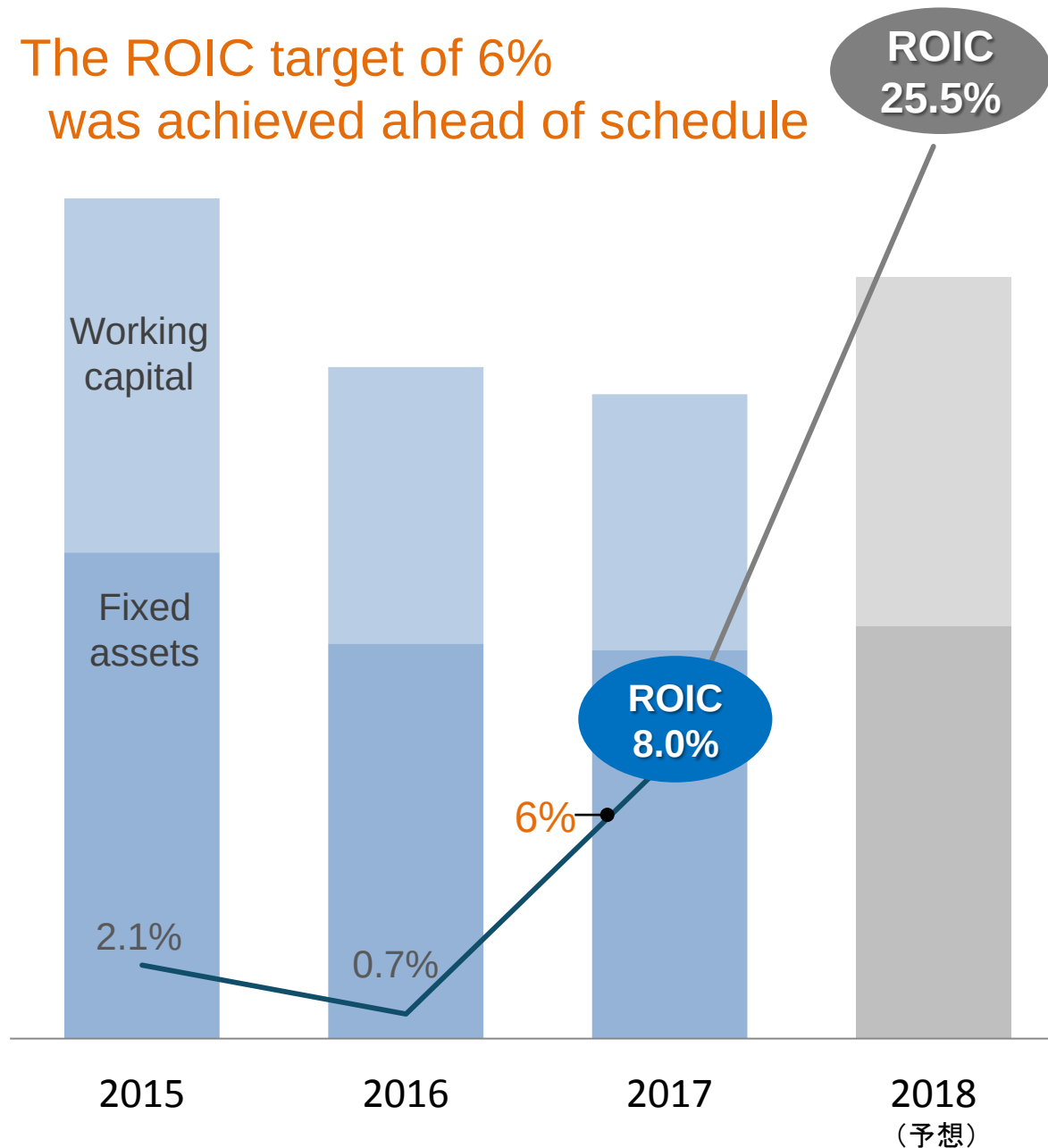
T-2018 Numerical Targets

The operating income target was achieved one year ahead of schedule



Numerical Target for ROIC

The ROIC target of 6%
was achieved ahead of schedule



Reduce inventory

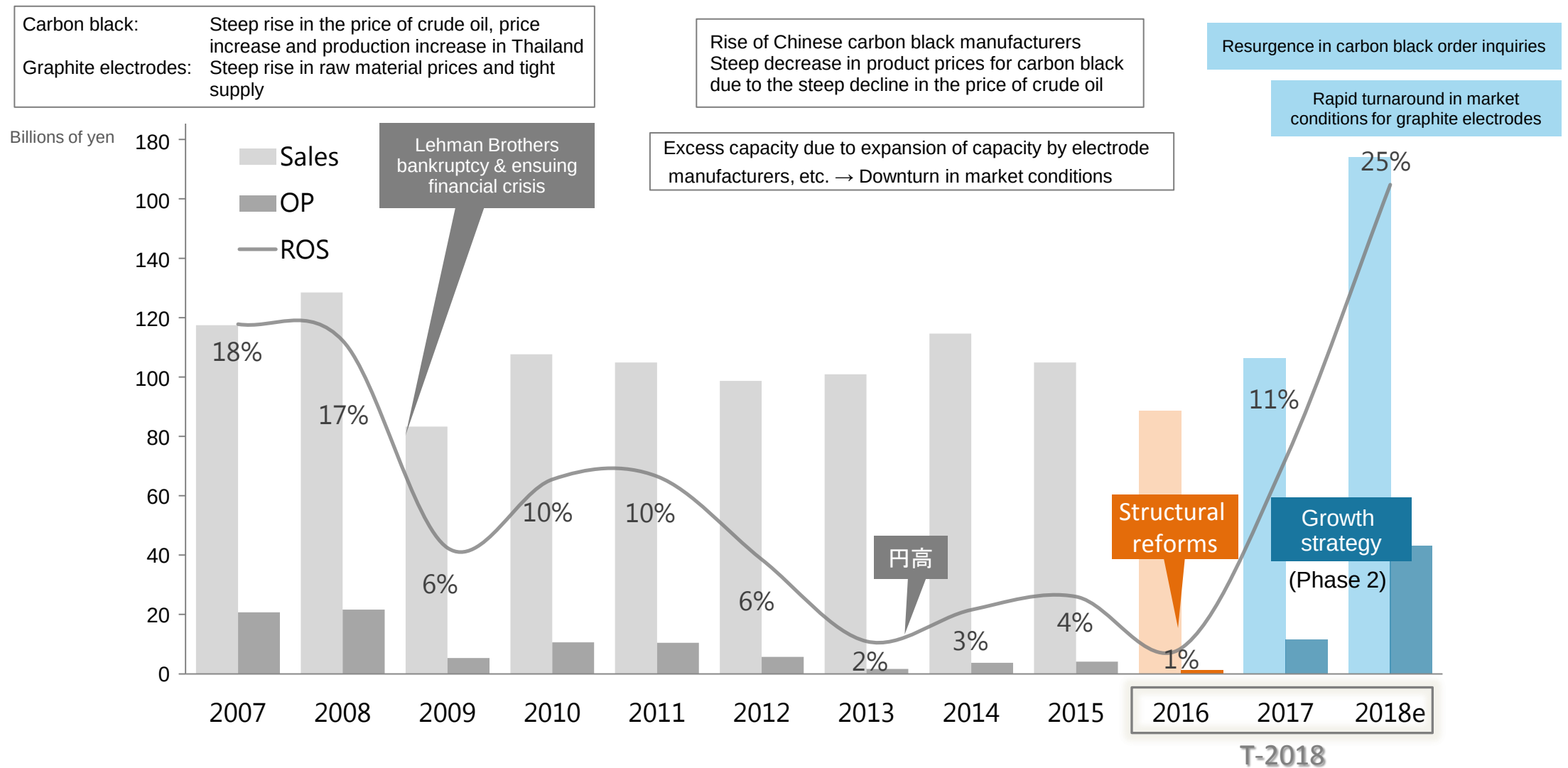
By ¥13.5 billion for all segments (FY2016)

Reduce fixed assets

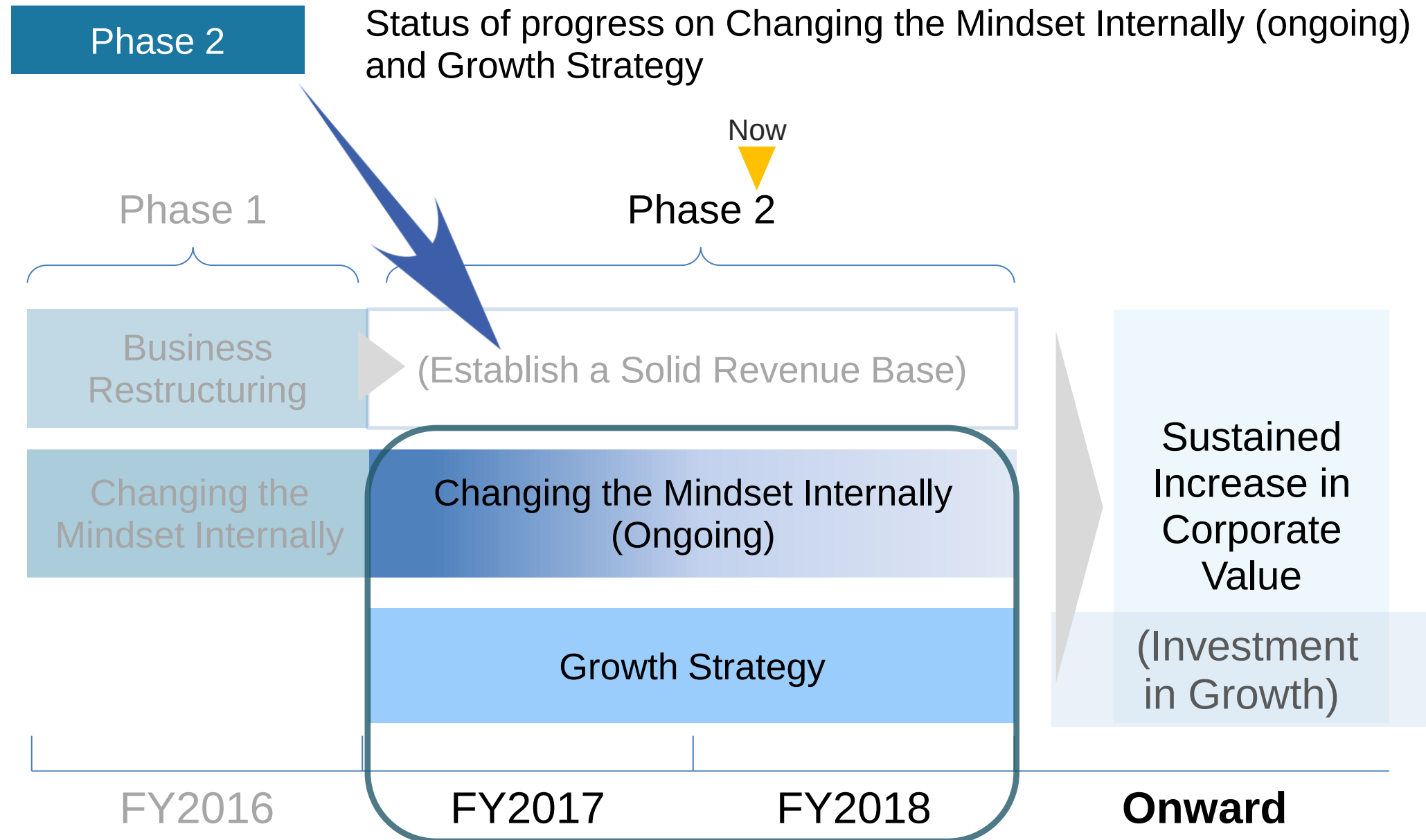
Reduce fine carbon production capacity
Reduce carbon black production capacity
Sell idle assets of Tokai Konetsu Kogyo Co., Ltd.
Sell Nagoya Green Club land
Impairment losses of roughly ¥10 billion in main business segments (FY 2016)

Trend in Operating Results

Implementation of structural reforms put the company on the path of growth from 2017.



Content of Today's Report



Changing the Mindset Internally

Will continue to work on initiatives for the remainder of T-2018.

Item	Measures	Results
(1) Energizing human capital	Implement human resources exchanges between business segments	- Human resource exchanges between business divisions (ongoing) - Embarked on revision of the personnel system
	Recruit human resources from outside the company	Already hired above 20 external experts at Administration, Accounting, R&D, Engineering, Corporate Planning, Human Resources, etc. (ongoing)
	Expand training programs	- Introduced overseas language study program - Expanded selective training
(2) Reinstate the right to claim "Tokai, an expert in technologies"	Expand the Technology Division	- Expanded work on improving productivity (Fine carbon, etc.) - Carbon black product development, Quality improvement of graphite electrode products (collaboration between industry and academia)
(3) Strengthen the corporate division	- Reinforce functions of the Board of Directors and the Management Committee - Strengthen governance	- New governance system established - Expanded and strengthened corporate division - Strengthened controls at overseas subsidiaries
(4) Other	Engage in internal PR to change mindsets internally	Distribute messages from the president internally (ongoing)

Growth Strategy

(from the Phase 2 Growth Strategy announced February 16, 2017)

Measures suitable for the external environment
and potential market for each business segment

(1) Improve profitability

- **Graphite Electrodes Business**
Reduce manufacturing costs and SG&A expenses more
- **Fine Carbon Business**
Complete execution of structural reform plan

(2) Expand business domains

- **Carbon Black Business**
Expand market sales of high value-added products
- **Tokai Konetsu Kogyo Co., Ltd.**
Expand sales of industrial furnaces
Expand sales of heating elements
- **Friction Materials Business**
Expand sales
- **New business growth**
LiB anode material, aqueous carbon black, next generation

(3) M&A

- Existing business domains
- Expand business segments to include electronic components and automotive-related products

(1) Improve Profitability: Graphite Electrodes Business

Build a Tripolar Global Structure Consisting of Japan, the U.S., and Europe

Business Environment

- Restructuring of the electrode manufacturer industry
- Trend of increase in electric arc furnace capacity due to rebuilding of infrastructure in the U.S. and environmental regulations in China, etc.
- Tightening of needle coke supply

Progress Thus Far

- Reduced costs, lowering the break-even point
- Far surpassed the target for inventory reduction
- Steady progress made on technological development



2018 Initiatives

- Build a tripolar global structure consisting of Japan, the U.S. and Europe (Optimize manufacturing plants, maximize synergies, and establish a chain of command).
- Build a profit base that is not affected by market conditions.

(1) Improve Profitability: Fine Carbon Business

Maximize output in new businesses and the existing business base

Business Environment

- The markets for general industry, solar cells, and semiconductors continue to be favorable in every respect (Robust demand for graphite)
- Tight supply

Progress Thus Far

- An appropriate level of production capacity was achieved (contributing to reduction in costs)
- Improved productivity in materials and processing
- Expand organic electroluminescent product sales
- Increased sales prices

2018 Initiatives

- Strengthen competitiveness by improving productivity
- Further reduction in costs (shorten processing time, improve yield, etc.) and improving quality of ISO mold
- Full production and sales of graphite materials and agile pricing strategy
- Expand sales of the performance materials product group, such as CVD/CC

(2) Expand Business Domains: Carbon Black Business

Respond to Current Robust Demand and Promote Development

Business Environment

- Global rubber consumption is growing, accompanied by growing demand for tires
- Power of the Chinese carbon manufacturers declining, owing to environmental regulations and other factors
- Increase in the price crude oil

Progress Thus Far

- Sales to Southeast Asia have increased
- The increase in the price of crude oil is passed through to sales prices
- Multiple companies have decided to use high strength carbon black (a specialty product)
- Construction on increasing production capacity for aqueous carbon black underway (scheduled for completion in mid2018)

2018 Initiatives

- Begin to increase production of carbon black (to resolve bottlenecks at plants in Japan and overseas, and improve yield)
- Pass fluctuations in the price of crude oil through to sales prices (ongoing)
- Speed up research and development
- Increase sales of aqueous carbon black (expand to ink market for inkjet printers)

(2) Expand Business Domains: Industrial Furnaces and Related Products Business

Response to Current Robust Demand and
Development in Response to Future Needs

Business Environment

- Expansion of capital investment in electronic components installed in vehicles with the shift to electric vehicles (EV)
- High levels of LiB-related capital investment
- Strong sales of heating elements to the glass industry

Progress Thus Far

- Succeeded in capturing market growth in both industrial furnaces and heating elements and business in 2017 increased 30% from the previous year
- Earnings power rebounded with the improving productivity at the location in China
- Expanded production capacity for resistors, including improvement in productivity

2018 Initiatives

- Industrial furnaces: Increase capacity and expand sales of heat treating furnaces the LiB and electronic components and materials markets, which are continuing to see growth
- Heating elements: Respond to market expansion by increasing production capacity in Japan and overseas
- Resistors: Increase production capacity to capture infrastructure demand in China and elsewhere, and expand the business
- Use technical skills to engage in development and respond to future needs

(2) Expand Business Domains: Friction Materials Business

Unearth undeveloped markets and improve competitiveness

Business Environment

- Sales of friction materials strong for both construction machinery for building infrastructure and for mining machinery
- Demand for brake materials used in industrial robots expanding

Progress Thus Far

- Results achieved in expanding sales in Japan and China.
- Steadily expansion in equipment to automate various processes
- Considering a fully automated line
- Establish a production system capable of supplying assembly products. ■

2018 Initiatives

- Acquire new customers (expand sales in the Japanese and overseas markets)
- Improve production line efficiency
- Begin delivery of assembly products

(2) Expand Business Domains: LiB Anode Material Business

Expand business by actively expanding sales of materials used in environmentally friendly cars in growth markets

Business Environment

- Acceleration in shift to EV globally (strengthening of environmental regulations)
- Tightening of supply for anode materials (particularly for artificial graphite materials)

Progress Thus Far

- Increased production capacity
- Samples of artificial graphite anode material under development requested for evaluation

2018 Initiatives

- Increase production capacity (investment)
- Develop next-generation materials having superior performance and cost competitiveness

(3) Growth through M&A and Other Means

Strategic investment budget: Approx. ¥50 billion



Strategic M&A, also including areas peripheral to existing businesses



Reconfiguration of the business portfolio



TOKAI CARBON GE LLC (North American graphite electrode plant)

Acquisition price:

Approx. ¥12.9 billion

Production capacity:

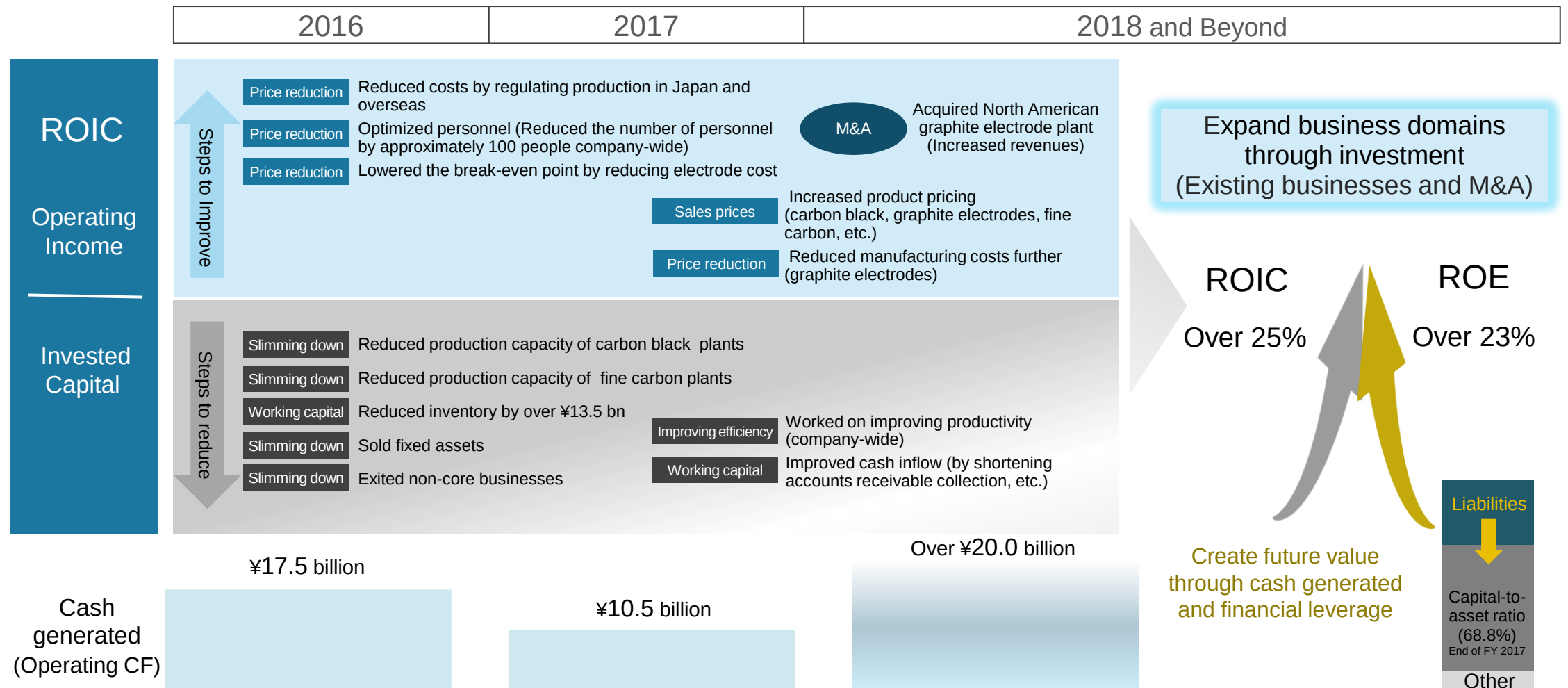
30,000 tons/year

Contribution at the consolidated level:

Contributing to consolidated results
from November 2017

Beyond T-2018

- During the Mid-Term Management Plan, structural reforms were undertaken that were mainly aimed at improving ROIC. In 2018 and beyond, we will focus on expanding our business domains with the cash generated from our core business and through financial leverage.



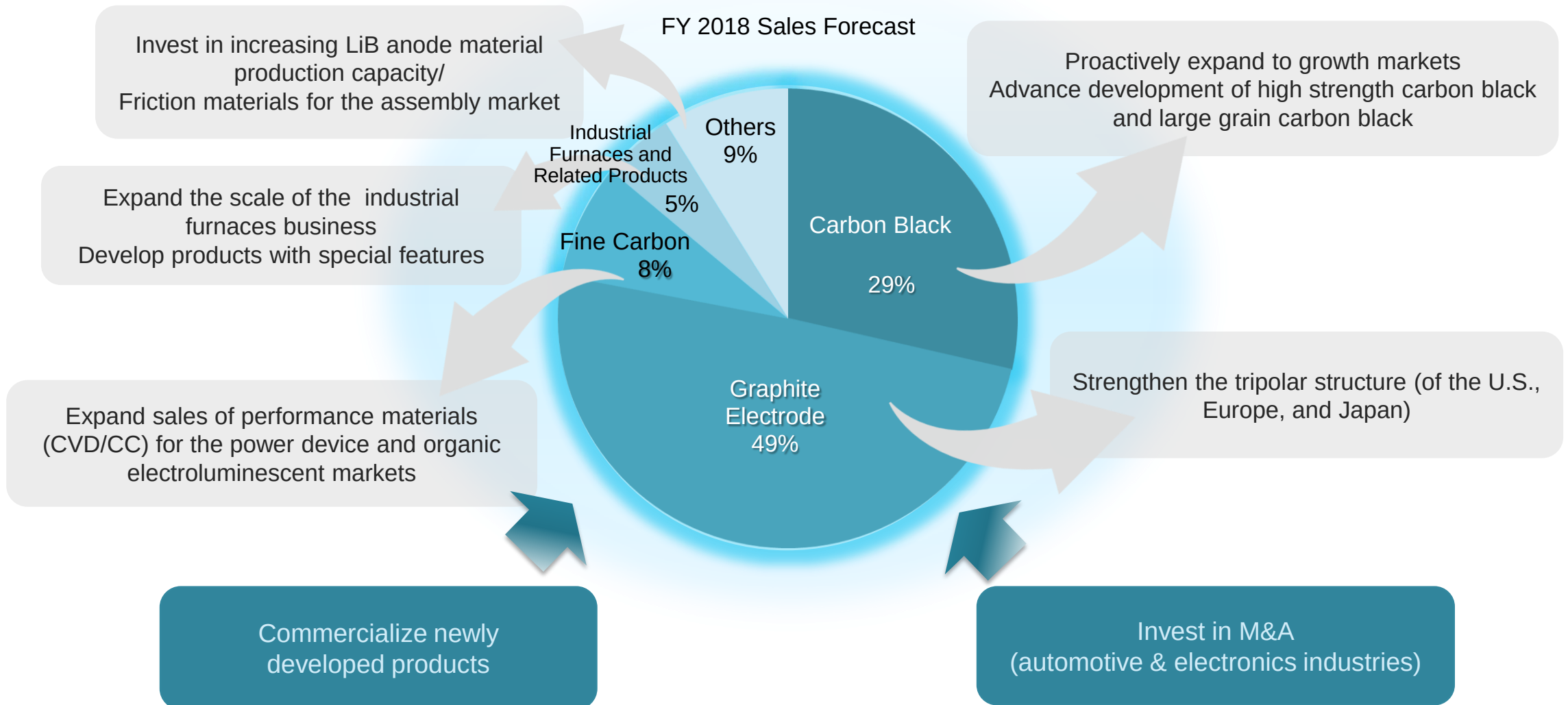
Direction of Mid-Term Management Plan

Expand sales and stabilize profitability in the three main businesses

Basic Policy	Expand business scale to increase in corporate value (aim for net sales of over ¥200 billion)
Mid-term	Consider a rolling 3-5 year plan (target ongoing growth during the period of transformation)
Main Themes	• Restructure the business portfolio on an ongoing basis • Establish a solid revenue base that is not easily affected by market conditions • Commercialize the next-generation products under development and introduce them to the market
Investment Policy	The targets for development projects and M&A strategy are the automotive and electronics industries (prepare a new strategic investment budget)
Shareholder Return Policy	A consistent, continuous return with a target payout ratio of around 30%

Policy on Expanding Business Domains

Achieve growth by linking the three pillars of existing businesses, development products, and M&A.



Reference Material



Quarterly Segment Results

(Millions of yen)

		2016					2017				
		Q1	Q2	Q3	Q4	Full Year	Q1	Q2	Q3	Q4	Full Year
Net Sales		22,643	22,229	21,501	22,206	88,580	24,104	25,080	25,882	31,184	106,252
Carbon Black		9,487	8,809	9,507	9,959	37,764	11,344	12,160	11,858	12,465	47,828
Graphite Electrodes		5,522	5,311	4,810	5,069	20,714	5,136	4,521	5,246	8,706	23,610
Fine Carbon		3,435	3,335	3,038	3,116	12,925	3,394	3,451	3,781	3,820	14,447
Industrial Furnaces and Related Products		1,240	1,715	1,084	1,202	5,243	1,207	1,615	1,543	2,457	6,823
Other Operations	Friction materials	1,925	1,842	1,873	1,965	7,606	2,033	2,113	2,192	2,332	8,671
	Anode materials	990	1,169	1,135	835	4,130	930	1,152	1,199	1,358	4,640
	Others	40	45	49	58	194	58	67	61	43	230
	Total Others	2,957	3,057	3,059	2,859	11,932	3,021	3,333	3,452	3,734	13,542
Operating Income		557	(638)	551	661	1,131	1,781	2,447	3,342	3,916	11,486
Carbon Black		1,117	775	1,389	1,472	4,755	1,479	1,918	1,912	1,559	6,868
Graphite Electrodes		178	(548)	(456)	(463)	(1,290)	144	(119)	619	1,103	1,748
Fine Carbon		(804)	(450)	(306)	(264)	(1,825)	47	343	584	763	1,738
Industrial Furnaces and Related Products		151	229	61	73	516	195	317	305	524	1,342
Other Operations		151	145	117	107	522	209	242	174	232	858
Inter-segment eliminations		(236)	(790)	(254)	(264)	(1,546)	(294)	(254)	(255)	(265)	(1,069)

Reference Results (Consolidated)

(Millions of yen)

	Fiscal year ended December 31, 2013	Fiscal year ended December 31, 2014	Fiscal year ended December 31, 2015	Fiscal year ended December 31, 2016	Fiscal year ended December 31, 2017
Capital Investment	9,007	6,830	5,301	6,013	4,282
Depreciation and Amortization	8,656	8,629	9,242	8,124	6,605
Research and Development Expenses	1,800	1,882	1,822	2,249	1,482
Total Assets	183,427	210,439	184,074	158,824	182,972
Interest-bearing Debt at Fiscal Year-end	25,762	38,290	23,936	17,048	16,144
Financial Account Balance	(190)	(139)	82	82	178
Number of Employees	1,916	2,064	2,092	1,980	2,142
Exchange Rate (JPY/USD)	97.65	105.85	121.05	108.85	112.19

Net Sales of Main Subsidiaries

(Millions of yen)

Subsidiary	2016	2017	YoY Change	Location/ Business	Summary
TOKAI ERFT CARBON	8,161	9,614	+1,453	Germany Graphite Electrodes	• Growth in sales volume • Flat sales prices • FX (Increase of ¥500 million)
TOKAI CARBON GE	—	2,180	+2,180	U.S. Graphite Electrodes	• New acquisition (2 months consolidated)
THAI TOKAI CARBON PRODUCT	10,104	14,275	+4,170	Thailand Carbon Black	• Growth in sales volume • Increase in sales prices • FX (Increase of ¥900 million)
Tokai Carbon Tianjin	3,477	4,272	+794	China Carbon Black	• Decrease in sales volume • Increase in sales prices • FX (Increase of ¥100 million)
CANCARB	6,550	7,535	+985	Canada Carbon Black	• Growth in sales volume • Decrease in sales prices • FX (Increase of ¥400 million)

T-2018: Key Indicators

	(Millions of yen)				
	T-2018 Target (For reference)	2015	2016	2017	2018 (Forecast)
Sales	110,000	104,864	88,580	106,252	174,000
Operating Income	9,000	4,088	1,131	11,486	43,000
Profit Attributable to the Owners of the Parent Company	—	2,484	(7,929)	11,816	30,000
ROS	8% or higher	3.9%	1.3%	10.8%	24.7%
ROE	—	2.0%	(6.8%)	10.0%	23.6%
ROIC	6% or higher	2.1%	0.7%	8.0%	25.5%
Depreciation and Amortization	—	9,242	8,124	6,605	7,400
Capital Investment	—	5,301	6,013	4,282	8,700
Inventory	—	34,253	20,734	27,362	36,200
Fixed Assets	—	96,106	81,178	97,731	93,800

Cautionary Statement Regarding Future Prospects

The earnings forecasts and other forward-looking statements in this document are based on information obtainable at the time this document was published and assumptions as of the date of publication concerning elements of uncertainty that could affect future earnings.

Actual results may differ substantially, depending on various future factors. Factors that affect business performance include, but are not limited to, economic conditions, trends in product demand and market prices, and fluctuation in exchange rates.

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