

# TOKYO OHKA KOGYO CO., LTD. Business Results

— Fiscal Year ended December 2019 —

Feb. 14, 2020

TOKYO OHKA KOGYO CO., LTD.

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# Consolidated Business Results for FY2019 (2019.1-2019.12)

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## Summary

03

(Millions of yen)

	FY2018/12 Result	FY2019/12	
		Change	%
Net sales	105,277	102,820	(2,457) (2.3)
Operating income	10,505	9,546	(959) (9.1)
Ordinary income	10,734	9,707	(1,027) (9.6)
Profit attributable to owners of parent	6,875	5,410	(1,465) (21.3)

■ **Average exchange rate (US\$)** : ¥109.5/\$ (FY2018/12) ⇒ ¥108.1/\$ (FY2019/12)

■ **Net sales** : Decreased 2.3% year on year due to a slowdown in demand for semiconductors triggered by the U.S.-China trade friction and also to the impact of the amendment to US GAAP Note

■ **Operating income** : Decreased 9.1% year on year due to a decrease in net sales

■ **Profit** : Decreased 21.3% year on year due to an extraordinary loss and an increase in non-controlling interests in net income

Note : An overseas consolidated subsidiary adopting US GAAP applied ASC 606 "Revenue from Contracts with Customers" effective January 1, 2019.

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# Non-operating Expenses or Income/ Extraordinary Losses or Income

04

(Millions of yen)

	FY2018/12 Result	FY2019/12	YoY
<b>Non-operating Expenses or Income</b>	<b>228</b>	<b>160</b>	<b>(68)</b>
Interest and dividend income	+392	+447	+55
(Foreign exchange related losses/gains)	(274)	(315)	(41)
Foreign exchange (loss) gain	(580)	(410)	+170
(Loss) gain on valuation of derivatives	+306	+95	(211)
<b>Extraordinary Losses or Income</b>	<b>(920)</b>	<b>(1,049)</b>	<b>(129)</b>
Gains from sale of fixed assets	+5	+119	+114
Impairment loss	(860)	(477)	+383
Loss on the removal of fixed assets	(124)	(127)	(3)
Loss on valuation of investment	0	(540)	(540)

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# Performance Forecasts by Business Segment

05

(Millions of yen)

	FY2018/12 Result	FY2019 /12		
			Change	%
<b>Net sales</b>	<b>105,277</b>	<b>102,820</b>	<b>(2,457)</b>	<b>(2.3)</b>
Material business	102,621	98,986	(3,635)	(3.5)
Electronic functional materials	58,793	58,249	(544)	(0.9)
High purity chemicals	43,733	40,674	(3,059)	(7.0)
Other	95	63	(32)	(33.3)
Equipment business	2,655	3,833	+1,178	+44.4
<b>Operating income</b>	<b>10,505</b>	<b>9,546</b>	<b>(959)</b>	<b>(9.1)</b>
Material business	14,765	13,462	(1,303)	(8.8)
Equipment business	(883)	(286)	+597	-
Eliminations and corporate	(3,376)	(3,628)	(252)	-

Note1: Effective January 1, 2019, TOK changed the cost allocation method to evaluate and manage financial results by business segment more appropriately, and part of corporate expenses was allocated to Material Business. Following this change, the year-on-year comparison is conducted using the figures reclassified under the new allocation method.

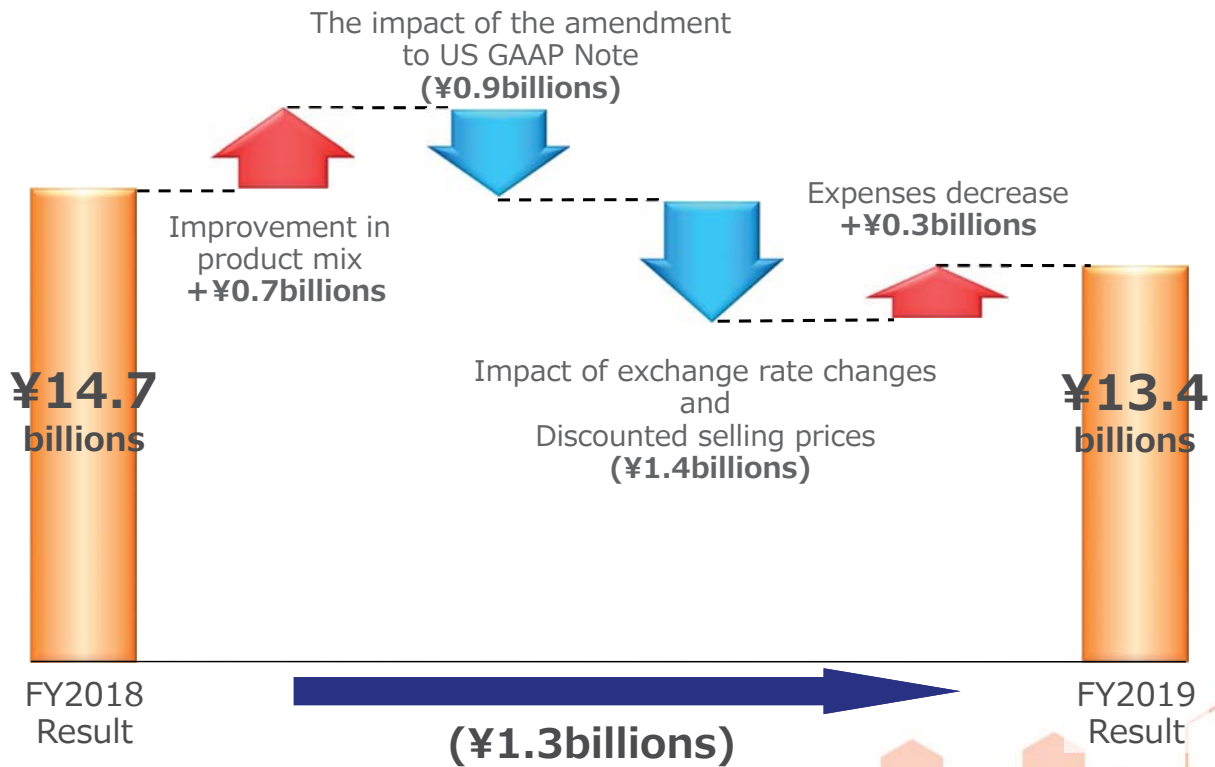
Note2 : An overseas consolidated subsidiary adopting US GAAP applied ASC 606 "Revenue from Contracts with Customers" effective January 1, 2019.

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# Breakdown of the Charge in Operating Income (Material Business)

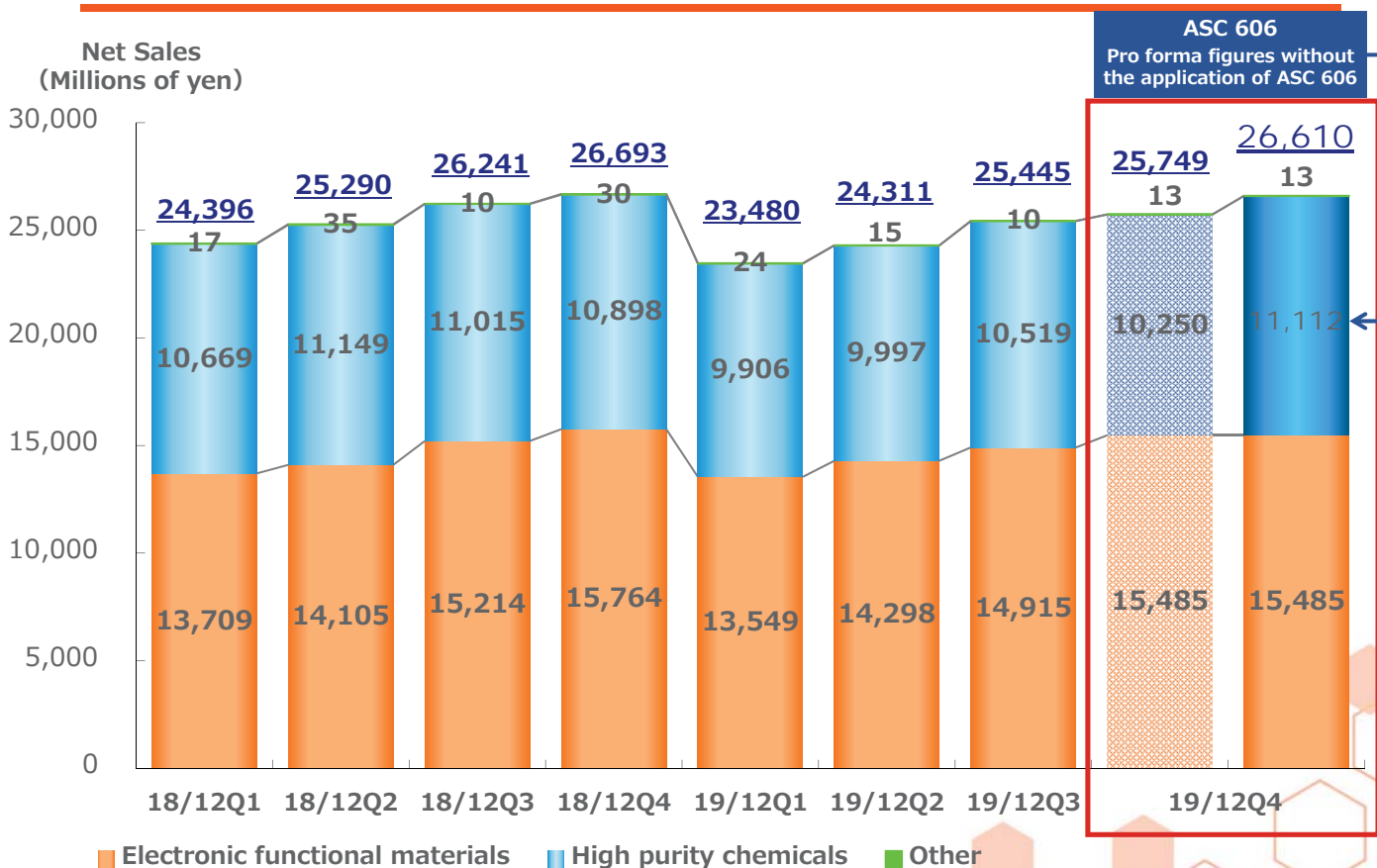
## FY2018/12 Result vs. FY2019/12 Result



Note: The impact of the amendment to US GAAP: the impact of applying ASC 606 "Revenue from Contracts with Customers" effective January 1, 2019 by an overseas consolidated subsidiary adopting US GAAP

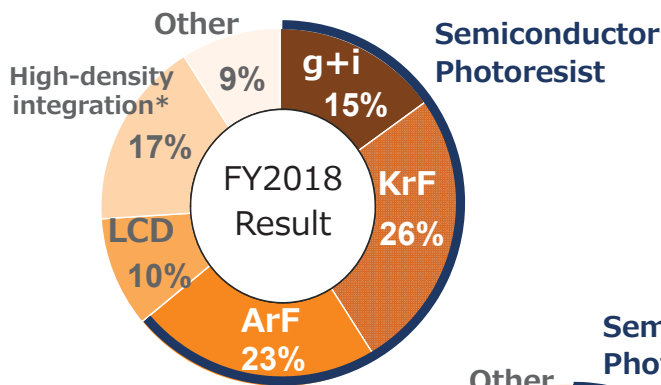


# Sales Breakdown of Material Business

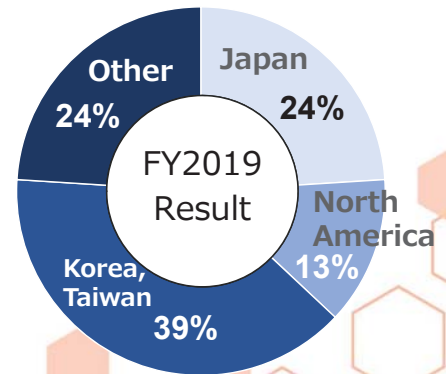
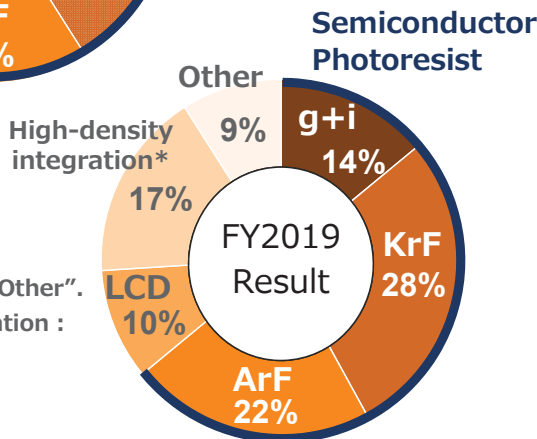
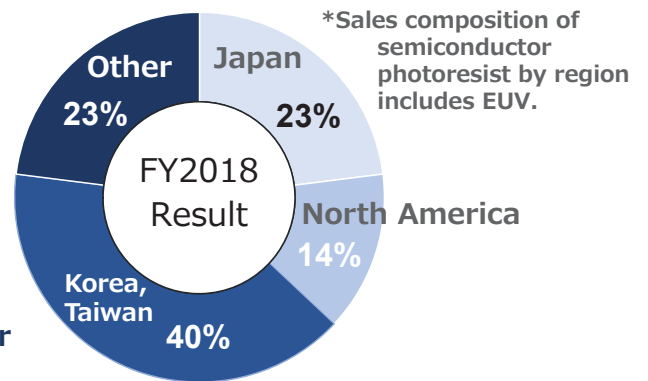


Note : An overseas consolidated subsidiary adopting US GAAP applied ASC 606 "Revenue from Contracts with Customers" effective January 1, 2019, affecting net sales for FY2019/12.

## Sales Composition of Electric Function Materials by Type



## Sales Composition of Semiconductor Photoresist by Region



\* EUV is included in "Other".  
 \* High-density integration : Resist for Packaging, MEMS Materials

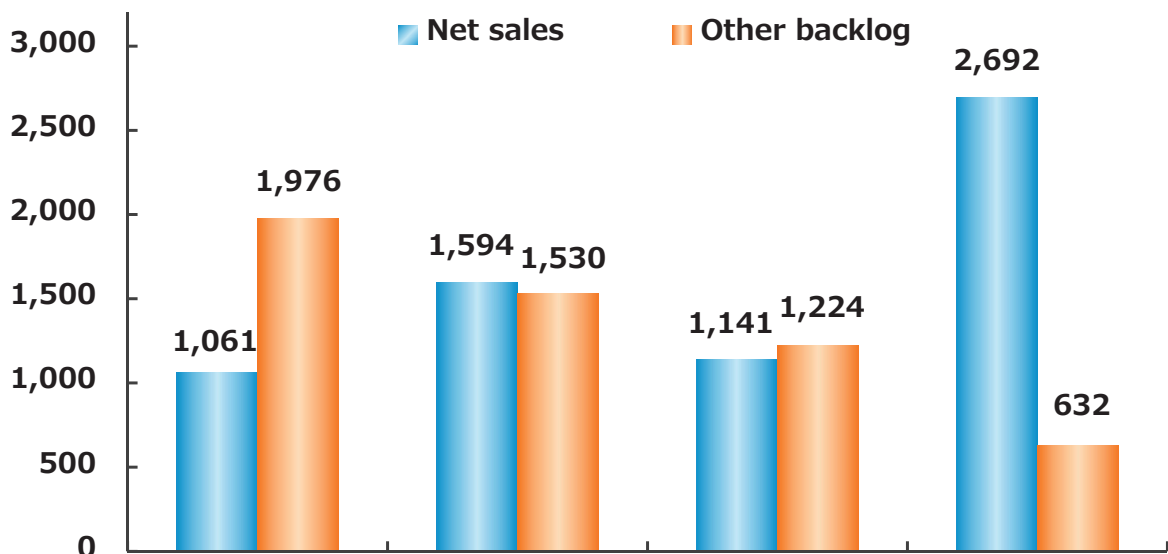


※Regional segmentation has been changed from current term. "Other" includes Europe and Asia including China but excluding Korea and Taiwan.

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# Equipment Business

Net sales/Order backlog (millions of yen)



(Millions of yen)	2018/1H	2018/2H	2019/1H	2019/2H
Year-end order backlog	2,291	2,472	2,757	934



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(Millions of yen)

	FY2018/12	FY2019/12	
		Change	%
Capital Investments	5,636	14,183	+8,547 +151.6
Depreciation	7,063	7,216	+153 +2.2
R&D	8,526	8,879	+353 +4.1

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## Balance Sheets 11

(Million of yen)

	FY2019	YoY	
<b>Current Assets</b>	<b>93,282</b>	<b>(6,619)</b>	
Cash and deposits	46,405	(9,687)	
Notes and accounts receivable	23,887	+1,347	
Inventories	17,439	+194	
<b>Property, plant and equipment</b>	<b>55,057</b>	<b>+6,698</b>	Buildings and structures +6,198 Machinery (2,748) Furniture and fixtures (308) Land (116) Construction in progress +3,225
<b>Intangible assets</b>	<b>661</b>	<b>+103</b>	
<b>Investments and other assets</b>	<b>37,485</b>	<b>+3,346</b>	
<b>Current Liabilities</b>	<b>20,316</b>	<b>(1,059)</b>	
Notes and accounts payable	10,345	(1,036)	
<b>Long-Term Liabilities</b>	<b>14,437</b>	<b>+3,713</b>	Long-term loans payable +1,272
<b>Total net asset</b>	<b>151,733</b>	<b>+875</b>	Retained earnings +23 Treasury stock (1,153) Unrealized gain on available-for-sale securities +1,380 Foreign currency translation adjustments (271)
<b>Total asset</b>	<b>186,486</b>	<b>+3,529</b>	

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Note : An overseas consolidated subsidiary adopting US GAAP applied ASC 606 "Revenue from Contracts with Customers" effective January 1, 2019.

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(Millions of yen)

	FY2018	FY2019
Cash flows from operating activities	+14,311	+12,743
Income before income taxes and minority interests	+9,814	+8,657
Depreciation	+7,063	+7,216
Decrease (increase) in trade notes and accounts receivable	(420)	(1,367)
Decrease (increase) in inventories	(1,770)	(388)
Decrease (increase) in trade notes and accounts payable	+1,092	(943)
Increase (decrease) in advances received	(147)	(37)
Income taxes paid	(2,221)	(2,302)
Cash flows from investing activities	(8,013)	(17,286)
Cash flows from financing activities	+4,333	(5,789)
Translation adjustments	(741)	(289)
Net increase (decrease) in cash and cash equivalents	+9,889	(10,621)

Major breakdown  
Purchases of property, plant and equipment (14,774)

Major breakdown  
Proceeds from long-term loans payable +1,372  
Purchase of treasury shares (1,371)  
Dividends paid (incl. minority shareholders) (5,759)

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## Consolidated Performance Forecasts for FY2020 (2020.1-2020.12)

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# Earnings Forecasts (Full-year)

14

(Millions of yen)

	FY2019	FY2020 Forecast		
			Change	%
Net sales	102,820	107,000	+4,180	+4.1
Operating income	9,546	11,300	+1,754	+18.4
Ordinary income	9,707	11,700	+1,993	+20.5
Profit attributable to owners of parent	5,410	7,900	+2,490	+46.0

■ Exchange rate assumptions (US\$) : ¥108.1/\$ (2019/12) ⇒ ¥105.0/\$ (2020/12)

■ Net sales :

Material Business is assumed to advance to a growth stage in response to the recovery trend in semiconductor production. Forecast to increase 4.1% year on year

■ Operating income :

Forecast to increase 18.4% year on year due to profit increase in Material Business despite an increase in corporate expenses

■ Profit attributable to owners of parent :

Forecast to increase 46.0% year on year partly due to a rebound from declined profit attributable to owners of the parent in FY2019/12

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# Performance Forecasts by Business Segment

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(Millions of yen)

	FY2019	FY2020 Forecast		
			Change	%
Net sales	102,820	107,000	+4,180	+4.1
Material business	98,986	103,200	+4,214	+4.3
Electronic functional materials	58,249	60,400	+2,151	+3.7
High purity chemicals	40,674	42,700	+2,026	+5.0
Equipment business	3,833	3,800	(33)	(0.9)
Operating income	9,546	11,300	+1,754	+18.4
Material business	13,462	15,300	+1,838	+13.7
Equipment business	(286)	(100)	+186	-
Eliminations and corporate	(3,628)	(3,900)	(272)	-

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(Millions of yen)

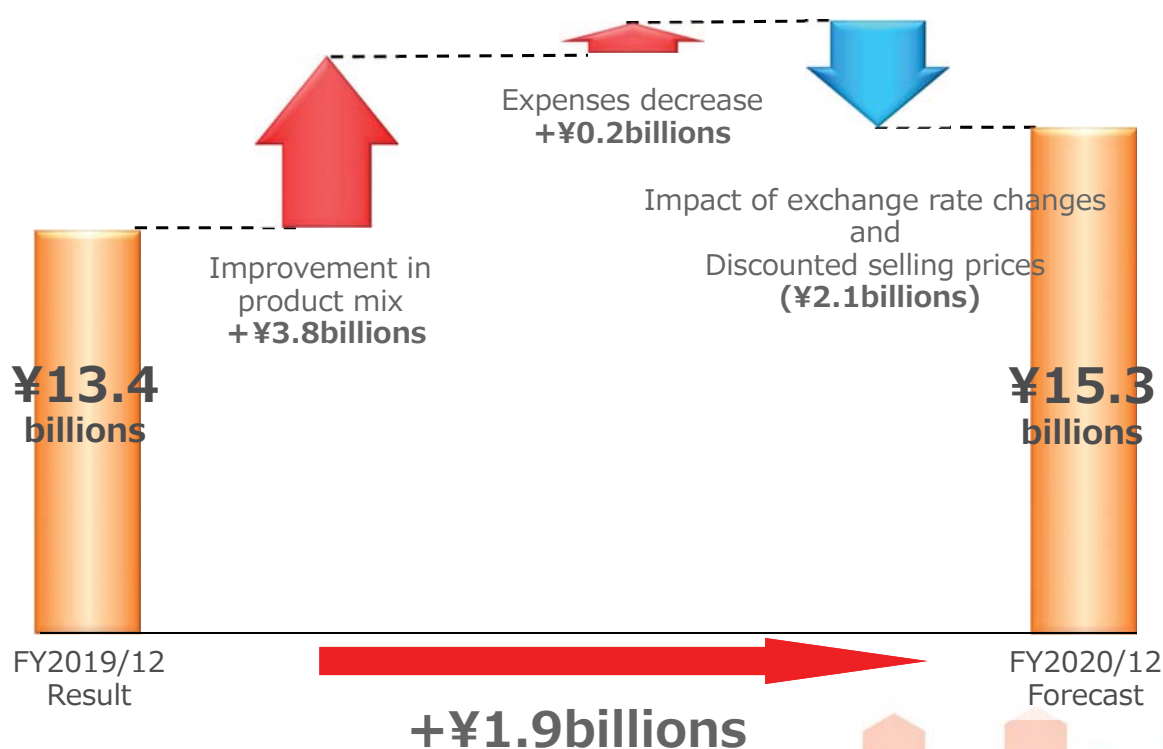
	FY2019	FY2020 Forecast		
			Change	%
Capital Investments	14,183	5,600	(8,583)	(60.5)
Depreciation	7,216	7,000	(216)	(3.0)
R&D	8,879	9,500	+621	+7.0



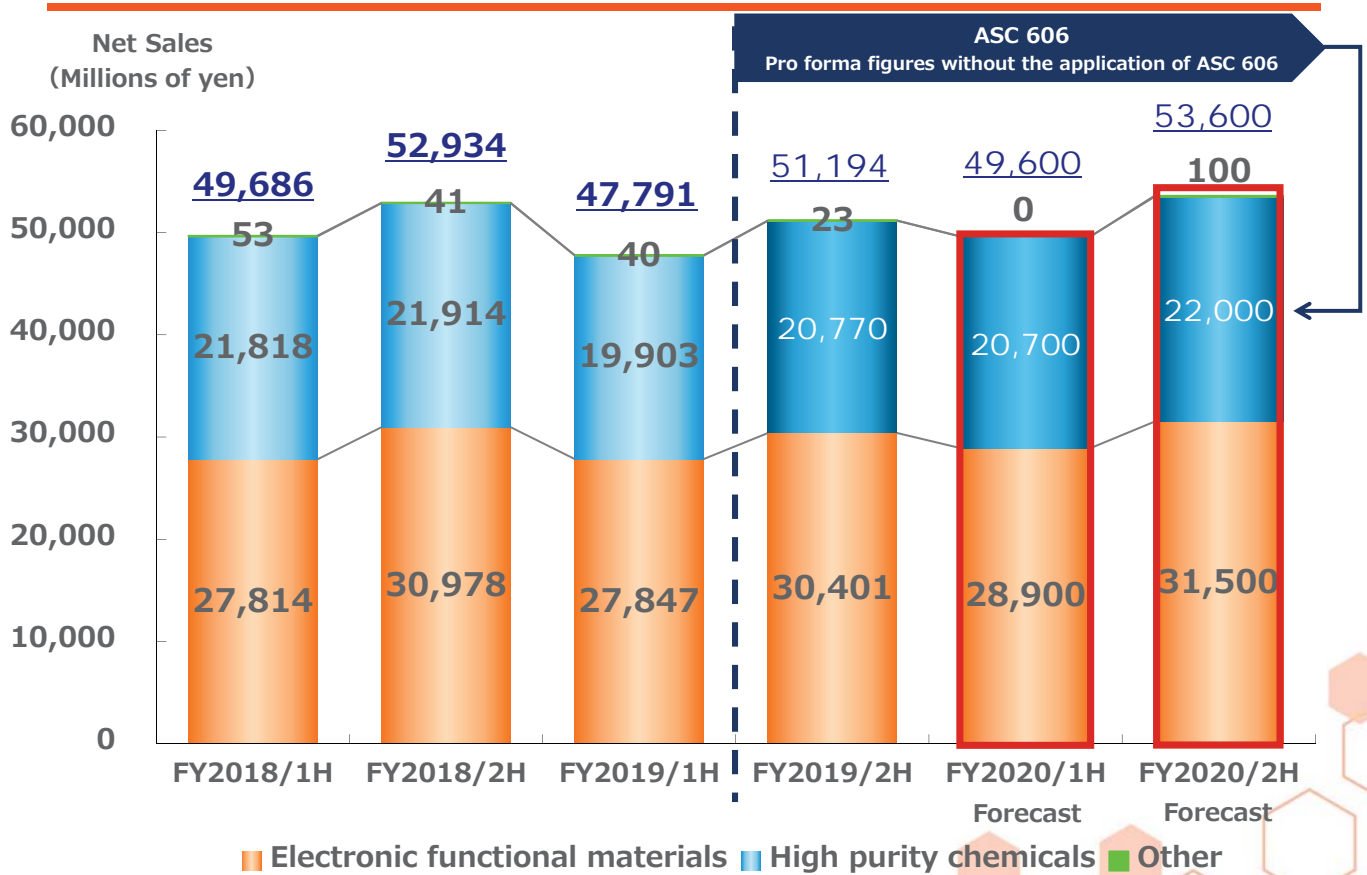
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## Breakdown of the Charge in Operating Income (Material Business)

### FY2019/12 Result v.s. FY2020/12 Forecast



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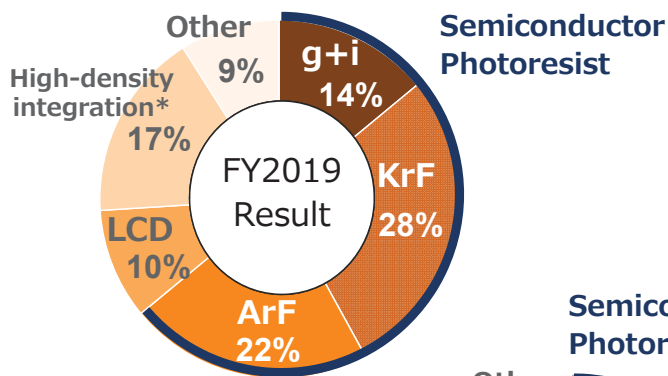


Note : An overseas consolidated subsidiary adopting US GAAP applied ASC 606 "Revenue from Contracts with Customers" effective January 1, 2019.

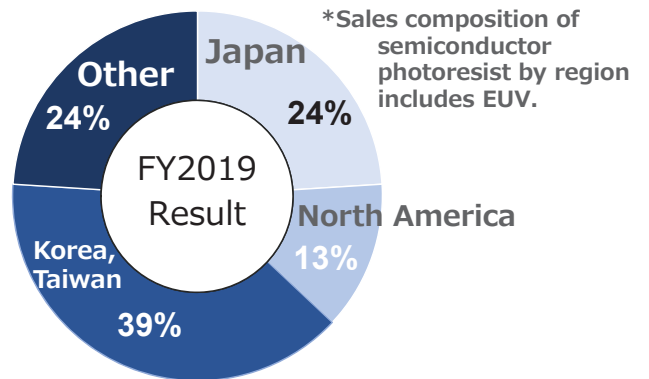
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## Electronic Functional Materials Division

Sales Composition of Electric Function Materials by Type

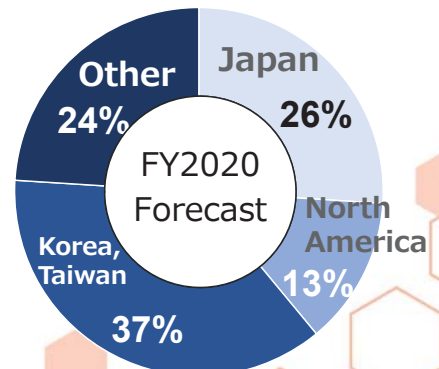
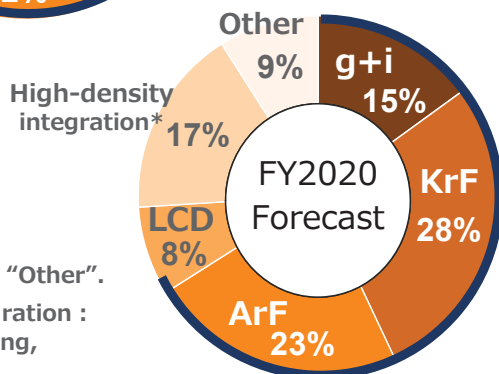


Sales Composition of Semiconductor Photoresist by Region



\*Sales composition of semiconductor photoresist by region includes EUV.

Semiconductor Photoresist



\* EUV is included in "Other".

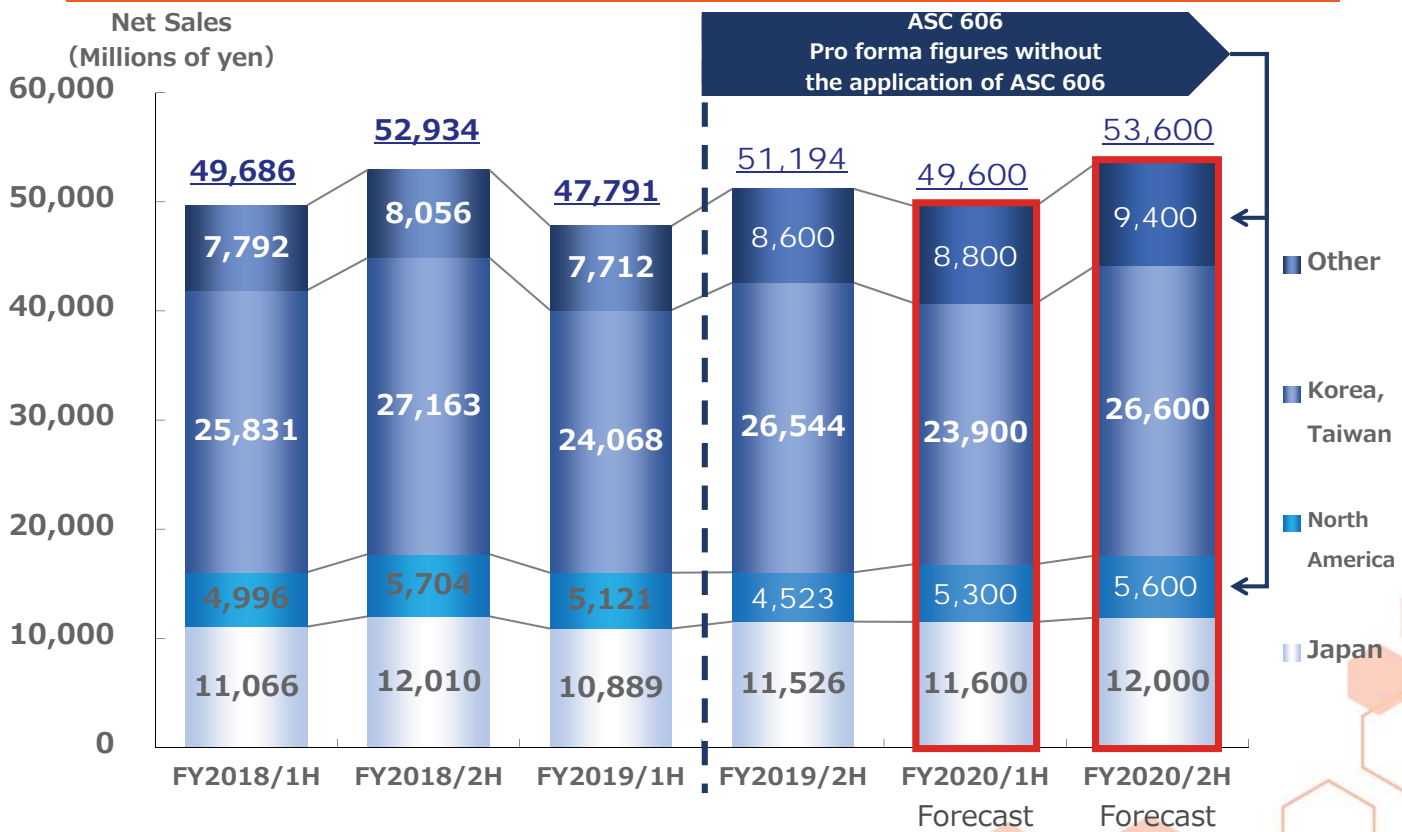
\* High-density integration : Resist for Packaging, MEMS Materials

※Regional segmentation has been changed from current term. "Other" includes Europe and Asia including China but excluding Korea and Taiwan.



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# Appendix : Sales Breakdown of Material Business by Region(Forecast)



Note : An overseas consolidated subsidiary adopting US GAAP applied ASC 606 "Revenue from Contracts with Customers" effective January 1, 2019.

Note : "Other" includes Europe and Asia including China but excluding Korea and Taiwan.



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## Initiatives in TOK Medium-Term Plan 2021



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### 1. Strengthen business portfolio reforms

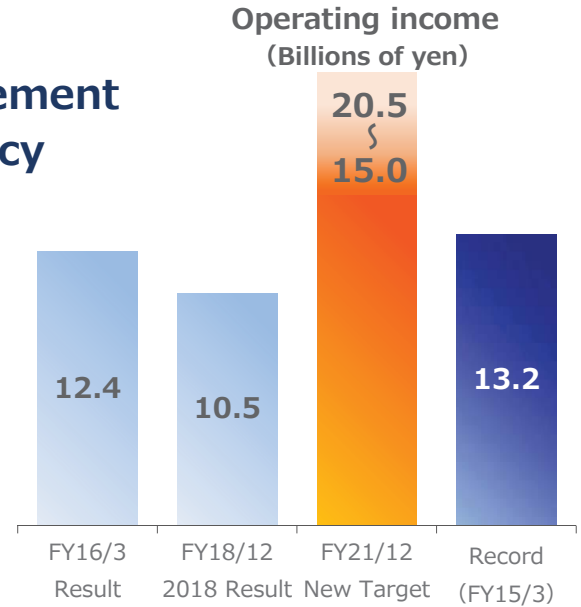
-Ambitiously develop the technologies required by **5G, IoT & Innovation**.

### 2. Return to a growth trajectory

-Operating income target: 15.0 billions to 20.5 billions yen  
(Fiscal year ending December 31, 2021)

### 3. Strengthen balance sheet management and introduce a new dividend policy

-A new dividend policy targeting a dividend on equity ratio (DOE) of **3.5%**.  
-Flexibly conduct share buyback as a means of returning profits to shareholders.

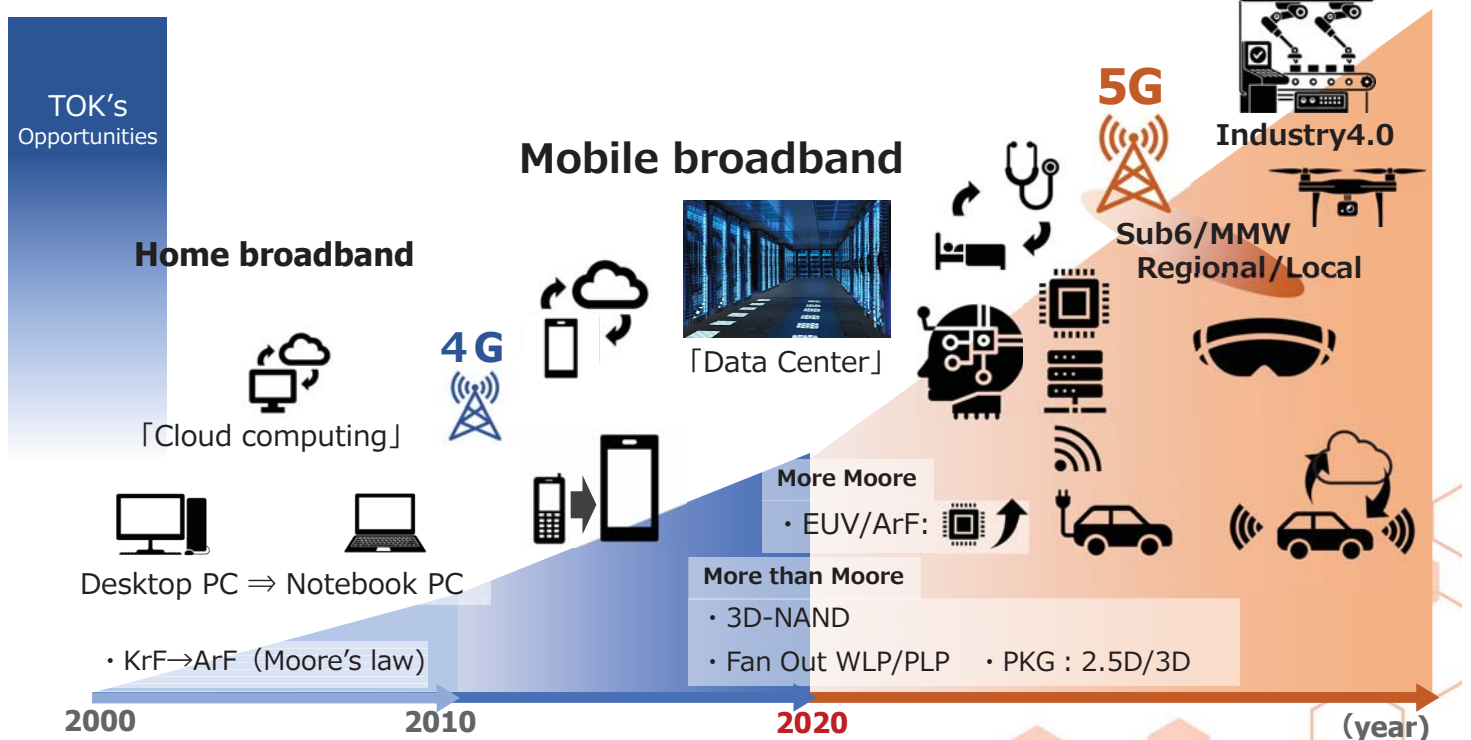


\*Operating income target is as of the announcement of the "TOK Medium-Term Plan 2021."  
"The target for the final year has not been revised."



## Future Business Environment/ Business Opportunities

### 5G·IoT&Innovation



## 1. "5G": Response to technological needs required for commercialization/full-scale use of 5G

- Further increase in data processing speed (high performance chip)  
⇒ **EUV and ArF/Advanced Surface Preparation/cutting-edge packaging materials**
- For high frequency devices  
⇒ **MEMS materials**
- Improve performance and functions of sensing devices  
⇒ **UV nanoimprint materials (new business)**

## 2. "AI": Penetration into society and industries, needs for evolution

- Higher data processing/transmission speeds  
⇒ **EUV and ArF/Advanced Surface Preparation/cutting-edge packaging materials/3D packaging equipment**
- Increase in storage capacity  
⇒ **KrF (thick film)**

## 3. "Power Management": Expansion of semiconductor market

- Expansion of power device market/increasing needs  
⇒ **Materials for IGBT circuit board/plasma ashing system**



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# Status of/initiatives for major products

### ■ EUV / ArF

※Cutting-edge photoresists = EUV + ArF

- EUV to drive sales growth of cutting-edge photoresists
- Expand sales of ArF photoresists for the Chinese market

#### □ EUV :

- Demand for 7nm-compatible photoresists increased
- Qualified our EUV photoresists for 5nm-compatible process
- Focusing on winning adoption of 3nm-compatible photoresists

#### □ ArF : Sales in China increased

### ■ KrF

- Sales growth to be driven by growing demand arising from increased production of 3D-NAND, etc.

#### □ Qualified our thick KrF photoresists for 1xx-stacked 3D-NAND

- Designed and established a system to boost production

### ■ High-density integration materials

- Strive to increase sales through advances in cutting-edge packaging technology

#### □ Packaging materials :

Sales for 3D packages increased

#### □ MEMS materials:

Sales for Asian electronic components manufacturers increased

### ■ High purity chemicals

- USA, in addition to Asia, is projected to contribute to increased sales

#### □ Enhanced production capacity of Clean Solution

- Strategic enhancement of "Advanced Surface Preparation" business



■ : Medium-term Plan Initiatives/ Targets

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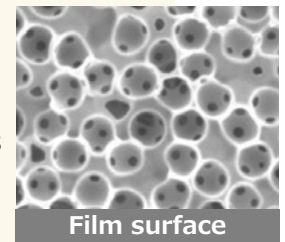
## Adopted as separators for high value-added lithium-ion secondary batteries

### High-functional films



#### Porous polyimide films

- ❑ High heat resistance
- ❑ High chemical resistance
- ❑ Ultra-low dielectric constants



### → High durable realization

1994

Launched thick-film, high-resolution DFR



1981

Developed DFR for printed circuit boards

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\*DFR: Dry Film Photoresists

2003

Launched Spinless® coater for LCD panels

1989

Developed spin coater for large circuit boards for LCD panels



1981

Developed spin coater for semiconductor photoresists

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# New Business② : Life science-related materials

## For next-generation DNA sequencers

### (1) Materials for biochip manufacturing

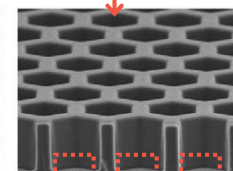
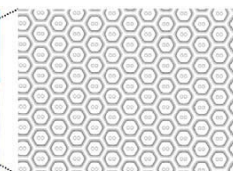
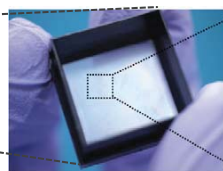
- ❑ Provide technology to form complicated device structure with micro-level precision using MEMS structure forming materials that can form high-resolution, high-adhesion, and high-aspect ratio patterns
- ❑ Current: Optical DNA analysis → Next generation: DNA analysis with electric signal detector
- ❑ Current: Achieved cost reduction → Next generation: Expectation for further reduction of analysis time and precision improvement

Contribute to accelerating the study of pathological diagnosis with low burden to patients

### (2) Developed and started selling cell sequencing chip (SIEVEWELL™)

- ❑ Provide kit by forming microwell structure with TOK's materials to form MEMS structure
- ❑ Collect and analyze target cells

Microwell captures each of 370,000 cells



Through holes at the bottom of each microwell

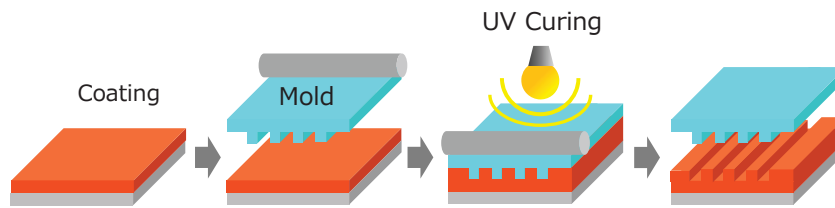
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## Light-controlling materials

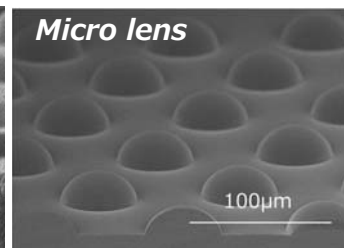
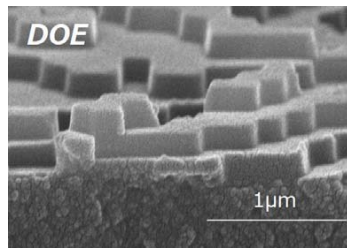
### Provide UV nanoimprint materials for optical element

- Purpose of manufacturing optical materials to be used in AR/VR devices and 3D sensors, etc.
- Micro lens materials (film thickness: 10 - 30μm)



### Features

- Can control refractive index
- High transparency/high durability



Note: Diffractive Optical Element (DOE) shapes irradiation light with a microscopic concave-convex structure.



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**Explore New Technologies and Enhance Technological Capabilities to Meet Social Expectations with Chemicals for a Sustainable Earth**

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(Note)

This presentation material contains forward-looking statements that describe future prospects of TOKYO OHKA KOGYO CO., LTD. (the Company) in terms of business planning, earnings and management strategies. Such statements are based on management's judgement, derived from information available to it at the time such information was prepared. Readers are cautioned not to rely solely on these forward-looking statements, as actual results and strategies may differ substantially according to changes in the Company's business environment.

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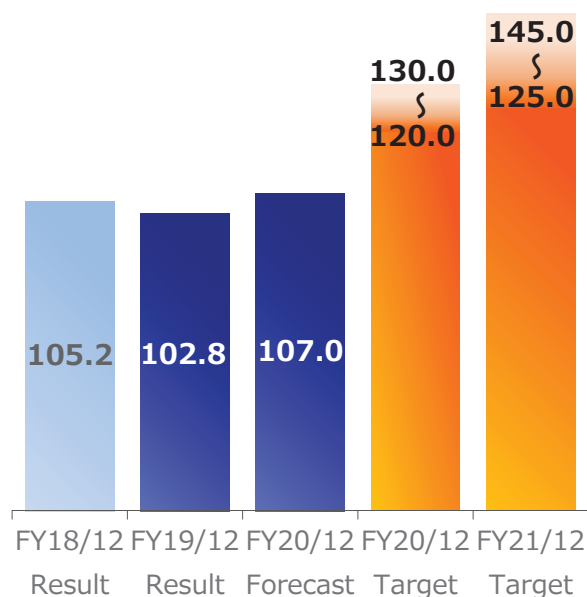
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## Appendix① : Progress toward the Medium-Term Plan Targets (Performance Targets)

31

### Net sales

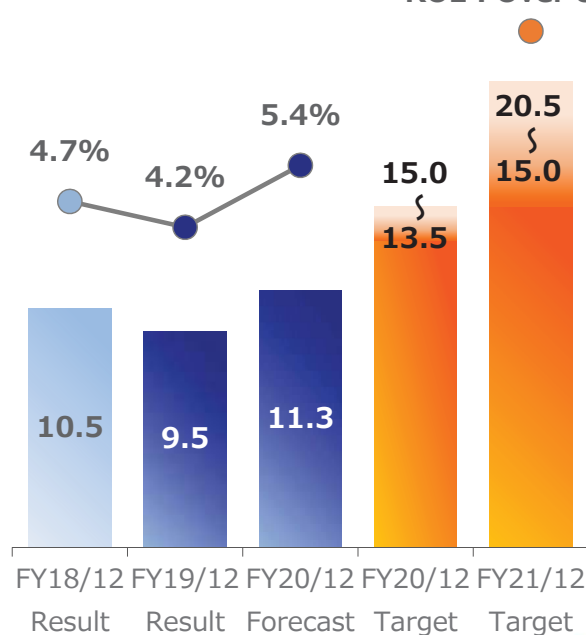
(Billions of yen)



### Operating income/ROE

(Billions of yen)

ROE : Over 8.0%



Note : Targets for FY2020/12 and FY2021/12 are as of February 14, 2019, the date of the announcement of the "TOK Medium-Term Plan 2021."

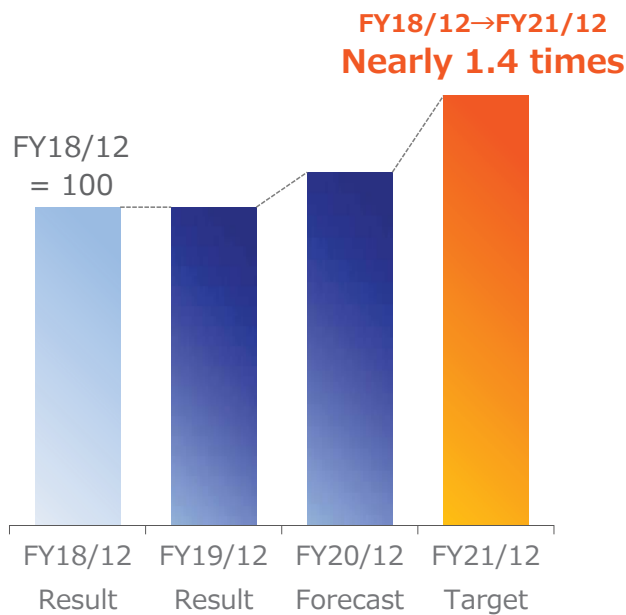
Note : Forecasts for FY2020/12 is as of February 13, 2020, the date of announcement of the financial results for the year ended December 31, 2019.

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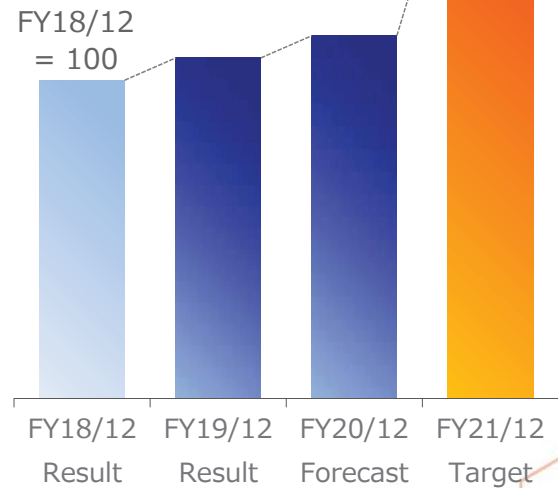
## Cutting-edge (EUV/ArF)

(※) Cutting-edge photoresists = EUV + ArF



## KrF

FY18/12→FY21/12  
Nearly 1.7 times

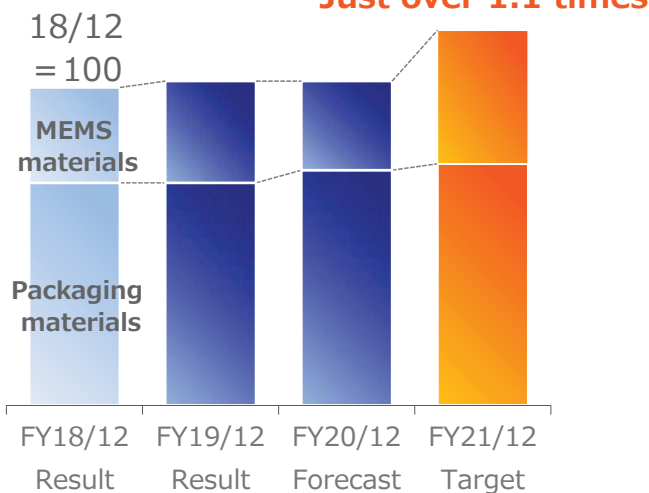


Note : Targets for FY2020/12 and FY2021/12 are as of February 14, 2019, the date of the announcement of the "TOK Medium-Term Plan 2021."

Note : Forecasts for FY2020/12 is as of February 13, 2020, the date of announcement of the financial results for the year ended December 31, 2019.

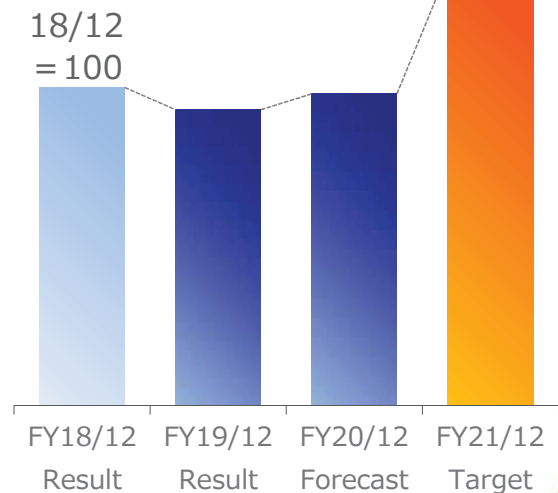


## High-density Integration Materials



## High-purity chemicals

FY18/12→FY21/12  
Nearly 1.4 times

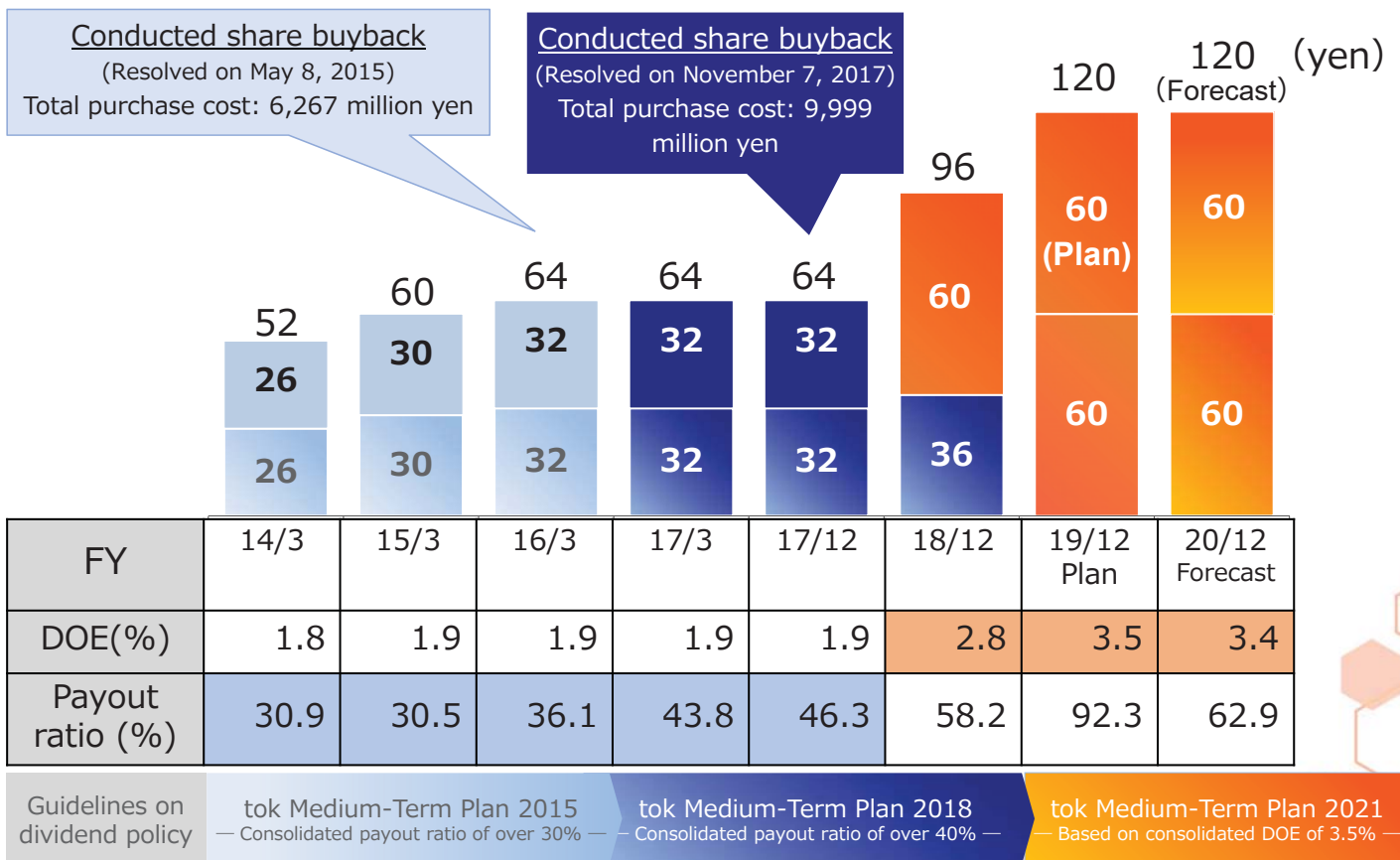


Note : Targets for FY2020/12 and FY2021/12 are as of February 14, 2019, the date of the announcement of the "TOK Medium-Term Plan 2021."

Note : Forecasts for FY2020/12 is as of February 13, 2020, the date of announcement of the financial results for the year ended December 31, 2019.



# Appendix③ : Trends in Shareholder Returns and Dividends 34



# Identification of Material Issues 35

Improve sustainable corporate value and create shared value through efforts to contribute to achievement of SDGs related to our material issues

- Development and provision of high value-added products that will contribute to innovation

## Achieving SDGs

- Enhancement of personnel measures

- Occupational health and safety/security and disaster prevention

- Environmental protection

- Chemical substance management

- Enhancement of corporate governance

