

# **TOKYO OHKA KOGYO CO., LTD.**

## **Business Results**

**— The 1st Half of Fiscal Year  
ending March 2017—**

**November 8, 2016**

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# Consolidated Business Results for the 1st Half of FY2017

## Summary

(Millions of yen)

	FY2016/1H	FY2017/1H		
			Change	%
Net sales	44,805	42,897	(1,908)	(4.3)
Operating income	7,271	5,383	(1,887)	(26.0)
Ordinary income	7,441	4,803	(2,638)	(35.4)
Profit attributable to owners of parent	4,898	3,303	(1,595)	(32.6)

- Average exchange rate (US\$): ¥120.8/\$ (FY2016/1H) ⇒ ¥103.8/\$ (FY2017/1H)
- Net Sales: Decreased due to impact of yen's appreciation in addition to decline in high purity chemicals sales.
- Operating Income: Decreased 26.0% due to yen's appreciation despite largely exceeding the initial forecast (on May 10, 2016.)
- Ordinary Income: Decreased 35.4% due to an increase in foreign exchange loss.

## Non-operating expenses or income/Extraordinary losses or income

(Millions of yen)

	FY2016/1H	FY2017/1H	YoY
Non-operating expenses or income	170	(579)	(750)
Interest and dividend income	+157	+130	(26)
(Difference profit and loss to exchange)	(Δ94)	(Δ891)	(Δ797)
Exchange gain and loss	(37)	(1,427)	(1,389)
Derivative appraisal profit or loss	(57)	+535	+592
Preparation expenses	(85)	—	+85
Extraordinary losses or income	(57)	162	+220
Gain on sale of investment securities	0	+265	+265
Impairment loss	(51)	—	+51
Losses due to disasters	—	(91)	(91)

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## Results by Business Segment

(Millions of yen)

	FY2016/1H	FY2017/1H		
		Change	%	
Net sales	44,805	42,897	(1,908)	(4.3)
Material Business	43,835	41,576	(2,259)	(5.2)
Electronic functional materials	25,420	25,822	+402	+1.6
High purity chemicals	18,309	15,667	(2,642)	(14.4)
Other	105	86	(19)	(18.4)
Equipment Business	969	1,321	+351	+36.2
Operating income	7,271	5,383	(1,887)	(26.0)
Material Business	9,026	7,356	(1,669)	(18.5)
Equipment Business	(139)	(178)	(39)	—
Eliminations and corporate	(1,615)	(1,795)	(179)	—

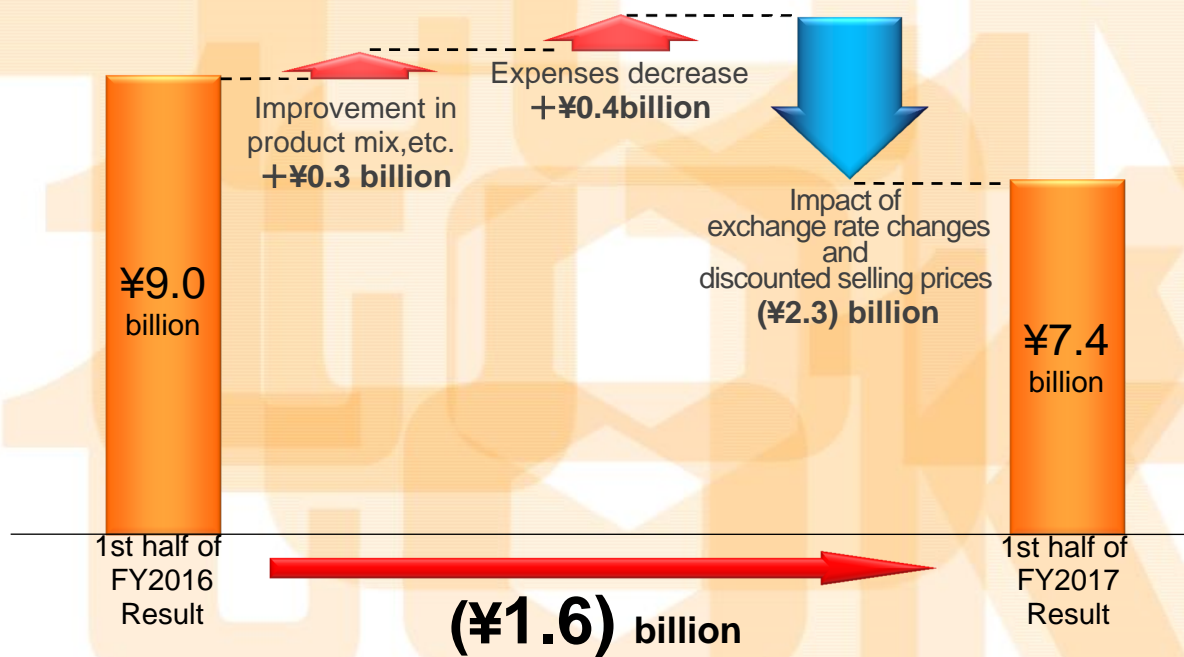
(Note) Net sales of the Equipment Business are the figures after elimination of inter-segment sales.

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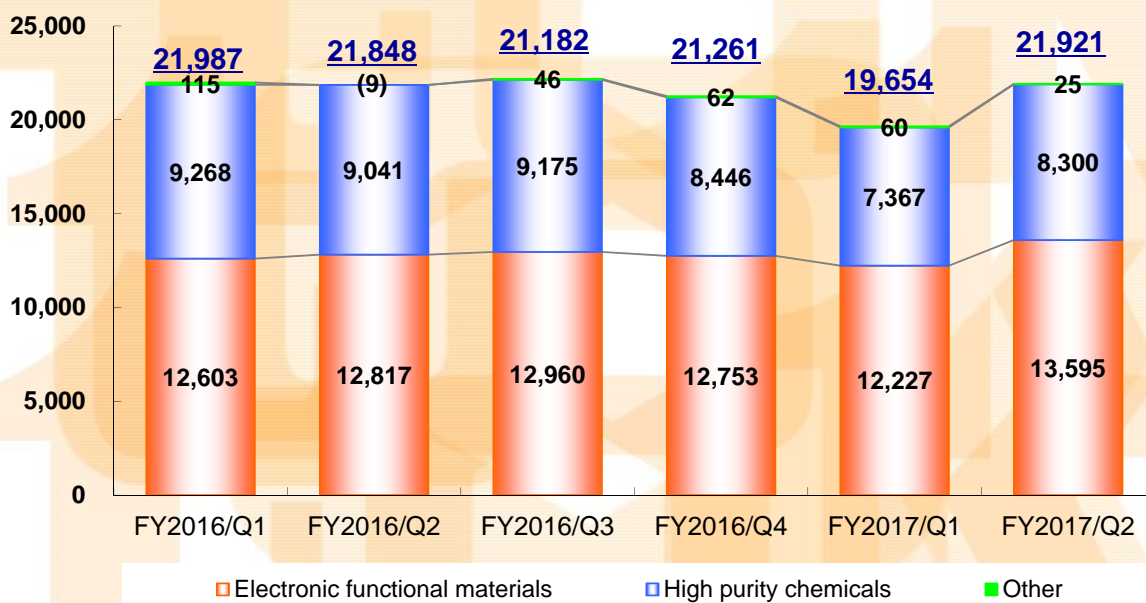
# Breakdown of the Change in Operating Income (Material Business)

1st half of FY2016 result vs 1st half of FY2017 result



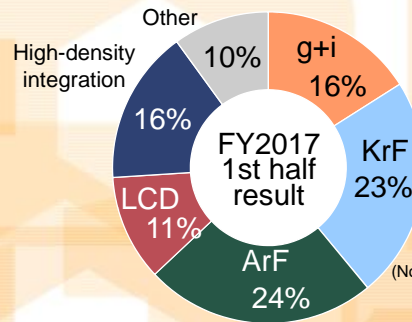
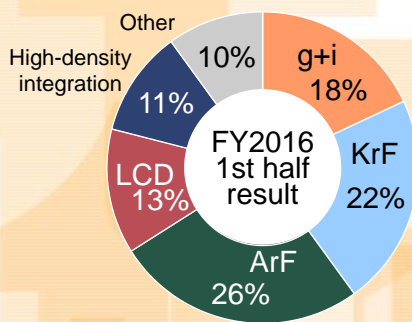
# Sales Breakdown of Material Business

Net Sales (Millions of yen)



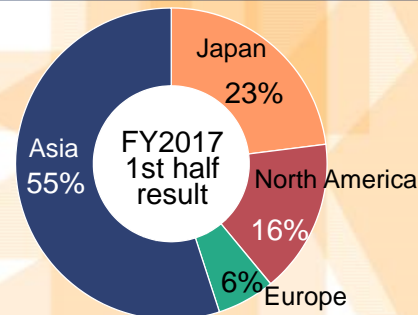
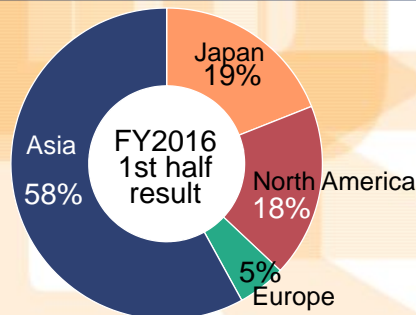
# (Reference) Electronic Functional Materials Division

## Sales Composition of Electronic Functional Materials by Type



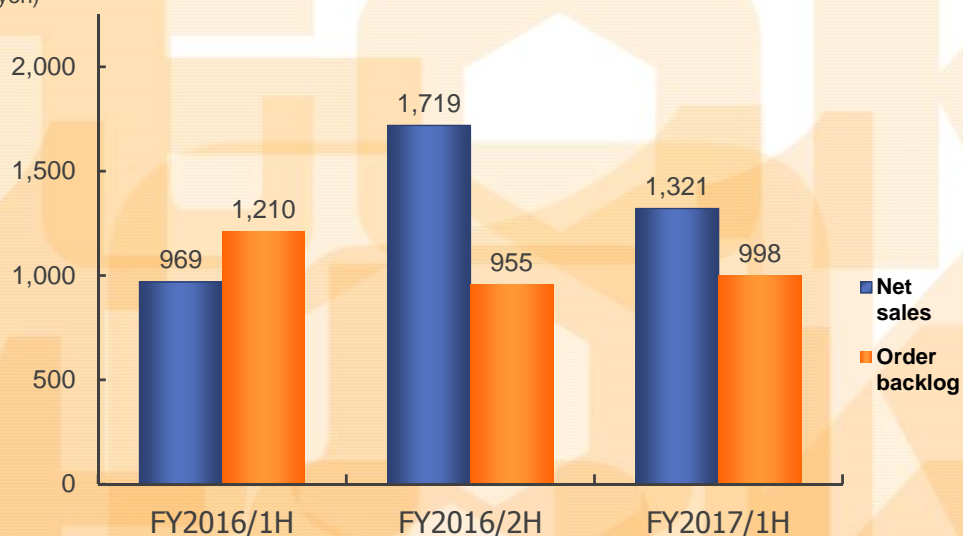
(Note) High-density integration: Photoresist materials, MEMS materials

## Sales Composition of Semiconductor Photoresist by Region



# Equipment Business

Net sales/Order backlog  
(Millions of yen)



(Millions of yen)	FY2016/1H	FY2016/2H	FY2017/1H
Term-end order backlog	1,440	1,140	1,016

(Note) The net sales of the equipment business is the figure after elimination of inter-segment sales.

# Balance Sheets

(Millions of yen)

	As of September 30, 2016	vs March 31, 2016
<b>Current assets</b>	<b>85,848</b>	<b>(1,265)</b>
Cash and deposits	49,257	(1,618)
Notes and accounts receivable	18,292	+370
Inventories	12,734	(265)
<b>Property, plant and equipment</b>	<b>46,905</b>	<b>(1,008)</b>
<b>Intangible assets</b>	<b>640</b>	<b>(108)</b>
<b>Investments and other assets</b>	<b>30,934</b>	<b>(589)</b>
<b>Current liabilities</b>	<b>17,515</b>	<b>+385</b>
Notes and accounts payable	7,848	+60
<b>Non-current liabilities</b>	<b>1,517</b>	<b>(1,381)</b>
<b>Total net assets</b>	<b>145,295</b>	<b>(1,975)</b>
<b>Total assets</b>	<b>164,328</b>	<b>(2,971)</b>

Buildings and structures (1,029)  
Machinery and equipment (2,221)  
Furniture and fixtures +477  
Land (286)  
Construction in progress +2,065

Retained earnings +1,789  
Treasury stock +688  
Foreign currency translation adjustment (3,949)

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# Cash Flows

(Millions of yen)

	FY2016/1H	FY2017/1H
<b>Cash flows from operating activities</b>	<b>+5,774</b>	<b>+5,494</b>
Income before income taxes and minority interests	+7,384	+4,966
Depreciation	+2,685	+2,841
Decrease (increase) in trade notes and accounts receivable	+954	(1,499)
Decrease (increase) in inventories	(790)	(740)
Decrease (increase) in trade notes and accounts payable	(2,624)	+457
Increase (decrease) in advances received	+457	+5
Income taxes paid	(2,480)	(1,219)
<b>Cash flows from investing activities</b>	<b>(3,093)</b>	<b>(5,180)</b>
<b>Cash flows from financing activities</b>	<b>(7,633)</b>	<b>(1,261)</b>
<b>Translation adjustments</b>	<b>+223</b>	<b>(1,907)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(4,729)</b>	<b>(2,855)</b>

Exp. Purchases of property, plant and equipment (4,002)

Exp. Dividends paid (1,381)

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# Consolidated Performance Forecasts for FY2017

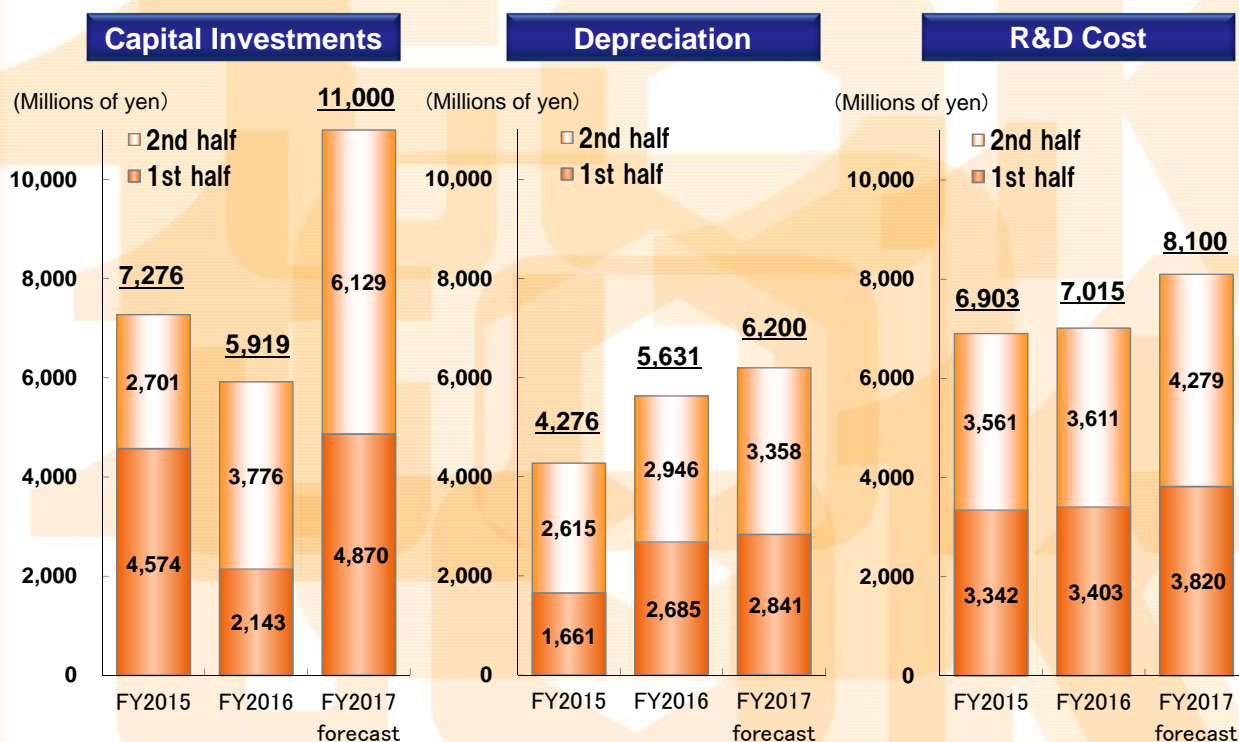
## Earnings Forecasts (Full-year)

(Millions of yen)

	FY2016 Results	FY2017 Forecasts		
			Change	%
Net sales	89,969	87,300	(2,669)	(3.0)
Operating income	12,438	9,400	(3,038)	(24.4)
Ordinary income	12,684	9,400	(3,284)	(25.9)
Profit attributable to owners of parent	7,716	6,300	(1,416)	(18.4)

- Exchange rate assumptions (US\$): 119.3¥/\$ (FY2016) ⇒ 105.0¥/\$ (FY2017/2H)
- Net sales: Expected to decrease 3.0% due to lower-than-expected growth of Equipment Business although high-density integration materials and high purity chemicals are expected to exceed the initial forecasts (on May 10, 2016.)
- Operating income: Expected to decrease 24.4% due to a large impact of yen's appreciation despite expectation to exceed the initial forecast as a result of product mix improvement.

# Capital Investments/Depreciation/R&D



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# Performance Forecasts by Business Segment

(Millions of yen)

	FY2016	FY2017 Full-year forecasts	
	Full-year results	Change	%
<b>Net sales</b>	89,969	87,300	(2,669) (3.0)
<b>Material Business</b>	87,280	84,100	(3,180) (3.6)
Electronic functional materials	51,134	51,900	+765 +1.5
High purity chemicals	35,931	32,100	(3,831) (10.7)
<b>Equipment Business</b>	2,689	3,200	+510 +19.0
<b>Operating income</b>	12,438	9,400	(3,038) (24.4)
<b>Material Business</b>	16,203	13,600	(2,603) (16.1)
<b>Equipment Business</b>	(423)	(400)	+23 —
<b>Eliminations and corporate</b>	(3,342)	(3,800)	(457) —

(Note) The net sales of the equipment business is the figure after elimination of inter-segment sales.

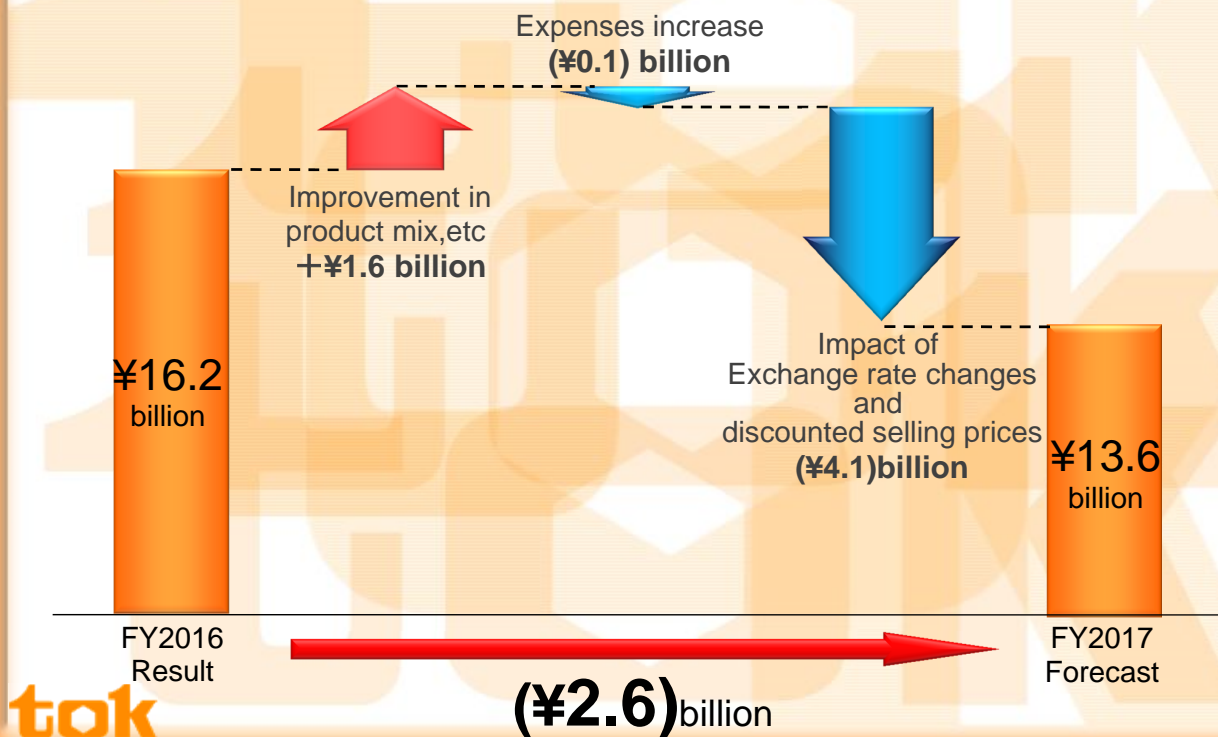
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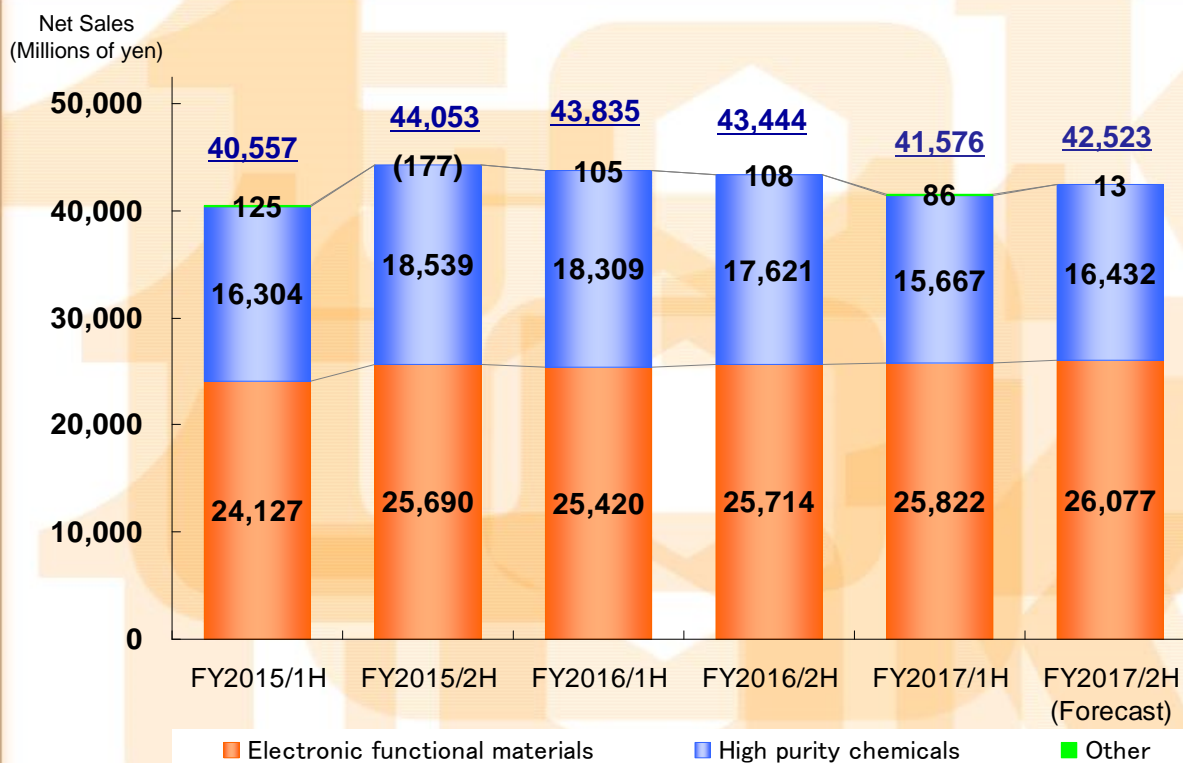


## Breakdown of the Change in Operating Income (Material Business)

### FY2016 Result vs FY 2017 Forecast



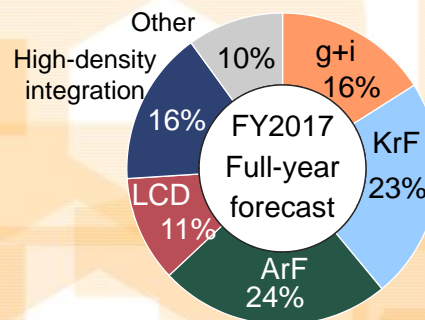
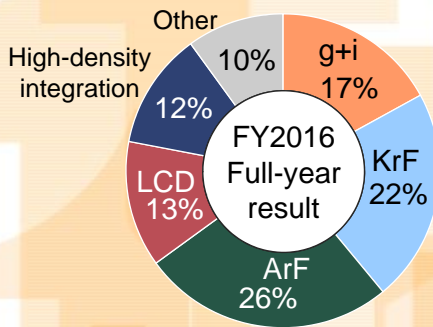
## Sales Breakdown of Material Business (Forecast)



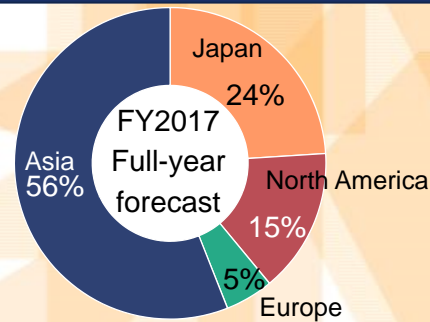
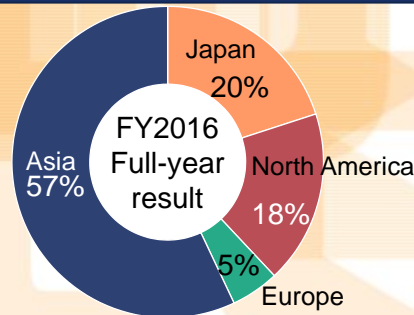
(Note) The second half forecast is obtained by subtracting first-half results from the full-year forecast.

## (Reference) Electronic Functional Materials Division

### Sales Composition of Electronic Functional Materials by Type



### Sales Composition of Semiconductor Photoresist by Region



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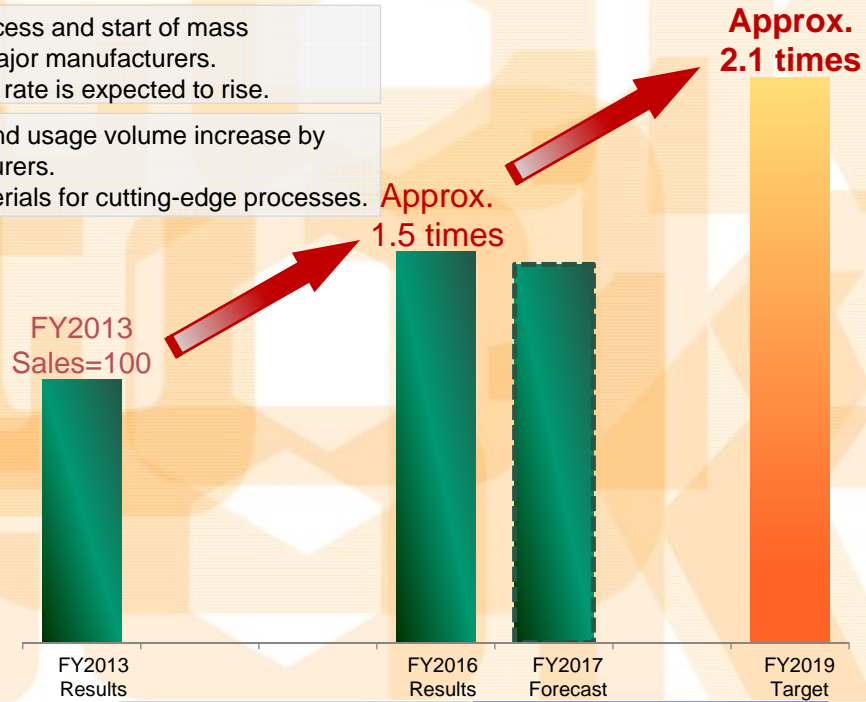
## Topics

—Initiatives under  
TOK Medium-Term Plan 2018—

# ArF Resist

Increasing demand for **1Xnm** generation, win customers adopting **10nm or less**

- Logic** Shift to new process and start of mass production by major manufacturers.  
⇒ The utilization rate is expected to rise.
- Memory** New adoption and usage volume increase by major manufacturers.  
⇒ Develop materials for cutting-edge processes.



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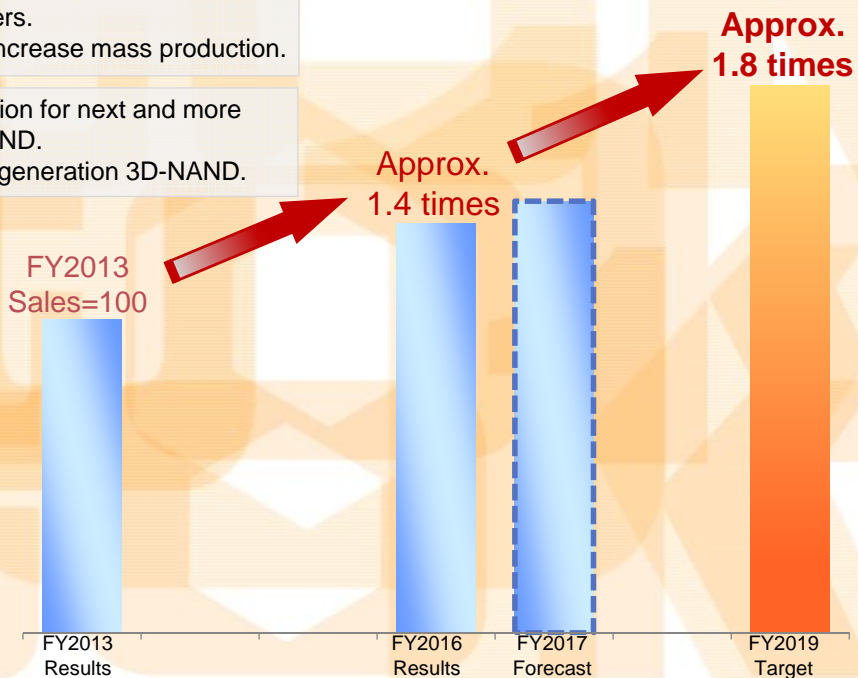
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# KrF Resist

Increase adoption of thick-film photoresists for **3D-NAND**

Steady increase in mass production volume of 3D-NAND by major manufacturers.  
⇒ Other manufacturers to increase mass production.

Respond to materials selection for next and more advanced generation 3D-NAND.  
⇒ Win the adoption in next generation 3D-NAND.



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# High-density integration Materials

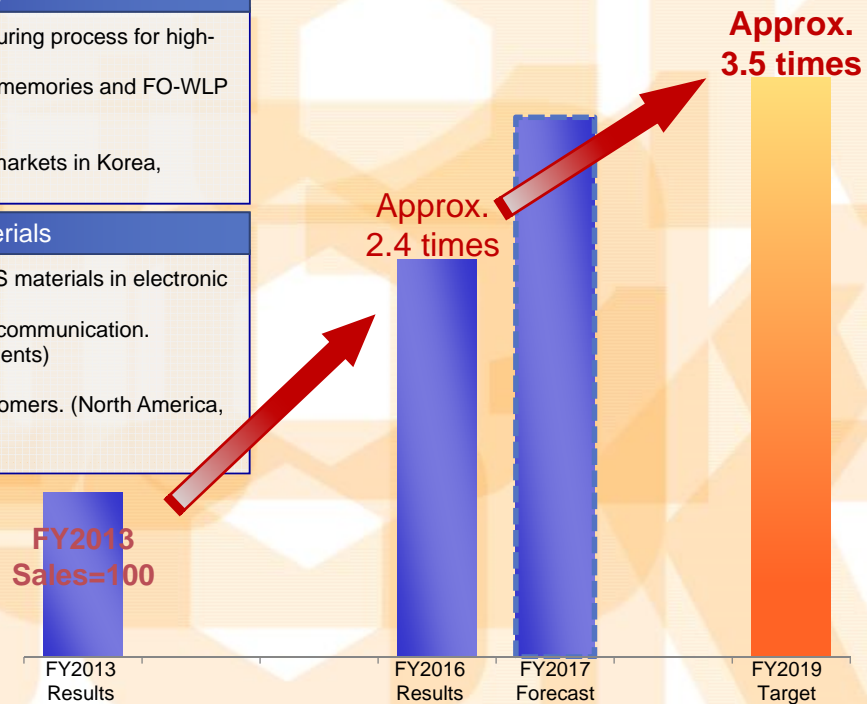
Increase the supply for **new/ advanced** processing applications

## Advanced process integration materials

- Adopted in FO-WLP manufacturing process for high-end smartphone's application.
- Expansion of next-generation memories and FO-WLP technologies.
- ↓
- Aggressive approach to the markets in Korea, Taiwan, and China.

## MEMS Materials

- Expand applications of MEMS materials in electronic components, etc. (Various sensors, devices for communication equipment, electronic components)
- ↓
- Develop new needs and customers. (North America, Japan)
- Develop European markets.



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**(Note)**

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