

TOKYO OHKA KOGYO CO., LTD. Business Results

- tok Medium-Term Plan 2021-

Feb 15,2019

TOKYO OHKA KOGYO CO., LTD.

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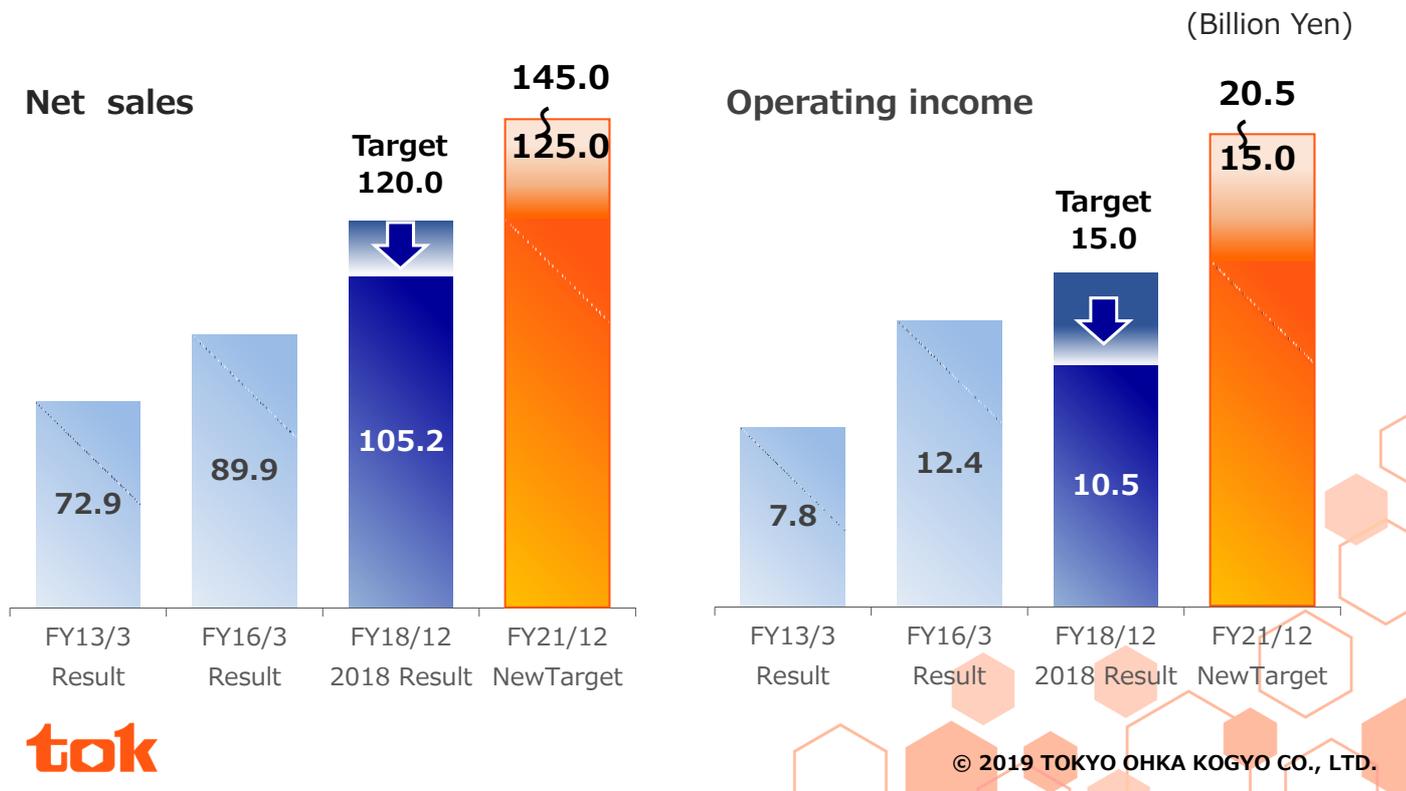
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Previous Medium-Term Plan: Targeted record-high profits in the final year, but profit growth continued to slow down.

⇒ New Medium-Term Plan: Successfully return to a growth trajectory.



Review of tok Medium-Term Plan 2018 (1):
Business Performance

Reasons for unachieved profit targets:
Sales fell short of targets in ArF photoresists, the Equipment Business, and new business. Continuous efforts are needed to implement business portfolio reforms.

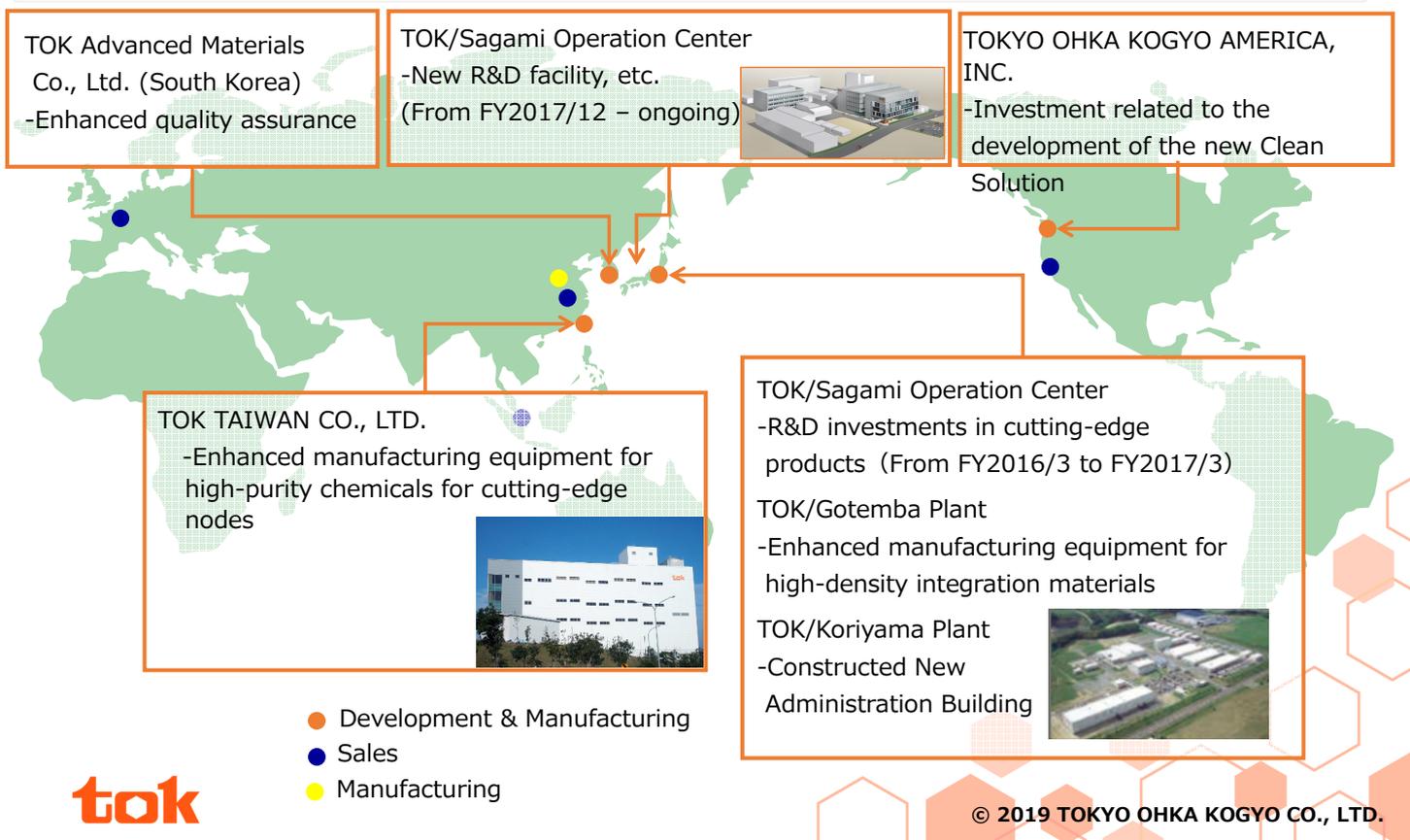
Net sales: Fell short of target
by 14.8 billion yen

Operating income: Fell short of target
by 4.5 billion yen

Businesses /Products	vs. sales targets	Main reasons for achieving or not achieving targets
ArF	Unachieved	<ul style="list-style-type: none"> A major customer did not adopt(Asia) Delay in major customers' production plans(Asia, USA)
KrF	Achieved	<ul style="list-style-type: none"> Adoption for 3D-NAND (Japan, Asia) Increased demand due to expansion of 3D-NAND mass production (Japan, Asia)
High-density integration materials	Achieved	<ul style="list-style-type: none"> A major customer adopted for FOWLP (semiconductor field) Customers in Japan and overseas adopted and expanded uses (electronic components field) Price decreased due to growing demand (Asia) Customers decreased production in their lines (Japan, USA)
High-purity chemicals	Achieved	<ul style="list-style-type: none"> A major customer expanded adoption on next-generation production line (Asia) Adoption of and increased demand for new Clean Solution (Asia, USA)
Equipment Business	Unachieved	<ul style="list-style-type: none"> Delayed expansion of 3D packaging process market
New business	Unachieved	<ul style="list-style-type: none"> Delay in commercializing focused themes (high-functional films and NIL, etc.)

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Strengthened R&D and the production bases
by executing capital investment of 21.7 billion yen.



■ Company-Wide Strategies

- ❑ **Accurately identify and rapidly address the customers' voice to build an even larger and stronger pipeline to customers**

 - Rapidly and steadily work to develop a support structure rigorously focused on customer satisfaction along with R&D.
- ❑ **Strengthen marketing, increase understanding of the customers' value creation processes and translate these efforts into new value creation**

 - Through rigorous marketing, TOK will carefully identify solutions that lead to the creation of new value for customers as it makes intensive and proactive efforts to address those solutions.
- ❑ **3Strengthen human resources who can perform research, make decisions, and take actions on their own initiative**

 - Bolster human resources that will pursue the possibilities of business with a variety of customers and continue to tackle challenges until they succeed.
- ❑ **Strengthen tok management foundation**

 - Focus on further sophisticating Group management, improving corporate governance, and promoting balance sheet management to utilize management resources more efficiently.

tok Medium-Term Plan 2021

Management Vision

Aim to be a globally trusted corporate group by inspiring customers with high value-added products that have satisfying features.

Company-Wide Goal

Cultivate niche markets that the TOK Group should develop.

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Features of the tok Medium-Term Plan 2021

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Point① : Strengthen business portfolio reforms

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

Point② : Return to a growth trajectory

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

Point③ : Strengthen balance sheet management and introduce a new dividend policy

-A new dividend policy targeting a dividend on equity ratio (DOE) of 3.5%.

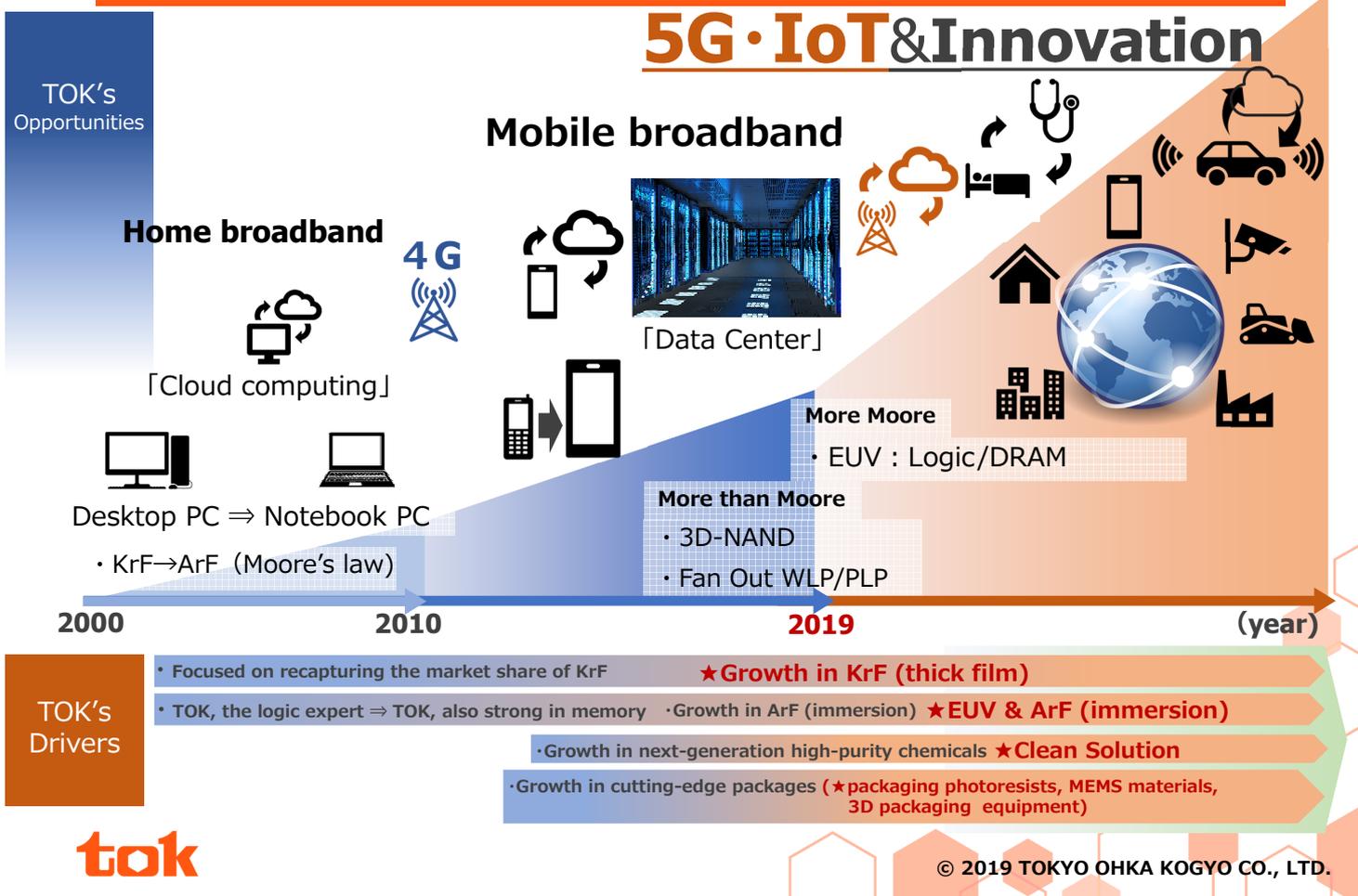
⇒ Dividends applicable to the year per share forecast = 120 yen (Fiscal year ending December 31, 2019)

-Flexibly conduct share buyback as a means of returning profits to shareholders.

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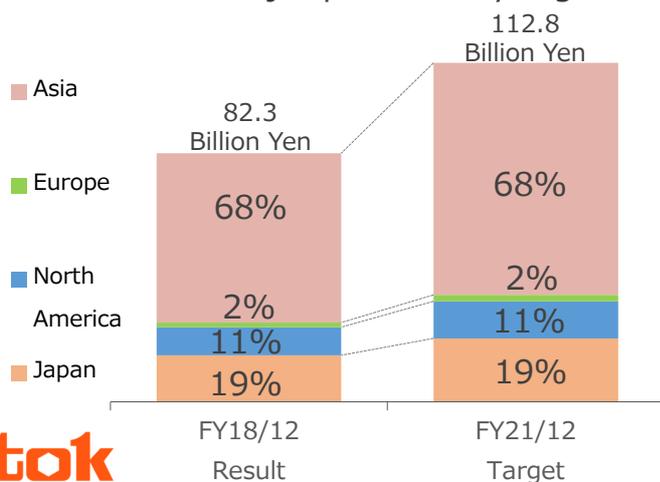
5G·IoT&Innovation



Performance targets

(Billion Yen)	FY18/12 Result	FY19/12 Forecast	FY20/12 Target	FY21/12 Target
Net sales	105.2	111.6	120.0 to 130.0	125.0 to 145.0
Operating income	10.5	10.5	13.5 to 15.0	15.0 to 20.5
ROE (%)	4.7%	---	---	Over 8.0%
Exchange rate (US\$/yen)	109.5	105.0	105.0	105.0

Sales of major products by region

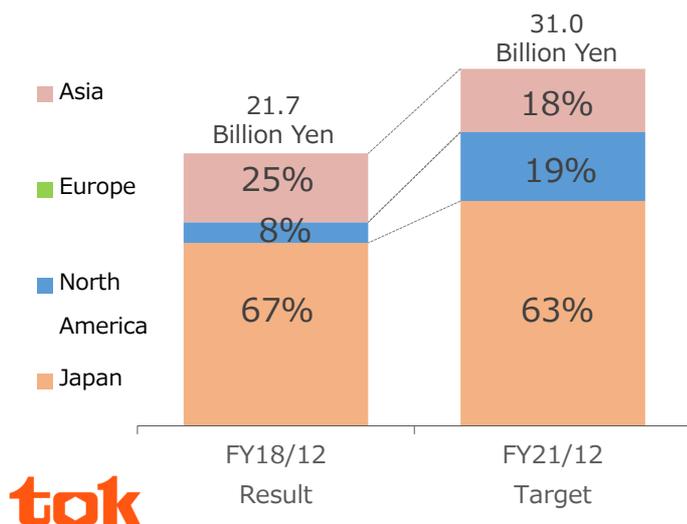


- Sales growth will be driven by Asia.
- Sales increase in China is expected to surpass sales increases in Taiwan and South Korea.

Note: Regional sales of 4 major products (ArF/KrF excimer laser photoresists, high-density integration materials, high-purity chemicals)

(Billion Yen)	TOK Medium-Term Plan 2015 (2013/4 to 2016/3)	TOK Medium-Term Plan 2018 (2016/4 to 2018/12)	TOK Medium-Term Plan 2021 (2019/1 to 2021/12)
Capital investments	27.7	21.7	31.0
Depreciatio	12.5	19.2	24.0
R & D	20.3	23.6	28.0

Capital investments (by region)



- The capital investment budget for USA has been increased.
- The capital investment budget for Asia has been reduced, but the budget for South Korea has been increased dramatically.

Highlights of Capital Investment Plan

Capital investment of 16.5 billion yen is planned for the first year, primarily for expansion of production facilities.

TOK Advanced Materials Co., Ltd.
(South Korea)

- Expand photoresist production facilities
- Planned completion: 2020/4Q



TOKYO OHKA KOGYOAMERICA, INC.

- Expand production facilities for new Clean Solution for cutting-edge processes
- Planned completion: 2019/4Q



TOK TAIWAN CO., LTD.

- Expand production facilities for high-purity chemicals for 5nm and narrower nodes
- Planned completion: 2020/4Q



TOK/Sagami Operation Center

- New R&D facility, etc.
- Planned completion: 2019/3Q (continuing project from the previous Medium-Term Plan)

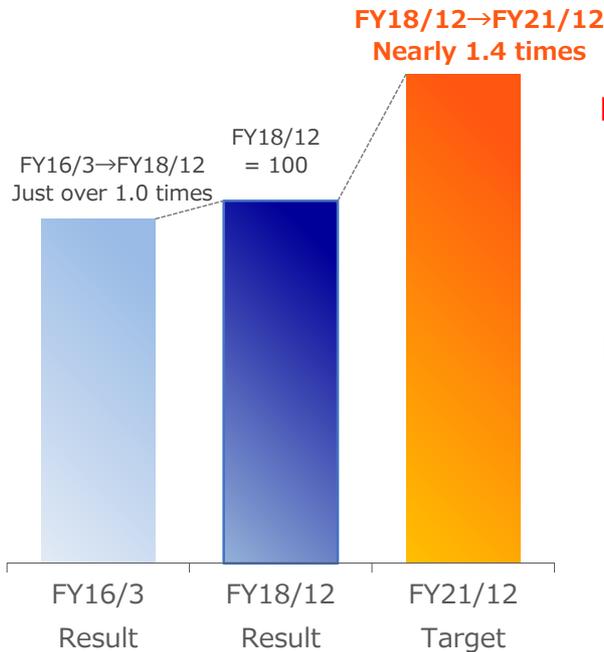


- Development & Manufacturing
- Sales
- Manufacturing

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

Sales results and target

*Cutting-edge photoresists = ArF (Immersion + Dry) + EUV



ArF

- ▣ Sales expected to increase to Asia and USA.
- ▣ Sales growth in China to contribute to increased sales.

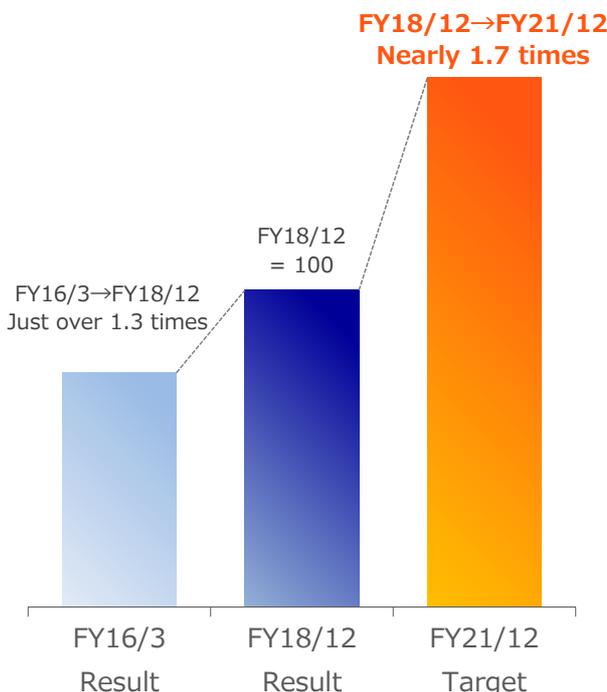
EUV

- ▣ Factoring in increased sales for both memory and logic.
- ▣ Win adoption of 5nm and 3nm-compatible photoresists and translate this into growth from 2022.



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

Sales results and target



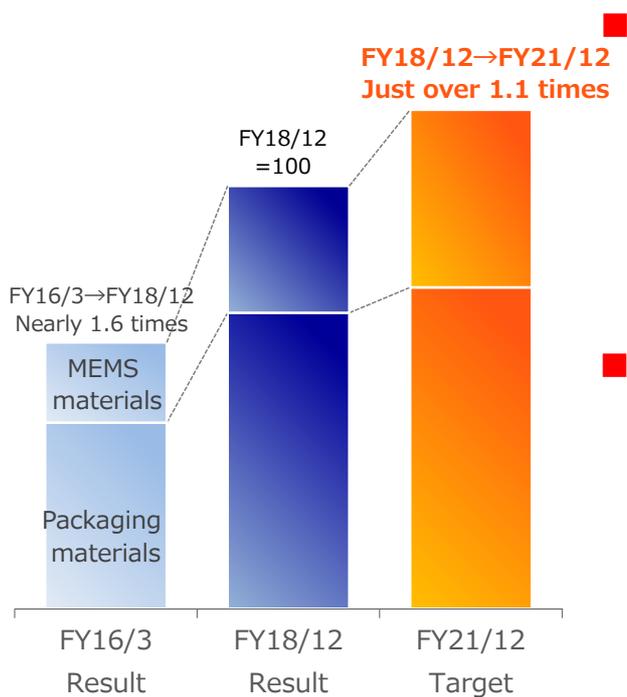
KrF

- ▣ Further multilayer stacking of 3D-NAND
Address 9x-layers to 1xx-layers.
- ▣ Sales growth to be driven by growing demand in Japan and expanding sales to Asia.



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

Sales results and target



Packaging materials

- Maintain TOK's share among existing customers amid forecasts of market expansion
- Expand sales to OSAT.
- Win adoption for use in the cutting-edge bump process.

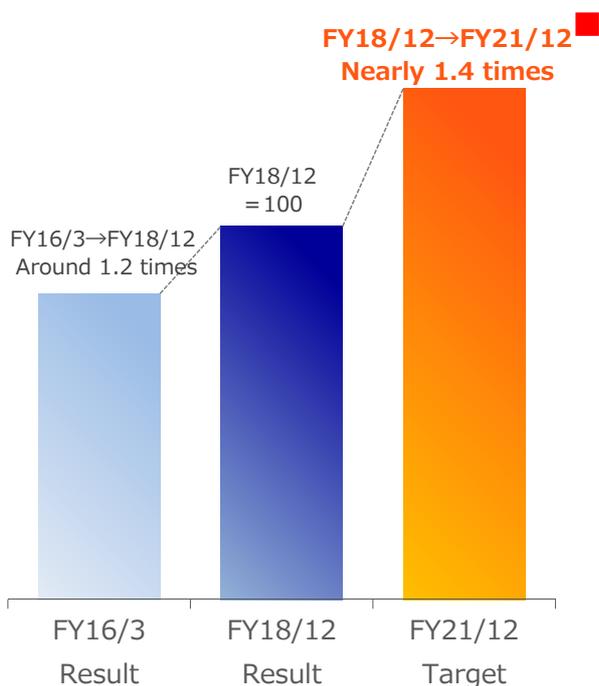
MEMS materials

- Increase sales by expanding sales for use in high-frequency devices and acquiring new customers.
- Further develop customer base by winning adoptions by major electronic component manufacturers in USA, Japan, and Asia.



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

Sales results and target



High-purity chemicals

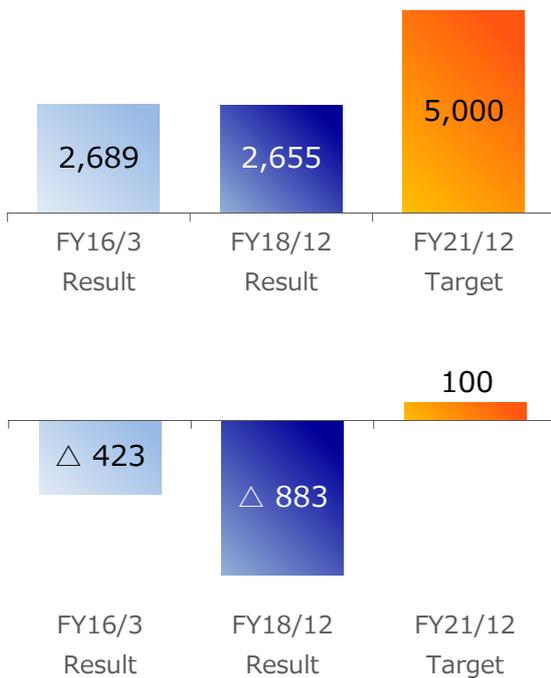
- In addition to growing demand for high-purity and high-quality products, sales growth in the Chinese market will contribute to increased sales in Asia.
- Growing demand for new products for cutting-edge processes will drive increased sales.
- Step up development of new Clean Solution and new thinners for next-generation process with major global semiconductor manufacturers.



Results and target

Upper row: Net sales
Lower row: Operating income or loss

(Millions of yen)



Equipment Business

- 3D packaging and power devices are expected to grow. Efforts will be made to increase orders based on TOK's track record.
- Development and manufacturing of manufacturing equipment for next-generation displays.



Bonding machine for 3D packaging



Debonding machine for 3D packaging



Single-wafer plasma ashing system

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Business Strategy (6): New Business

High-functional films

Secure new technological seeds as TOK's core technologies and deploy them to multiple applications

- Develop business by leveraging "super-clean" film characteristics
 - Develop and commercialize porous polyimide films.
 - Built a mass production line in FY2017/3.



Optical materials

Expand new materials fields such as nanoimprint materials and high refractive index materials

- Develop business with a process material for making structures that control light

Life science-related materials

Commercialize photolithography-related technologies in the life sciences field

- Concentrate efforts on commercializing bio-chip materials, adding features that are required in the medical diagnostic device fields, such as low autofluorescence, surface free energy, and adhesiveness.

Collaboration/support

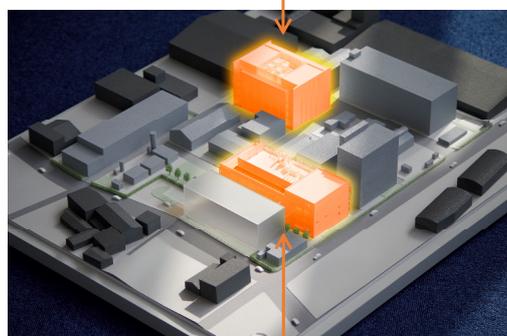
Drive new innovation through TOK's core technologies and the outstanding technological capabilities of partner companies



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Establish new technological seeds as core technologies.

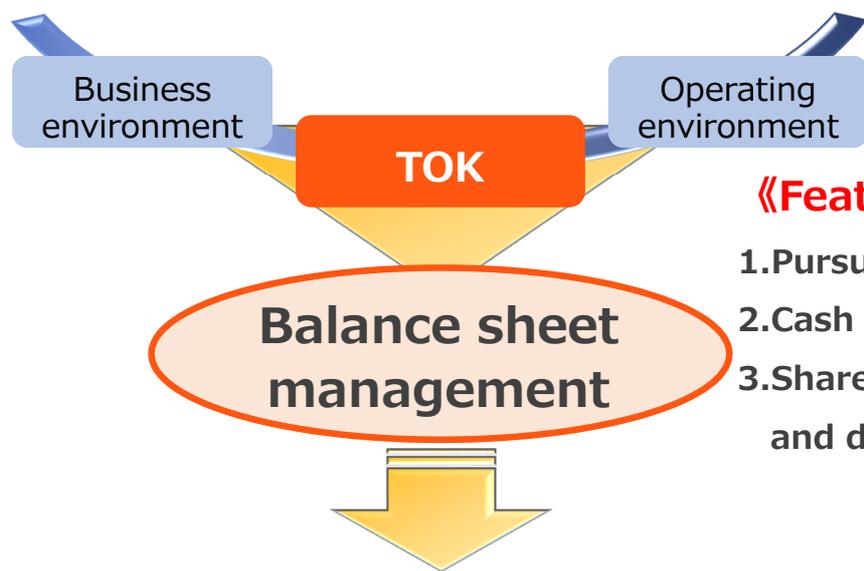
Use the new facilities to explore new themes and accelerate advancement to the next stage



- **New C-1 Building**
 - A super clean room for handling hazardous substances
 - Boasts the world's top class of cleanliness for handling hazardous substances.
 - Use the clean room to establish manufacturing technologies for next-generation miniaturization products as early as possible.
- **New B-6 Building**
 - An open innovation facility
 - In anticipation of next-generation materials development, TOK aims to collaborate with all stakeholders to create value.



As a long-run R&D-driven company, TOK will pursue the optimal balance between investment, cash reserves, and shareholder returns.



《Features》

1. Pursuit of asset efficiency
2. Cash reserves
3. Shareholder return policy and dividend policy

More effective use of management resources



■ Cash reserves

- As a long-run R&D-driven company, TOK will calculate cash reserves from the standpoint of **securing the necessary funds**.
 - Develop technologies in anticipation of a super-long time frame.
 - Continuously tackle challenges over a super-long time frame
 - Respond rapidly when the unexpected happens (restoration and rebuilding, etc. from major disasters)

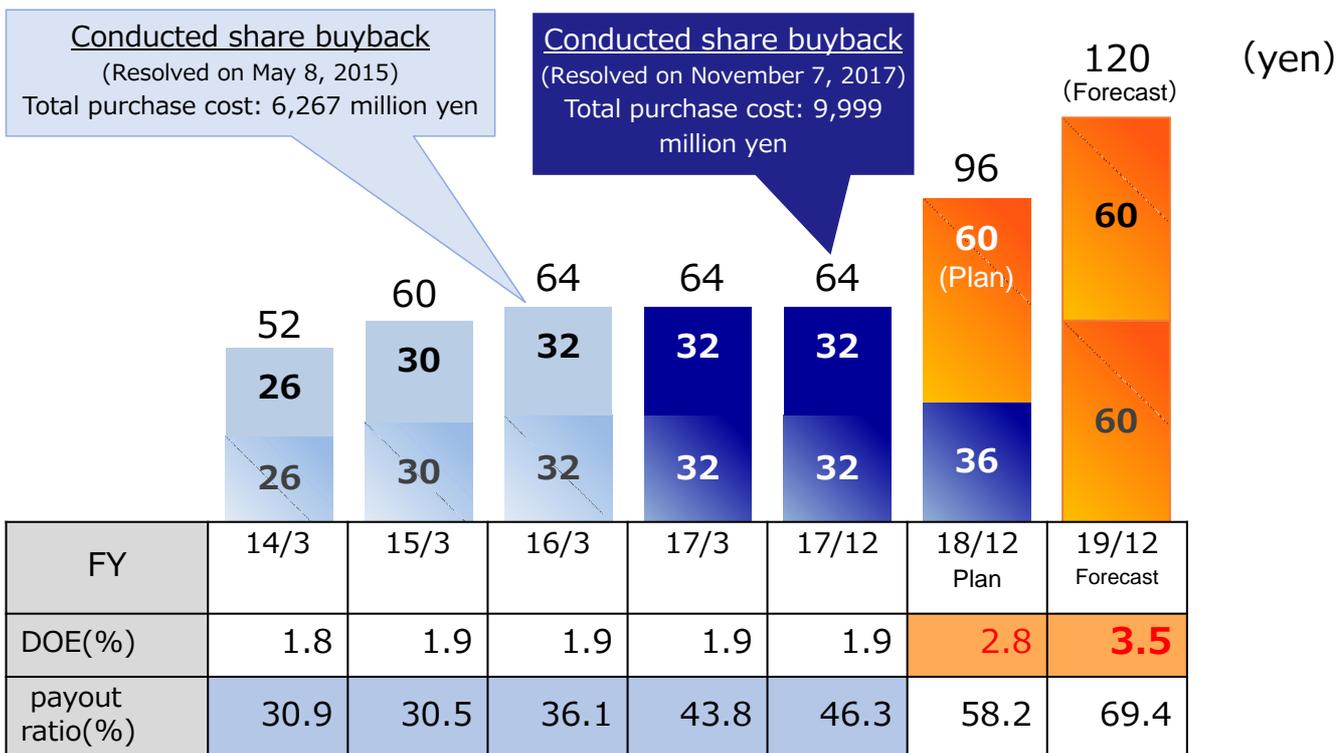
$$\text{Cash reserve amount} = \text{Working capital} + \text{Investment reserves} + \text{Risk reserves}$$

■ Shareholder returns and dividends

- Formulated a new dividend policy for the purpose of steadily and continuously returning profits to shareholders.
 - ⇒ Target a dividend on equity ratio (DOE) of **3.5%**.
(scheduled to commence from the year-end dividend for FY2018/12)
- Flexibly conduct share buyback as a means of returning profits to shareholders.



Financial Capital Strategy (3): Trends in Shareholder Returns and Dividends



Guidelines on dividend policy

tok Medium-Term Plan 2018
— Consolidated payout ratio of over 30% —

tok Medium-Term Plan 2018
— Consolidated payout ratio of over 40% —

tok Medium-Term Plan 2021
— Based on consolidated DOE of 3.5% —



Challenge for the Future !

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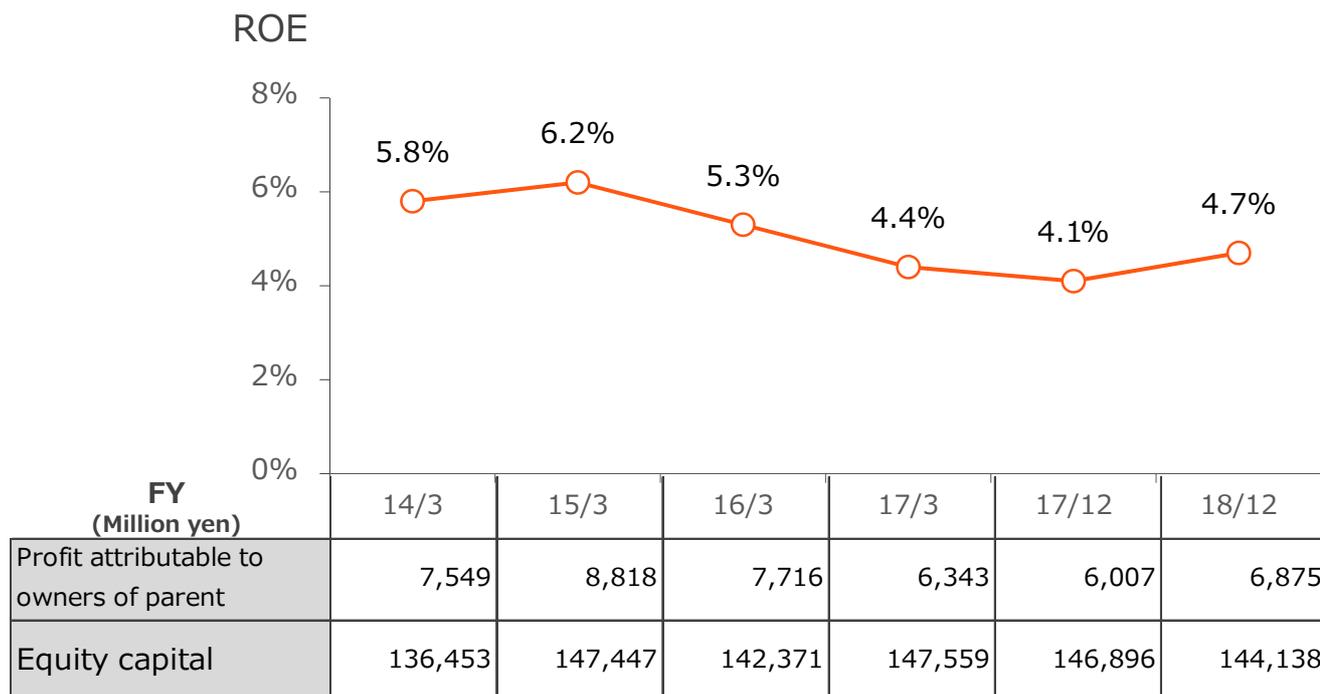
Appendix (1): Performance Trends and Targets (Breakdown)

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(Million yen)	FY16/3 Result	FY17/3 Result	FY18/12 Result	FY19/12Forecast (FY plan)	FY21/12Target (Best-case scenario)
Net sales	89,969	88,764	105,277	111,600	145,000
Material business	87,280	86,558	102,621	107,100	140,000
Equipment business	2,689	2,205	2,655	4,500	5,000
Operating income	12,438	9,954	10,505	10,500	20,500
Material business	16,203	14,470	15,075	14,600	24,500
Equipment business	△ 423	△ 750	△ 883	△ 100	100
Eliminations and corporate	△ 3,342	△ 3,764	△ 3,686	△ 4,000	△ 4,100
Profit attributable to owners of parent	7,716	6,343	6,875	7,200	15,000
Average exchange rate	119.3	107.1	109.5	105.0	105.0
<Material business>					
Electronic functional materials	51,134	53,074	58,793	61,600	80,000
High purity chemicals	35,931	33,475	43,733	45,300	59,500
Other	214	9	95	200	500

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*Figures for ROE and profit attributable to owners of the parent for FY2017/12 are for nine months.



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Appendix (3): Strengthen the tok Management Foundation

Seeking to increase both social value and corporate value

TOK is actively working to solve social issues through its business activities.

ESG Material Issues/Achieving SDGs

- ✓ Reduce environmental impact in production processes
- ✓ Work to reduce environmental impact more than required by law
- ✓ Enhance personnel measures and promote diversity to improve competitiveness
- ✓ Encourage open innovation to strengthen competitiveness
- ✓ Create great workplaces that allow employees to strike a work-life balance/promote occupational health and safety
- ✓ Instill the Group Management System globally (controls/risk management/compliance)
- ✓ Tightly manage information about cutting-edge technology

External Evaluation



Achieving SDGs



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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 judgment, 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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