

(Securities code: 6728)

Business Results

FY2019

(July 2019 - Jun 2020)

Aug. 12, 2020

ULVAC Inc.

◆ **Disclaimer regarding forward-looking statements**

Forward-looking statements of the company in this presentation are based on information that was available at the time these documents were prepared. ULVAC's customers in the flat-panel display (FPD), semiconductor, and electronic parts industries face challenges due to the rapid pace of technological advances and fierce competition.

There are a number of factors that directly and indirectly impact performance, such as the global economy; fluctuations in exchange rates; market conditions for FPDs, semiconductors, electronic parts, and raw materials; and trends in capital expenditures. Consequently, actual net sales and profits may vary substantially from the projections included in this presentation.

◆ **Data included in the documents are stated as follows:**

(All figures are stated on a consolidated basis unless otherwise noted.)

Yen values: Rounded to the nearest 10th of the unit stated.

Percentages: Rounded to the nearest 10th after yen values are rounded.

Abbreviations of accounting periods:

1Q and 2Q (cumulative): First and second quarter consolidated cumulative period

2Q: Second quarter consolidated period

Overview of FY2019 Consolidated Business Results

- **Focused on reducing fixed costs in the situation of declining orders and sales due to the impact of the new coronavirus and reduced capital investment in FPDs**
- **Orders, sales and operating income all declined YoY, but exceeded the revised 3Q forecast.**
- **While orders for FPD-related products were down, the high-margin semiconductor and electronics-related products grew steadily and became the largest segment in terms of orders.**

Order Received : ¥156.6 billion (-28% YoY)

Net Sales : ¥185.4 billion (-16% YoY)

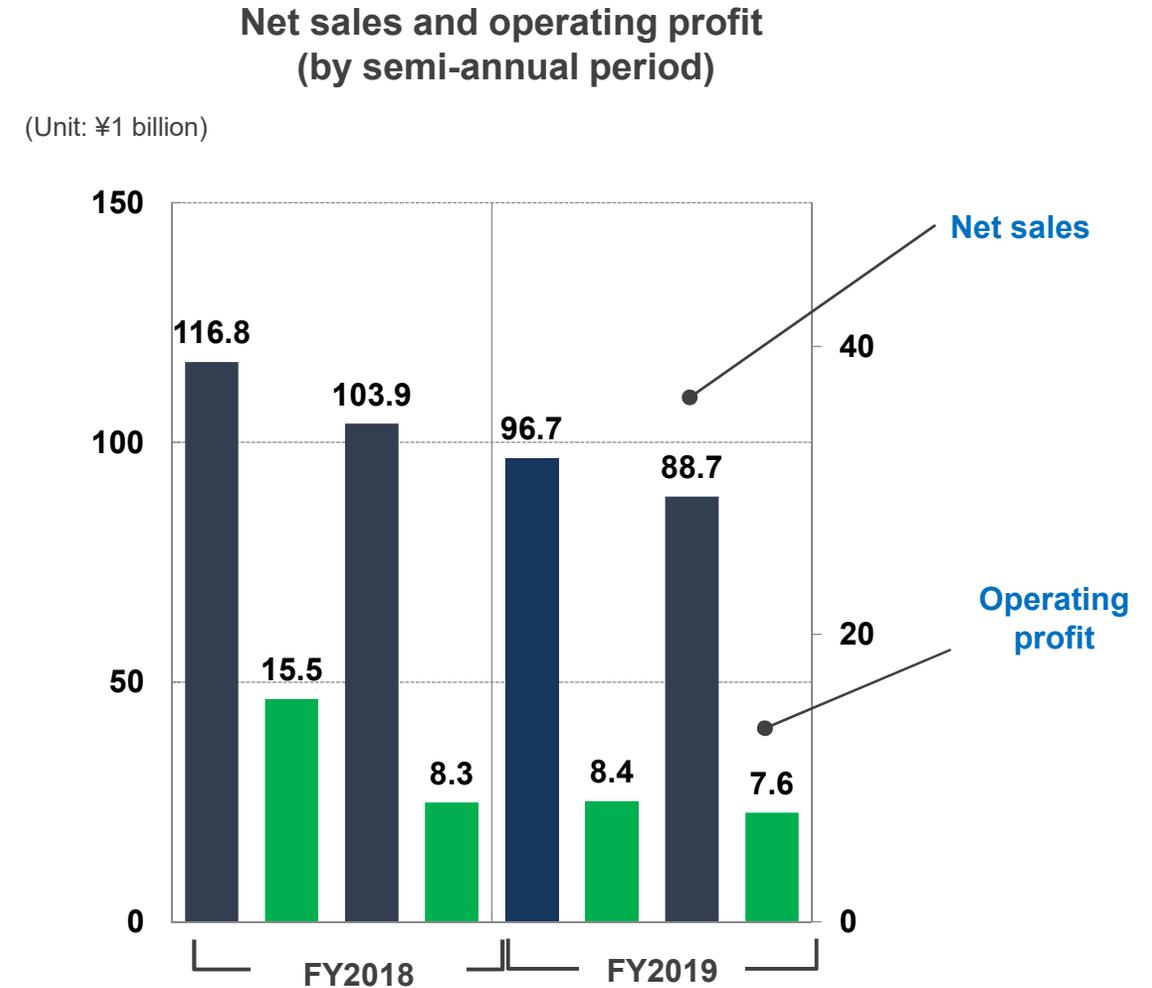
Operating Profit : ¥16 billion (-33% YoY)

Overview of FY2019 Consolidated Business Results

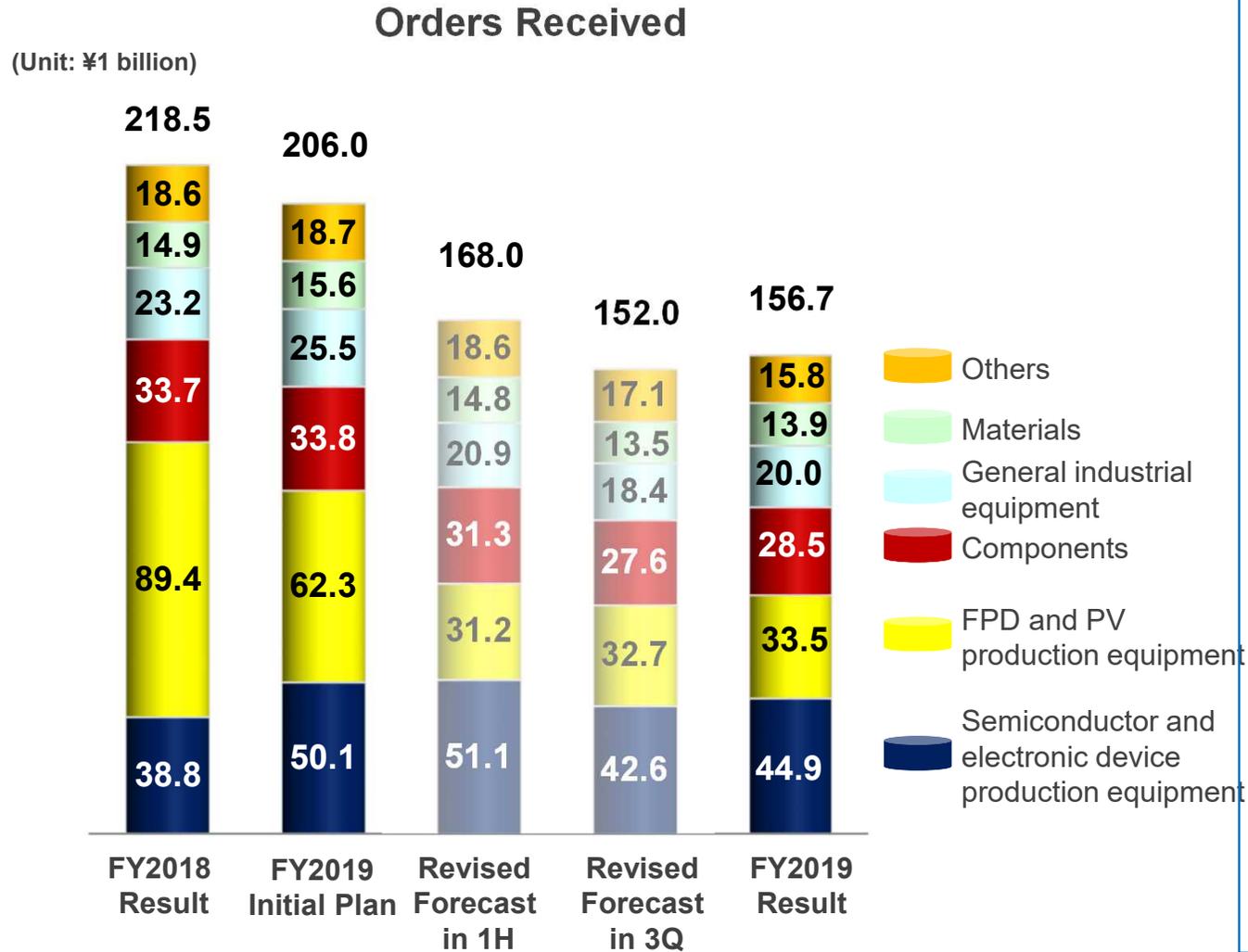
- Orders, sales and operating profit all declined YoY, but exceeded the revised 3Q forecast.

(Unit: ¥1 billion)

	FY2018	FY2019		Y-o-Y	
	Result	Plan	Result	(Changes)	
Orders received	218.5	152.0	156.6	-62.0	-28.4%
Net Sales	220.7	181.0	185.4	-35.3	-16.0%
Operating Profit	23.8	12.0	16.0	-7.9	-33.0%
Ratio	10.8%	6.6%	8.6%	- 2.2 pt	
Net Income	18.7	10.5	10.8	-7.9	-42.3%
Ratio	8.5%	5.8%	5.8%	- 2.6 pt	



Overview of FY2019 Consolidated Business Results (Orders received by segment)



Declined YoY, but exceeded the revised 3Q forecast by minimizing the impact of COVID-19.

1. Semiconductor and electronic device

- Despite falling short of the initial plan due to a slow recovery in memory investment and the impact of the new coronavirus, semiconductor and electronics device segment was the largest segment, which increased 16% YoY.

2. FPD

- Orders for OLEDs and LCDs for smartphones and large-screen TVs decreased more than expected, resulting in a decrease from the initial plan and YoY.

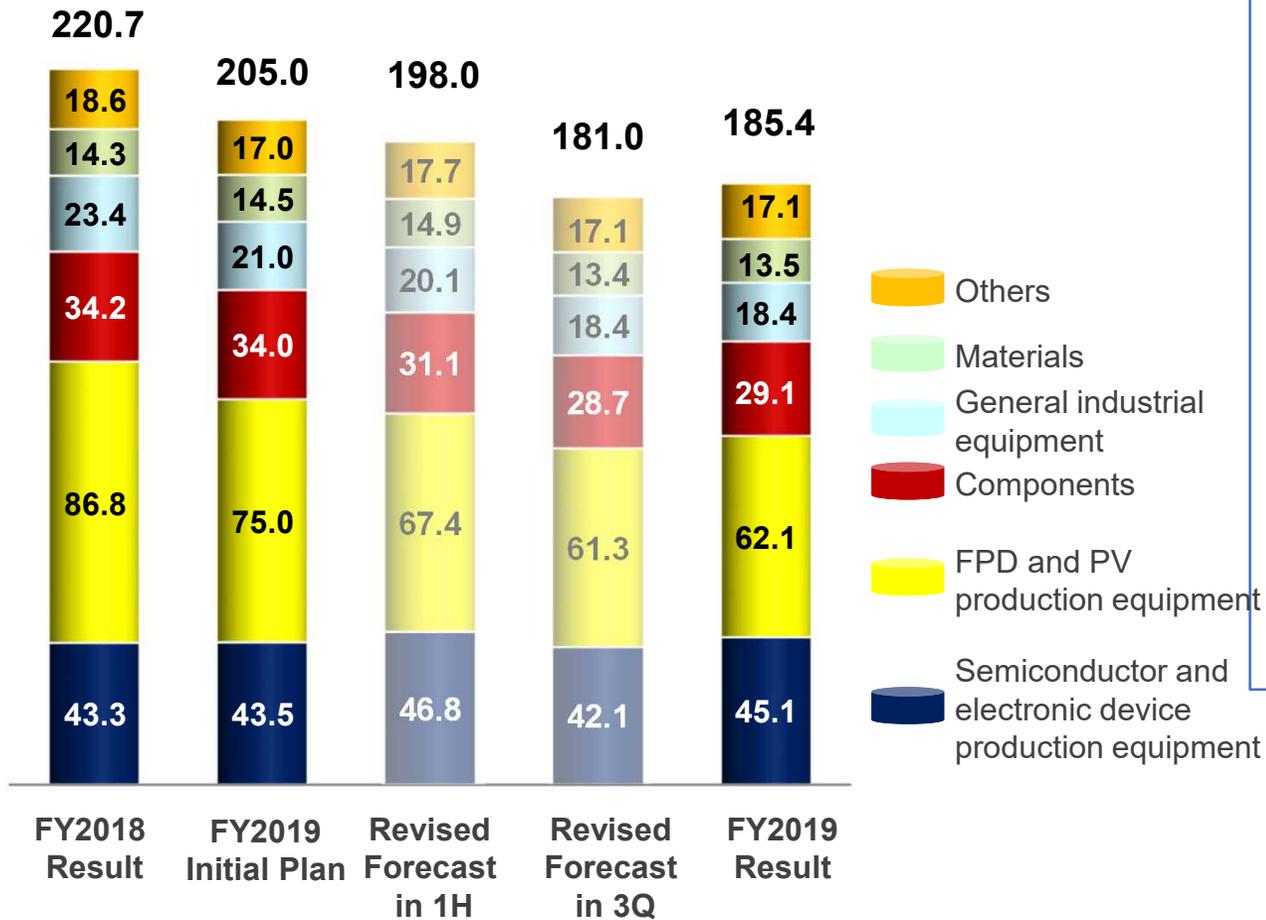
3. Component

- Decreased from the initial plan and YoY due to a reactionary decline from large spot orders in the first half of the previous fiscal year (1Q), a slowdown in investment in the automotive and FPD industries, and the impact of COVID-19.

Overview of FY2019 Consolidated Business Results (Net Sales by segment)

Net Sales

(Unit: ¥1 billion)



1. Semiconductor and electronic device

- Exceeded the plan and YoY.

2. FPD

- The impact of the decline in orders was limited due to a substantial order backlog at the beginning of the year, but it was lower than the initial plan and YoY.

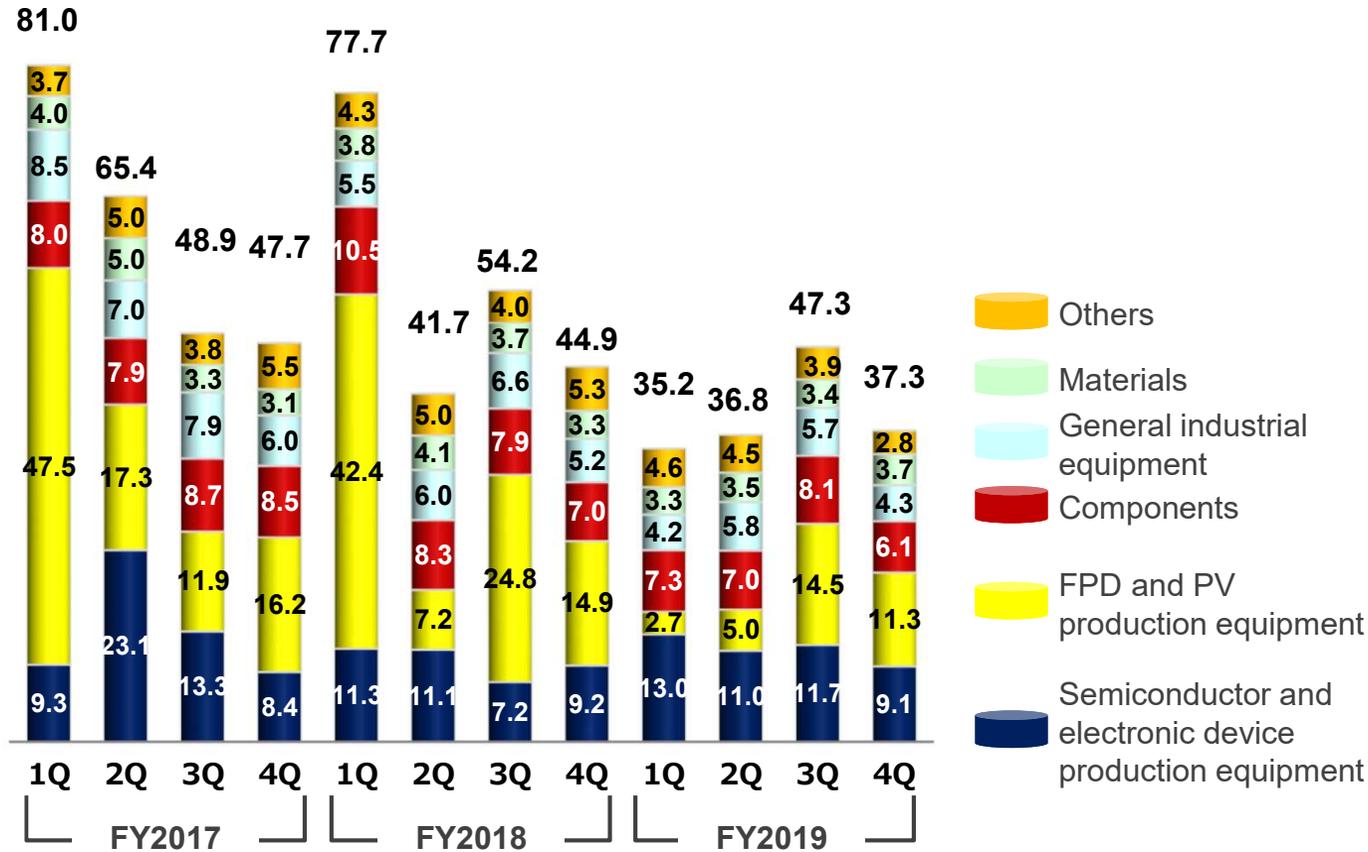
3. Compared to revised 3Q forecast

- Exceeded the revised 3Q forecast by minimizing the impact of COVID-19.

Overview of FY2019 Consolidated Business Results (Orders/Net Sales by segment)

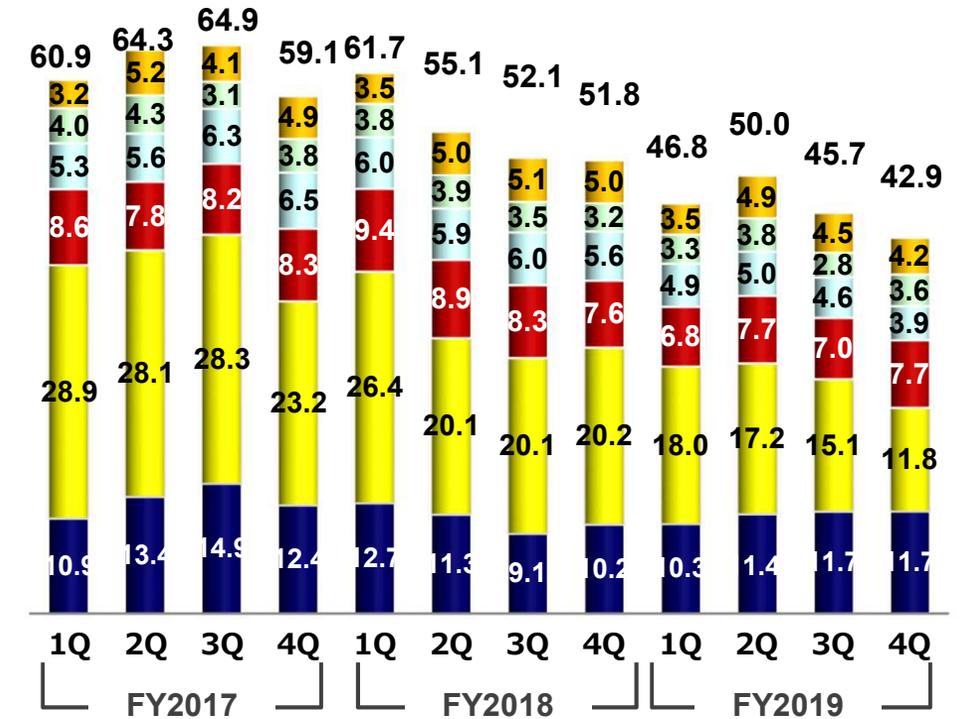
Quarterly change of Order received

(Unit: ¥1 billion)



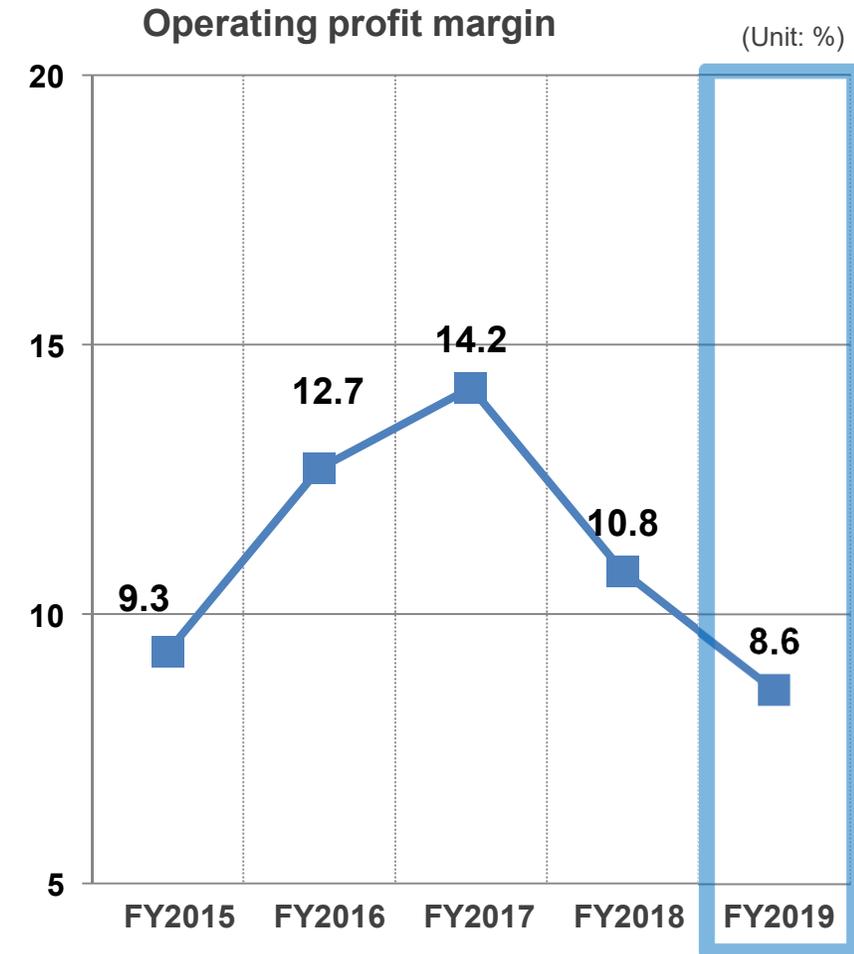
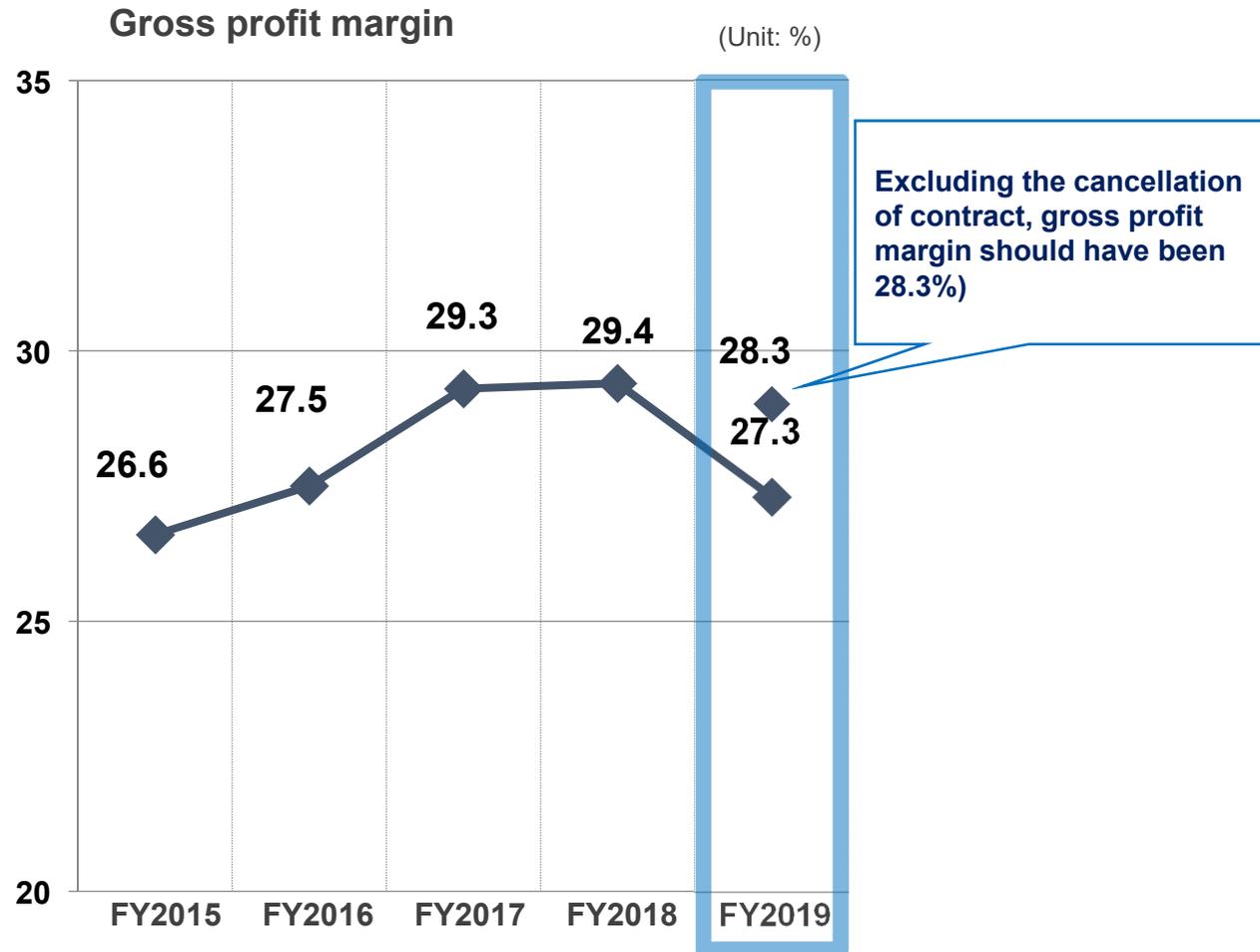
Quarterly change of Net Sales

(Unit: ¥1 billion)



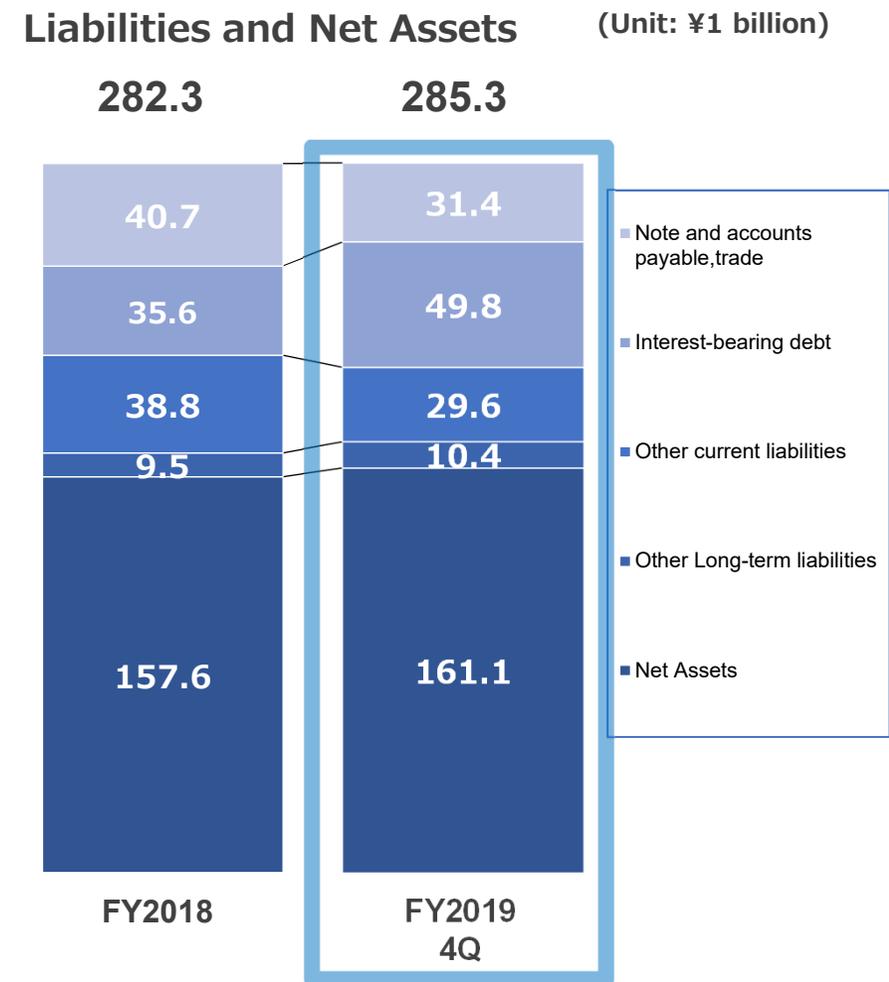
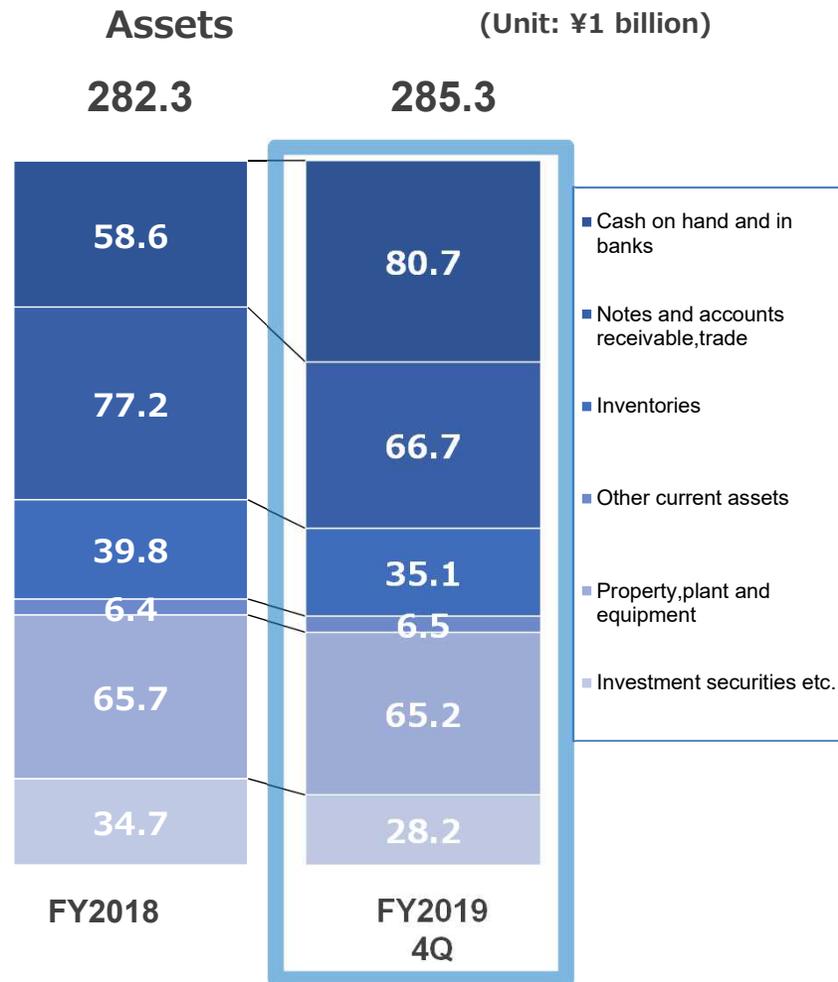
Overview of FY2019 Consolidated Business Results (Profit Margins)

- Both the gross profit margin and the operating profit margin declined due to lower sales (Excluding the cancellation of contract, gross profit margin should have been 28.3%)



Overview of 4Q FY2019 Business Results (Consolidated Balance Sheet)

- Cash on hand and in banks increased by ¥22.1 billion, Interest-bearing debt increased by ¥14.3 billion
- Net assets increased by ¥3.5 billion, and the equity ratio improved to 54.6%.



We are working to minimize the impact on our customers by taking measures to prevent the spread of infection.

Ongoing health and hygiene management, shift schedules, telecommuting, staggered work hours, restrictions on business trips and meetings, etc.



	Impact · Response
Production/ Procurement	<ul style="list-style-type: none"> Limited impact on plant production in the four regions (Japan, China, Korea and Taiwan) Limited impact on the supply chain ⇒Focusing on a stable supply
Installation/ Acceptance inspection	<ul style="list-style-type: none"> Delays in installation and acceptance in China due to movement restrictions ⇒Enhancing local employees' response (promotion of manualization, remote guidance) ⇒A portion of flights from South Korea and Japan started (gradually resumed)
Business activities	<ul style="list-style-type: none"> Business activities were initially restricted due to restrictions on movement within China ⇒Removal of restrictions on movement within China ⇒Resumption of business by local employees, establishment of remote support system from Japan

Overview of the Previous Mid-term Management Plan

Overview of the Previous Mid-term Management Plan① Key Strategy

View

Highly profitable corporate management by comprehensively utilizing vacuum technology, maximizing synergy effects among equipment, materials, deposition processing, analysis and services, and cooperating with global business partners

Human resource development for the next leap forward and a challenging company working culture

Promoting Business Growth

Stabilizing the FPD business

- Large TV LCD sputtering equipment with a market share of over 90%
- Began development of next-generation large OLEDs.

Strengthening the semiconductor and electronic equipment business

- Entry into the logic field (EUV miniaturization process)
- Growth in electronic devices (communications, power devices, etc.)
- Electronics: Manufacturing Innovations ⇒ Productivity Improvement

Global Expansion

- Increase in joint development with the world's leading companies and advanced research institutions
- New Management Structure in North America and Europe

Enhancing the Power of Value Creation

Enhancing marketing and Original technology and product development

- Entry into logic, investment in PCRAM, promotion of modularization (electronics)
- Selection and concentration of development themes

Strengthening global procurement and production systems to reduce costs

- Company-wide deployment of manufacturing reforms

Overview of the Previous Mid-term Management Plan② Management Base

Human resources Development

- Nurturing the next generation of leaders
- Promote globalization of the management team (increase of 3 foreign directors)

Deeping relationship and coordination with the group

- 2/3 turnover of the group's top management⇒Rejuvenation and revitalization

Information platform development

- Creation and introduction of a roadmap for strengthening the information system infrastructure

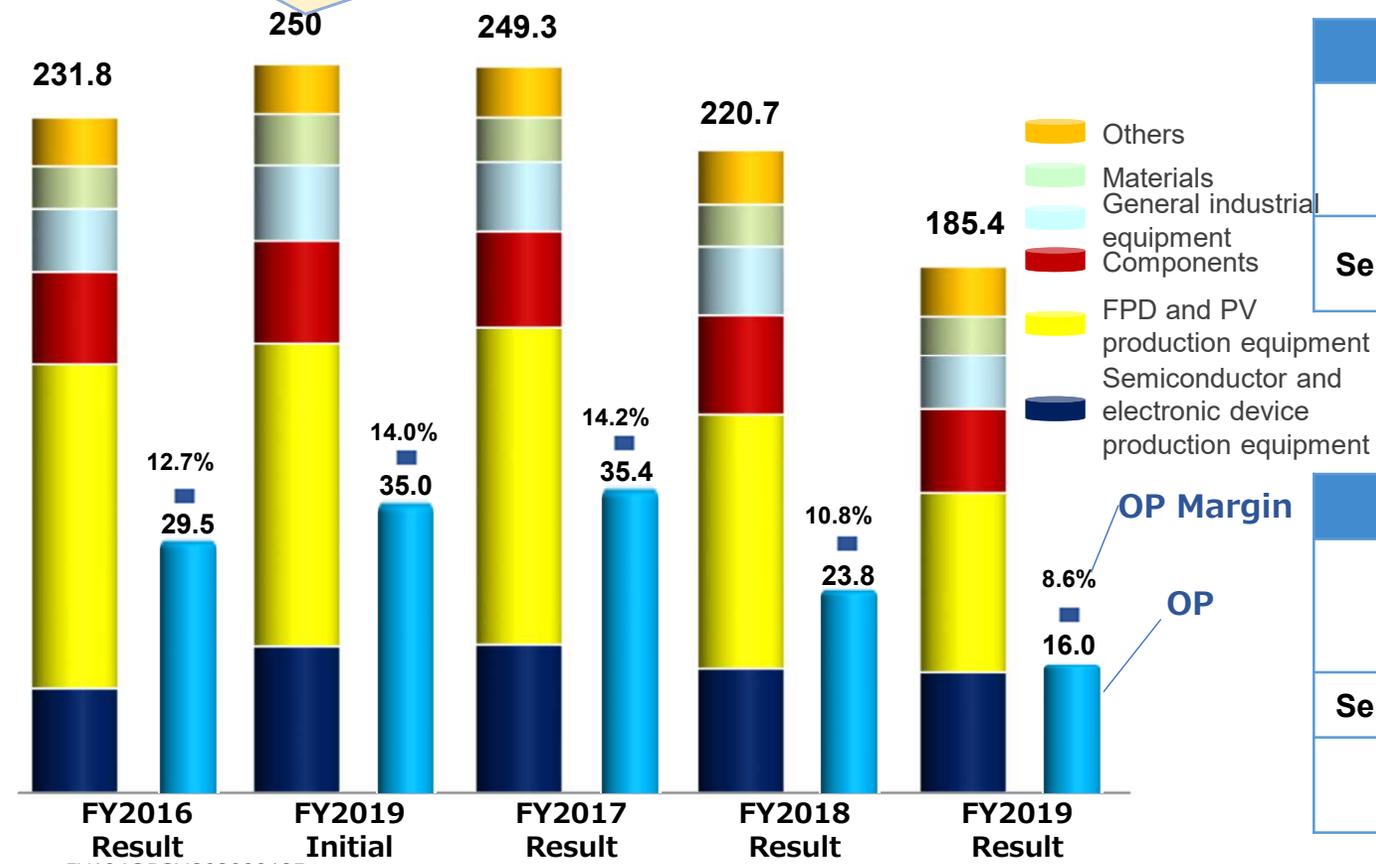
Financial strength improvement

- Equity ratio (FY16 : 40.2%⇒FY19 : 54.6%)

Overview of the Previous Mid-term Management Plan③

- FY2017 : Net sales and Operating profit (margin) were almost in line with FY2019 target. ⇒FY19 target was revised upward
- FY2018,2019 : Net sales and Operating profit (margin) were lower than expectations due to a sharp decline in FPD sales, a reactionary drop from investment in semiconductor memories as well as the impact of COVID-19.

18/8 : We revised Net Sales and OP upward to ¥265 billion and ¥38 billion respectively



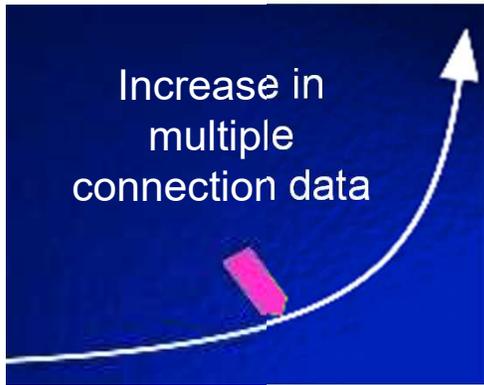
FY17	The main reasons for the strong performance
FPD	• Orders for OLEDs for smart phones and LCDs for large TVs were strong. (Investments were proceeding ahead of our expectations)
Semiconductor	• Active memory investment • PCRAM blanket order received

FY18·19	The main reasons for the shortfall in the plan
FPD	• OLED for smartphones (vapor deposition, sputtering) struggled • Investment in LCD for large TVs came to an end
Semiconductor	• A rebound in memory investment
Company	• Impact of COVID-19(decrease in orders, installation delays)

Breakthrough 2022

New Mid-term Management Plan

Technological Innovation for a Smart Society ⇒ Expected to grow 1.6 times in three years



↑
DX



Technical innovations required for a smart society
 ⇒ Leveraging ULVAC's strengths to make contributions through thin film technology

Logic IC Memory
1.6 times
 (2019) (2022)
 ¥19.6 billion ⇒ ¥32 billion

Higher capacity servers, high-speed processing

lower energy consumption

Sensor Communicating Device Battery
1.6 times
 (2019) (2022)
 ¥25.6 billion ⇒ ¥41 billion

Devices that are multi-functional, small, low-cost



Smart society realization

Low power consumption

Smart Society ⇒ Solving Social Problems



Leveraging ULVAC's Advantages for Growth

Integration of a wide range of fields and diverse technologies

(Equipment)
Sputtering
Evaporation
CVD
Etcher
etc.

Component

Materials

Customer Support

Strong Networks in East Asia

Wide customer base

Network of Advanced Research
Institutions

Development, sales and CS base
network

Manufacturing sites and supplier
network

Ability to respond to technological innovation

Vacuum Thin Film Processing Technology

Basic technology for equipment, processes,
materials, etc.

Collaborating with the world's leading
companies and advanced research institutions

Key Points of the New Medium-Term Management Plan

Basic Policy

- Investment in Development for Growth (Selection and Concentration)
- Profit-oriented management through structural change

1. Strengthening the Growing Business

- Expanding investment for the growth in semiconductors and electronics
- Enhancing component material and customer support

2. Strengthening Research and Development

- Strengthen product development in response to technological innovation in growth markets

3. Enhancing manufacturing capabilities

- Promoting production reform on all process from engineering and design to the production system
⇒ Improvement of profit margins by improving productivity

4. Enhancing Group Management Efficiency

- Business Unit Management Promotion
- Strengthening the management of group companies that have their own products

Numerical Targets of the Medium-Term Management Plan

	Results (FY2019)	Targets (FY2022)
Net Sales	¥185.4 billion	¥210 billion
Gross Profit Margin	27.3%	35% or above
Operating Profit Margin	8.6%	16% or above
ROE	7.1%	13% or above
Operating CF	¥18.7 billion	¥29 billion

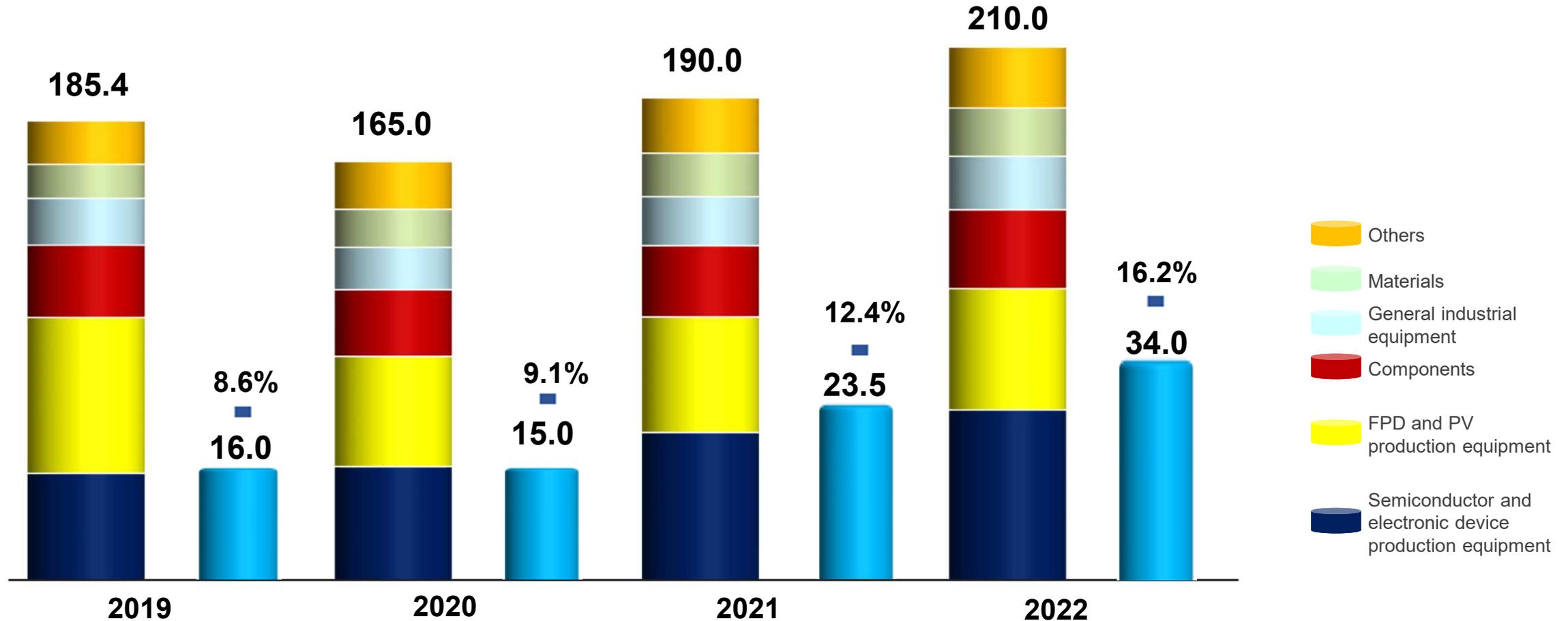
New Medium-Term Management Plan

Target for FY2022

Net Sales **¥210 billion**

OP Margin **16% or above**

Sales and profits will grow steadily toward the end of the next three years, despite a temporary drop in FY2020 due to a decline in orders received in the previous fiscal year (decrease in order backlog).



1. Strengthening the Growing Business

Semiconductor

- New entry into the logic miniaturization process
⇒ Growing by hiring other processes and companies
- Resumption of memory investment and entry into new processes

Electronics Device

- Expansion of proposed equipment through modularization
- Strengthening development, sales and support systems in China

FPD

- Development of mass production of large substrate OLEDs
- Change to profit structure

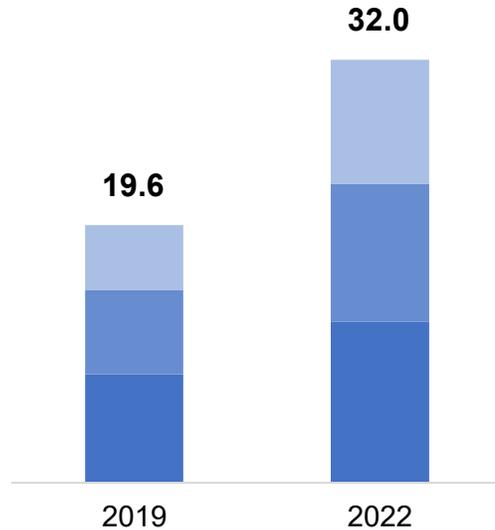
Component Material Customer Support

- Sales expansion in the semiconductor and electronics fields
- Growth in parallel with equipment sales in China

- **Logic** : Highly commended for EUV-based miniaturization process ⇒ Accelerate growth by entering other processes and adoption by other companies (secure a second vendor position)
- **DRAM** : Increased installation of data centers and smartphones, etc. ⇒ Resumption of investment and expansion of scale
- **Nonvolatile memory** : Resumption of NAND investment

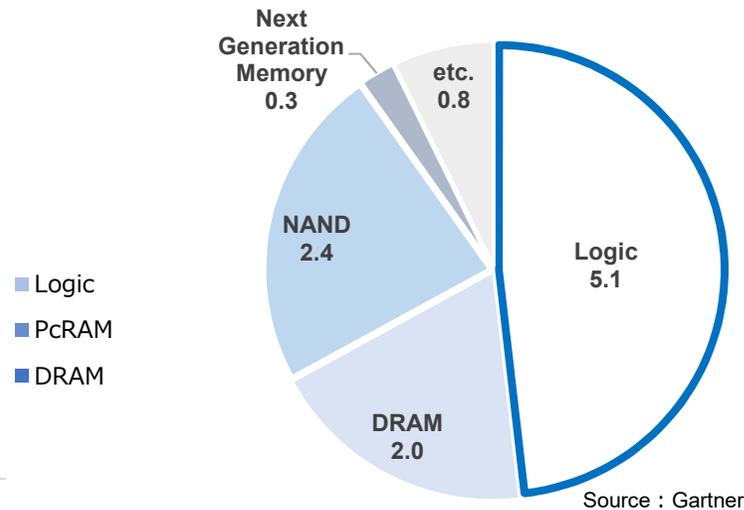
Net Sales

(Unit:¥1 billion)



Semiconductor capital investment (2019)

(¥1 trillion)
(Exchange Rate: \$ 1 = ¥110)



Semiconductor manufacturers dislike buying from a single vendor and seek out second vendors ⇒ With Ulvac's entry into Logic, the customer now has a two-vendors structure.

Ranking of Semiconductor Sputtering Equipment

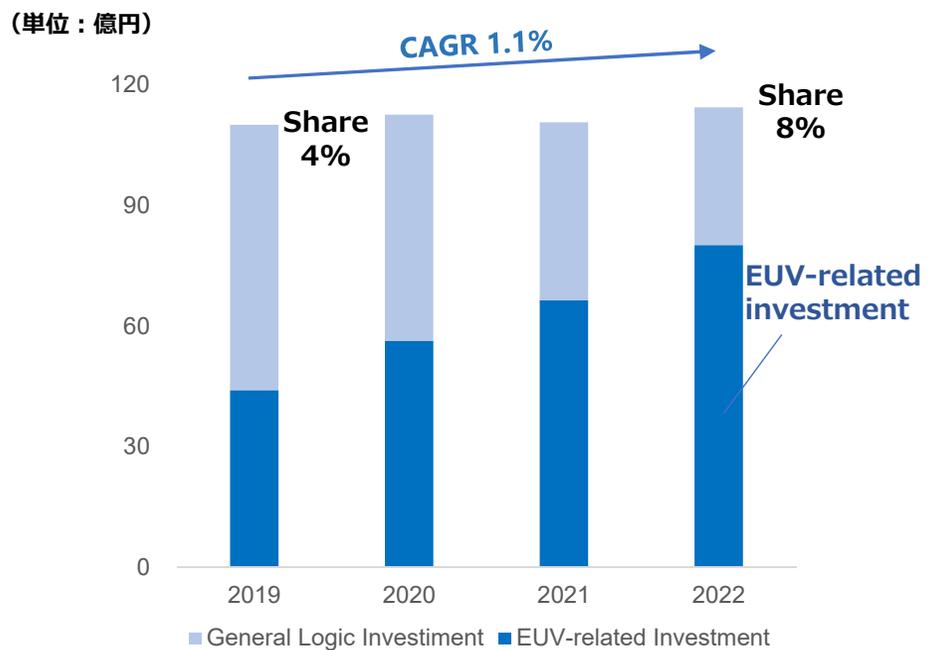
M\$	2,010		2,019	
		Memory	Logic	Memory · Logic
AMAT	1,198	①	①	2,270 ①
ULVAC	105	②	—	162 ②
CANON ANELVA	98	③	—	0 —
Novellus ⇒ Lam Research	88	④	②	0 —
	1,489			2,432

Lam Research, which acquired Novellus, pulled out of sputtering equipment in 2013

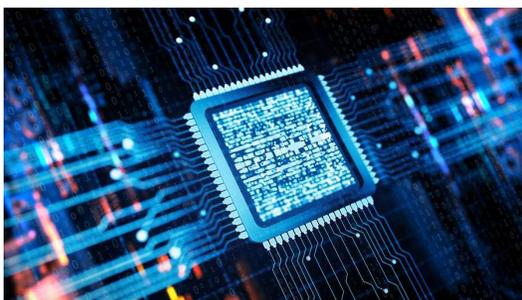
⇒ In the field of logic, Applied Materials has become a single purchasing company.

Source: Gartner

Logic PVD Market Forecast



Source: Figures estimated based on SEMI, Gartner



※ TAM(2019) ¥110 billion

TAM CAGR 1.1%

Target market share

FY2019 4%



FY2022 8%

【Market Growth】

- Logic·Foundry investments are mainly for 7nano⇒5nano⇒3nano etc. (EUV-related)
- (EUV-related investment will be accounted for about 50% of the total investment in FY2020)

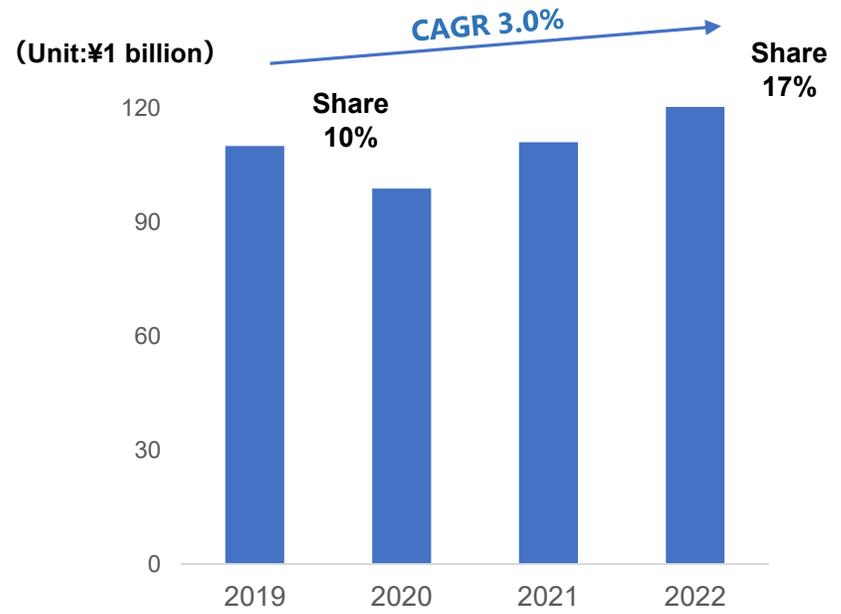
【Advantages of ULVAC】

- New entry into cutting-edge logic process (MHM for miniaturization with the introduction of EUV)
- Customer expectations as a second vendor (Sputtering)

【Growth Strategy】

- Aiming for growth by (1) Expanding sales and increasing demand of adopted semiconductors; (2) Adoption in other processes; (3) Adoption by other companies

Memory PVD Equipment Market Forecast



Source: Figures estimated based on SEMI, Gartner



TAM(2019) ¥110 billion	TAM CAGR 3.0%
Target market share	FY2019 10% → FY2022 17%

【Market Growth】

- Increase in data center processing volume and speed and high performance of 5G smartphone
 ⇒ **Continuous increase in demand for DRAM and NAND**

【Advantages of ULVAC】

- Entry into cutting-edge logic processes ⇒ **Reassessing ULVAC's technical capabilities**
- The only mass-produced product in the key sputtering process for PCRAM (used by several major manufacturers)
- Batch-type natural oxide removal system for mass production

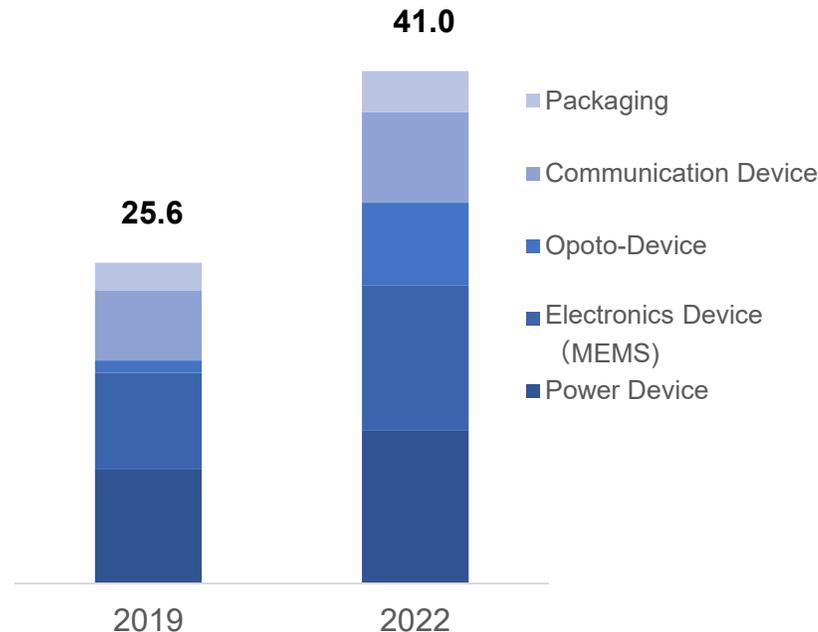
【Growth Strategy】

- Steadily capturing the market recovery
- New process entry due to changes in DRAM structure and materials ⇒ Share up
- PCRAM is expected to be fully invested in the second half of the mid term plan period due to customer market expansion

- **Development of smart society ⇒ Demand for electronic devices ⇒ Expanding business opportunities through market expansion and technological innovations such as 5G-oriented miniaturization, high performance and low power consumption**
- **Growth in the Chinese market, where market creation and expansion is underway due to the nationalization policy**
- **Expand the range of equipment for proposals by modularization (sputtering, CVD, etching and ashing)**

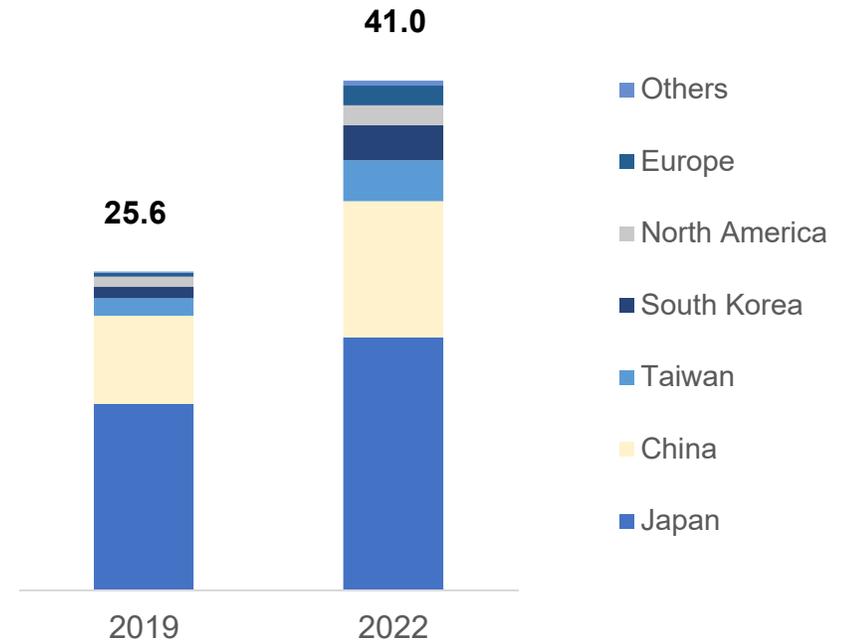
Net Sales by Segment

(Unit:¥1 billion)



Net Sales by Region

(Unit:¥1 billion)



(China Growth Strategies)

- Domestic production policy in the electronics sector ⇒ A surge in electronic-related inquiries
- Strengthen the technical support system for sales in China
- Strengthen product development in response to local needs
- Expand on-site demonstration equipment installation
- Customer acquisition and development by holding technical seminars, etc. and network enhancement

Province in China (the number of customer)

— Power Device (SiC/Si-IGBT)

— MEMS Sensor

— Communicating Device (SAW/BAW etc.)

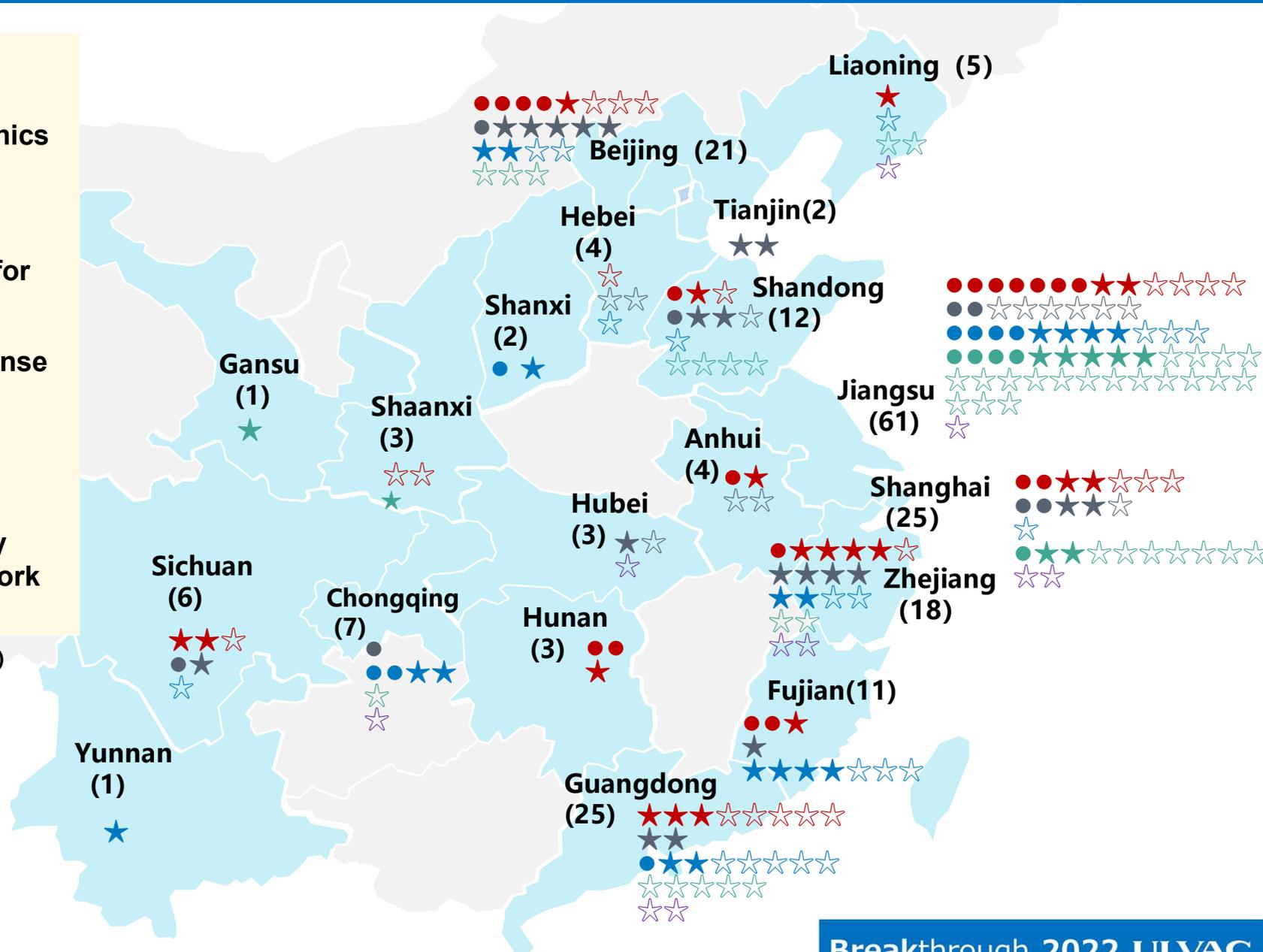
— Packaging (WLP/PLP)

— Optical (Automotive Electronics)

● Existing clients

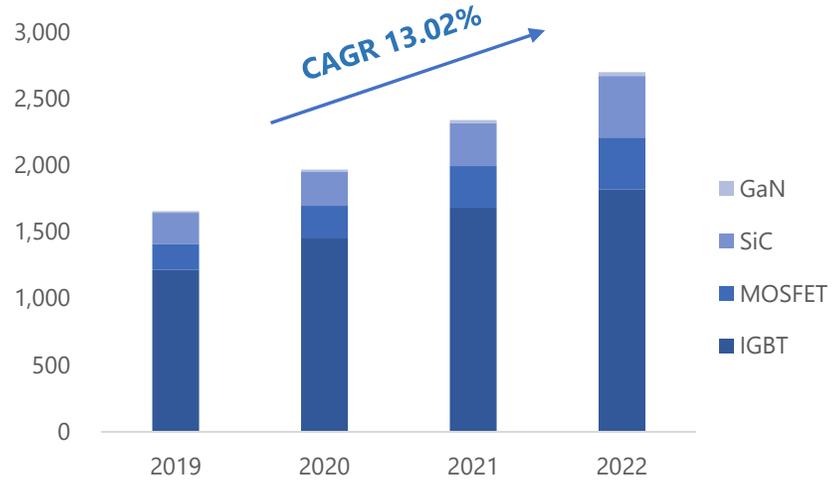
★ Customers who requested quotations

☆ Potential clients



EV/HEV Power Device Market Forecast

(Unit : Million US\$)



Source : Yole 2020

【Market Growth】

- Technological innovations for higher efficiency and lower power consumption in energy, railways, industrial robots, servers, etc., as well as an increase in the number of power devices installed in electric vehicles
- Accelerating China's investment in domestic production

【Advantages of ULVAC】

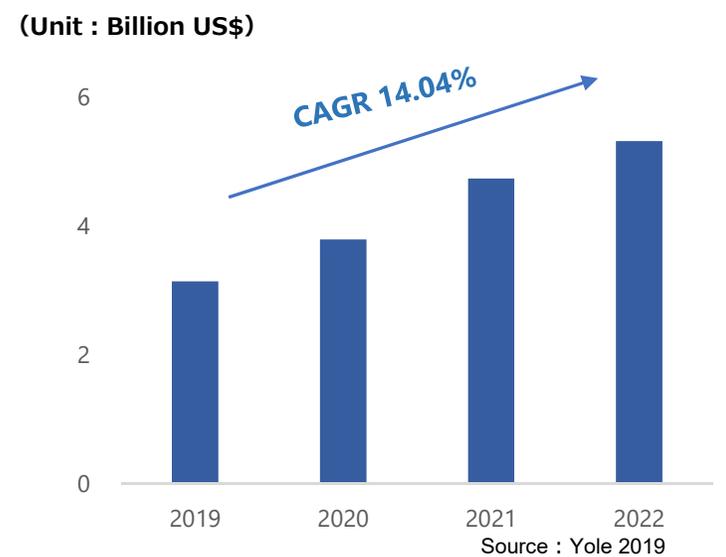
- High market share and rich experience in backside sputtering equipment for Si-IGBT
- High market share in IGBT and SiC ion implantation systems by high-energy and high-temperature implantation technology

【Growth Strategy】

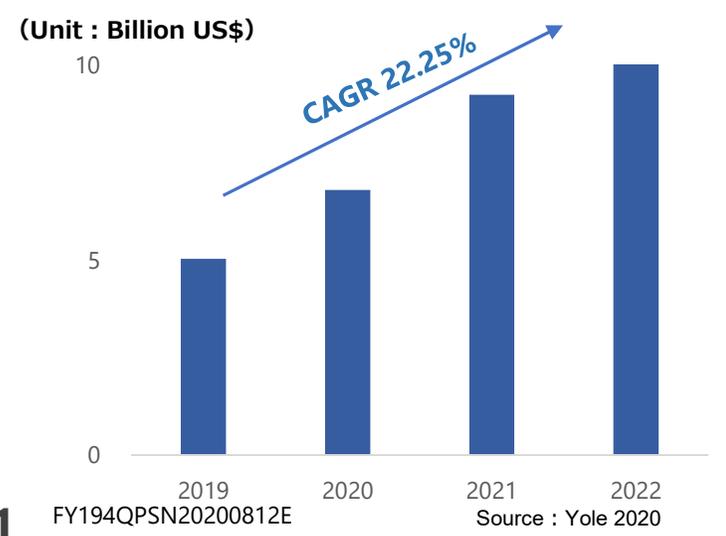
- Sputtering equipment for Si-IGBT that has a proven track record in the Japanese market is being developed in China, Taiwan, etc.
- Maintain market share of Φ200 mm sputtering, improve productivity by changing to Φ300 mm
- SiC ion implantation systems also expanding into Asia and Europe (We are also working on the development of low power consumption with GaN.)



Thin film piezo Market Forecast



3D imaging & sensing Market Forecast



【Market Growth】

- Development of 5G and IoT ⇒ Necessity of Sensors and MEMS Technology ⇒ **Expanding Markets by Expansion of Applications**
- Expanding applications as sensors and actuators ⇒ **Technical Innovations of high Performance, downsizing, low Power consumption, and increased Reliability**
- Facial Recognition and Automated Driving ⇒ **Exponential Increase in Sensing Technologies such as 3D Sensors**

【Advantages of ULVAC】

- **Our PZT-MEMS system, which uses ferroelectric sputtering technology to form PZT-MEMS on CMOS, was the first in the industry to achieve a low-temperature process of 500°C or lower for mass production, enabling PZT-MEMS formation on CMOS. ⇒Expansion of applications through miniaturization and low power consumption**
- Provision of equipment at the semiconductor level

【Growth Strategy】

- Advanced development and commercialization with leading companies and advanced research institutions in Europe and Asia ⇒ **Leverage the first mover advantage to secure market share**

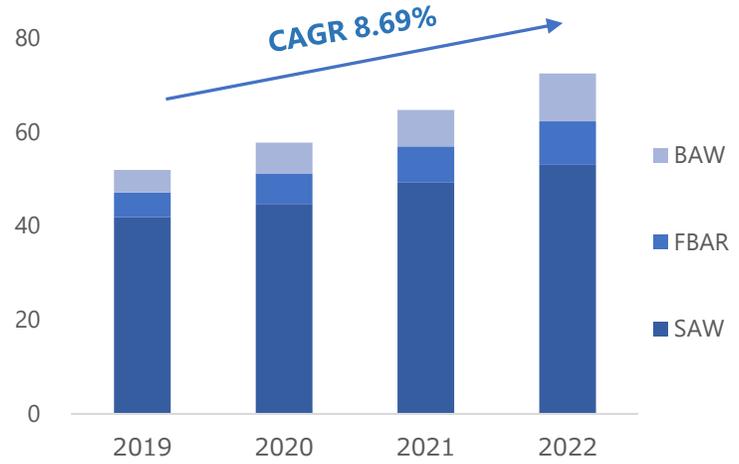
③ Communication Device

Responding to technological innovation and market expansion in conjunction with the development of 5G

2019 2022
 ※ ¥5.6 billion ⇒ ¥7 billion **1.3x**

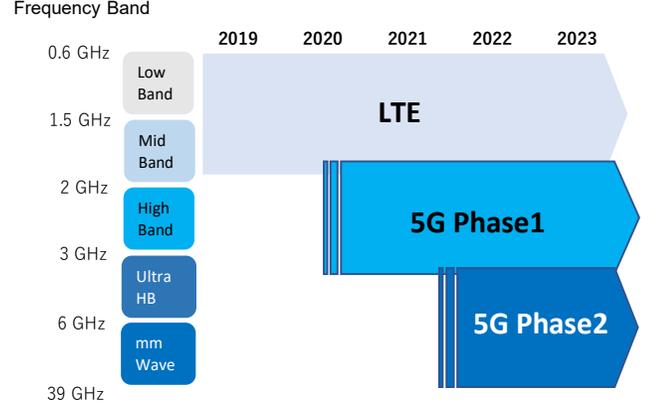
Communication Device Market Forecast

(Unit : Billion Unit)



Source : Yole 2019

5G Roadmap



【Market Growth】

- Expansion of 5G ⇒ **Market Growth of Communication Device** such as SAW・BAW filter、RFGaN device etc.
- **Expansion of applications and increase in the number of devices** used for 5G smartphones, IoT, automated driving, smart home and telemedicine etc.
- **Technological innovation and development of new materials for higher frequencies, higher performance and smaller sizes in accordance with the development of 5G**

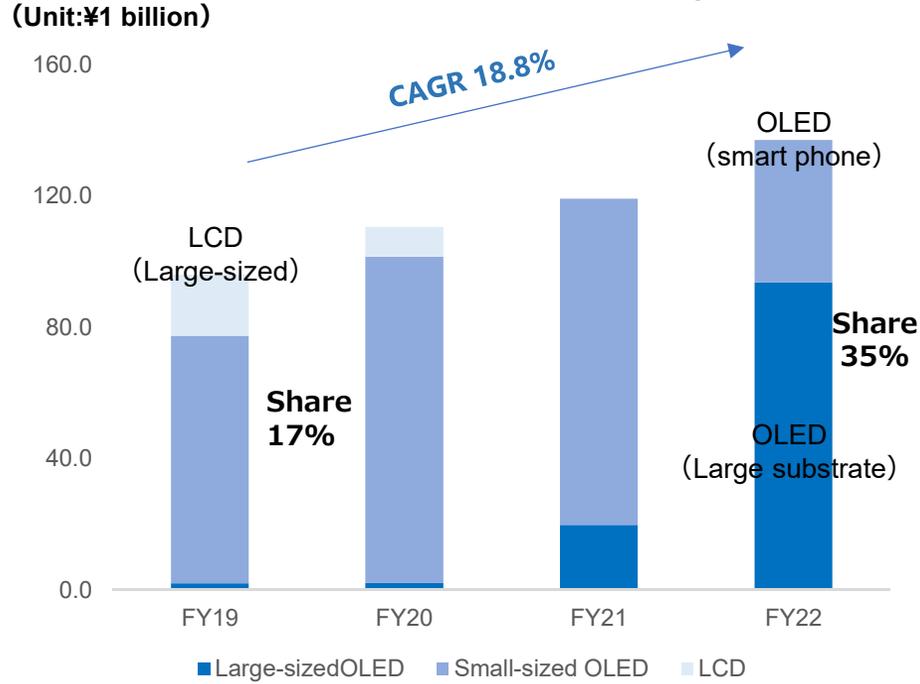
【Advantages of ULVAC】

- **Sputtering, etching and ashing equipment** for temperature-compensated SAW devices and GaN-HEMT devices for base stations **are available to meet various needs.**
- Many years of experience in **compound-based film formation and etching, the key to high-frequency applications**
- High market share in leading companies

【Growth Strategy】

- In addition to the domestic market, our market share is expanding in China and other countries.
- Collaborate with major customers for further technical innovations such as the development of processes and new materials for high frequency and high reliability

LCD·OLED Equipment Market (Evaporation·Sputtering)



Source: our forecast



TAM(2019) ¥70 billion※※	TAMCAGR 18.8%	
Target market share (OLED Equipment)	FY2019 17%	FY2022 35%

【Market Growth】

- LCD⇒OLED (Flexible, foldable, thin and light⇒expanding applications)
 ⇒Progress in mass production of large substrate OLEDs (smartphones, tablets, TVs, etc.)
- High-definition support for 8K
- Continuous investment for building glass materials, capacitors, and small and large capacity car batteries

【Advantages of ULVAC】

- Sputtering Equipment and Transfer Technology for Large Substrates
- High-end rewinding machine (R to R): 100% market share

【Growth Strategy】

- Building next generation OLED mass production technology in collaboration with Leading Companies

Stable base business (Component・Materials・Customer Support)

【Growth Strategies linked to the Equipment Business】

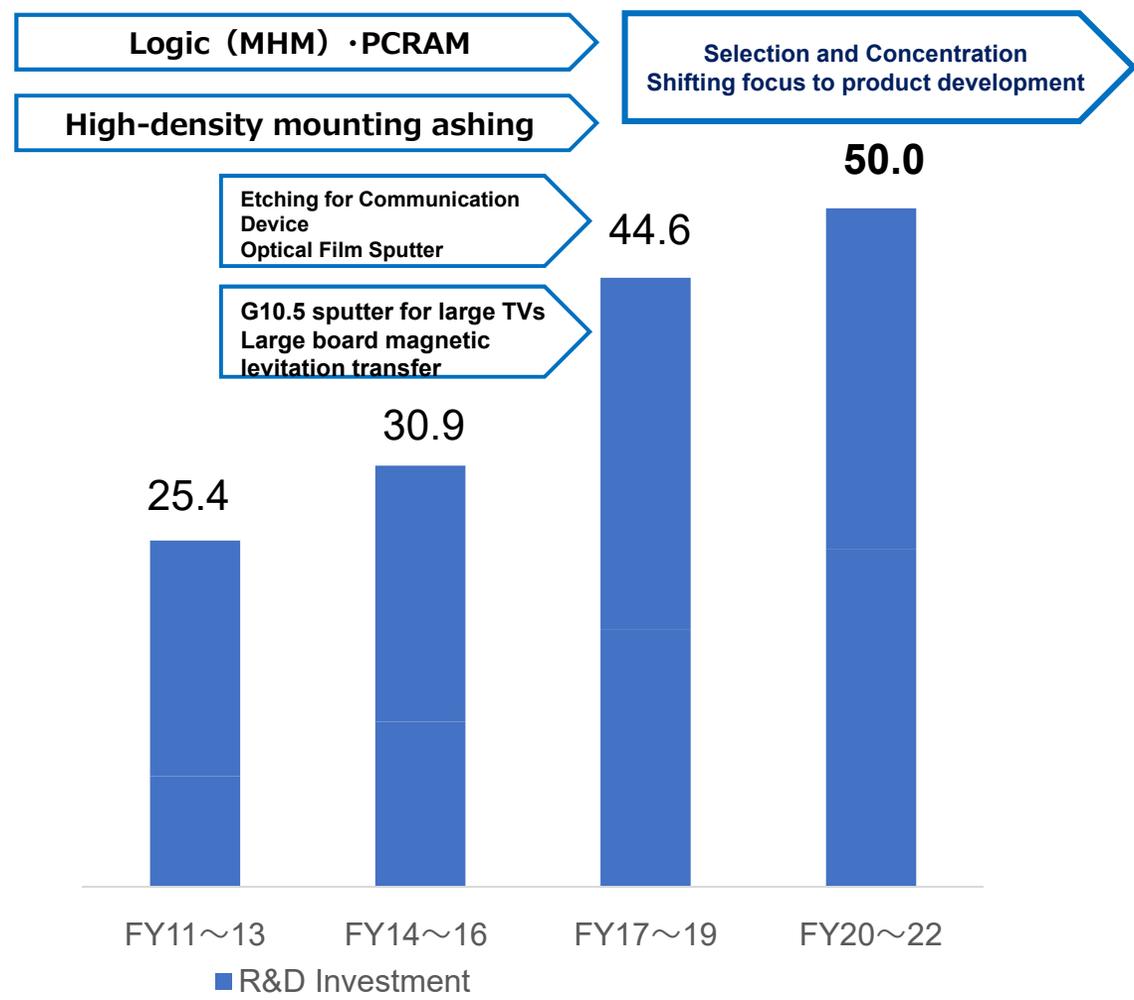
- Expanding sales of the semiconductor and electronics fields in addition to the FPD industry
- Growth in parallel with sales of equipment to China, which is promoting domestic production in the semiconductor and electronics fields

Business	ULVAC's Advantage	Growth Strategy
Component 1.1x (2019) (2022) ※ ¥29.1 billion ⇒ ¥31 billion	<ul style="list-style-type: none"> • Cryogenic pumps : Nearly 100% OLED market share, thanks to its anti-vibration function, exhaust performance and long-term reliability • We can provide products that meet the needs of equipment manufacturers through development in cooperation with the equipment business. 	<ul style="list-style-type: none"> • Cryogenic pumps : Maintaining a high market share for large substrate OLEDs in addition to OLEDs for smartphones • Increasing market share and customer development in the semiconductor electronics field • Expansion of the lineup by launching new products
Materials 1.2x (2019) (2022) ※ ¥13.8 billion ⇒ ¥16 billion	<ul style="list-style-type: none"> • Material development and proposal in connection with the equipment business • Production systems near customers in Japan, China, Korea and Taiwan • Approx. 70% share of IGZO 	<ul style="list-style-type: none"> • Expanding sales of IGZO for 8K and other high-definition displays • Interaction with equipment in the semiconductor field • Strengthen the production system in China (strengthen facilities for semiconductors)
Customer Support CS to sales ratio (2019) (2022) 28% ⇒ 30%	<ul style="list-style-type: none"> • About 9,000 existing devices • Cooperation with ULVAC Group Equipment Sales • Networks in East Asia 	<ul style="list-style-type: none"> • Deployment of remote customer support packages to the sold equipment • CIP business expansion (especially FPD) • Development of maintenance services for equipment made by other companies

2. Strengthening Research and Development



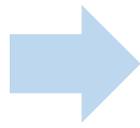
Strengthening product development in response to technological innovation in growing markets



- 1) Shift investment into the development of semiconductors and electronics
- 2) Strengthen global development system
 - Joint development of cutting-edge technologies with the world's leading companies
- 3) Shift in emphasis from process development to product development
- 4) Integration of laboratories
- 5) Share technology and product roadmaps with customers

3. Enhancing manufacturing capabilities ⇒ Improved profitability by improving productivity

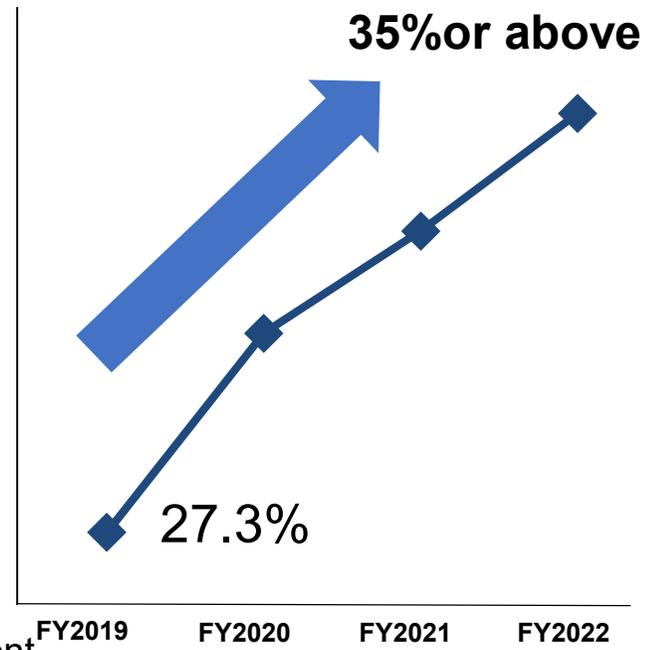
Enhancement of manufacturing capabilities



Man hour : 50% down
manufacturing lead time : 50% down
Procurement cost reduction



Gross Profit Margin

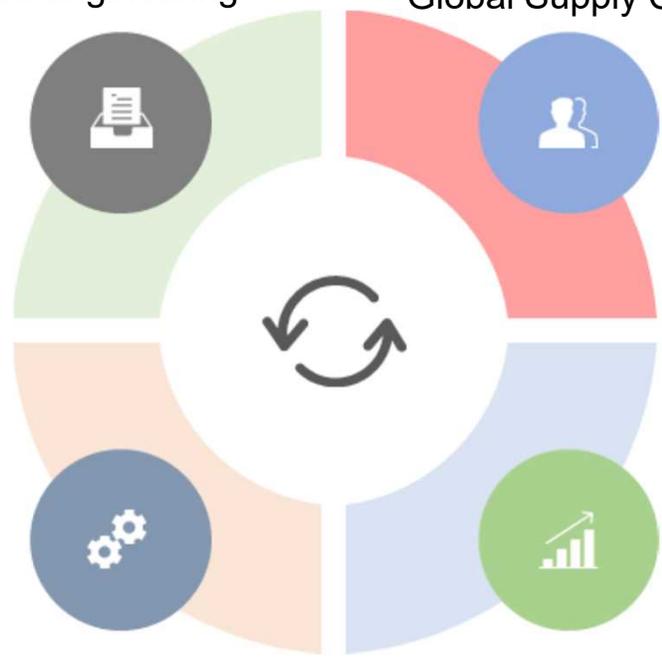


Technical Design Reform

Improving the completeness of technical drawings
Enhancing design value engineering

Procurement Reform

Integration of purchasing system
Global Supply Chain Development



Specialization of production sites
Improving manufacturing productivity

Business Process Standardization
Improvement of productivity and business management

Production process Reform

Strengthening the information system infrastructure

4. Enhancing Group Management Efficiency

- Business Unit Management Promotion
- Strengthening the management of group companies that have their own products

ULVAC CRYOGENICS

Manufacture and sale of cryogenic pumps

Nearly 100% market share for OLED cryogenic pumps

Growth in Large substrate OLED, semiconductors and optics

(2019) ¥9.5 billion ⇒ (2022) 1.3x



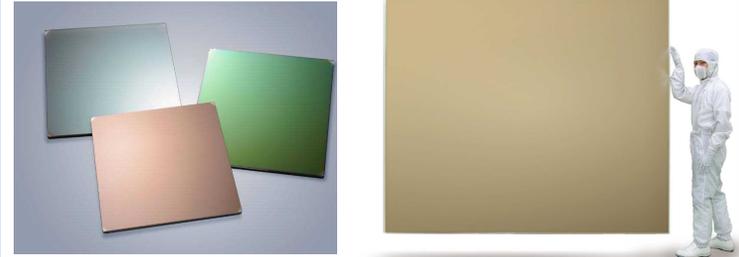
Cryogenic Pumps for OLED Large Cryogenic Pumps for Optics

ULVAC COATING

Manufacture and sale of mask blanks

Production started near customers in China. (Large mask blanks for FPDs)

(2019) ¥7.7 billion ⇒ (2022) 1.7x



Various Mask Blanks Large Mask Blanks for FPD

ULVAC-PHI

Manufacture and sale of analytical equipment

Expanded sales of photoelectron spectrometer and other products to research institutions in Japan and abroad.

(2019) ¥6.8 billion ⇒ (2022) 1.2x



X-ray photoelectron spectrometer

Strengthening of the management base

Business and organizational transformation ⇒ Growth realization

	Goals	Measures, etc.
Human Resource Development and Activation	<ul style="list-style-type: none">• Cultivating human resources who are constantly challenging to change• Creating a framework and environment in which diverse human resources can play active roles	<ul style="list-style-type: none">• Nurturing the next generation of leaders• Visualization of human capital• Diversity
Strengthening the information system infrastructure	<ul style="list-style-type: none">• Business Process Standardization• Improvement of productivity and business management	<p>【Total investment of 3.5 billion yen over 5 years】</p> <ul style="list-style-type: none">• Sharing group management information and speeding up management decisions• Global and Optimal Procurement (Efficient Ordering)
Strengthening of the financial base	<ul style="list-style-type: none">• Improvement of investment in development• Improving capital efficiency• Further strengthening of the financial structure	<ul style="list-style-type: none">• Further improvement of capital efficiency by strengthening financial management• Aim to achieve ROE of 13% or more and operating cash flow of ¥ 29 billion while maintaining financial stability (Estimated Equity ratio: 60%)

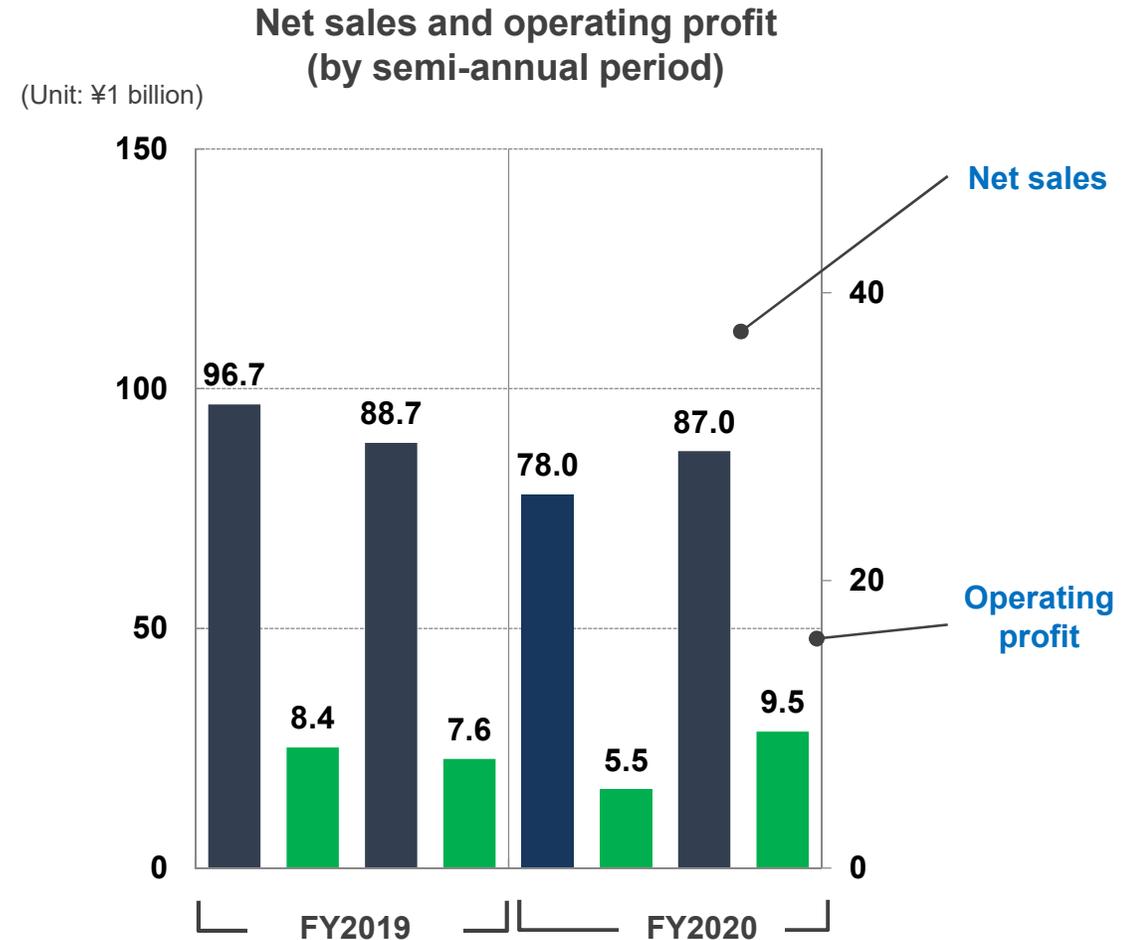
FY2020 Consolidated Earnings Forecast

FY2020 Consolidated Earnings Forecast

- Although sales in 1H decreased due to a decline in orders received and the order backlog in the previous fiscal year, sales growth in the semiconductor electronics business leads to a recovery in 2H of the fiscal year.
- Orders are expected to increase YoY, mainly in FPD and semiconductor electronics.
- Operating profit margin is expected to improve due to improved profitability, despite lower sales.

(Unit: ¥1 billion)

	FY2019	FY2020		
	Result	1H	Full Year (Changes)	
Orders received	156.6	79.0	180.0	15.0%
Net Sales	185.4	78.0	165.0	-11.0%
Operating Profit	16.0	5.5	15.0	-6.0%
Ratio	8.6%	7.1%	9.1%	+ 0.5 pt
Net Income	10.8	3.9	10.0	-6.9%
Ratio	5.8%	4.9%	6.1%	+ 0.3 pt

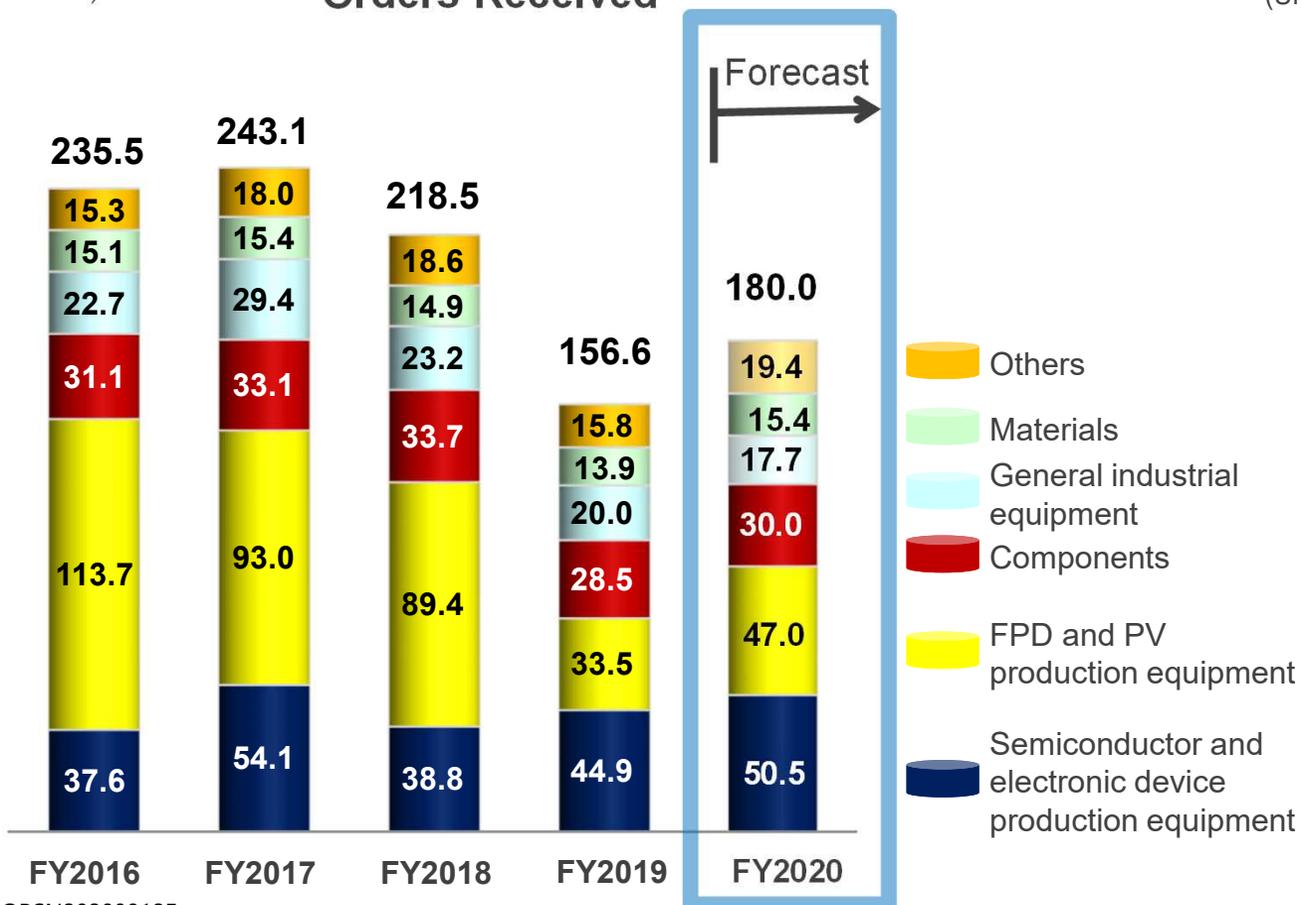


FY2020 Consolidated Earnings Forecast(Orders Received and Net Sales by Segment)

- Although net sales are expected to decline, orders are expected to increase mainly in the semiconductor, electronics and FPD industries.
- Semiconductor Electronics will be the largest segment in terms of sales.

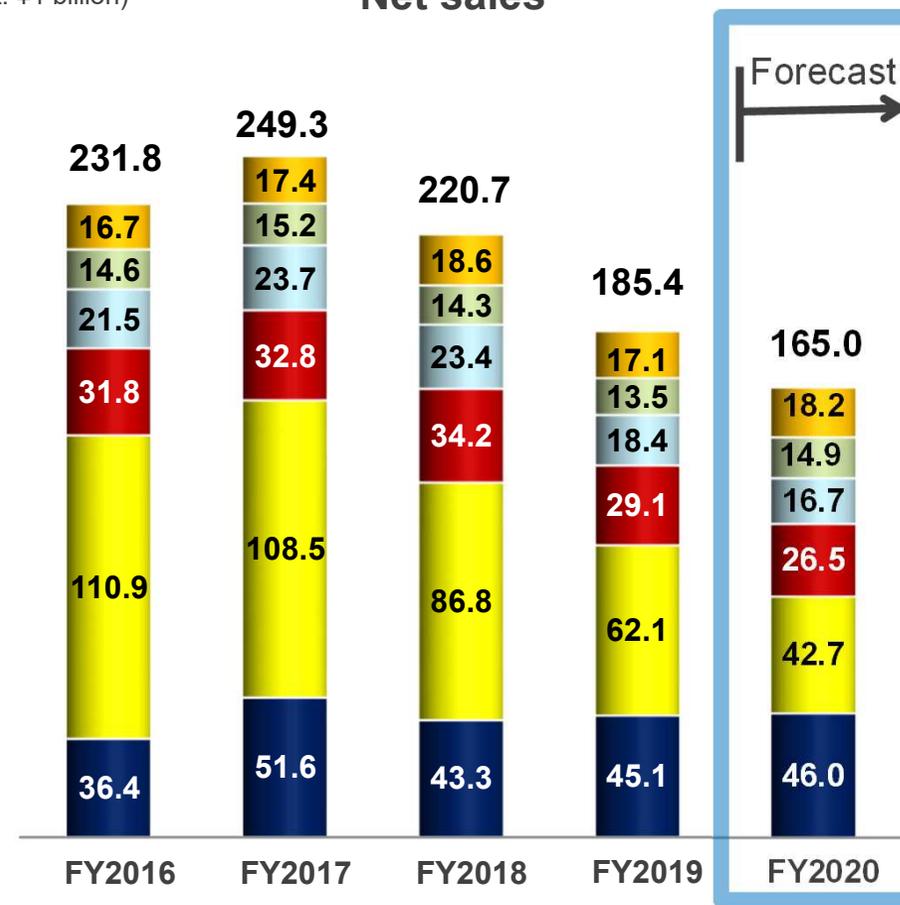
(Unit: ¥1 billion)

Orders Received



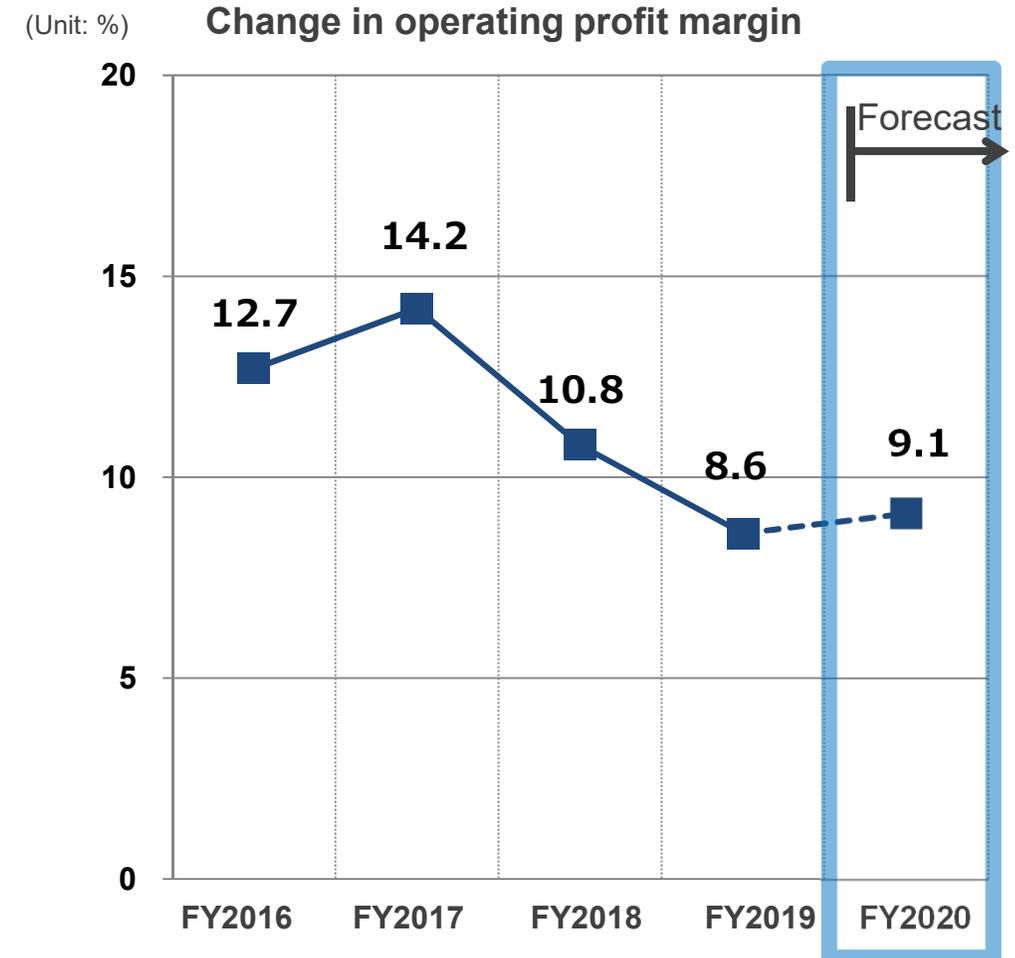
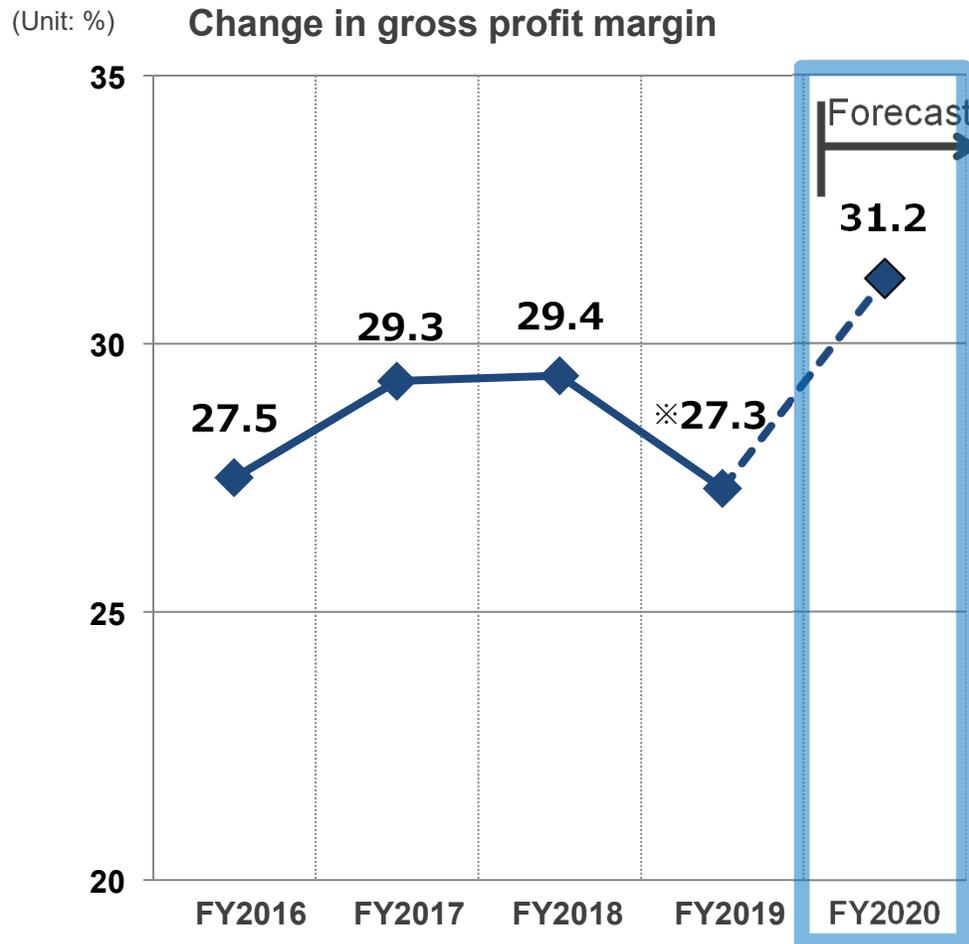
(Unit: ¥1 billion)

Net sales



FY2020 Consolidated Earnings Forecast (Profit Margins)

- Gross profit margin and operating income margin are expected to improve due to the improvement of profit margins from manufacturing reforms and an improved mix of products in line with increased sales of semiconductors and electronics.

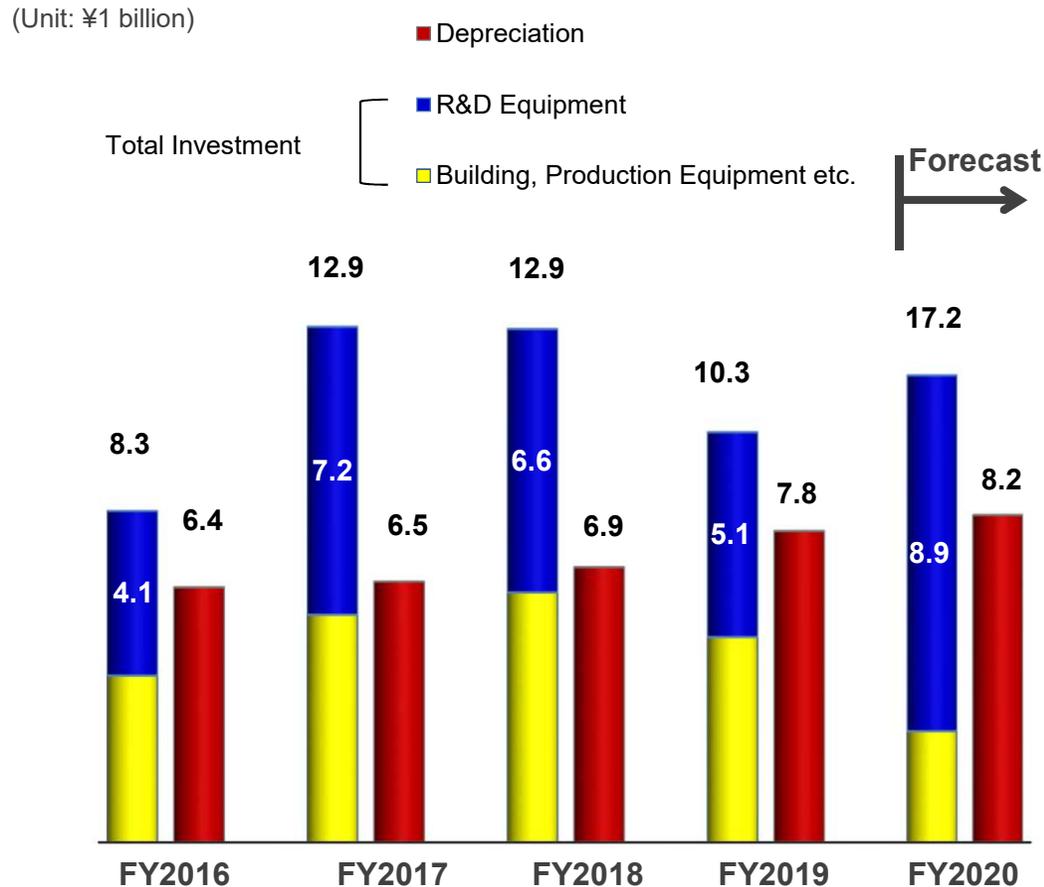


※Excluding contract terminations, gross profit margin should have been 28.3%.

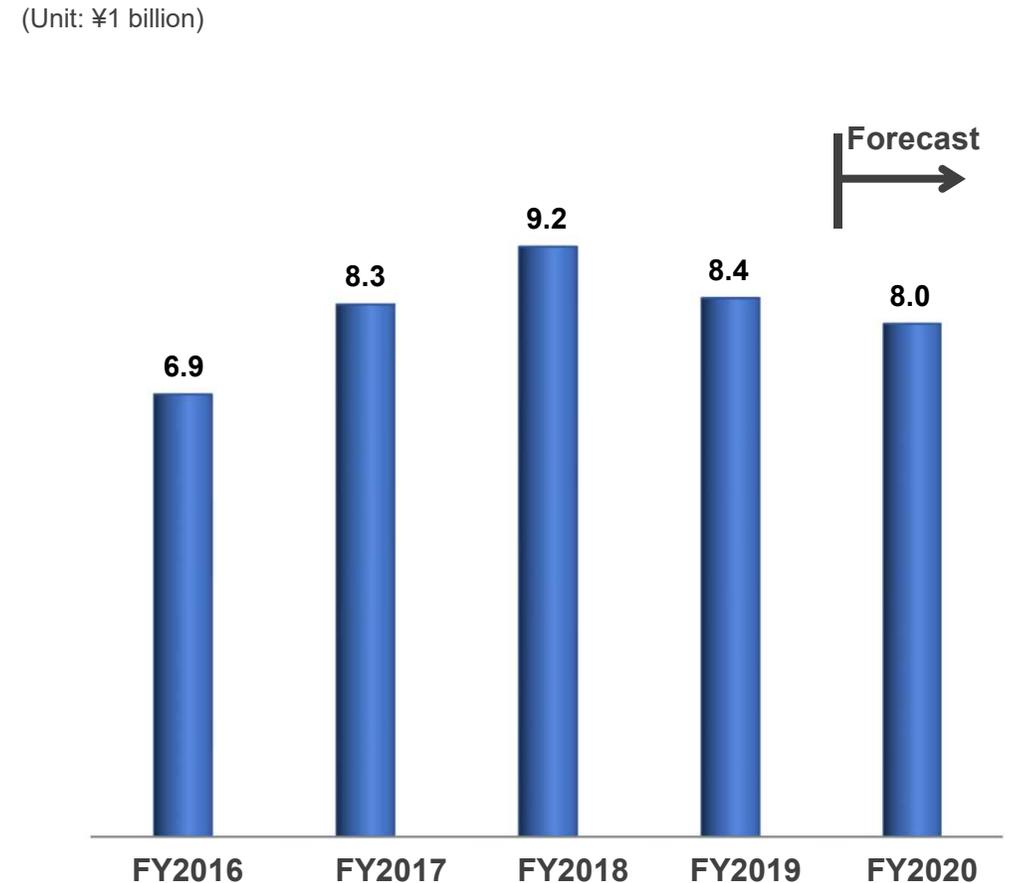
FY2020 Consolidated Earnings Forecast (Progression of Capital Expenditures and R&D Expenses)

- We plan to invest ¥50 billion in R&D (capital investment in R&D equipment and R&D expenses) over three-year period (¥16.9 billion this fiscal year), mainly in the growing field of semiconductor electronics.

Actual and forecast capital expenditures



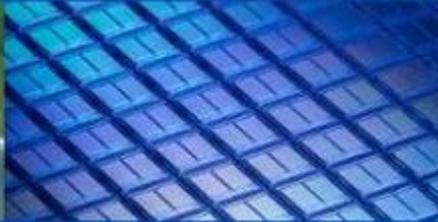
Actual and forecast R&D expenses



ULVAC vacuum technology contributes to many industries and applications



Automobile
自動車



Semiconductor
半導体



Flat Panel Display
フラットパネルテレビ



Photovoltaic
太陽電池



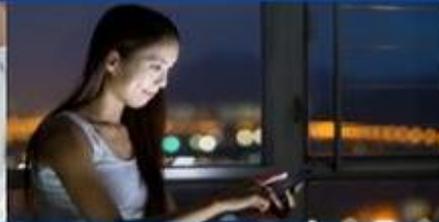
Food Processing
食品



Aircraft
航空



Bio
バイオ



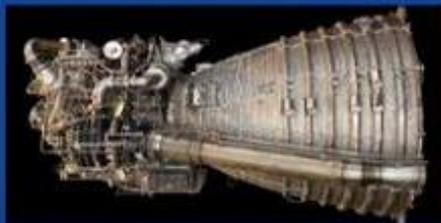
Smart Phone
スマートフォン



Magnetic Device
磁気デバイス



Home Appliance
家電製品



Aerospace
宇宙産業



Pharmaceutical
医療・薬剤



Wearable/VR
ウェアラブル/VR



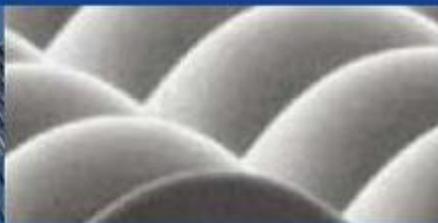
Power Device
パワーデバイス



MEMS Device
MEMS デバイス



Architectural Glass
建材・スマートガラス



Optical
光学



Flexible
フレキシブル



Packaging Materials
パッケージング



Battery
バッテリー