

(Securities code: 6728)

Business Results

FY2019

First and Second Quarters (cumulative)

(July 2019 - December 2019)

Feb. 14, 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 1Q and 2Q FY2019 Consolidated Business Results (Cumulative)

□ Order Received:¥72 billion (-40% year-on-year,-27% vs. initial forecast)

- Sharply declined year-on-year mainly due to the temporary end of LCD business for large-screen TVs as well as the postponement of investment in OLED for smartphones

□ Net Sales:¥96.7 billion (-17% year-on-year,-1% vs. initial forecast)

- Declined year-on-year, but generally in line with the initial forecast

□ Operating Profit:¥8.4 billion (-46% year-on-year,-1% vs. initial forecast)

- Declined year-on-year, but generally in line with the initial forecast as same as Net Sales

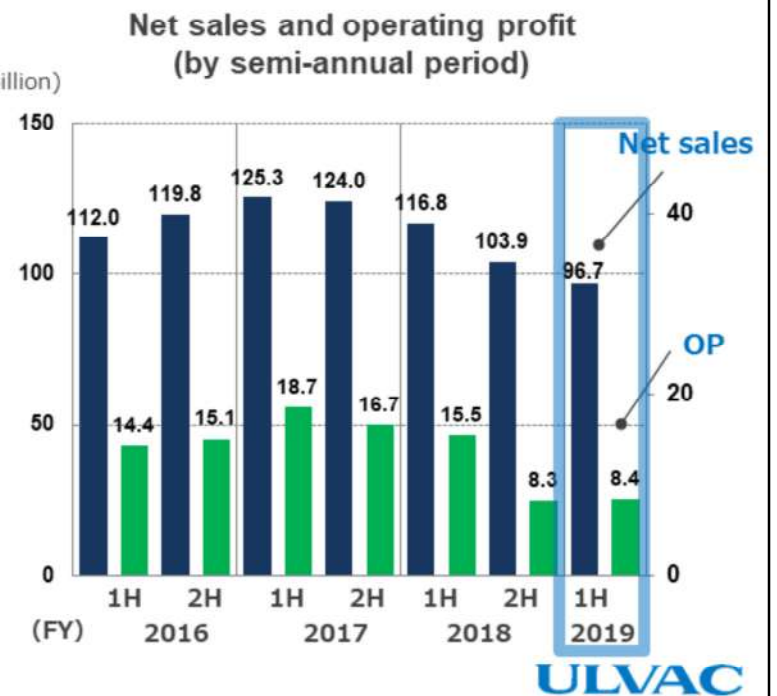
Overview of 1Q and 2Q FY2019 Consolidated Business Results (Cumulative)

- **Orders Received:** Sharply declined year-on-year and also fell below the initial forecast mainly due to the temporary end of LCD business for large-screen TVs as well as the postponement of investment in OLED for smartphones
- **Net Sales :** In addition to FPD, Component business declined year-on year, but generally in line with the initial forecast
- **Operating Profit :** Generally in line with the initial forecast

(Unit:¥1 billion)

	FY2018		FY2019 1H		
	1H	Initial forecast	Result	Y-o-Y (Changes)	vs.Initial forecast (Changes)
Orders Received	119.5	98.6	72.0	-39.7%	-27.0%
Net Sales	116.8	97.5	96.7	-17.2%	-0.8%
Gross margin	34.8	-	25.7	-26.2%	-
Ratio	29.8%	-	26.5%	- 3.3 pt	-
SG&A	19.3	-	17.3	-10.5%	-
Operating Profit	15.5	8.5	8.4	-45.8%	-1.2%
Ratio	13.3%	8.7%	8.7%	- 4.6 pt	- 0.0 pt
Net Income	11.2	6.0	7.8	-30.7%	29.8%
Ratio	9.6%	6.2%	8.0%	- 1.6 pt	+ 1.9 pt

(Unit:¥1 billion)



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Regarding the orders received, we expected a decline to ¥98.6 billion by approximately ¥21 billion down year-on-year in the initial forecast. However, it fell sharply to ¥72 billion eventually due to the temporary end of LCD business for large-screen TVs and the postponement of investment in OLED for smartphones. As for the details, we would like to explain it on the next page.

For the net sales, although the orders of FPD-related and components, etc. declined, the sales result was roughly in line with the initial forecast because of a sufficient order backlog at the beginning of this FY.

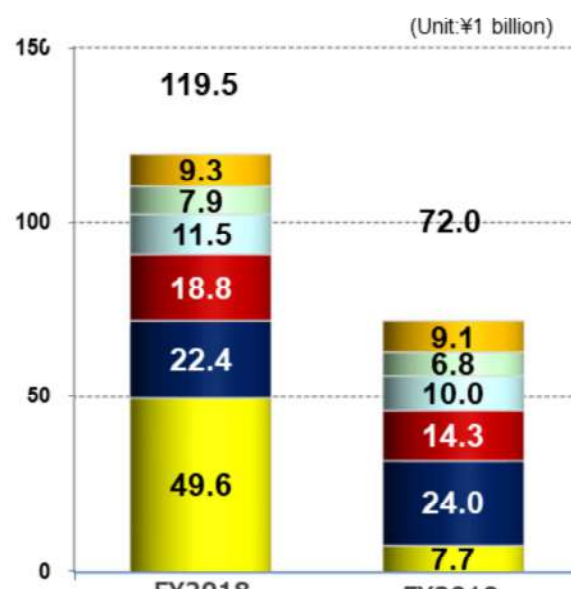
The operating profit was also in line for the same reason.

Net income exceeded our initial forecast by ¥1.8 billion. This was due to a gain on the sale of shares in 2Q.

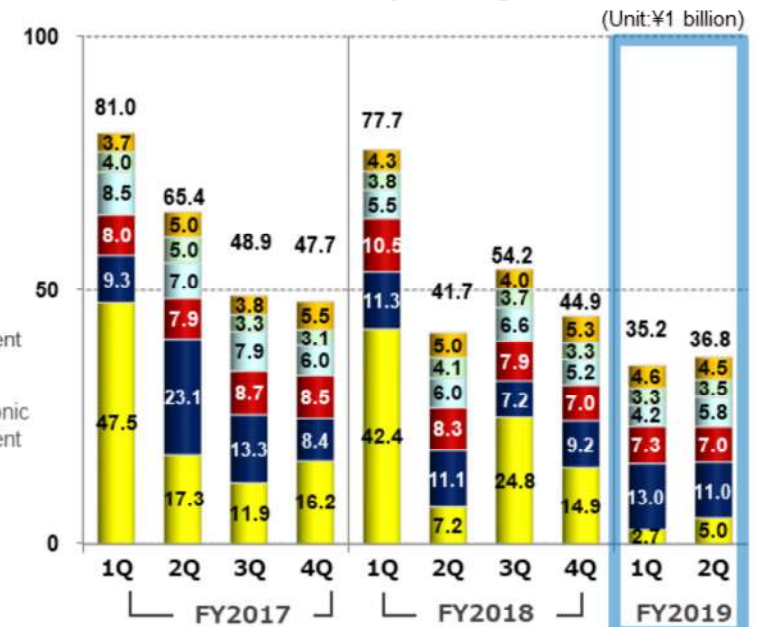
Overview of 1Q and 2Q FY2019 Consolidated Business Results (Cumulative) (Orders Received by Segment)

- **FPD and PV production equipment:** Sharply declined year-on-year due to the temporary end of LCD business for large-screen TVs and the postponement of investment in OLED for smartphones
- **Semiconductor and electronic device production equipment:** Increased year-on-year contributed by increased orders of production equipment for power device, communication devices and logic
- **Components:** Declined due to several projects concentrated in FY18 and also the investment pace down for automobile and FPD-related orders

Orders vs. same period last year



Quarterly change



(Orders by segment)

For FPD, orders fell substantially year-on-year and vs. the initial forecast due to the following factors.

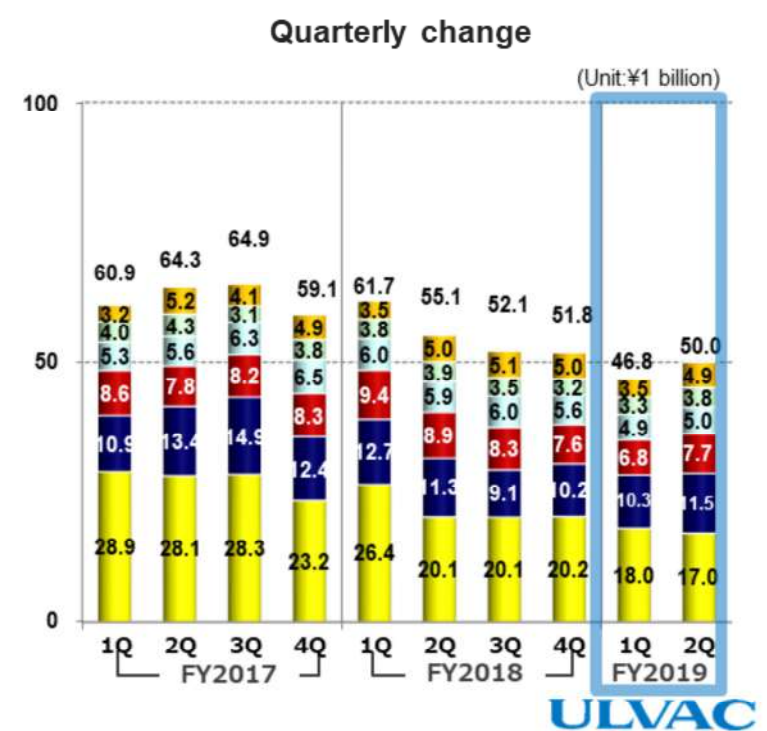
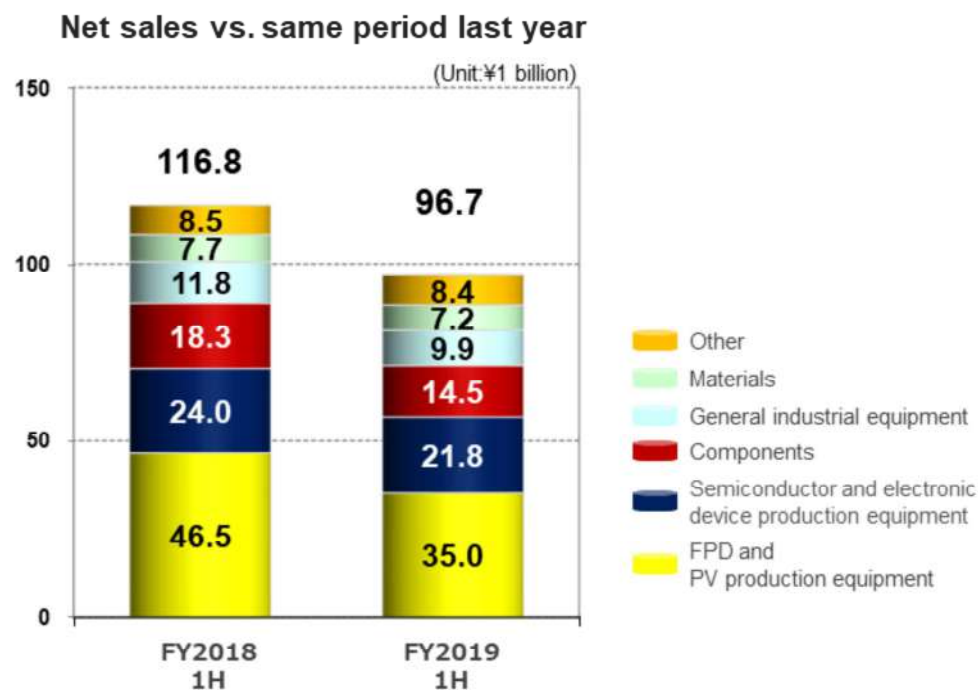
- ① In the beginning of this FY, we recognized that LCD business for large TVs had come to a temporary end and only some additional investments were included in the initial forecast. However, unfortunately most of the additional investments were postponed.
- ② As for OLED investment for smartphones, the investment plans of our customers were also postponed.
- ③ As explained in 1Q business result presentation, there was an order cancellation in 1Q.

For semiconductor/electronics, orders received increased year-on-year due to the contribution of power devices, communication devices and logic etc.

Components fell significantly year-on-year. Looking at 1Q FY2018 of the quarterly change graph on the right of this page, you can see the amount of components orders received is much larger than other quarters. This was due to relatively large spot orders received in 1Q FY2018. Due to the impact of no large-amount spot orders received and a slowdown in the investment related to automobiles and FPDs, components fell significantly year-on-year.

Overview of 1Q and 2Q FY2019 Consolidated Business Results (Cumulative) (Net Sales by Segment)

- FPD and PV production equipment: Fell slightly below the initial forecast thanks to the relatively high beginning backlog which partly absorbed the impact from declined orders



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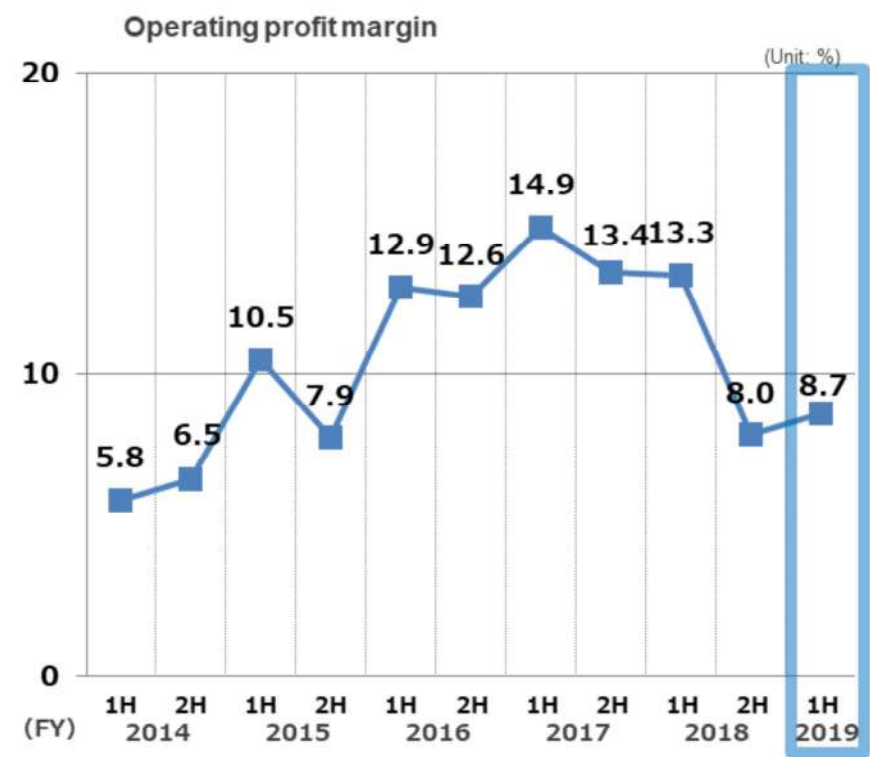
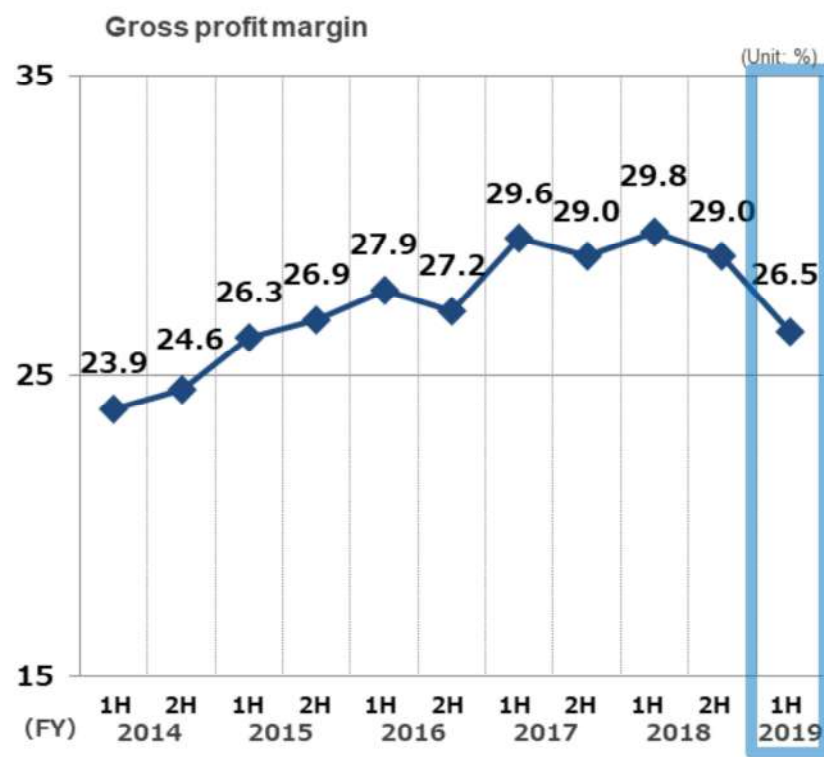
(The net sales by segment)

For FPD, the sales fell slightly under the initial forecast because of a sufficient order backlog at the beginning of this FY and the relatively long lead time, which deferred the impact of FPD-related orders reduction over 2H this FY or later.

The result of overall consolidated net sales for 1H was almost as expected.

Overview of 1Q and 2Q FY2019 Consolidated Business Results (Cumulative) (Profit Margins)

- Gross profit margin and Operating profit margin declined due to the decline of Net sales
(Excluding the cancellation of contract, gross profit margin should have been 28.4%)



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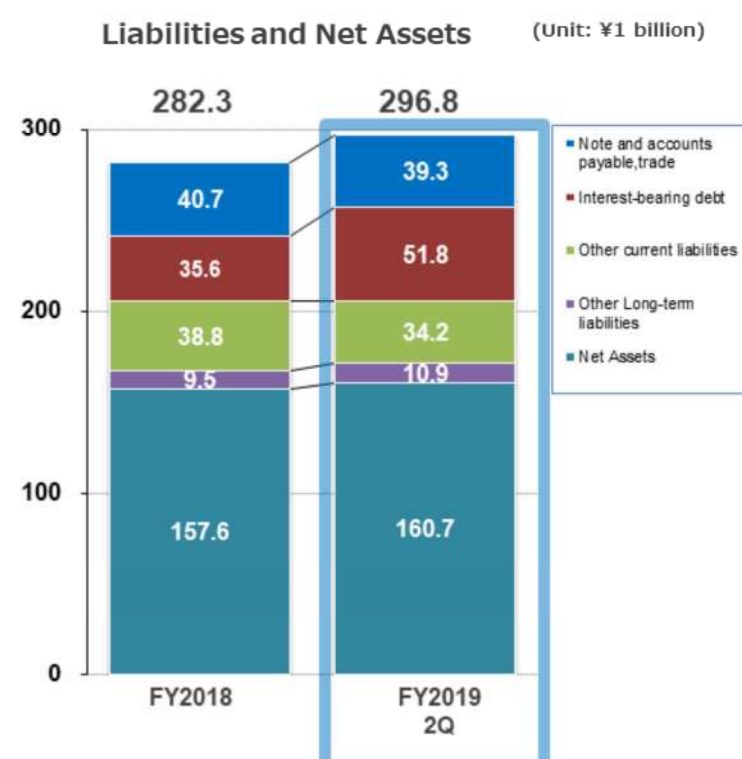
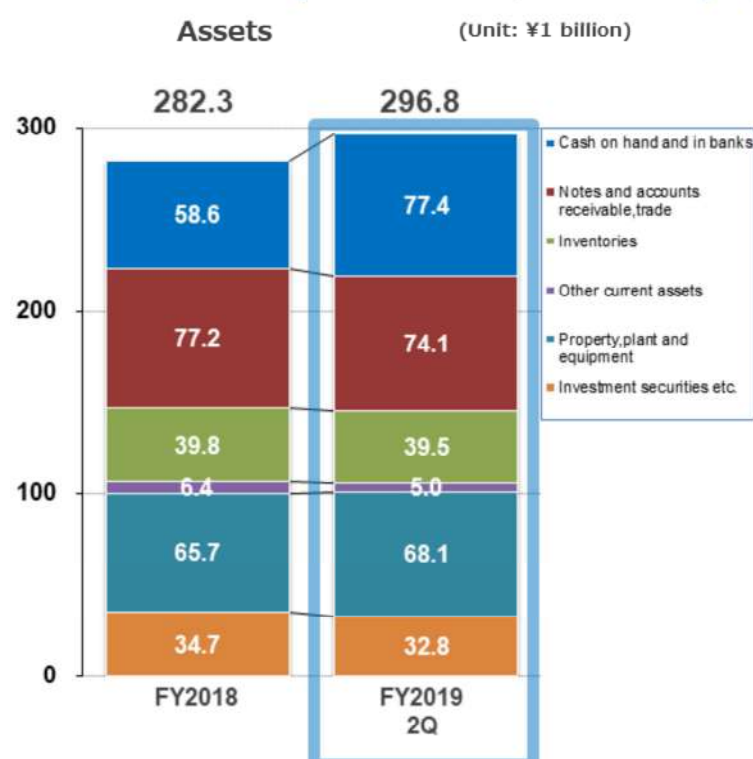
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For the gross profit margin, excluding the impact of the contract cancelation, it should have been 28.4% on an actual basis.

Both the gross profit margin and the operating profit margin declined mainly due to a decline in sales.

Overview of 2Q FY2019 Business Results (Consolidated Balance Sheet)

- Cash on hand and in banks increased by ¥18.8 billion, Interest-bearing debt increased by ¥16.2 billion, and Total asset increased by ¥14.5 billion
- Net assets increased by ¥3.1 billion, and the equity ratio improved to 51.9%.



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On the balance sheet, cash on hand and in bank and interest-bearing debt increased substantially.

The equity ratio was 51.9% due to an increase in total assets.

FY2019 Earning forecast and Business environment

Revision of FY2019 Full Year Consolidated Earnings Forecast

- Net sales and profit items are expected to decrease due to a shortfall in net sales and operating profit caused by a decline in orders received for FPD production equipment. In addition, development costs are expected to increase. Therefore, forecasts for net sales and profit items were revised downwards.

(Unit: ¥1 billion)

	FY2018	FY2019					
		1H		Full Year			
		Initial Forecast	Result	Initial Forecast	Revised Forecast	YoY (Changes)	vs. Initial Forecast (Changes)
Orders Received	218.5	98.6	72.0	206.0	168.0	-23.1%	-18.4%
Net Sales	220.7	97.5	96.7	205.0	198.0	-10.3%	-3.4%
Operating Profit	23.8	8.5	8.4	22.5	15.0	-37.0%	-33.3%
Ratio	10.8%	8.7%	8.7%	11.0%	7.6%	- 3.2 pt	- 3.4 pt
Net Income	18.7	6.0	7.8	15.5	10.8	-42.1%	-30.3%
Ratio	8.5%	6.2%	8.0%	7.6%	5.5%	- 3.0 pt	- 2.1 pt

※Have not anticipate the effects of the coronavirus

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Orders received in 1H were ¥72 billion, less than the initial forecast by ¥26.6 billion.

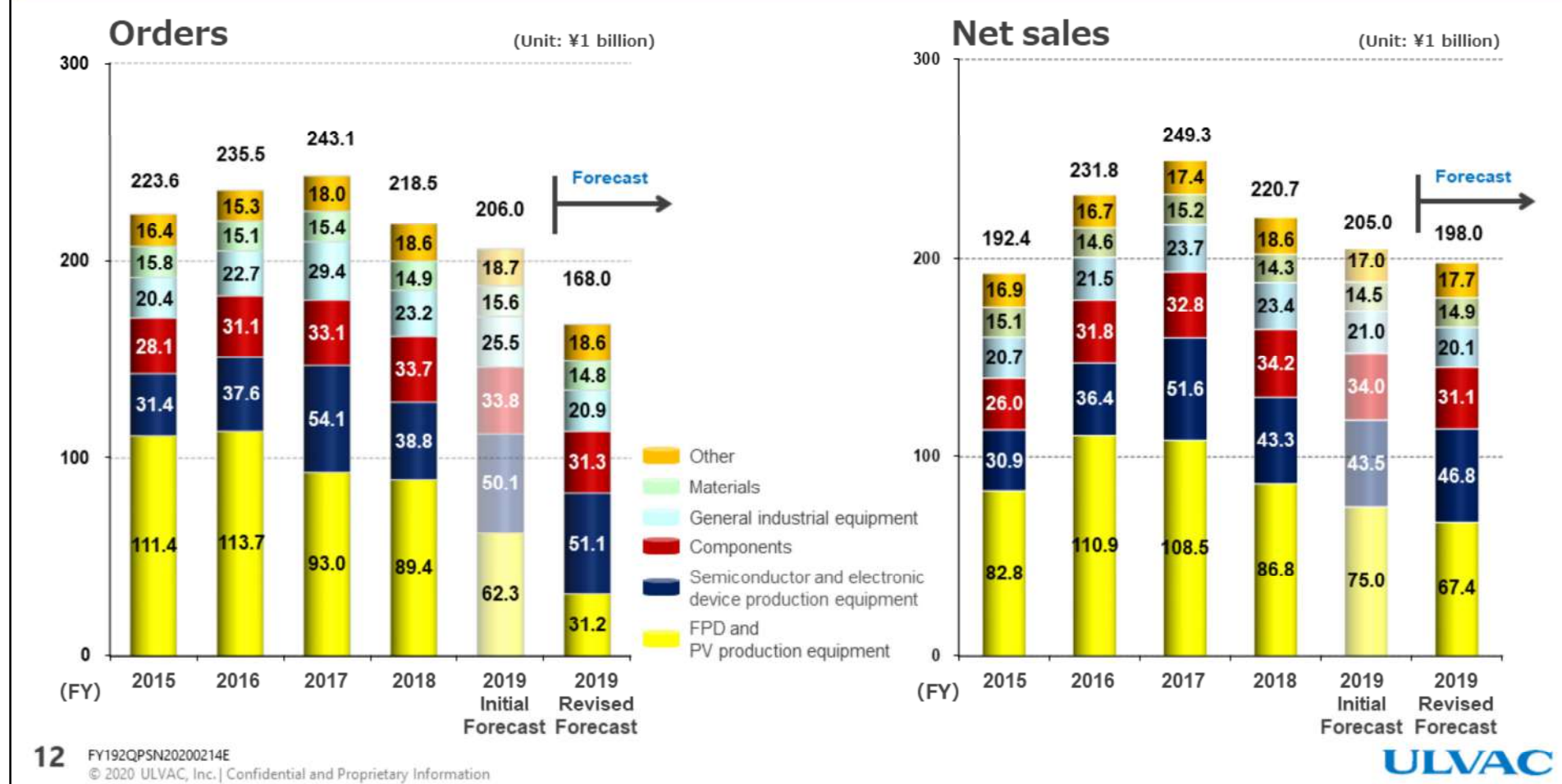
In 2H of this FY, orders mainly for FPD are expected to fall short. For the full year, it is expected to be ¥168 billion, ¥38 billion less than the ¥206 billion initial forecast.

Due to the order backlog of and the relatively long lead time, the net sales are expected to be ¥198 billion, ¥7 billion less than the initial forecast.

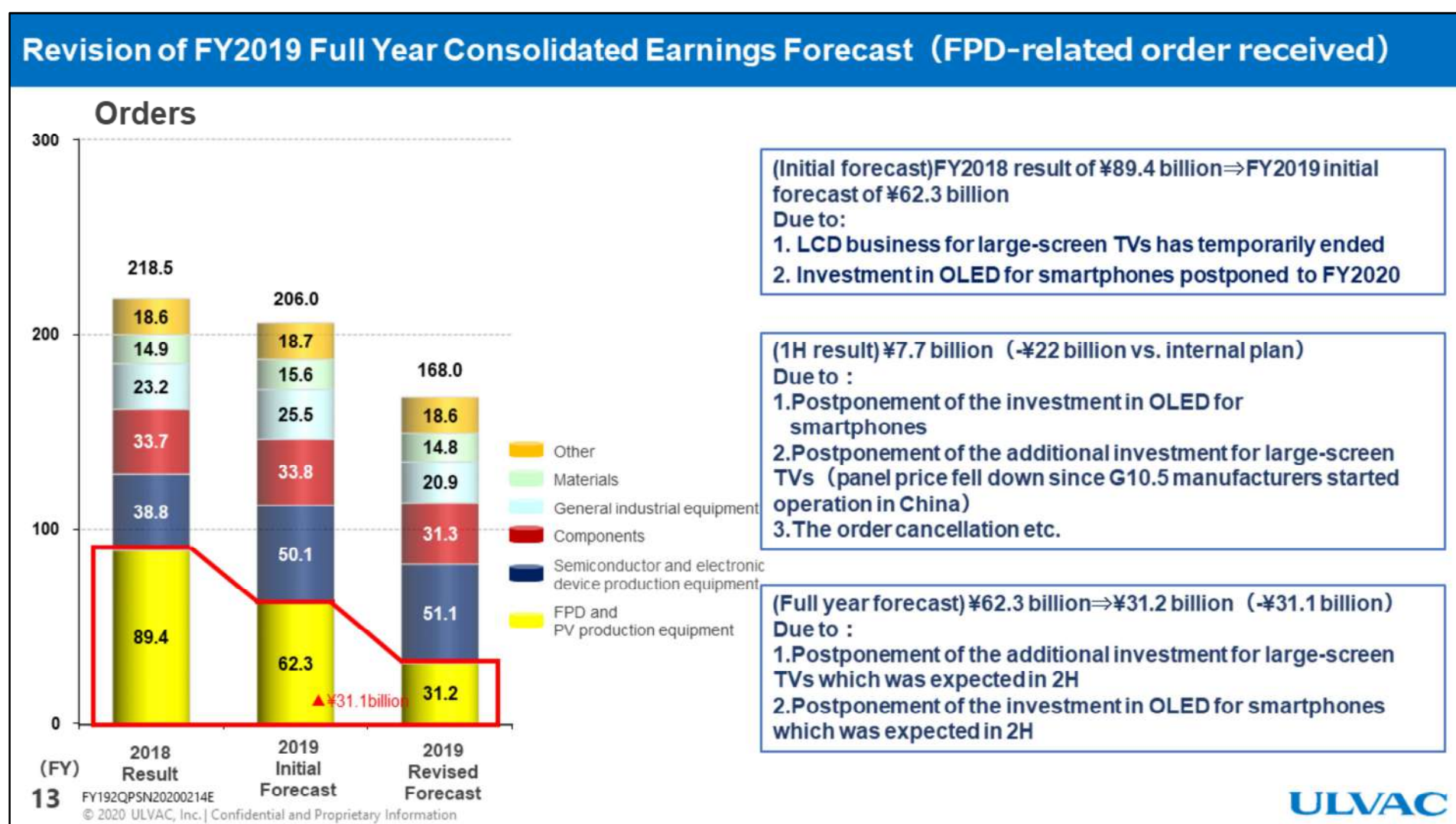
As for profit items, we revised downwards due to the impact of the decreased sales and also the increased costs of development investments we consist on even under the current difficult environment.

The net income is expected to be ¥10.8 billion against the initially planned ¥15.5 billion.

Revision of FY2019 Full Year Consolidated Earnings Forecast (Order received and Net sales by segment)



As affected by the decrease in FPD-related orders and sales, consolidated orders and sales declined year-on-year and vs. the initial forecast.



At the beginning of the fiscal year, in view of the following factors, the orders for FPDs were expected to be ¥62.3 billion, ¥27 billion less than FY2018.

- ① As the LCD panels manufacturers for large TVs mainly in China started operation sequentially from 2019 to 2021, LCD business negotiation for large TVs temporarily ended.
- ② Major investments in OLED for smartphones would be implemented by our customers in FY2020 or later, since we just received the order in 3Q FY2018.

In this 1H, along with the operation start in Chinese G10.5 LCD manufacturers, the panel prices have been falling down dramatically to a breakeven point and some South Korean manufacturers had to close their factories. In such a difficult environment, some of our customers postponed their additional LCD investment. Meanwhile, it's unfortunate that the OLED investment for smartphone planned by our customer was also postponed. Including the impact of the order cancellation in 1Q, the result of orders received in 1H was ¥7.7 billion, less than the internal forecast by ¥22 billion.

In 2H of this FY, the investments in LCD for large TVs and OLED for smartphones are also expected to be postponed. The full-year FPD orders forecast is expected to be ¥31.2 billion, ¥31.1 billion lower than the initial forecast.

FPD market environment

足下

Even though a decline in orders at the beginning of the fiscal year was expected, further decline in orders are expected currently due to (1) the postponement of additional investment in LCD for large-screen TVs and (2) the postponement of investment in OLED (Sputtering equipment for Backplane).

2018 2019 2020 2021 2022 onwards

Investment in LCD for large-screen TVs (G10.5 in China)
2019~2021 : Operation started sequentially ⇒ panel price fell down
⇒ Production line closed in South Korea; Additional investments continues in China



Investment in medium/large-sized OLEDs (South Korea, China)

Investment in OLEDs for smartphone in China
⇒ temporarily slow down
(business negotiations with our customers expected from FY2020 onwards)

Panel investment focused on OLED with high application expandability

- Flexibility: Foldable displays; In-vehicle displays; Rollable displays
- Thin and lightweight: Wall-hung large-screen displays; Rollable displays



Medium/large-sized OLED market growing
⇒ contributes to our business from 2022

- Leveraging our strengths in large substrate sputtering and transport technology, we are collaborating with top manufacturer in mass production development

As explained earlier, the market environment for FPDs is as follows:

- ① The LCD investment for large TVs has temporarily ended even though there is still a possibility of additional investment.
- ② The OLED investment for smartphones is temporarily slowing down, but it is expected to continue afterwards. Unfortunately our company's market share is not so high.

As a result, FPD sales are expected to remain low over the next two years.

- ③ The panel investment is expected to be focused on OLED in the future.

OLED is flexible and lightweight. Further evolution in OLED is expected due to its high versatility, such as foldable displays, in-vehicle displays, wall-hung large displays, rollable displays, etc.

In the future, we will continue to expand the OLED market for medium and large substrates.

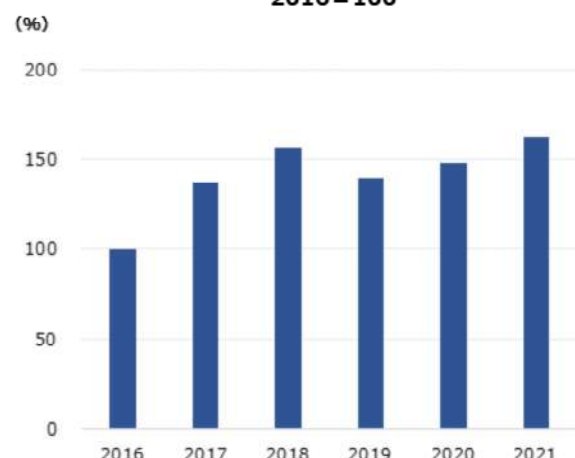
By taking advantage of the accumulated technologies that have led the development of large-scale equipment, e.g. the carry technology with extremely few particles, we will work with top manufacturers to develop mass production equipment. We believe that these efforts would contribute to our business performance in about two years.

Semiconductor market environment(1) Memory

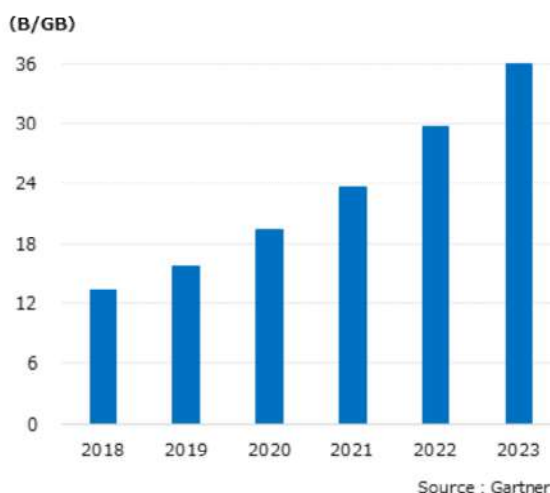
Memory

- ✓ The recovery of memory investment delayed, which was expected in 2H of this fiscal year and a full recovery of memory investment is expected to be in FY2020
- ✓ NAND: Resumption of investment by top manufacturer; cautious stance of other companies (Expected to resume in mid 2020)
- ✓ DRAM: Memory prices decline expected to stop and investment to be resumed

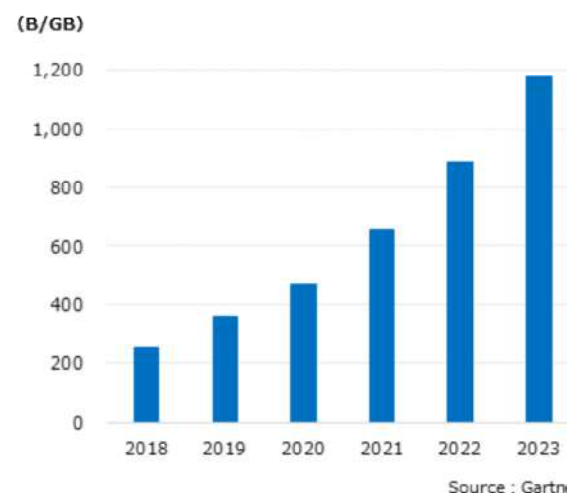
Semiconductor Manufacturing Equipment Market (SEMI)
2016=100



DRAM demand(shipment volume) forecast



NAND demand(shipment volume) forecast



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Regarding semiconductor memory, we now expect a recovery from 2H of this FY, slower than anticipated.

There are signs on a resumption of investment.

As for NAND, a resumption of investment has been seen in top manufacturer. Since others seem to remain cautious, we consider the full recovery will start from the middle of this year.

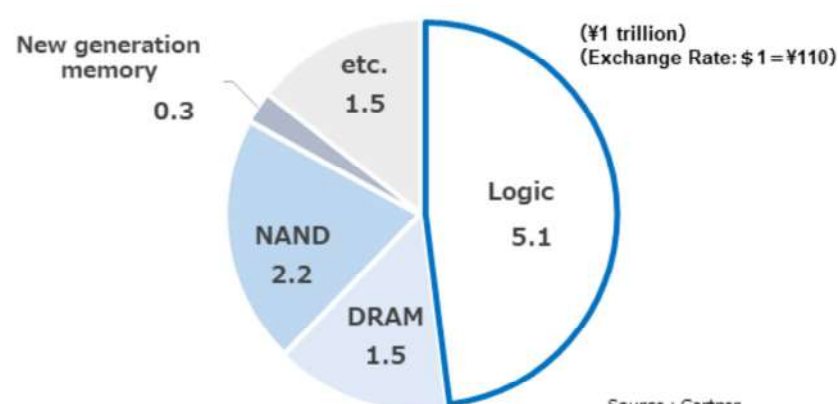
As for DRAM, we are beginning to see signs of investment resumption in each manufacturer. A full-scale recovery is expected to start from FY2020.

Semiconductor market environment(2) Logic

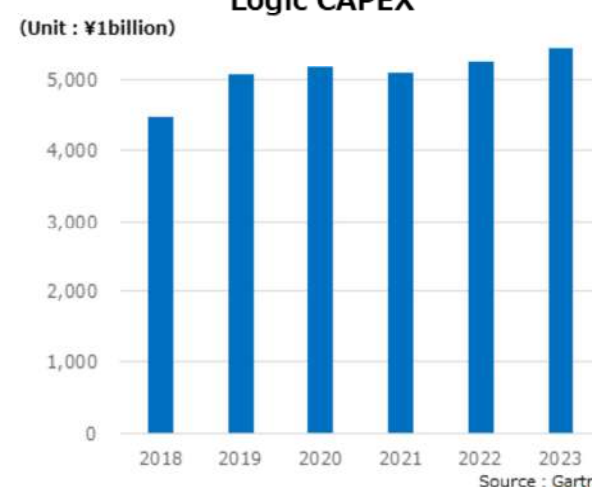
Logic

- ✓ Two major manufacturers rated us higher than the competitor in the sputtering process(metal hard mask) required for miniaturization due to EUV introduction (Future priority investment areas for both manufacturers)
- ✓ We expect orders to be received as planned this fiscal year, and are aiming for a future growth by (1) customers' businesses expansion (2) increasing the number of adoption for further miniaturization processes (3) increasing the number of participating manufacturers.

Semiconductor CAPEX (2019)



Logic CAPEX



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In the sputtering process for logic, which requires miniaturization due to EUV introduction, we succeeded to be adopted by two major manufacturers.

We are looking forward to a future growth, because both manufacturers are considering the cutting-edge node chips as a prior investment area.

The scale of investment exceeds that of memory, and capital investment is growing steadily. We are aiming to grow in the future by (1) customers' businesses expansion (2) increasing the number of adoption for further miniaturization processes (3) an adoption by the third participating manufacturer.

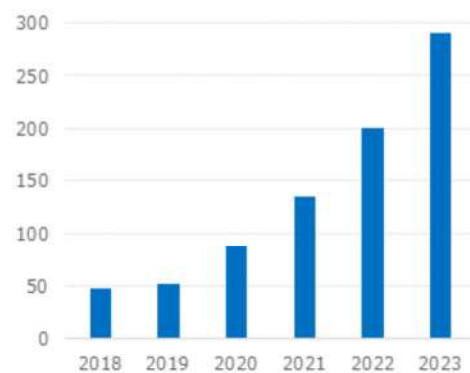
Semiconductor market environment(3) New non-volatile memory (PCRAM)

PCRAM

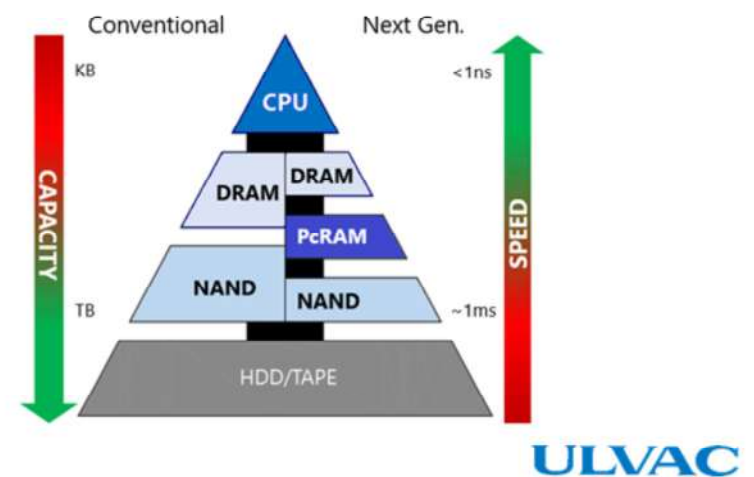
- ✓ ULVAC is the only equipment supplier to enable mass-produced film deposition system for PCRAM which 1) has a faster processing speed than NAND and 2) is non-volatile, unlike DRAM (memory is preserved even if power supply is cut off)
- ✓ We achieved to provide equipment at mass production level and are expanding the business bases by providing development equipment to more customers
- ✓ Realization of high speed processing of large amounts of information and lower power consumption ⇒ Mid-long-term growth expected
⇒ Compatible with higher data capacity and lower latency supported by 5G, IoT, and AI → expanding applications to servers, edge computers, and PCs

Emerging Memory Market Size

(Unit : ¥1billion)



Note: Emerging Memory includes MRAM, ReRAM, PCRAM, etc.
Source: Gartner 2019



PCRAM has the same processing speed as DRAM and can retain memory even when power is turned off.

Ulvac is the only equipment supplier for mass production level in the important sputtering process of PCRAM. We have already delivered the equipment to more than five semiconductor manufacturers, including testing equipment.

PCRAM is expected to be used in servers, workstations, and other low-power devices with the realization of speedy processing and low power consumption.

It is the starting period before takeoff. We expect the growth over the medium to long term.

Electronics Device market environment

電子

- ✓ In preparation for the full-scale diffusion of 5G and IoT (Communication devices, Optical device, sensors, etc.), capital investment is steadily increasing for the challenges of device miniaturization and performance enhancement.
- ✓ Continued investment in power devices to realize low power consumption (Automobiles, electric motors, home appliances, etc.)



Communication Device

Devices for antenna adopted to base stations, SAW・BAW filter



Sensor etc

Fingerprint, image and optical sensor



Power Device

Si-IGBT (Japan)
For SiC (China)

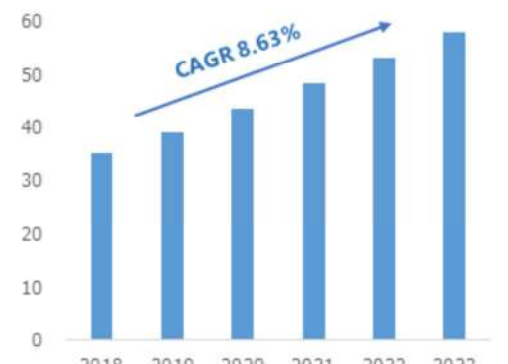
Communication Device Market Size

(Unit : Billion Unit)



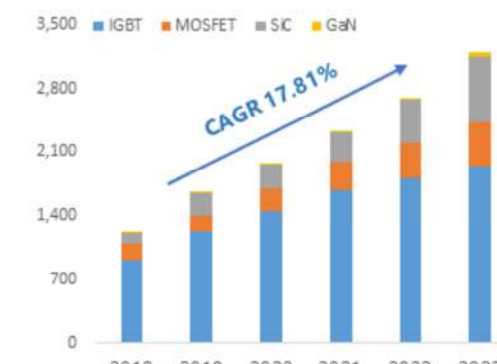
Sensor Market Size

(Unit : Billion US\$)



EV/HEV Power Device Market Size

(Unit : Million US\$)



18 FY192QPSN20200214E Source : Yole
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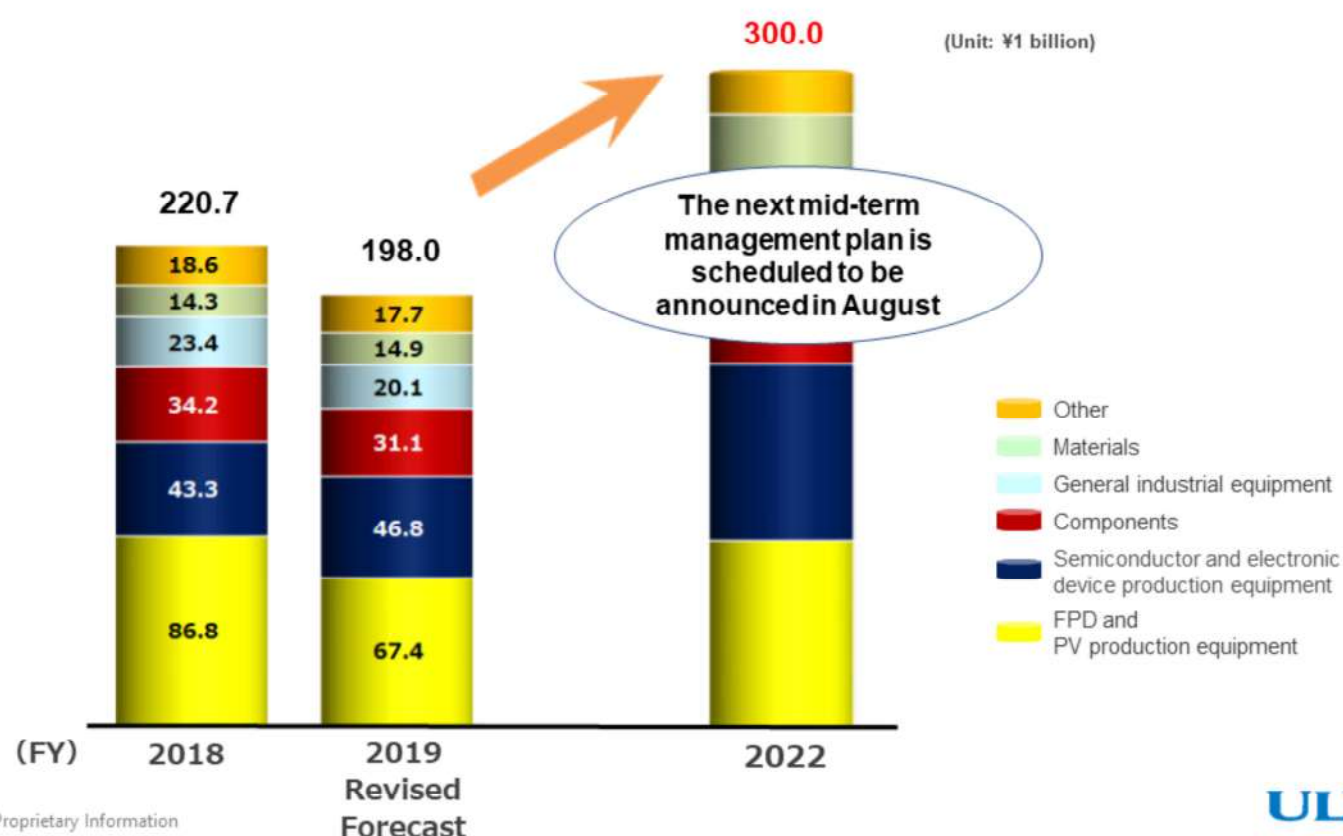
Toward the promotion of 5G/IoT, capital investment is steadily increased for miniaturization and performance enhancement of communication devices, optical devices, sensors, etc. We believe that this will continue in the future.

In addition, the investment will also be expected to continue in power devices that meet the needs of low-power consumption required in the electrification of automobiles.

As a part in technological innovation to realize a smart society in the future, we expect to achieve stable growth in the electronics field.

Next mid-term management plan

The next mid-term management plan will be announced in August, including the management reform for the purpose of strengthening the management bases which has already started and also the growth strategies.

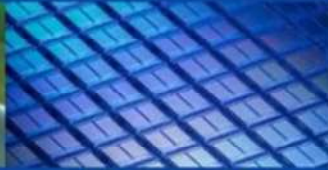


We plan to disclose the next medium-term management plan in August, including (1) management reforms which we have started for management base enhancement and (2) the growth strategies as well.

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・薬用



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



Next Generation Light
次世代照明

Vacuum technology /
For manufacturing
ULVAC