

# FY2020 Q2 Financial Announcement

(Supplementary Materials)

November 12, 2019

V-Technology Co., Ltd.

# Forward-Looking Statements

This material contains forward-looking statements regarding V Technology Co., Ltd.'s corporate plans, strategies, forecasts, and other statements that are not historical facts. They are based on current expectations, estimates, forecasts and projections about the industries in which V Technology Co., Ltd. operates.

As the expectations, estimates, forecasts and projections are subject to a number of risks, uncertainties and assumptions, including without limitation, changes in economic conditions; fluctuations in currency exchange rates; changes in the competitive environment; the outcome of pending and future litigation; and the continued availability of financing and financial instruments and financial resources, they may cause actual results to differ materially from those presented in such forward-looking statements.

V-Technology Co., Ltd., therefore, wishes to caution that readers should not place undue reliance on forward-looking statements, and, further that V Technology Co., Ltd. undertakes no obligation to update any forward-looking statements as a result of new information, future events or other developments.

## **Influence of Foreign Exchange Rates on Equipment Sales**

In principle, export sales of our feature FPD production equipment is denominated in yen. There are also some foreign currency settlements, however the risk of exchange fluctuations denominated in foreign currencies are hedged using the forward exchange contract if necessary. Accordingly, the effect of exchange rates on sales of our equipment is negligible.

## **Numerical Treatment**

The amounts listed are rounded down to the nearest unit, and the ratio is rounded off to the unit amount, so it may not match the breakdown.

# Financial Results

---

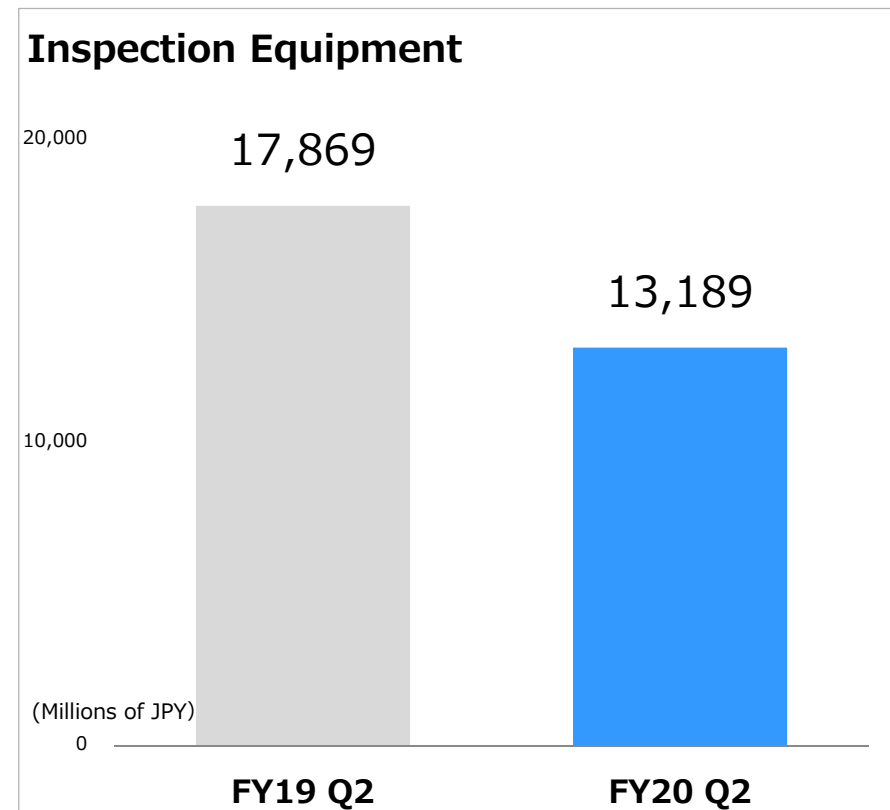
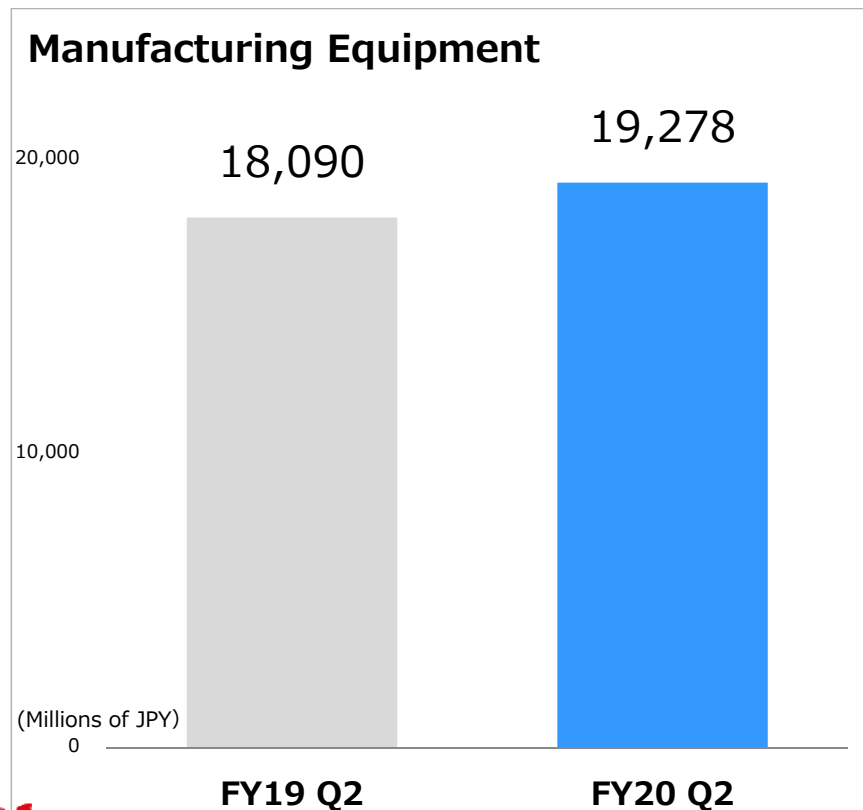
## Highlight of FY2020 Q2

- In the first half of the current fiscal year, sales were generally in line with the initial plan.
- Semiconductor-related business (Nano System Solutions) started contributing.

	FY19 Q2 ended		FY20 Q2 ended		Y/Y change
	Amount (Millions of JPY)	Margin	Amount (Millions of JPY)	Margin	
Net sales	38,104	—	35,046	—	-8.0%
Gross profit	12,523	32.9%	11,202	32.0%	-10.5%
Operating profit	8,365	22.0%	6,262	17.9%	-25.1%
Ordinary profit	8,585	22.5%	6,269	17.9%	-27.0%
Net profit attributable to owners of parent	5,764	15.1%	3,886	11.1%	-32.6%
Orders received	23,267	—	18,014	—	-22.6%
Backlog	100,800	—	73,903	—	-26.7%

## \*Reference: Sales by Products

- Manufacturing Equipment
  - Although sales of photo-alignment exposure equipment grew, CF exposure equipment decreased, resulting in an increase of 6.6% from the previous year
- Inspection Equipment
  - Decreased by 31.6% year-on-year due to weak sales of image inspection equipment



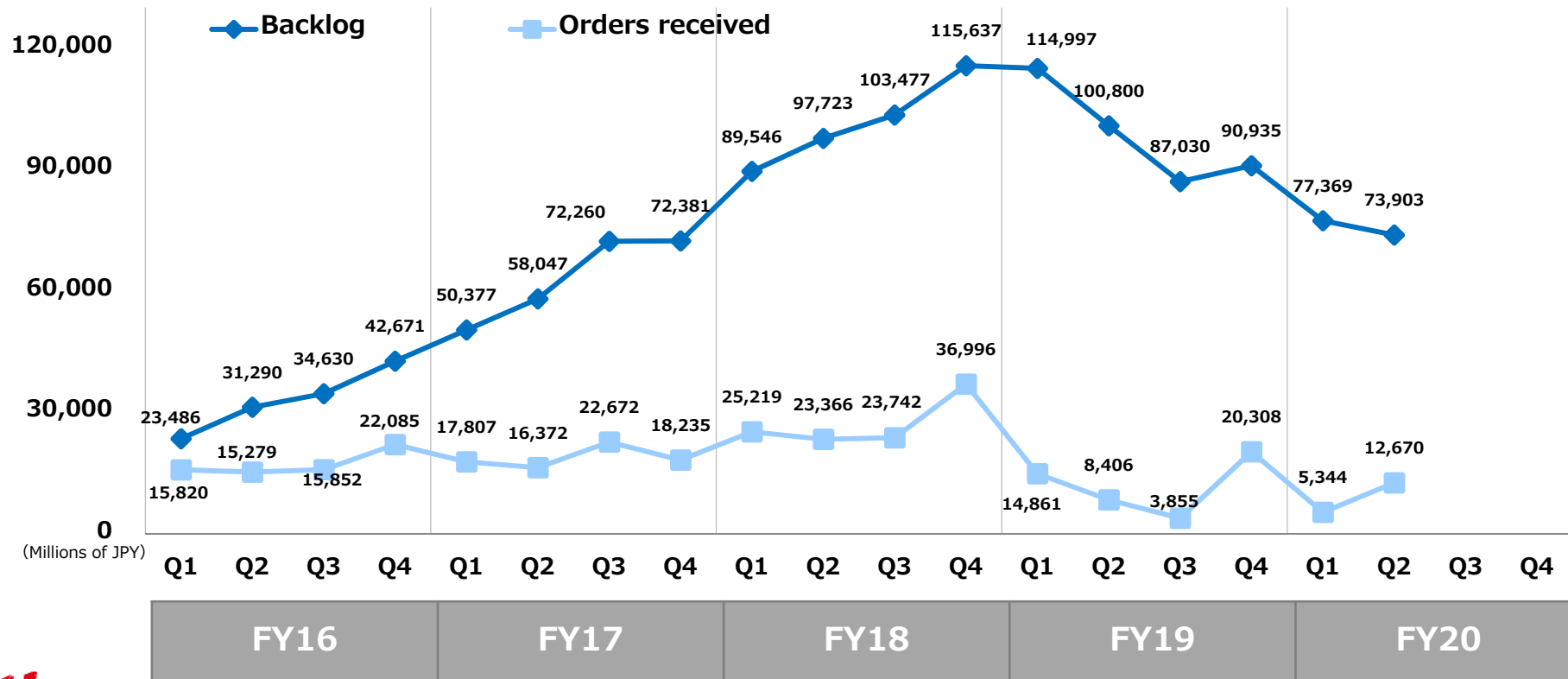
# Transition of Orders Received and Backlog

## ■ FPD related Business

- Quarterly orders received recovered slightly due to orders for inspection-related equipment related to large LCDs.
- As for orders backlog, investment in large LCDs in China has been reducing.

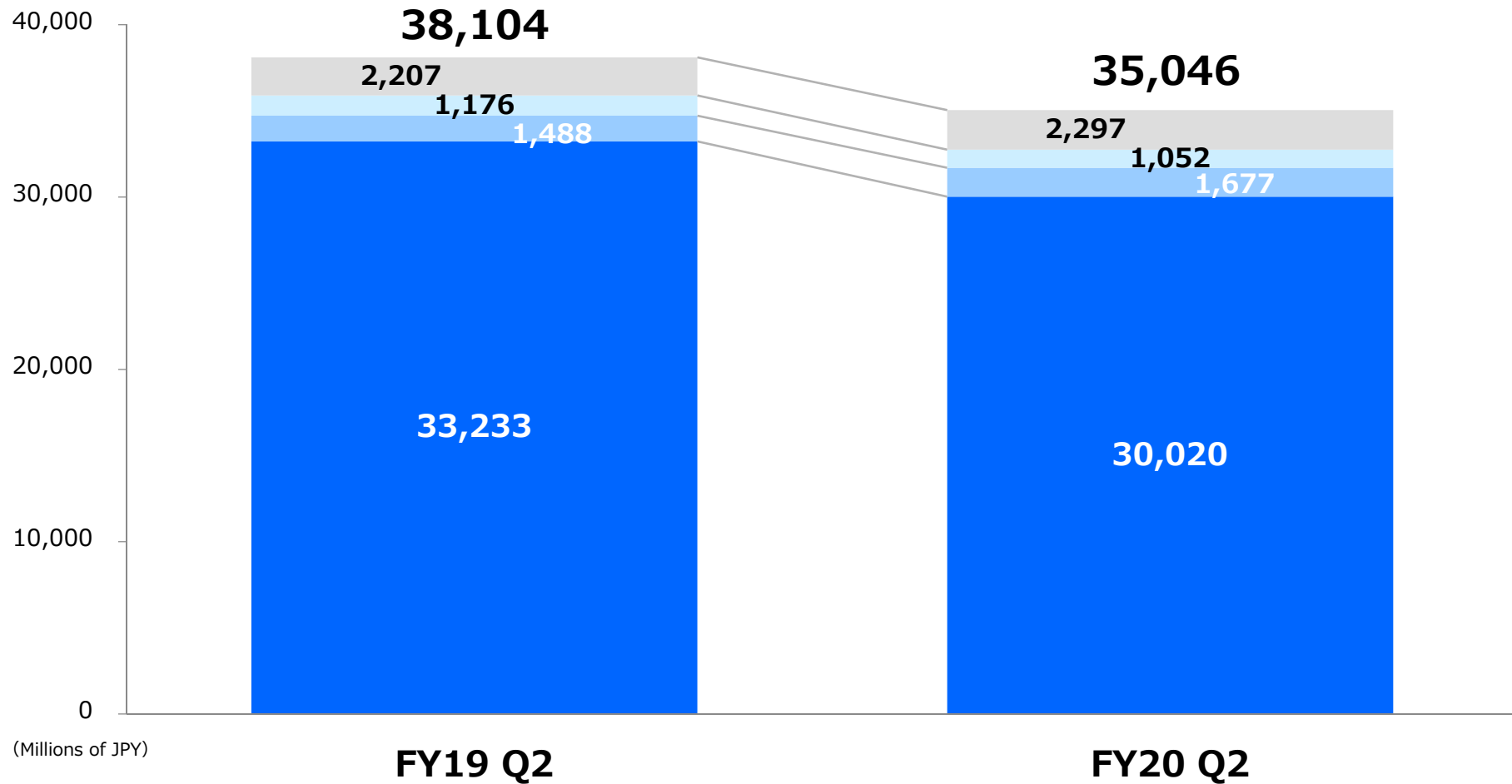
## ■ Semiconductor related Business

- In August, NSS became our wholly-owned subsidiary, and the remaining orders of 2.2 billion yen received by NSS were added to our orders.



# Sales by Countries (YoY Basis)

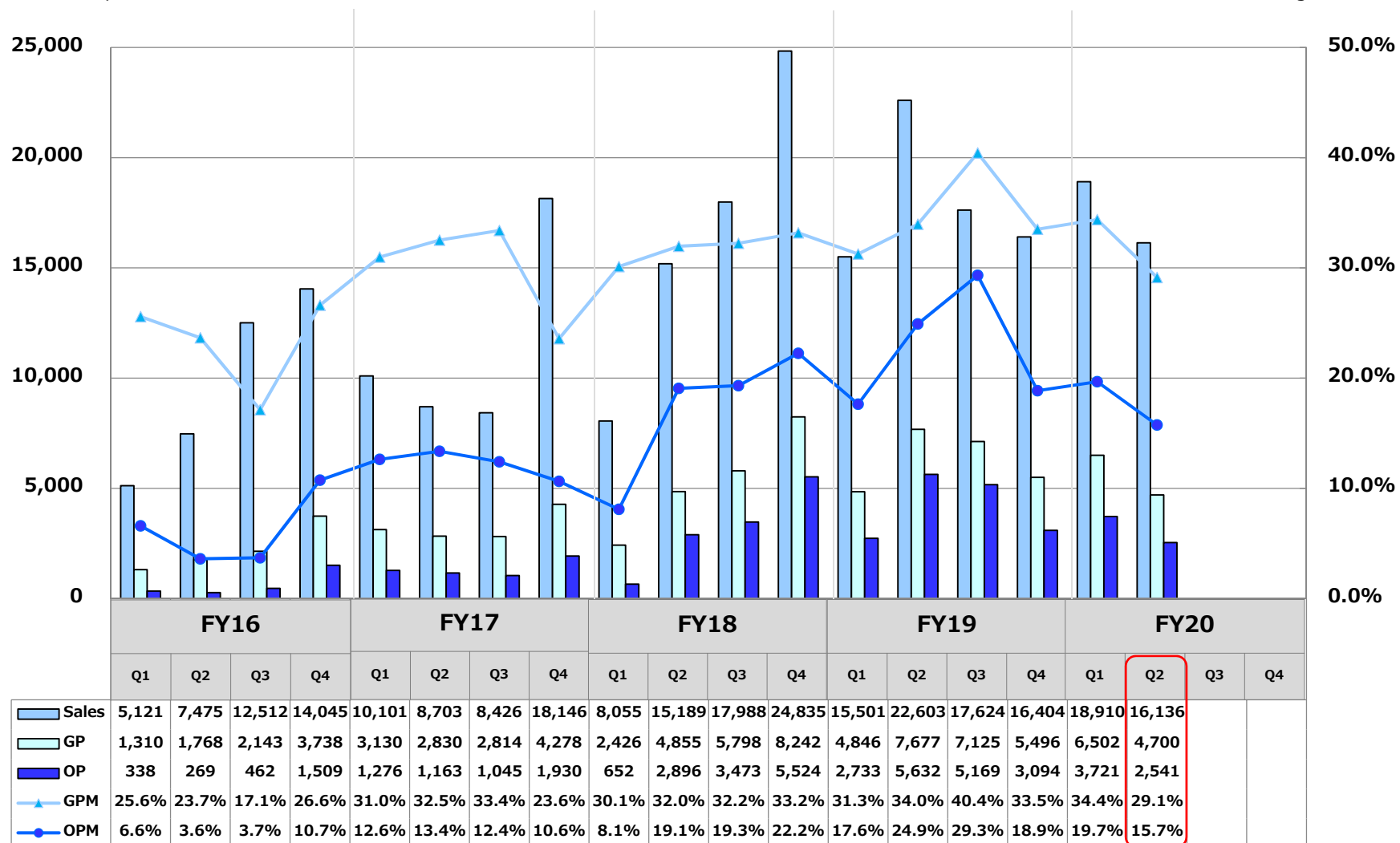
■ China ■ Taiwan ■ Japan ■ Korea & Other



# Transition of Quarterly Sales and Profit

(Millions of JPY)

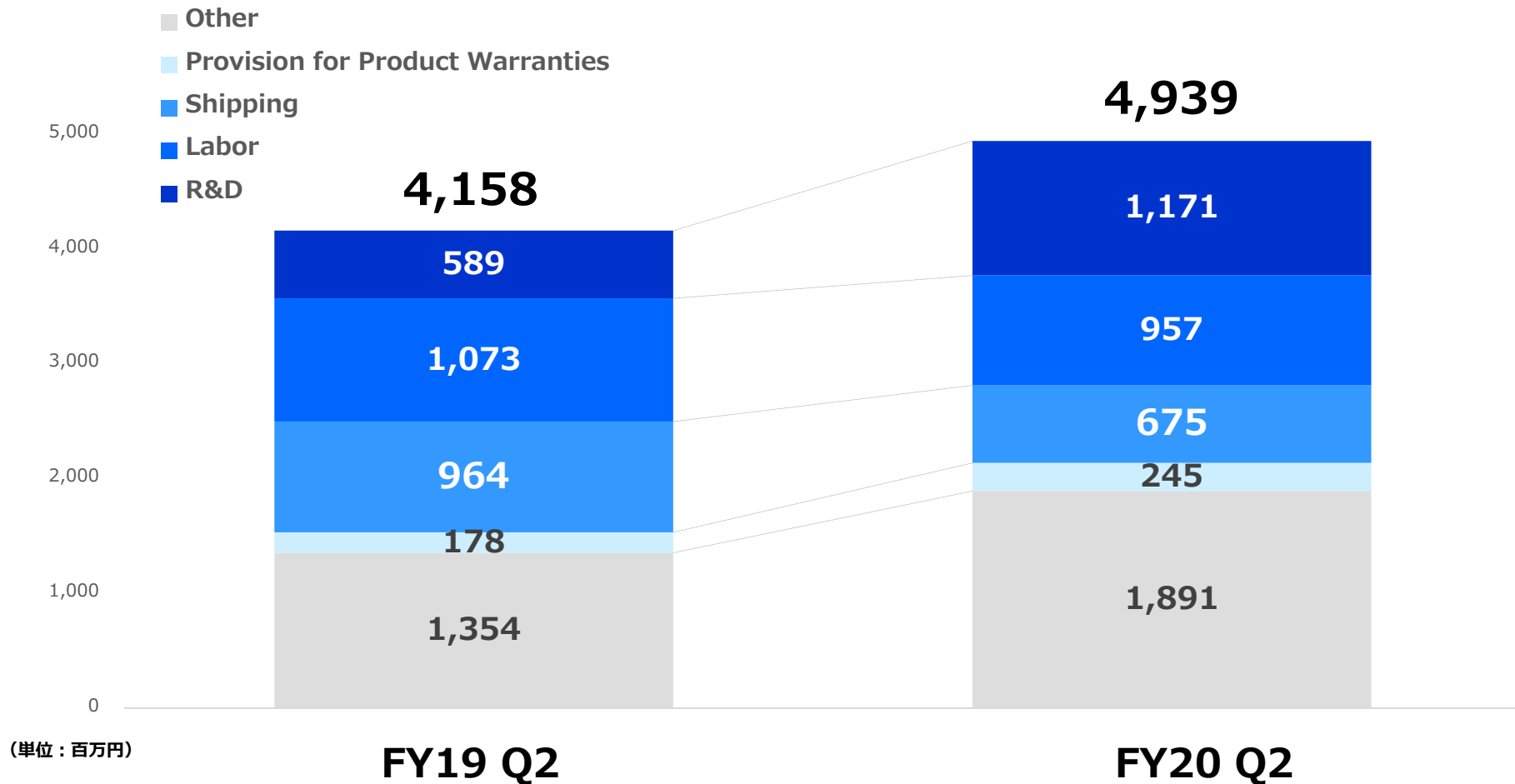
(Margin of Profit)





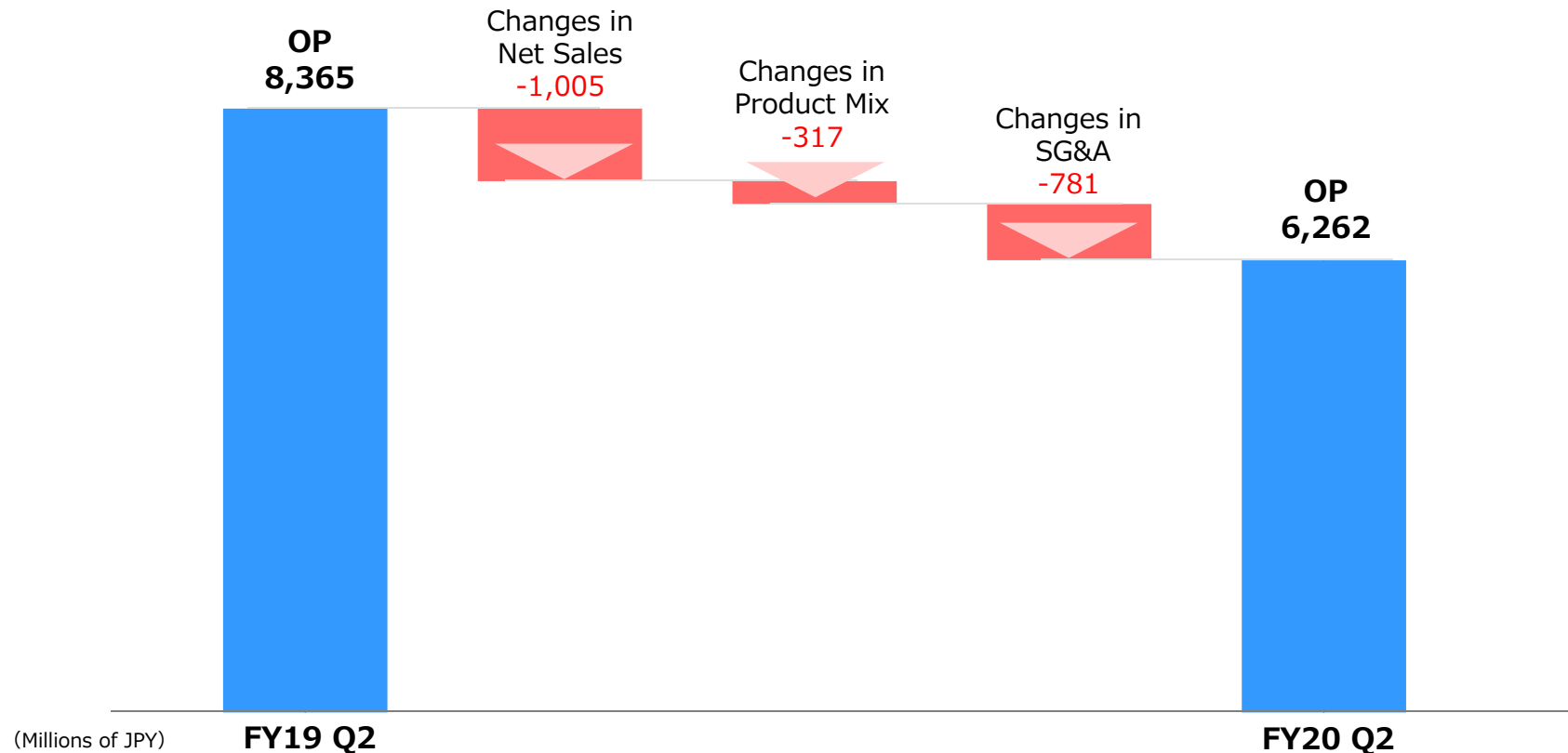
# SG&A(Selling, General and Administrative) Expenses (Consolidated)

- SG&A expenses increased 18.8% YoY due to a temporary increase in R & D expenses for new products and litigation-related expenses,



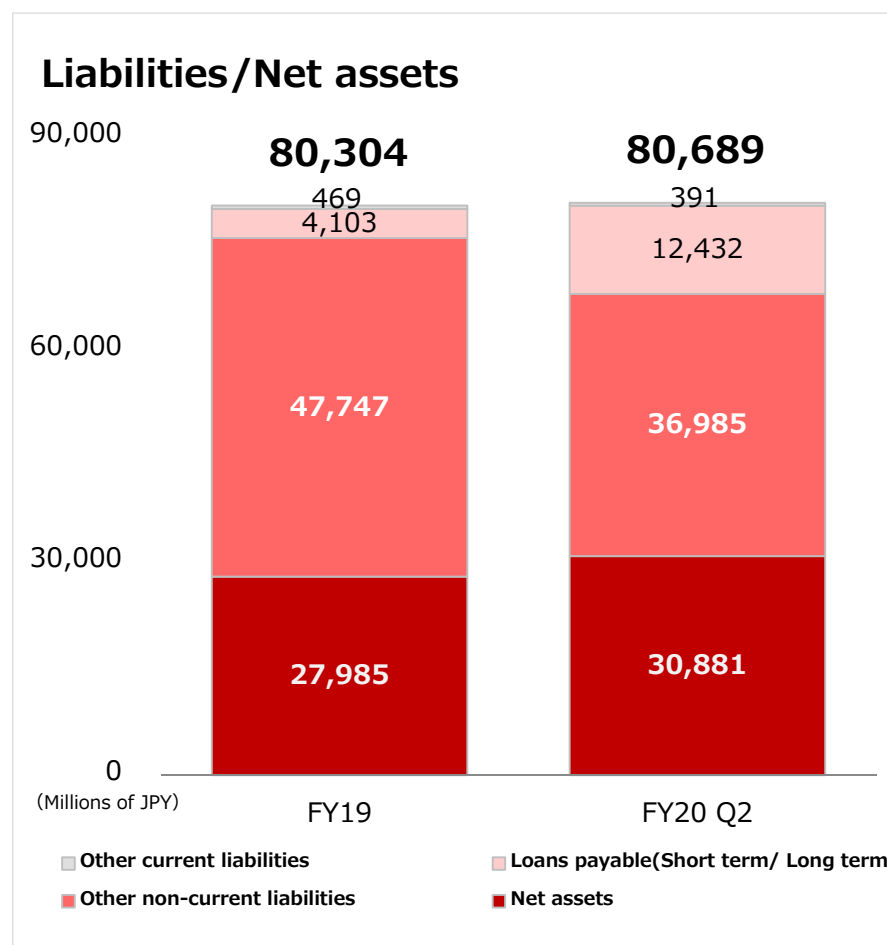
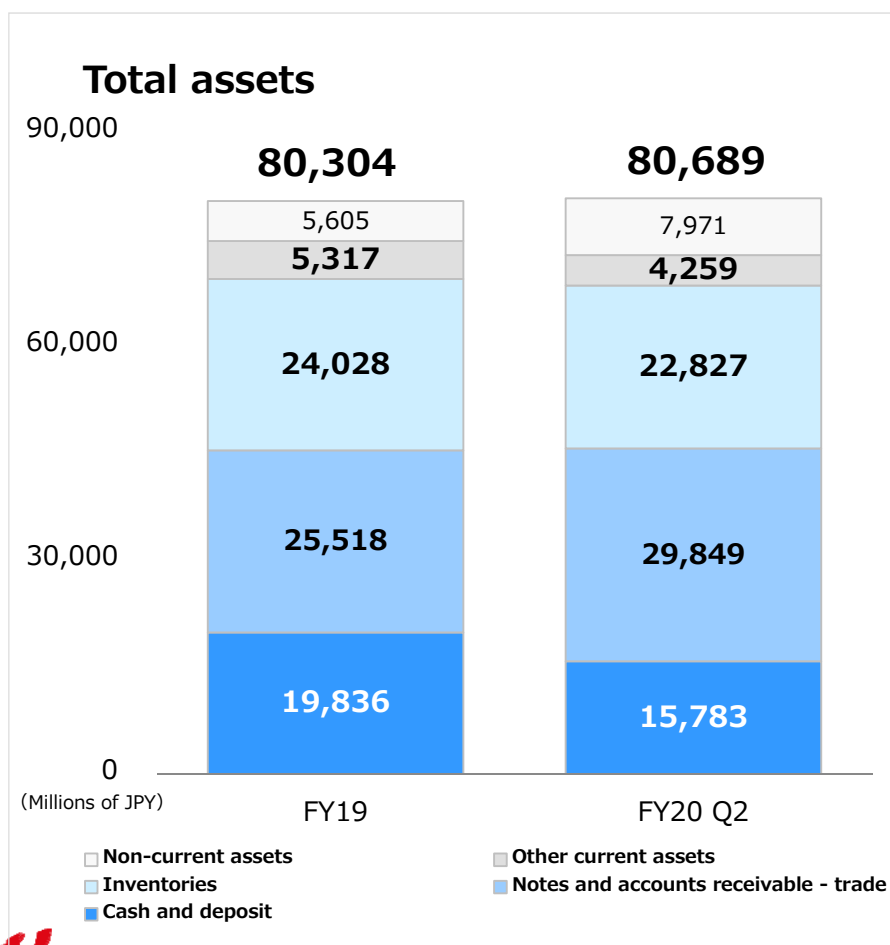
# Analysis of Operating Profit Difference

- Operating profit decreased 25.1% YoY due to sluggish sales of image inspection equipment, changes in product mix due to increased sales of photo-alignment exposure equipment, and increased SG&A expenses due to increased R&D expenses



# Transition of Consolidated Balance Sheets

- Total assets : Cash and deposits decreased by 4.1 billion yen due to a decrease in advances received. Goodwill increased by ¥ 1.4 billion due to the acquisition of NSS stocks
- Liabilities : Long-term borrowings increased by approximately 8 billion yen (VET's capital investment / short-term borrowing refinancing, etc.), down payments decreased by 7.9 billion yen (decrease in orders)



# Transition of Cash Flows

## ■ Main income and expenses (YoY) (Billions of JPY)

- Operating activities(－) : Q2 Net Profit(6.3B)/Decrease in Advances received(8.2B)/Increase in Notes and accounts receivable-Trade (4.9B)etc.
- Investing activities(－) : Acquisition of subsidiary(0.9B)/Acquisition of fixed assets(VET related: 0.6B)etc.
- Financing activities(+) : Net increase in long-terms loans payable (9.8B)/Net decrease in short-term loans payable(2.4B)/Payment of dividends(1.3B)etc.

(Millions of JPY)

		FY19 Q2	FY20 Q2
Cash flows from operating activities	Profit before income taxes	8,776	6,312
	Notes and accounts receivable - trade (increase▲)	▲4,164	▲4,995
	Inventories (increase▲)	▲7,069	1,722
	Notes and accounts payable - trade (decrease▲)	3,825	▲2,064
	Other	10,753	▲9,286
	<b>Total</b>	<b>12,121</b>	<b>▲8,311</b>
<b>Cash flows from investing activities: Total</b>		<b>▲532</b>	<b>▲1,659</b>
Cash flows from financing activities	Proceeds from loans payable	5,000	23,291
	Repayments of loans payable	▲5,213	▲15,885
	Other	▲1,242	▲1,316
	<b>Total</b>	<b>▲1,455</b>	<b>6,090</b>
Effect of exchange rate change on cash and cash equivalents		91	▲173
Net increase (decrease) in cash and cash equivalents (decrease▲)		10,224	▲4,053
Cash and cash equivalents at beginning of period		22,161	19,716
Cash and cash equivalents at end of period		32,385	15,663

# Business Forecast

---

# Forecast of FY20

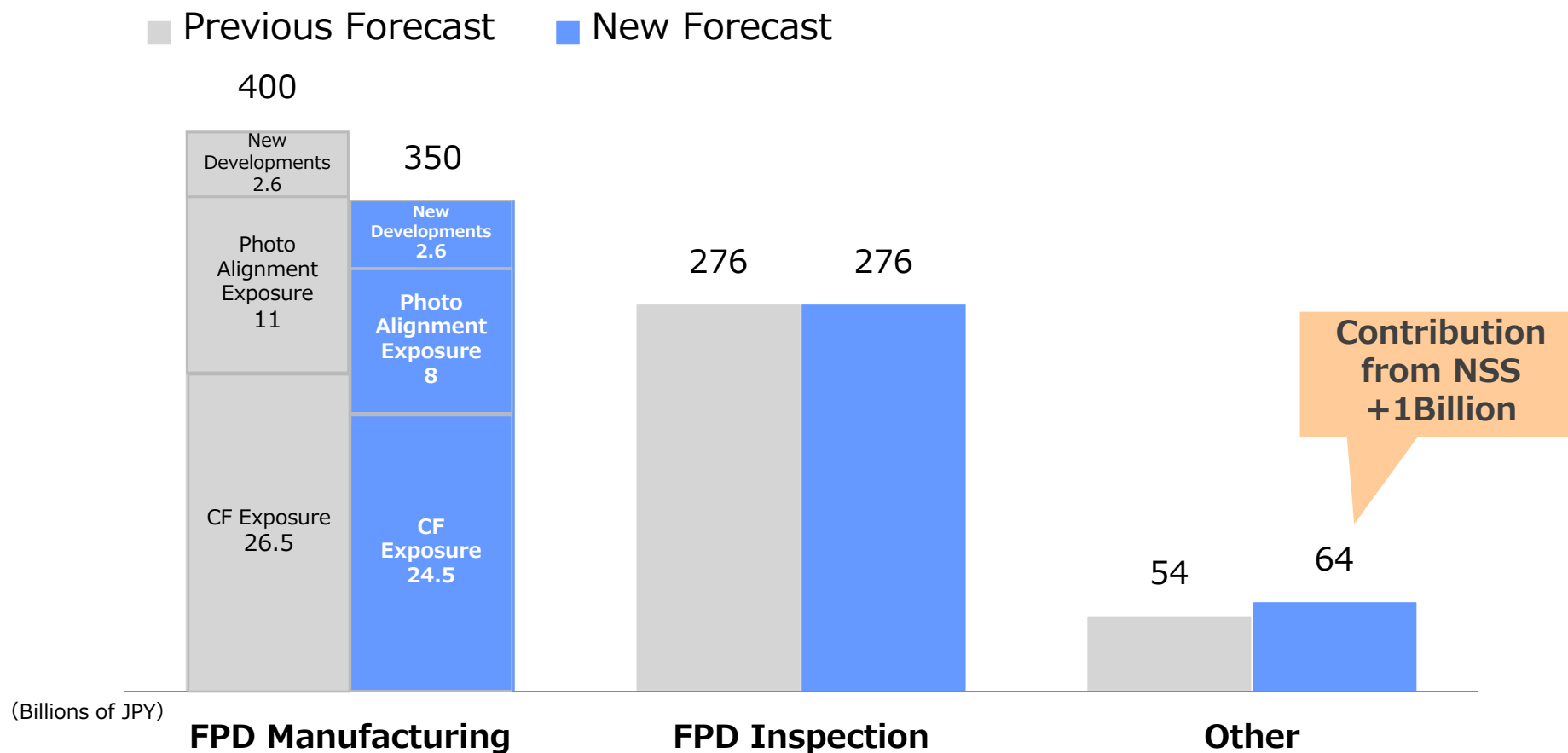
- Considering the results of the FY20 Q2, it was generally in line with the plan. However, we revised our business forecast due to the expected delay to the next fiscal year in some of the sales of exposure equipment and other products for some reasons attributable to clients
- Operating income decreased by ¥ 2.5 billion due to the delay

	FY19(Actual)		FY20 (Previous Forecast)		FY20 (Current Forecast)		compared with the previous forecast
	Amount (Millions of JPY)	Margin	Amount (Millions of JPY)	Margin	Amount (Millions of JPY)	Margin	
Net sales	72,132	—	73,000	—	69,000	—	-5.5%
Gross profit	16,628	23.1%	13,000	17.8%	10,500	15.2%	-19.2%
Ordinary profit	16,767	23.2%	12,850	17.6%	10,400	15.1%	-19.1%
Net profit attributable to owners of parent	10,901	15.1%	7,800	10.7%	6,300	9.1%	-19.2%
EPS	JPY 1,108.74		JPY 806.65		JPY 651.53		

## Dividend

FY20 (after stock split)	1 <sup>st</sup> half : JPY 80 (Actual)	2 <sup>nd</sup> half : JPY 80 (Forecast)
(Reference) FY19	1 <sup>st</sup> half : JPY 160 (Actual)	2 <sup>nd</sup> half : JPY 160 (Actual)

# \*Reference: Break Down of Net sales in FY2020 Forecast

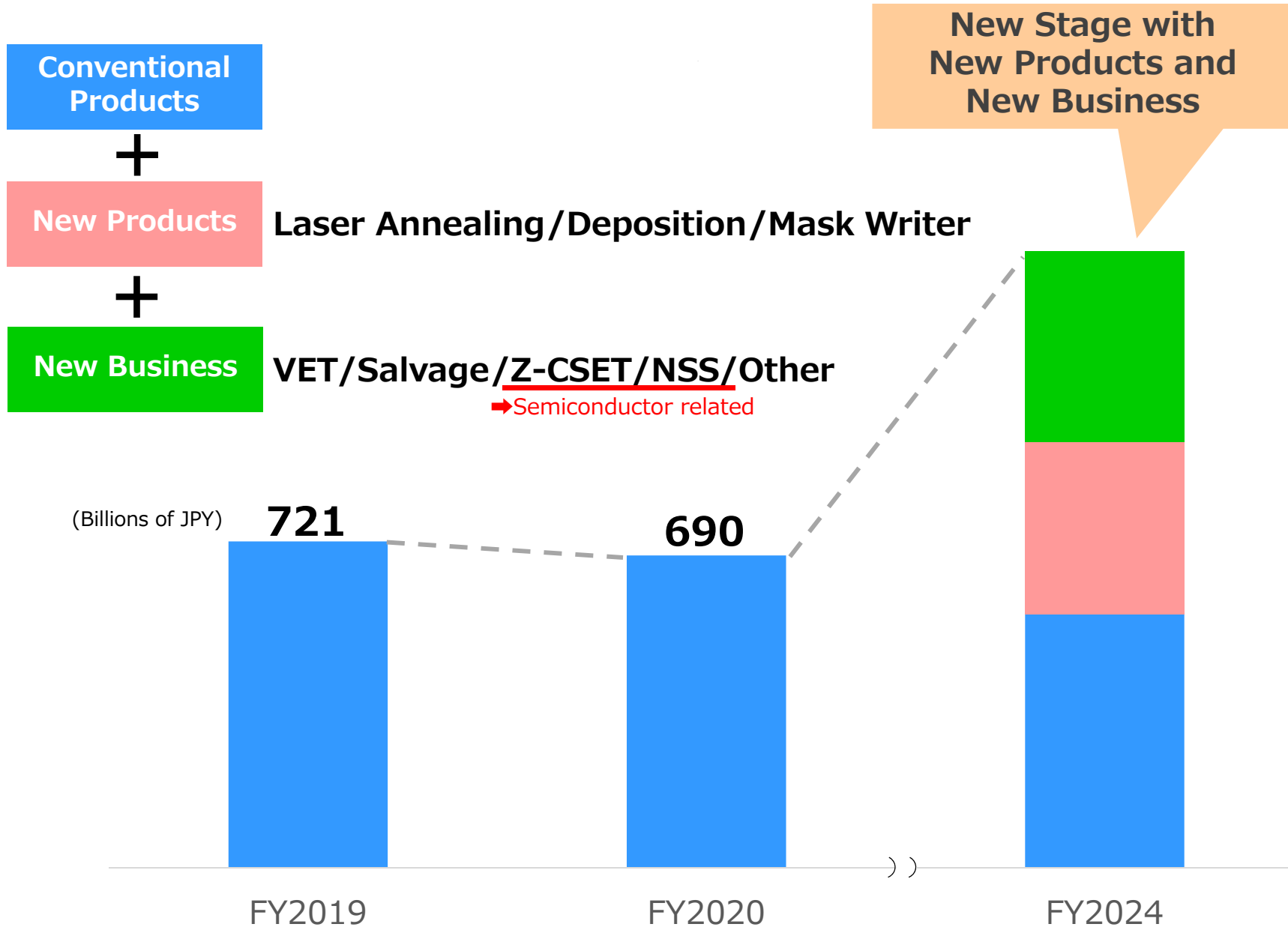


# Topics

---



# Medium- to Long-Term Sales Outlook (Sales)



# Medium- to Long-Term Sales Outlook (Operating Profit)

Conventional Products

+

New Products

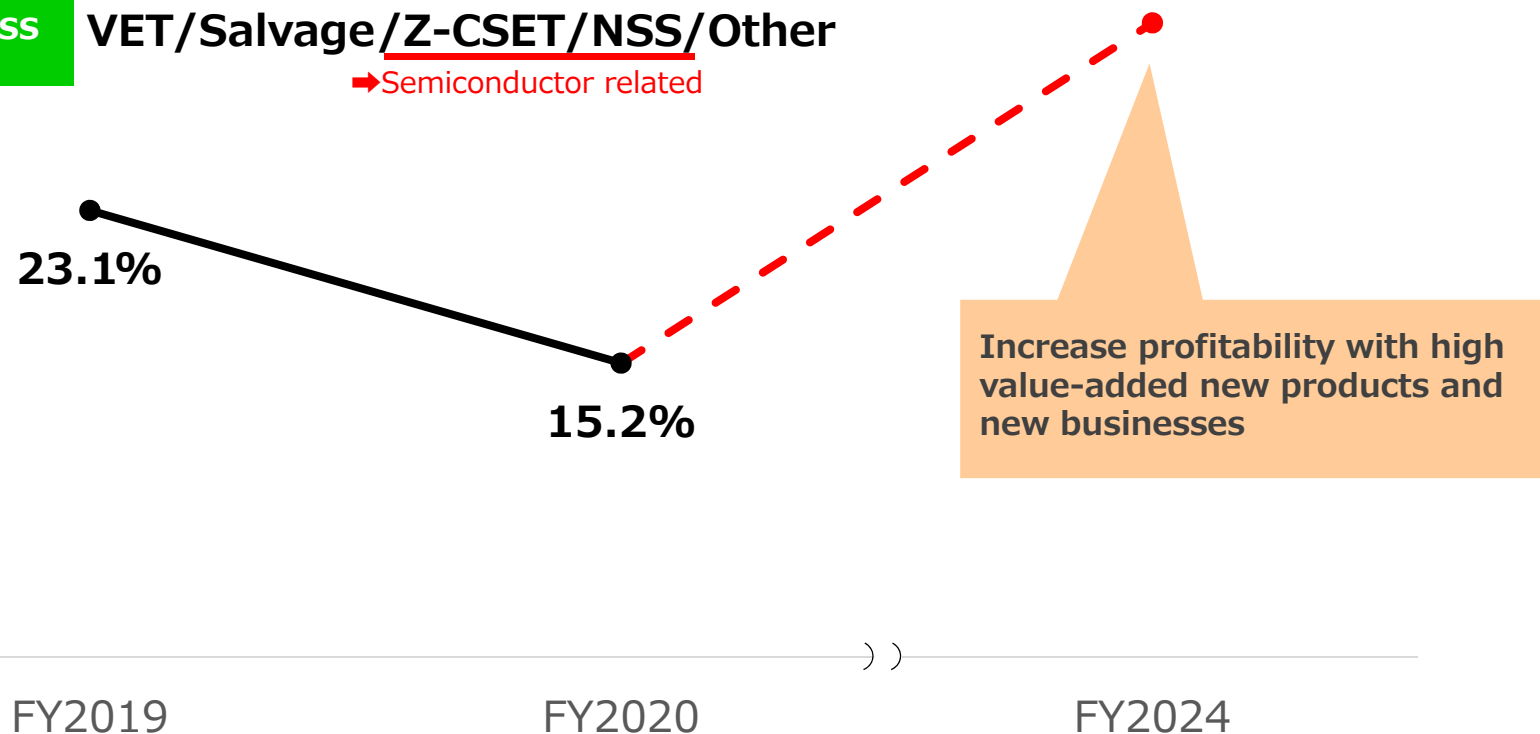
Laser Annealing/Deposition/Mask Writer

+

New Business

VET/Salvage/Z-CSET/NSS/Other

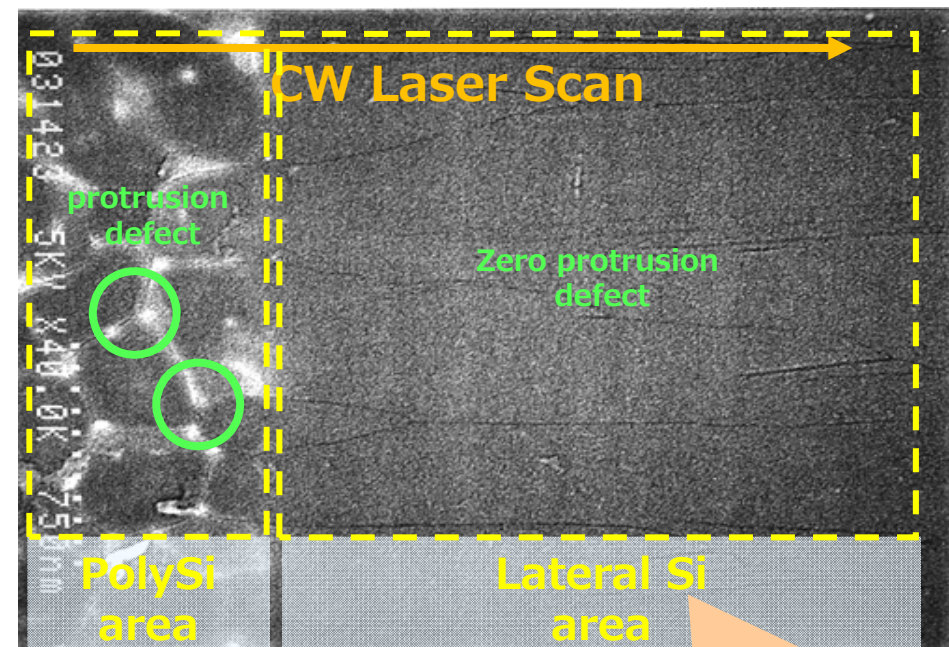
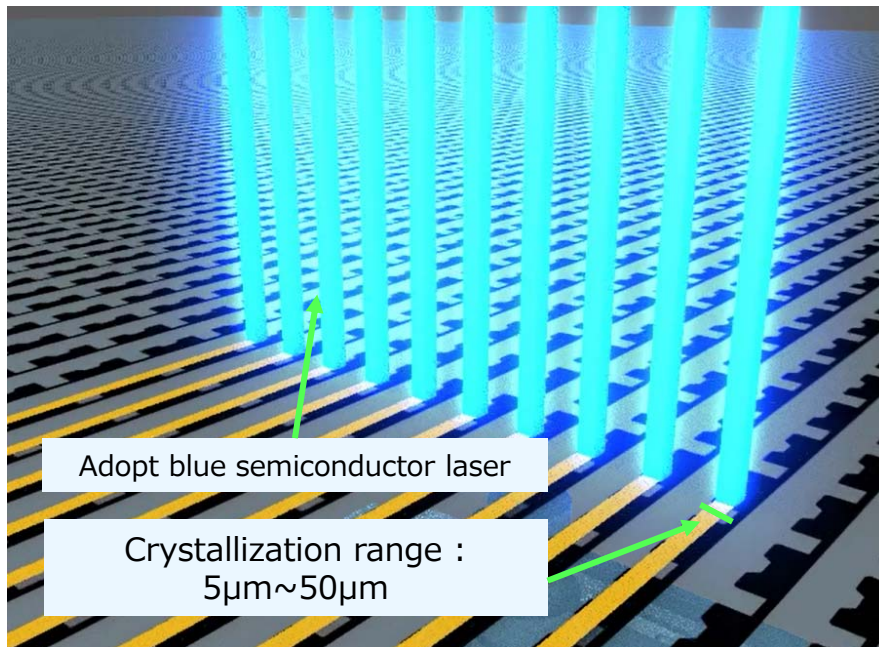
→ Semiconductor related



# Laser Annealing Equipment "BLDA"

New Products

- The evaluation machine is scheduled to be shipped to CHVT within the year, and evaluation begins with CHOT.
- We aim to expand sales to other major panel manufacturers based on evaluation results in CHVT



High electron mobility  
Zero protrusion defect

BLDA : A new laser annealing equipment that performs crystallization annealing of Si using a blue semiconductor laser

- 1) Since we adopt a semiconductor laser as the light source, we can reduce the running cost without maintenance for over a year.
- 2) Two heads for dehydrogenation and crystallization can be installed.

Our trump card for  
reducing running cost for OLED

# Deposition equipment

New Products

- Vertical Deposition equipment : We are expecting to complete the demonstration equipment during the current fiscal year
- WOLED vapor deposition equipment: We utilize Lumiotec technology and we aim to expand sales to other major panel manufacturers based on evaluation results in CHVT



Lumiotec's deposition equipment for lighting



G8.6 deposition line plan

- Vertical Deposition equipment
  - FHM makes it compatible for G6 Full size
  - Saves up to 40% space compared to G6H

- Deposition equipment for WOLED
  - Compatible for G8.6

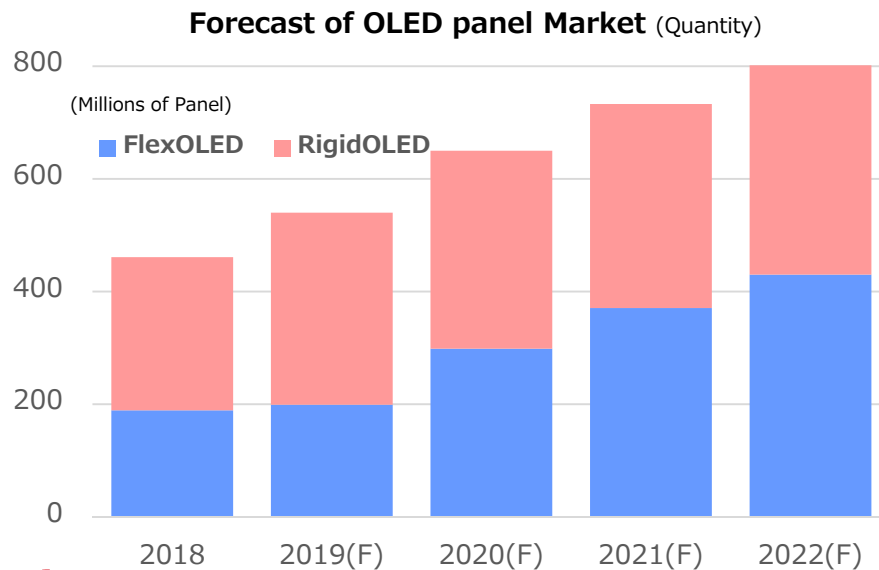
# Joint Venture of Salvage (V-Tech Shine Color Technology)

- Pay-per-use service for fixing panel mura defective with “Demura” technologies  
(This service does not require our customers to spend in additional capital investment)
- To provide our salvage services for flexible OLEDs of various designs in China and other countries to customers around the world, we reached a basic agreement on the establishment of V-Tech Shining Color Technology Co., Ltd. with TINGLIN

## Points

1. Stable demand
  - Challenge is to maintain / improve the yield of highly designed panels
2. Partnership with TINGLIN CAPITAL
  - Rich experience in FPD business

**One factory generates 2.73 million defective panels per month**



\*Estimated defective panel Board size: G6 / factory maximum processing board number: 45K / month / Panelization: 216 pieces / annual operation rate: 60% / defect rate: 65%

# Deposition Mask Business (VET)

New Business

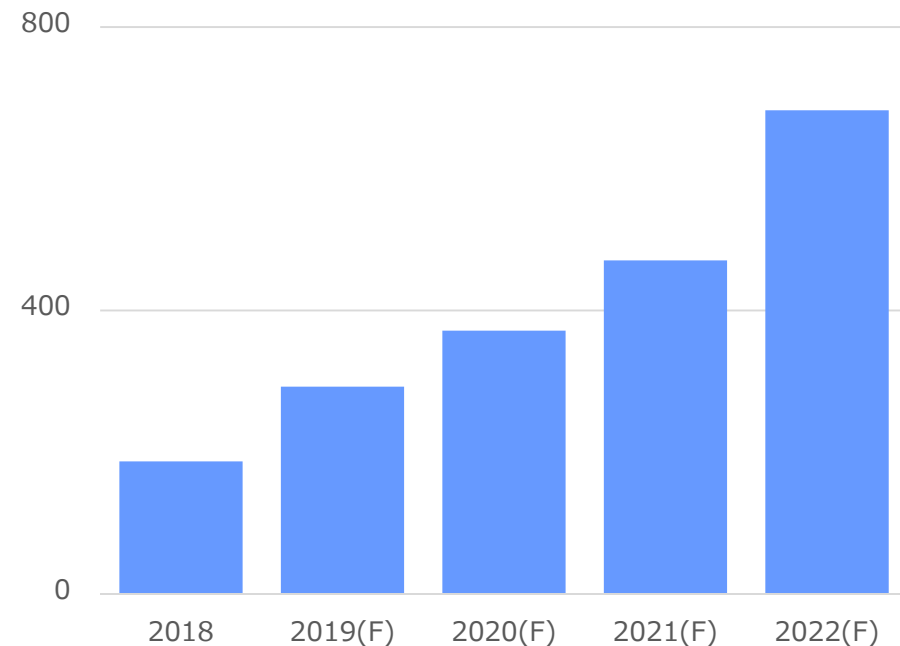
- Sample masks will be exhibited at Finetech Japan in December 2019.
- Since it took time to coordinate with customers, we changed the pilot production start from the originally scheduled November to January 2020.



Clean Room

Forecast of Deposition Mask Market(Amount)

(Millions of USD)

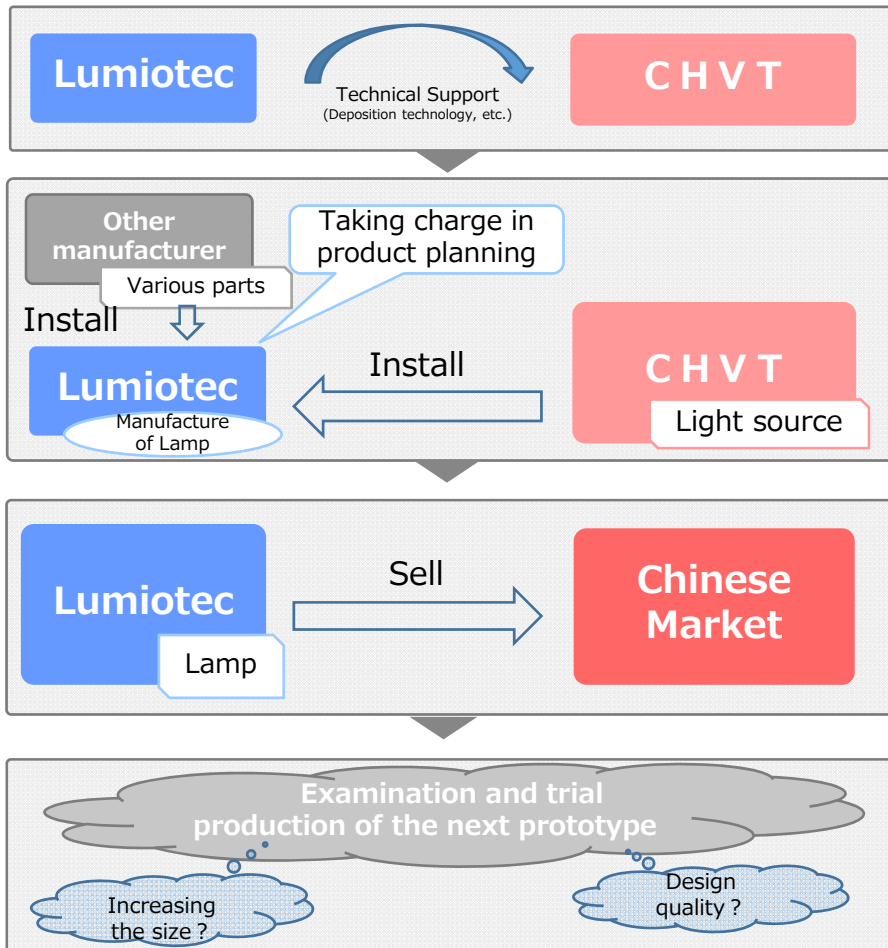


(\*Our estimate according to the data of IHS Markit)

# OLED Lighting Business (Lumiotec)

New Business

- From device manufacturers to lamp manufacturers
- We will enter the Chinese market, move Lumiotec equipment to CHVT, and produce light sources locally



## Until Spring 2020

- Production technology support for organic EL material deposition

## From Spring 2020

- CHVT will produce a light source on order and will install at Lumiotec
- Lumiotec will manufacture lamps (electric stand) locally

## From Summer 2020

- We will sell our lamps at the Chinese consumer electronics market

Global market for OLED lighting desk lamps  
 2.1Millions/stand  
 (Forecast for 2020)  
 (@¥50,000/stand = ¥ 105 billion)

\*Our estimate according to the data of UBI Research

## From about 2021

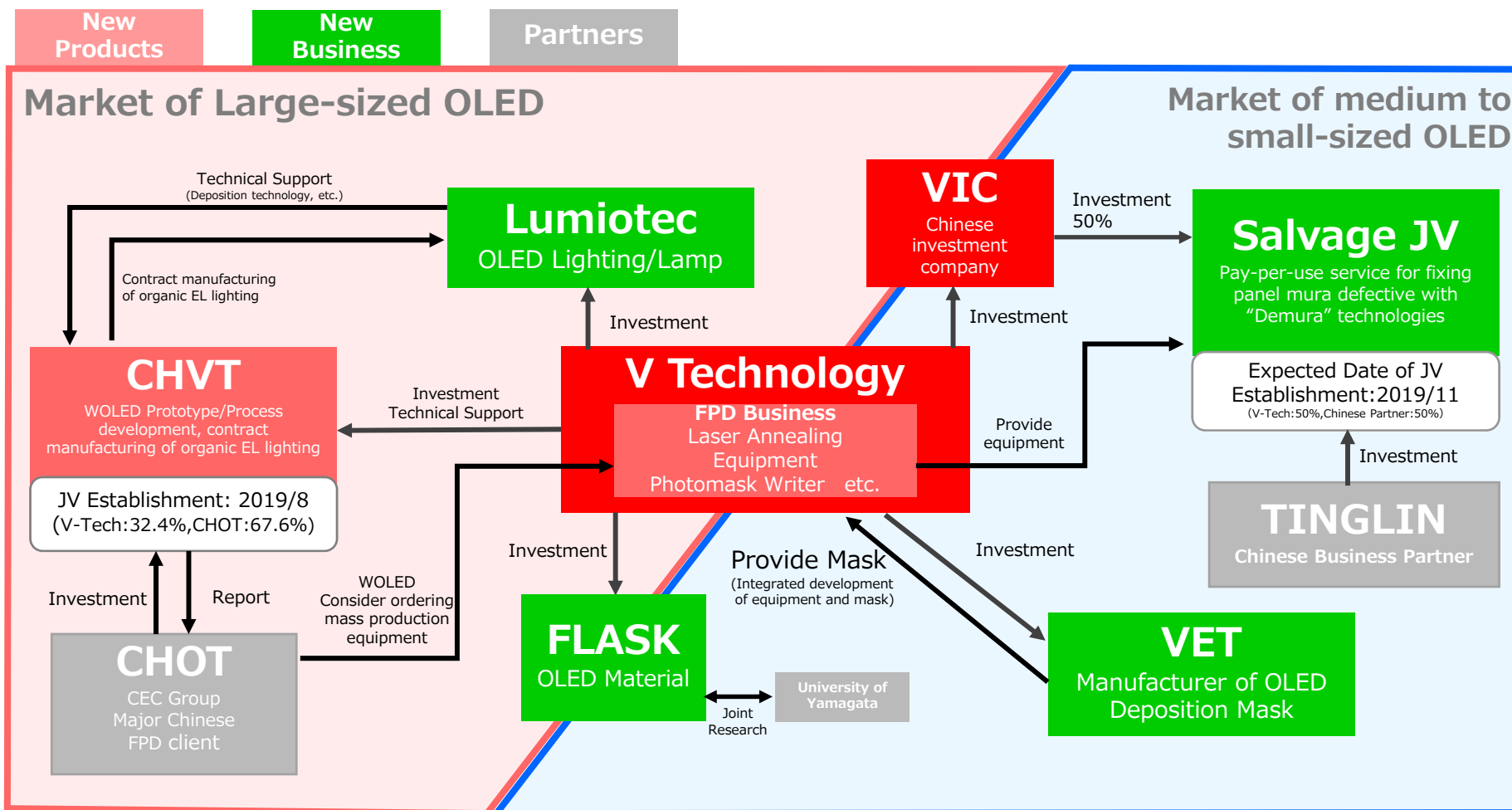
- Examination and trial production of the next prototype

**\*Reference: Structure to accelerate new equipment and new business**

New Products

New Business

- **CHVT** : WOLED Prototype with V-Tech’s technologies, Process development, and contract manufacturing of organic EL lighting
- **JV for Salvage** : Together with our joint venture partner, which has a strong network in the business, we will expand our business to the world





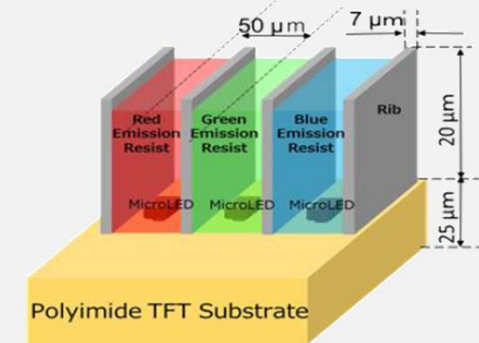
# \*Reference: V-Tech's manufacturing technologies of $\mu$ LED

<Front-runner of small and medium FPD is  $\mu$ LED(UV light conversion type)>

## Challenges

### ■ Pick&Place

- Misalignment during picking up the LED chip
- LED chip Misalignment during LLO (Fig4.1)
- Misalignment during LED chip crimping



Structure of  $\mu$ LED(UV light conversion type)

## V-Tech's color conversion type $\mu$ LED

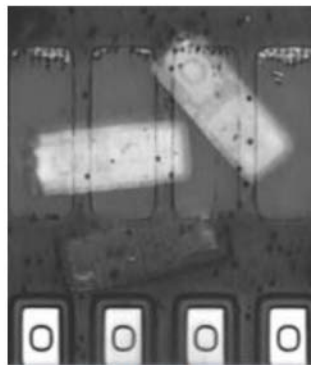


Fig. 4.1

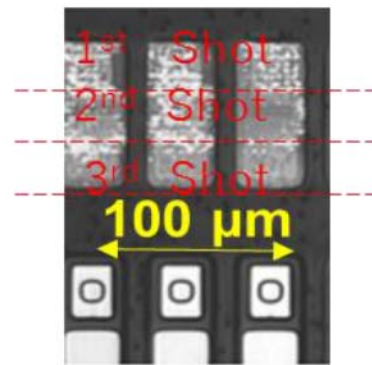


Fig. 4.2

### Fig. 4 Chips lifted off with 2000mJ/cm<sup>2</sup>

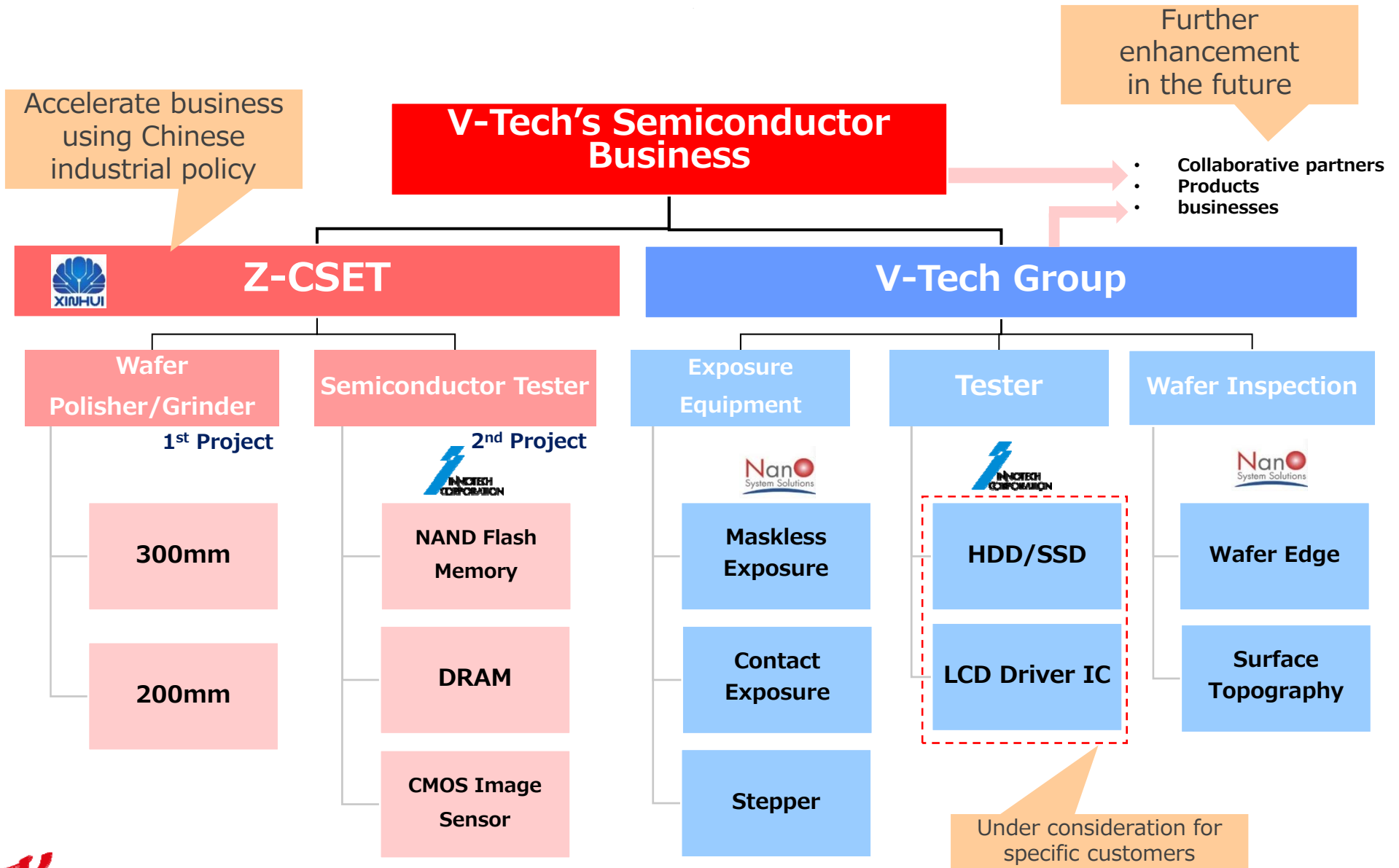
The chip in Fig. 4.1 was shot on the size of the chip.  
The chip in Fig. 4.2 was shot on 1/3 the chip size

- LED laser is locally irradiated by 1/3 each of the chip to prevent misalignment.(Fig4.1/4.2)
- Our proprietary technologies (AEGIS technology using micro lens array technology and image processing) made it possible of local LLO "PS-LLO"

\*Reference:  
Presentation of IDW2018

# List of semiconductor related businesses

New Business



# Z-CSET

- Established Z-CSET as a joint venture with a local government fund.
- Accelerate product sales to Chinese semiconductor manufacturers by actively utilizing the Chinese semiconductor industry and local production/consumption policies
  - Z-CSET is responsible for product assembly, sales and after-sales support.
  - V-Tech, Innotech, and partner companies provide core parts and provide technical support

## Wafer Polisher/Grinder



- Z-CSET's demo room is completed, and we have installed the polishing equipment for evaluation
- Japanese employees are stationed

## Tester



- Dispatched representatives from Innotech and started sales activities.
- Already delivered evaluation equipment to local customers

### FY2018

Platform Construction

Enhancement of lineup

### FY2019

Completion of Wafer Polisher Development

Full-scale Start of Tester Business

Completion of Z-CSET Hainan Plant

### FY2020

Full-scale Introduction of Mass Production Equipment

- The plan for this fiscal year (September 19 to March 20) is for sales of 1 billion yen and operating income of 160 million yen
- Investment recovery is scheduled to be completed in a few years due to strong business and abundant backlogs
- Enhance product sales through collaboration between VT and NSS

## Wafer Inspection Equipment



Edge Inspection



Flatness Inspector

### <Targets>

- Expand domestic market share
- Strengthen the flatness inspection function of existing wafer inspection equipment
- Utilize the V-Tech group SCM

## Mask-less Exposure Equipment

D-light DL-1000 Series



### <Targets>

- Strengthen marketing
- Utilize the V-Tech group SCM
- Overseas business expansion

