

**FY2021**  
**Financial Results Briefing**  
**and**  
**Medium-term Business Plan**  
**(FY2022-2026)**

**May 19, 2022**



**MEIKO ELECTRONICS CO., LTD.**

(Securities Identification Code: 6787)

This presentation contains forward-looking statements concerning Meiko Group's future plans, strategies and performance. However, Meiko does not publish this presentation as a disclosure document based on the Financial Instruments and Exchange Act of Japan.

These forward-looking statements are not historical facts, rather they represent assumptions and beliefs based on comprehensive data currently available.

Furthermore, the Printed Circuit Board business is subject to a number of risks and uncertainties that relate to raw material price, conditions of customers' market, technological trends, change of foreign exchange, change of tax rules and regulations, disasters, international conflicts and other factors. Meiko therefore wishes to caution that actual results may differ materially from our expectations.

## ■ Financial Results Briefing

- FY2021 Results
- FY2021 Forecast

## ■ Medium-term Business Plan

- Business Plan
- Financial Strategy and Shareholder Returns
- ESG
- Medium-term Technology Strategy
- Medium-term Production Strategy

- **Our Wuhan Plant and Vietnam Plant adjusted the operations due to the spreading Covid-19 infections from August to early September.**
- **The orders from customers declined partly affected by the shortage of semiconductors.**
- **Raw material price hike was absorbed by the selling price adjustment.**

# **FY2022 Business Environment**

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- **The world economy has become unforeseeable due to the situation in Ukraine, Chinese Covid-19 policy, and lack of semiconductors.**
- **Further price hike of raw material is expected.**
- **Invest in package boards facilities as a new business field.**
- **Construction of our Tendo Factory in Yamagata and Quan Minh Plant in Vietnam started in April.**

# FY2022 results and forecast for the current term

( 100 million yen )

	FY2020	FY2021	Year-on-Year	FY2022	Year-on-Year
	Results	Results	%	Forecast	%
<b>Net Sales</b>	<b>1,193</b>	<b>1,513</b>	<b>26.8%</b>	<b>1,700</b>	<b>12.4%</b>
<b>Operating Income</b>	<b>67</b> 5.6%	<b>133</b> 8.8%	<b>99.1%</b>	<b>155</b> 9.1%	<b>16.9%</b>
<b>Ordinary Income</b>	<b>57</b> 4.8%	<b>143</b> 9.5%	<b>150.9%</b>	<b>145</b> 8.5%	<b>1.4%</b>
<b>Net Income</b>	<b>46</b> 3.9%	<b>115</b> 7.6%	<b>146.7%</b>	<b>122</b> 7.2%	<b>6.5%</b>
<b>Average FX rate (Yen/USD)</b>	105.93	113.06		122	
<b>E B I T D A</b>	141	213		237	
<b>Interest-bearing debt</b>	674	664		757	
<b>Capital adequacy ratio</b>	28.5%	34.7%		37.4%	
<b>D / E R A T I O</b>	1.66	1.13		1.09	
<b>R O E</b>	11.4%	19.5%		17.5%	
<b>R O I C</b>	6.0%	10.8%		10.2%	

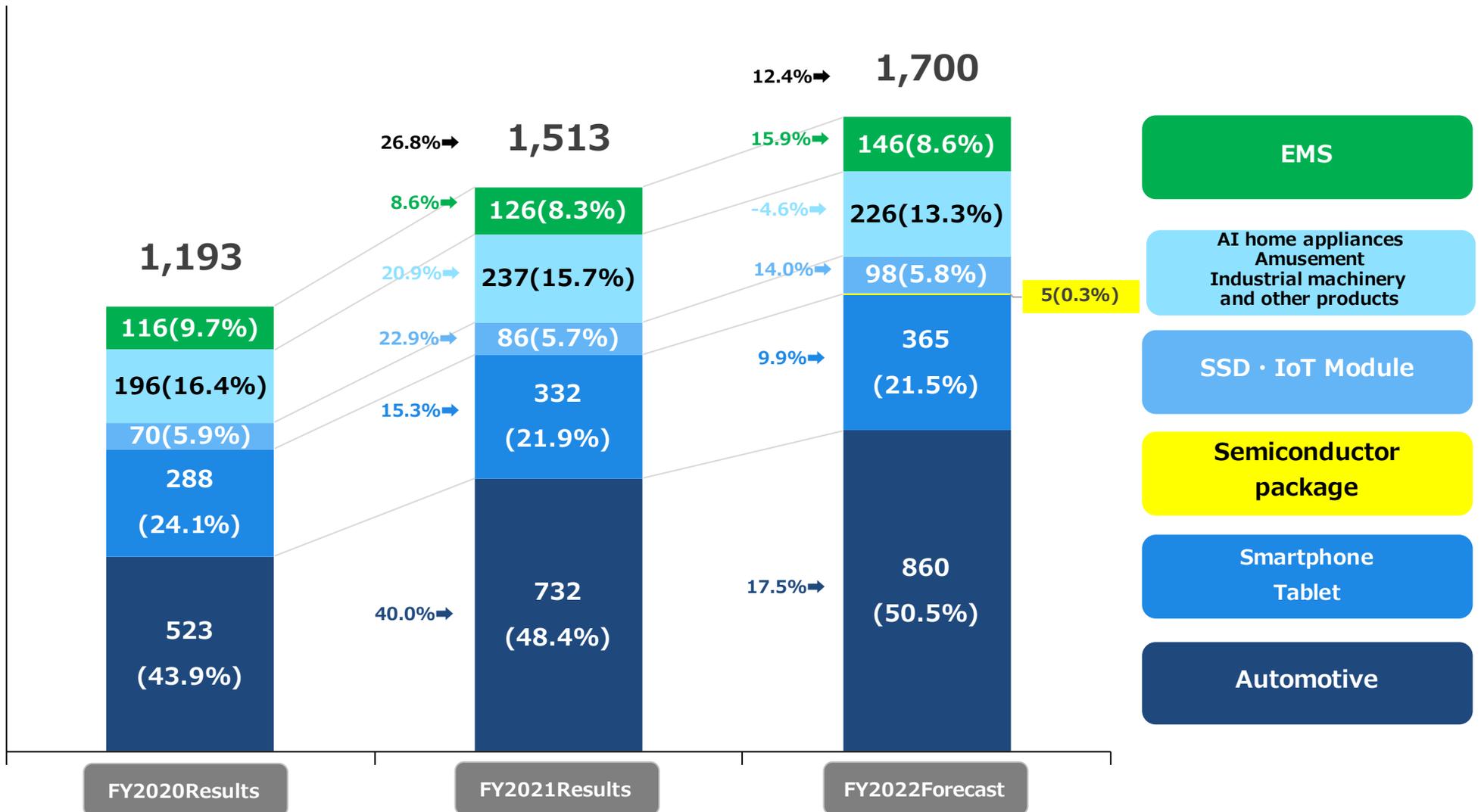
# FY2022 Forecast by Product Application

( 100 million yen )

	FY2020 Results		FY2021 Results		FY2022 Forecast		Year-on-Year	
	Net Sales	Operating Income	Net Sales	Operating Income	Net Sales	Operating Income	Net Sales	Operating Income
		%		%		%		%
Automotive	523	36 6.9%	732	63 8.6%	860	75 8.7%	128 17.5%	12 19.0%
Smartphone Tablet	288	21 7.3%	332	39 11.7%	365	44 12.1%	33 9.9%	5 12.8%
Semiconductor package		-		-	5	-6 -120.0%	5 -	-6 -
SSD · IoT module	70	9 12.9%	86	11 12.8%	98	15 15.3%	12 14.0%	4 36.4%
AI home appliances Amusement Industrial machinery and other products	196	1 0.5%	237	17 7.2%	226	21 9.3%	-11 -4.6%	4 23.5%
EMS	116	0 0.0%	126	3 2.4%	146	6 4.1%	20 15.9%	3 100.0%
Total	1,193	67 5.6%	1,513	133 8.8%	1,700	155 9.1%	187 12.4%	22 16.5%

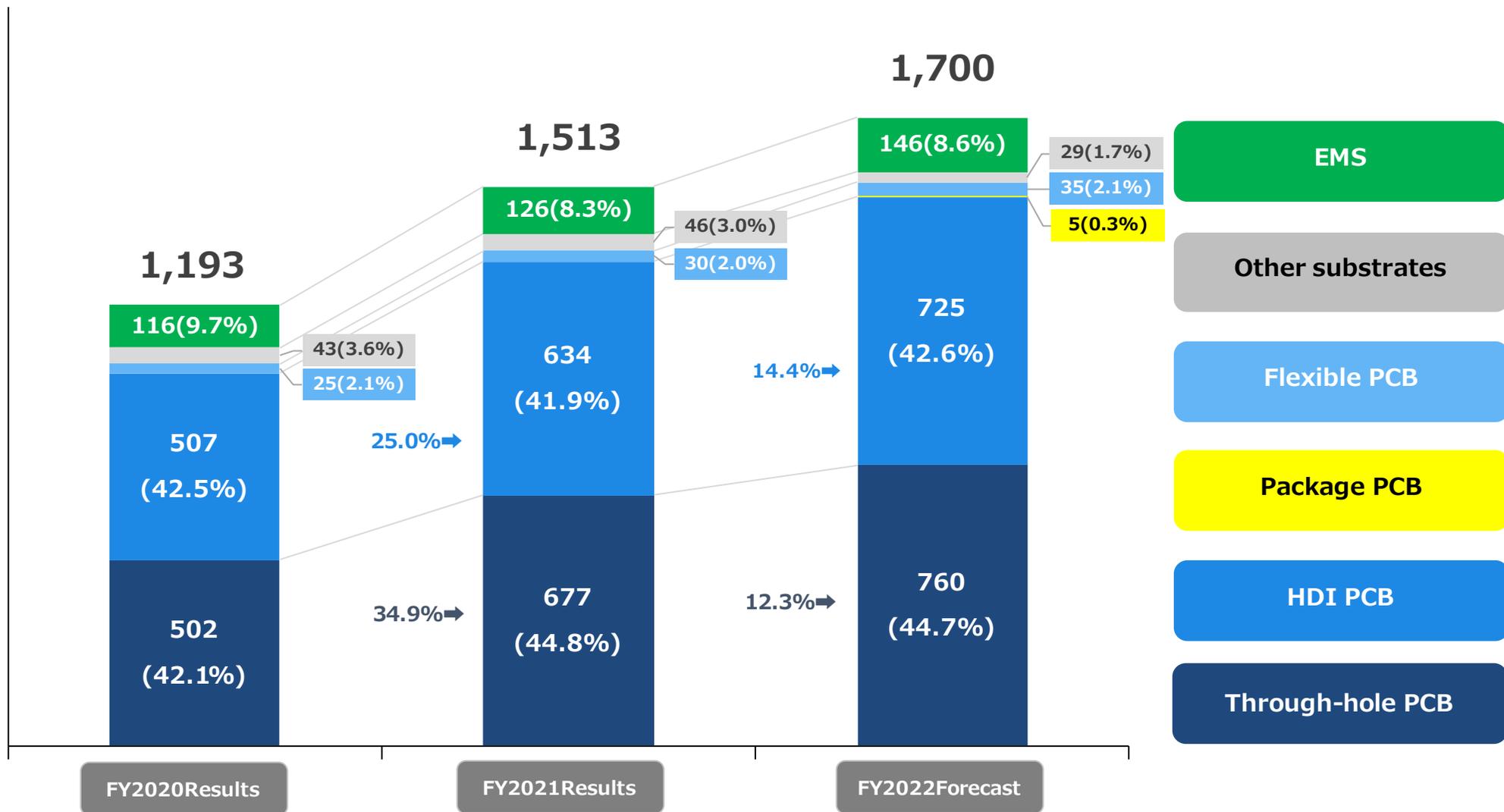
# Sales Forecast by Product Application

( 100 million yen )



# Sales Forecast by Product Specification

( 100 million yen )



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# Medium-term management plan

## Management philosophy

Providing the best products and services to customers, and happiness for employees and society through manufacturing.

## Purpose

Challenge and contribute to the evolution of electronics

## Management goals (FY2026)

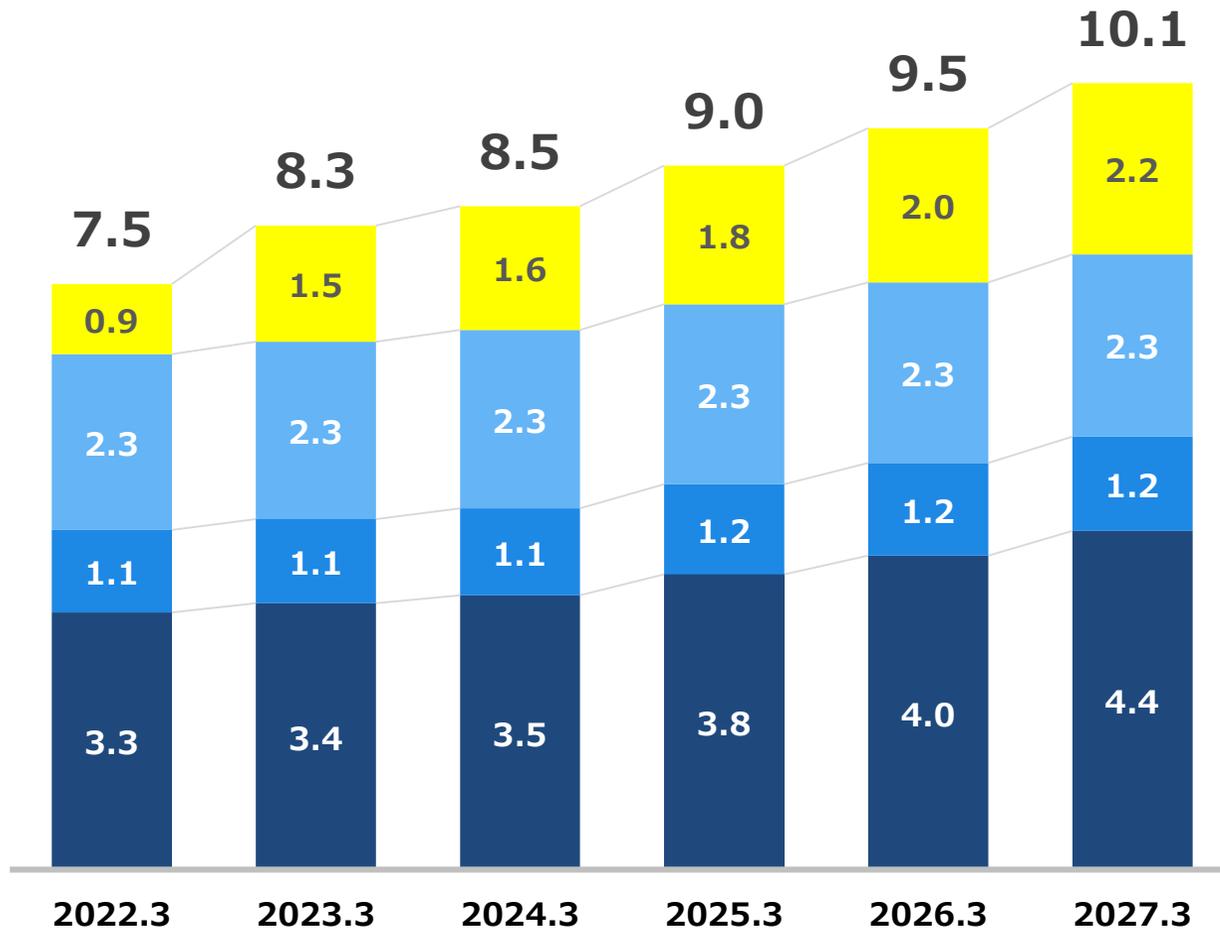
Nest Sales	2,500	(100 million yen)
Operating Income	275	(100 million yen)
Net Income	218	(100 million yen)
Operating margin	11.0%	
Exchange rate	122	(Yen/US\$)

## Investment (FY2022~FY2026)

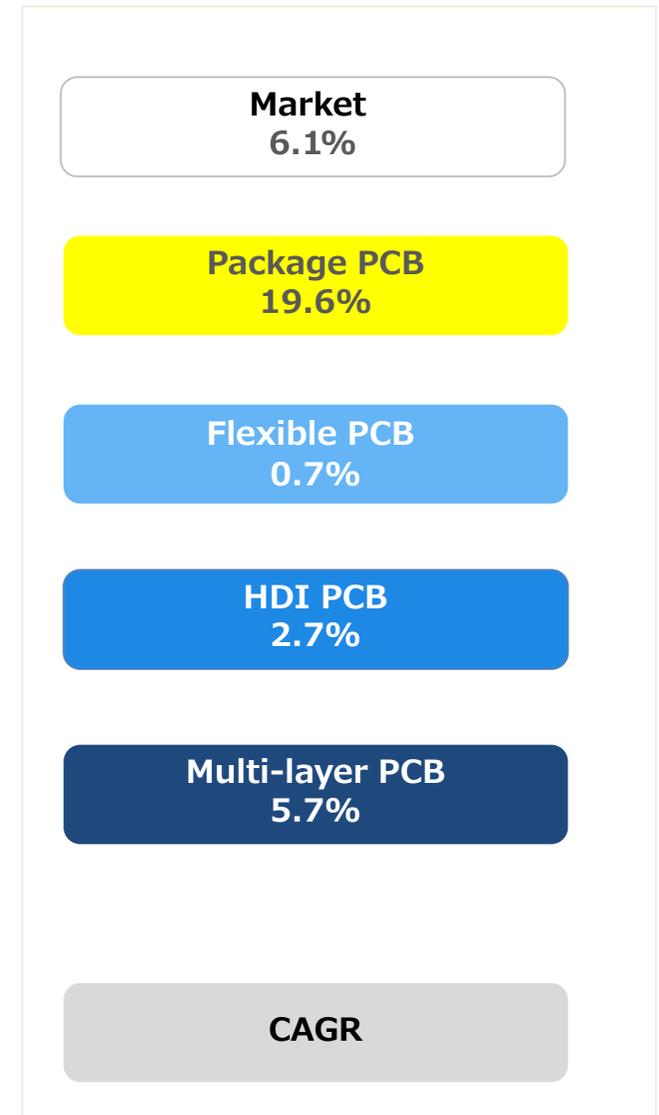
CAPEX	1,000	(100 million yen)
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# PCB Market Forecast

(Unit: trillion yen)



\*Forecasted based on data from research companies

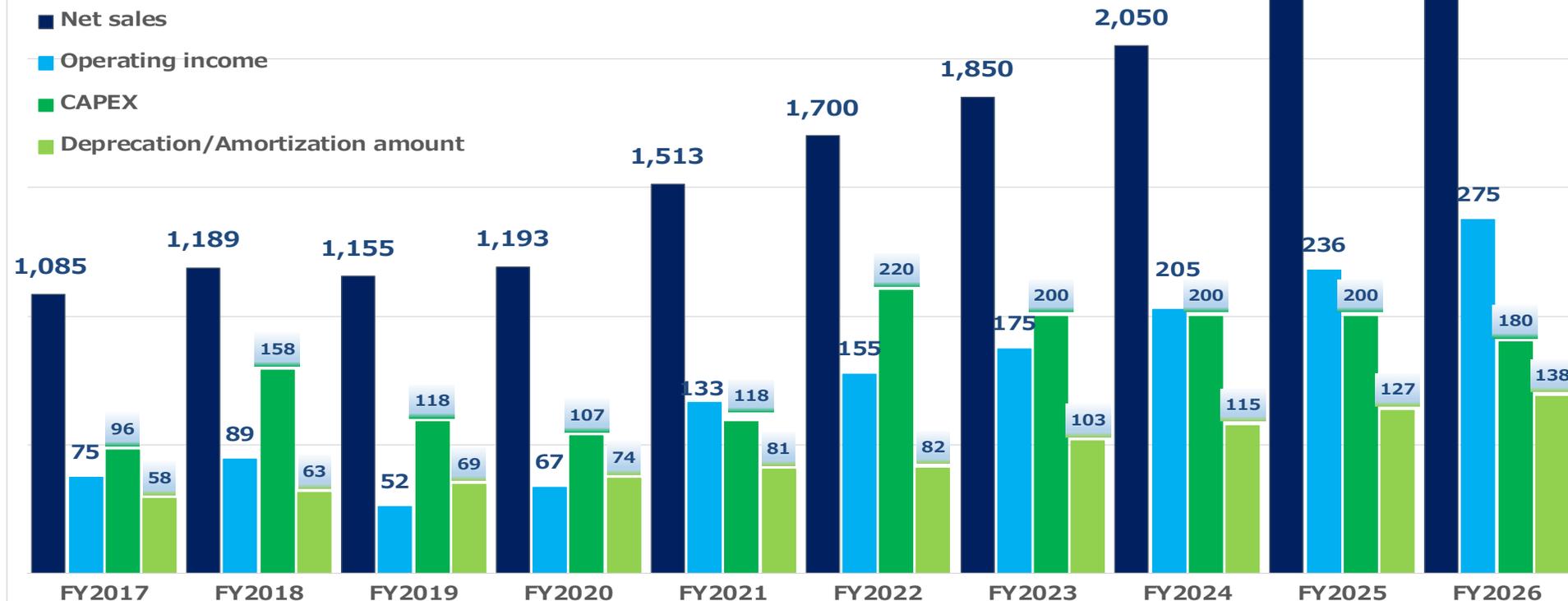


# Medium-term earnings forecast

FY2017-FY2021 CAGR 8.7%

FY2021-FY2026 CAGR 10.6%

( 100 million yen )



EBITDA

133

152

118

141

213

237

277

320

363

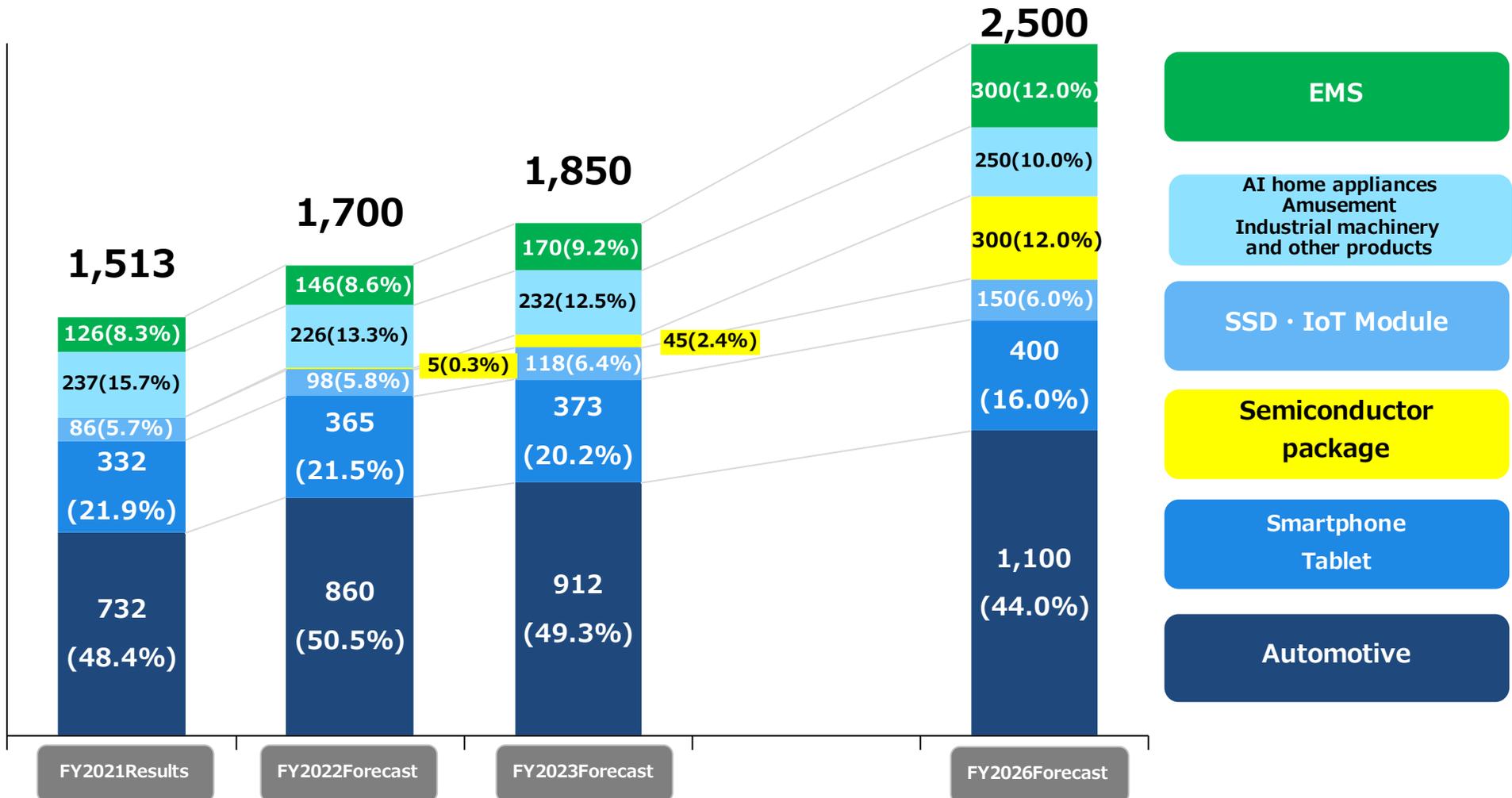
413

Average CAPEX amount 120

Average CAPEX amount 200

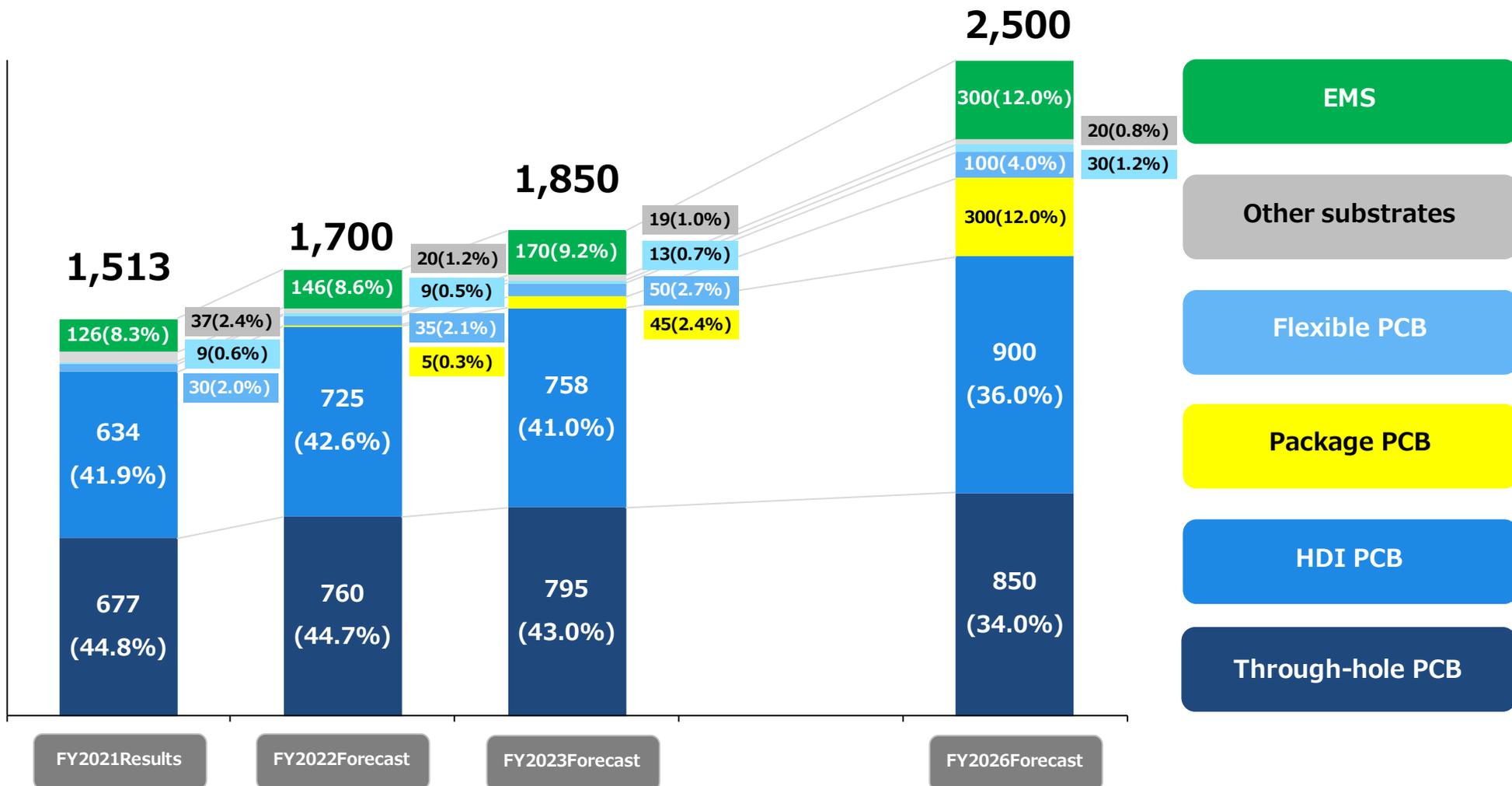
# Sales Forecast by Product Application

( 100 million yen )



# Sales Forecast by Product Specification

( 100 million yen )



## ■ Financial Results Briefing

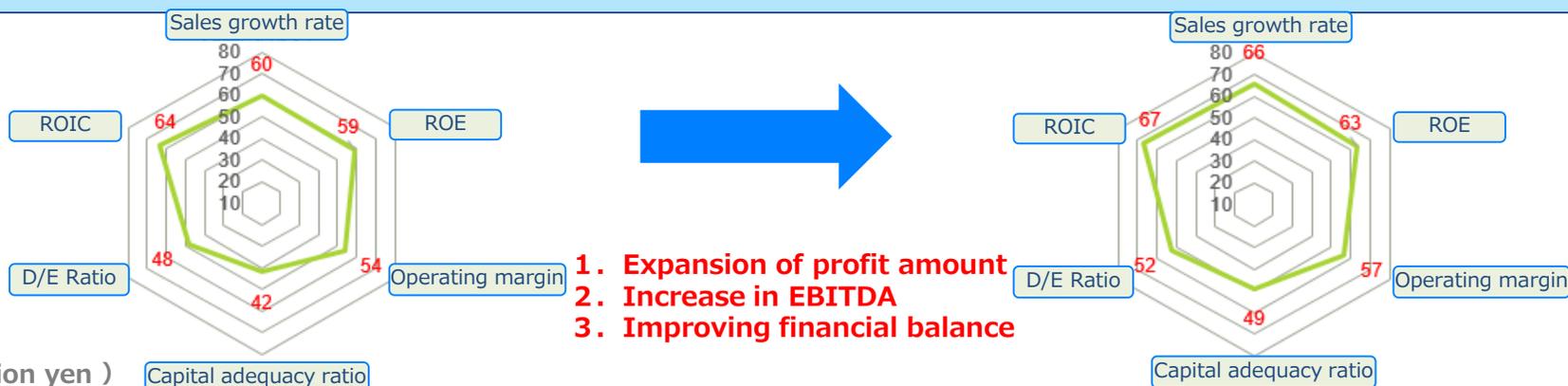
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# Financial Strategy and Shareholder Returns

1. Expand sales and profits through equipment and R&D investment.
2. Strengthen our well-balanced financial structure.
3. Consolidated dividend payout ratio is around 15%.
4. Improve shareholder value and dividends by expanding profits.



( 100 million yen )

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2021→26
<b>Net Sales</b>	1,513	1,700	1,850	2,050	2,250	2,500	1.7 times
<b>Operating Income</b>	133	155	175	205	236	275	2.1 times
<b>Operating margin</b>	8.8%	9.1%	9.4%	10.0%	10.5%	11.0%	2.2%UP
<b>Net Income</b>	115	122	141	162	184	218	1.9 times
<b>Depreciation</b>	81	82	103	115	127	138	
<b>EBITDA</b>	213	237	277	320	363	413	1.9 times
<b>Net assets</b>	587	692	816	955	1,112	1,299	2.2 times
<b>Interest-bearing debt</b>	664	757	794	747	731	694	44%→30%
<b>Capital adequacy ratio</b>	34.7%	37.4%	40%	44%	47%	50%	15.7% improvement
<b>D / E R A T I O</b>	1.13	1.09	0.97	0.78	0.66	0.53	0.6 improvement
<b>ROE</b>	19.5	17.5	17	17	17	17	Maintain high standards
<b>R O I C</b>	10.8%	10.2%	10.4%	11.2%	11.5%	12.4%	1.6 % improvement

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# ESG Initiatives

## Environment (Domestic Business)

Global Warming  
Countermeasures

Implementation of countermeasures based on TCFD

- 50% reduction in CO2 emissions per unit of production in Japan by 2030 (compared to 2013)
- Promotion of energy conservation (basic unit: -1.5%/year for electricity, -2.0%/year for fuel)
- Introduction of self-generated solar power generation

Waste Reduction

Promotion of zero emissions (80% recycling rate by 2030)  
Recycling (recovery of copper, palladium and gold)

Utilization of Water Resources

Promotion of reuse  
(10% reduction in water consumption per unit of production by 2030)

## Social

Employee Engagement

Promotion of diversity  
(promotion of active participation by women, promotion of overseas human resources)  
Promotion of creating a safe and comfortable workplace  
(zero labor accidents)  
Promotion of employee health promotion  
(planned to be certified as an excellent health management corporation)

Regional Contribution /  
Revitalization

Contribution to nature / environment protection  
(recycling activities)  
Contribution to regional revitalization  
(sports promotion, contribution according to regional needs)  
Contribution to social welfare

## Governance

Strengthening the management system

Building a management system that supports sustainable growth

Strengthening the crisis management system

Strengthening BCP  
Second headquarters in Yamagata

## ■ Financial Results Briefing

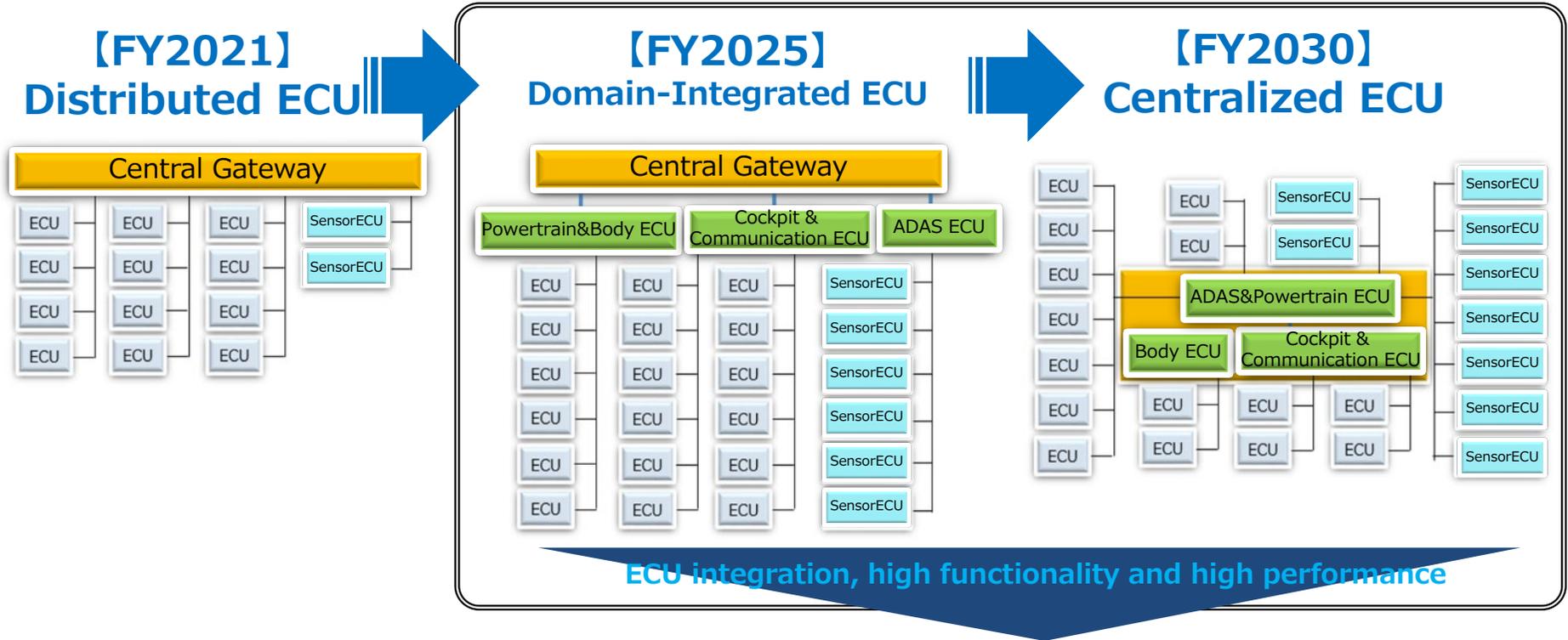
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# Technology Trends Automotive

Control method for car electrification and autonomous driving



## Technologies required for PCB

High density  
and high frequency

Parts with high functionality and high performance  
⇒ narrow pitch wiring  
High-speed signal communication  
⇒ high-frequency support

Miniaturization

Space-saving  
3D implementation support

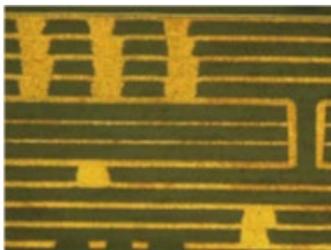
Heat dissipation

Heat generation parts ⇒  
Support for heat dissipation on PCB

# Automotive PCB Technology Lineup

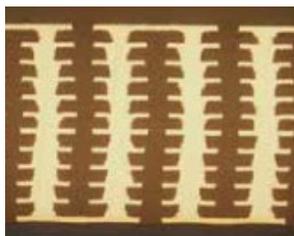
## High density / high frequency

### LVH Stack



- High-density wiring with LVH connection
- Small wiring space due to high-density wiring
- Low Dk / Df base material

### AnyLayer

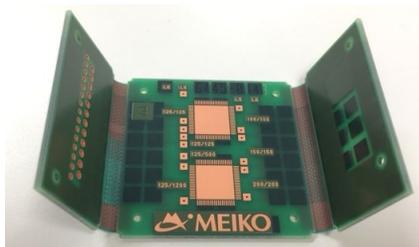


- High-density wiring with AnyLayer connection
- Small wiring space with AnyLayer connection
- Low Dk / Df base material

## Miniaturization

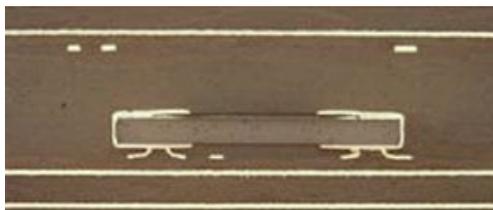
### Semi Flex

- Bending using FR-4.0, 4.1
- Incorporation into small size and space saving



### Embedded Devices

- Built-in parts inside the board to reduce wiring area
- Built-in heat-generating parts on the heat dissipation side to improve heat dissipation efficiency



## Heat dissipation

### Heavy Copper



- Current wiring layer thick copper

6L penetration inner layer 105μm

### Cu-Inlay

- Heat dissipation of parts through copper inlays

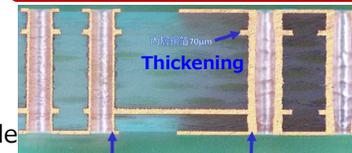


Copper inlay cross section



Surface photo of copper inlay

### Mega through hole

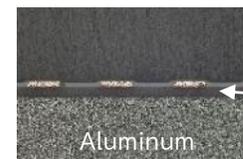


General TH MegaTH

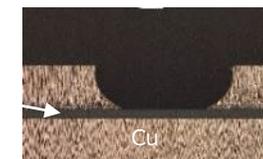
- Selective TH plating  
Heat dissipation by thickening

### Metal Base

- Heat dissipation with metal-based structure



Aluminum



Cu

# Semiconductor Package Substrate Market Trends

Architectural View of 5G-Enabling Technologies

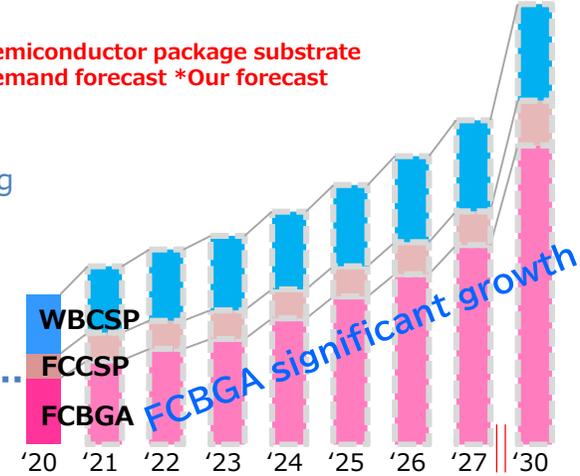
Core Network  
(DataServer)

Increased amount  
Of data



SDN  
NFV  
Network Slicing

Semiconductor package substrate  
demand forecast \*Our forecast



Backhaul Network

Fiber Backhaul

Wireless Backhaul

Mesh

Fiber Backhaul

High-speed  
communication

Radio Access  
Network

Small Cells  
SONs



D2D  
(Data back up)

V2X  
(Communication technology)



Low Latency

Ultra low latency  
High reliability

Higher functionality  
of terminals

Fronthaul  
Network

C-RAN



Fiber Backhaul

Wireless Fronthaul

RRHs



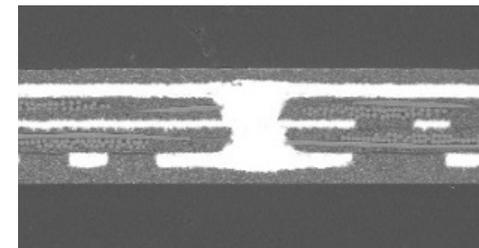
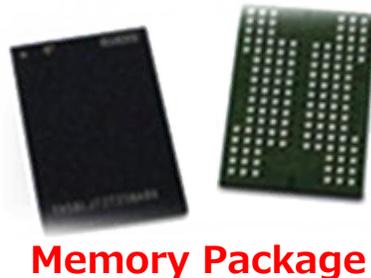
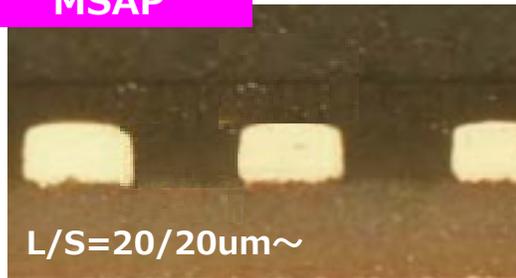
# Semiconductor Package Substrate Technology Roadmap

Technological trends	FY2022	FY2025	FY2030
Increased amount of communication data	Early 5G(32Gb)	5G spread (64Gb)	Early 6G(128Gb)
			High frequency

## Board development content

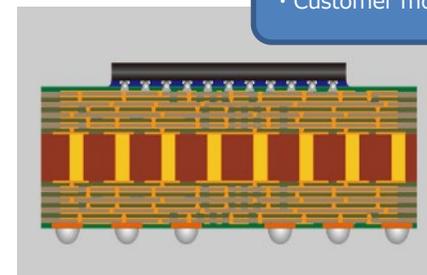
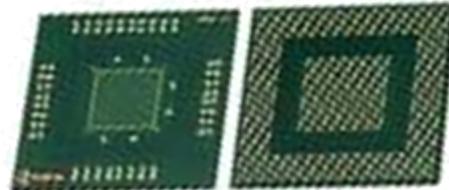
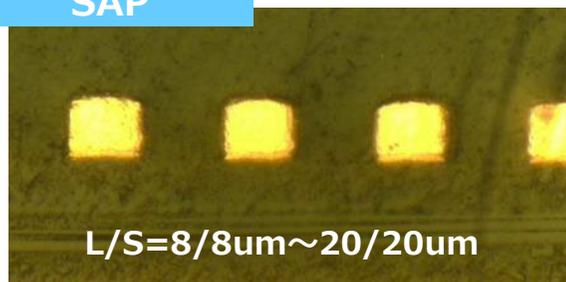
	FY2022	FY2025	FY2030
Memory Package	Wiring refinement (20/20um~)	Wiring refinement (8/8um)	Wiring refinement (8/8um)
FCBGA Package	Wiring refinement (12/12um~)	Wiring refinement (8/8um)	Wiring refinement (8/8um)

### MSAP



- Substrate mass production technology
- Customer mounting technology

### SAP



## ■ Financial Results Briefing

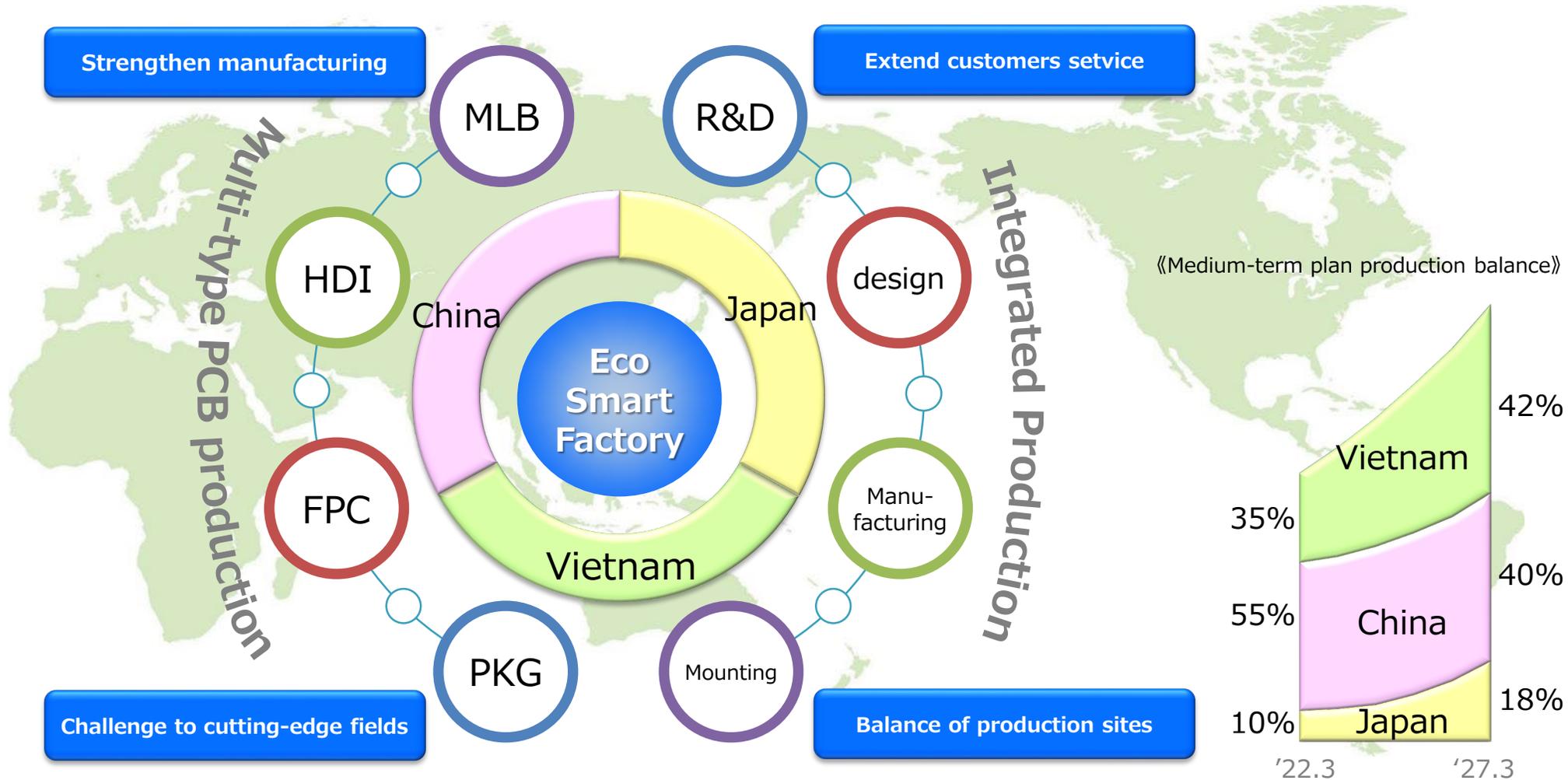
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# Medium-term Production Strategy

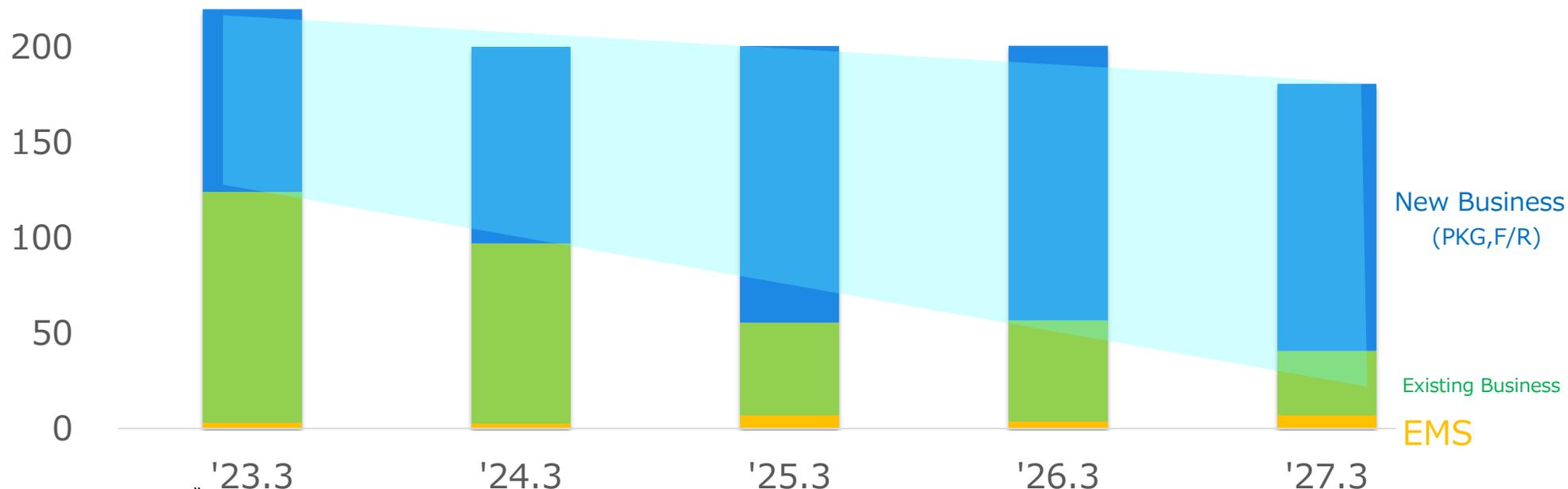
Meiko will accelerate its improvement and strengthening efforts for manufacturing, challenging the cutting-edge fields and expanding the products portfolio, aiming for stable supply to customers and extension of services based on the expertise to meet customer's requirements.



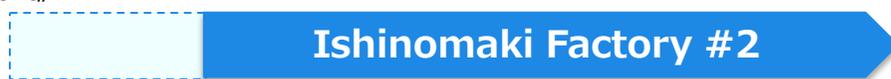
# Medium-term Investment Policy

While continuing to invest in quality, automation and environmental friendliness in response to the customers requirements for existing businesses, we will increase the ratio of new business investment, which is expected to grow in demand in the future, to realize the sustainable growth.

(100 million yen)



《Domestic investment》



《Overseas investment》

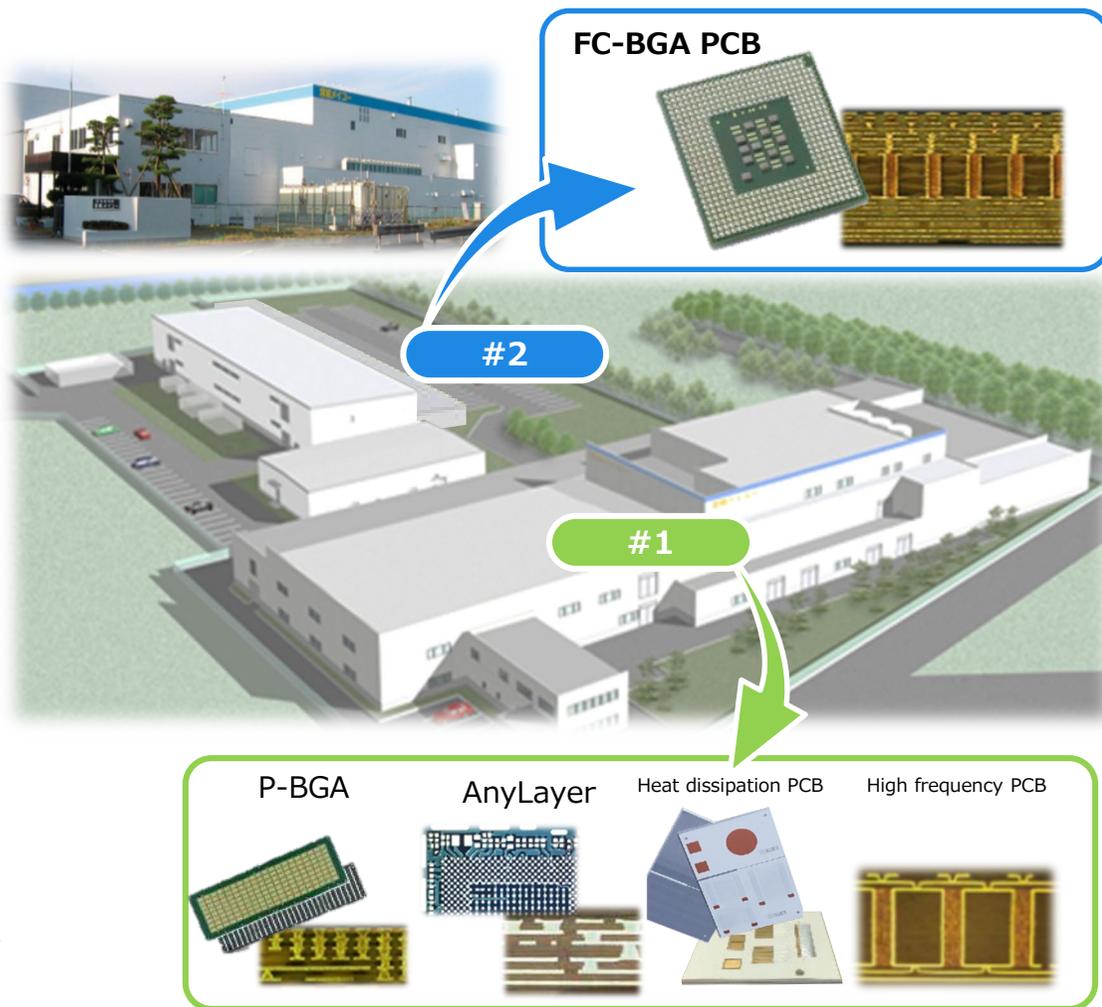


# Ishinomaki Factory #2

The high-end FC-BGA market is tightening all over the world due to the rapid shift to DX. The Ishinomaki Factory #2 will enter the small and small FC-BGA market utilizing SAP for the consumers needing legacy and automotive products .

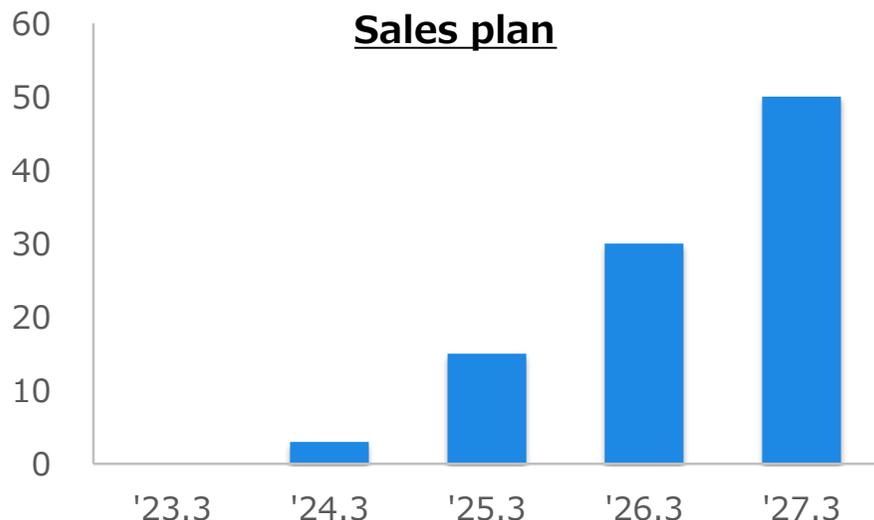
## Business summary

Location	Ishinomaki-City, Miyagi Pref.
Floor Area	Approx. 5,000m <sup>2</sup>
Investment	Approx. 70 million JPY
Business content	Semiconductor package substrate
Operation time	The second half of the FY2022 period



(million Yen)

## Sales plan

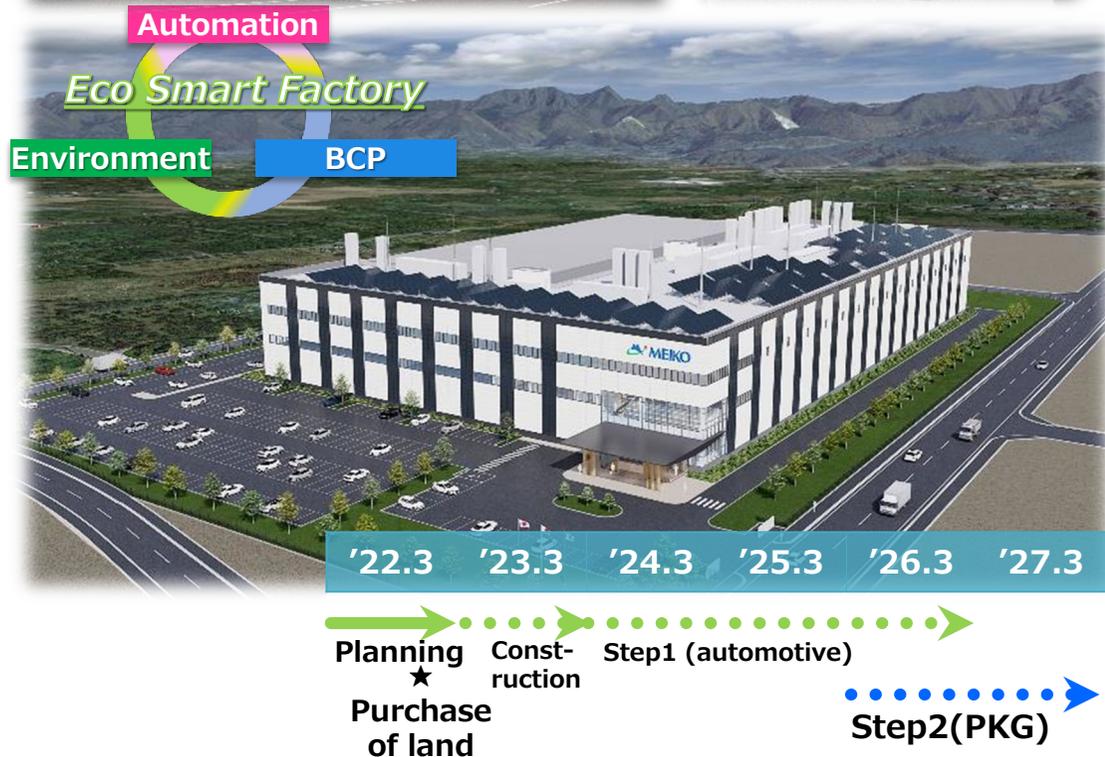


# Meiko Yamagata - Tendo Factory

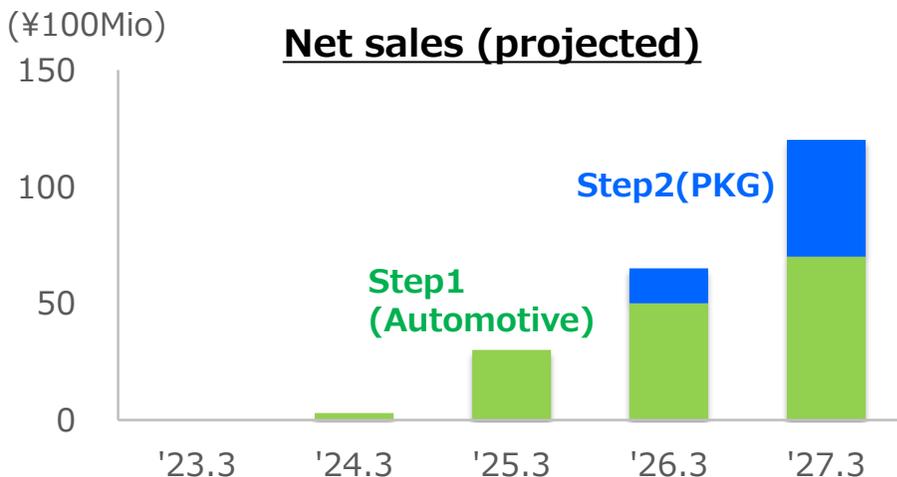
HDI for automotive is expected to increase significantly due to the progress of EV/ADAS. We open a state-of-the-art “Eco Smart Factory” in Yamagata to cope with the high demand.

## Outline of the Tendo Factory

Place	Tendo-City, Yamagata Pref.
Site area	Approx. 65,000m <sup>2</sup>
Floor area	Approx. 25,000m <sup>2</sup>
Investment	¥1.5bio / ¥2.5bio
Business	-Mass production of advanced PCB for Automotive and PKG -R&D -Development & manufacturing of automated production system



## Net sales (projected)

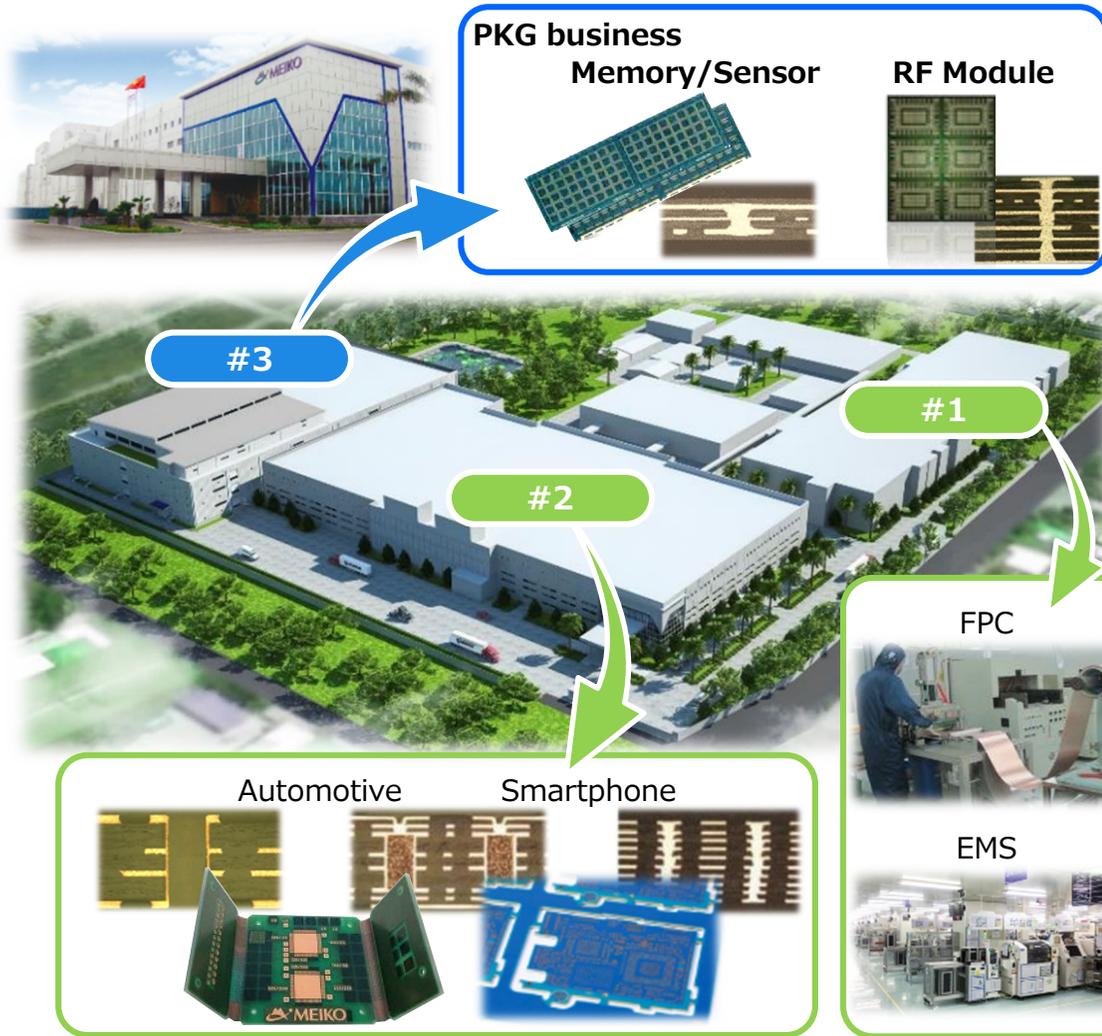


# Vietnam Plant #3

With the evolution of high-speed communication technology, the demand for thinner high-end memory boards and communication modules has increased. At the Vietnam Plant #3, a line dedicated to thin packages and modules utilizing MSAP will be launched.

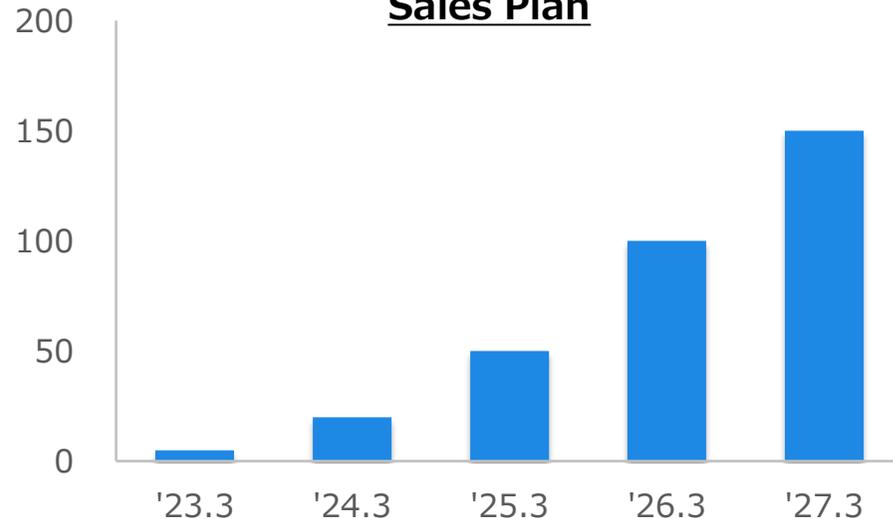
## Business summary

Location	Thach, Hanoi-City
Floor Area	Approx. 20,000m <sup>2</sup> (PKG business)
Investment	Approx. 160 million JPY
Business content	Package/Module PCB
Operation time	The second half of the 2022 period



(million Yen)

## Sales Plan



# Quan Minh Plant #2

The Quan Min Plant #1, our 4th base in Vietnam, which has already been operating as a rental factory, will be used for EMS business. We will plan to build plant #2 to meet the demand from the growing fields in the future.

## Business summary

Location	Quan Minh, Hanoi-City
Land Area	Approx. 63,000m <sup>2</sup>
Floor Area	Approx. 20,000m <sup>2</sup>
Investment	Approx. 100 million JPY
Business content	Package/Module PCB Volume Product Cutting edge HDI PCB Volume Product

