

Financial Results Presentation

Fiscal Year ended March 2019



Sanken Electric Co., Ltd.

May 8, 2019

Part I Financial Results

- Financial Results FY March 2019
- Guidance for FY March 2020

Part II Growth Strategies

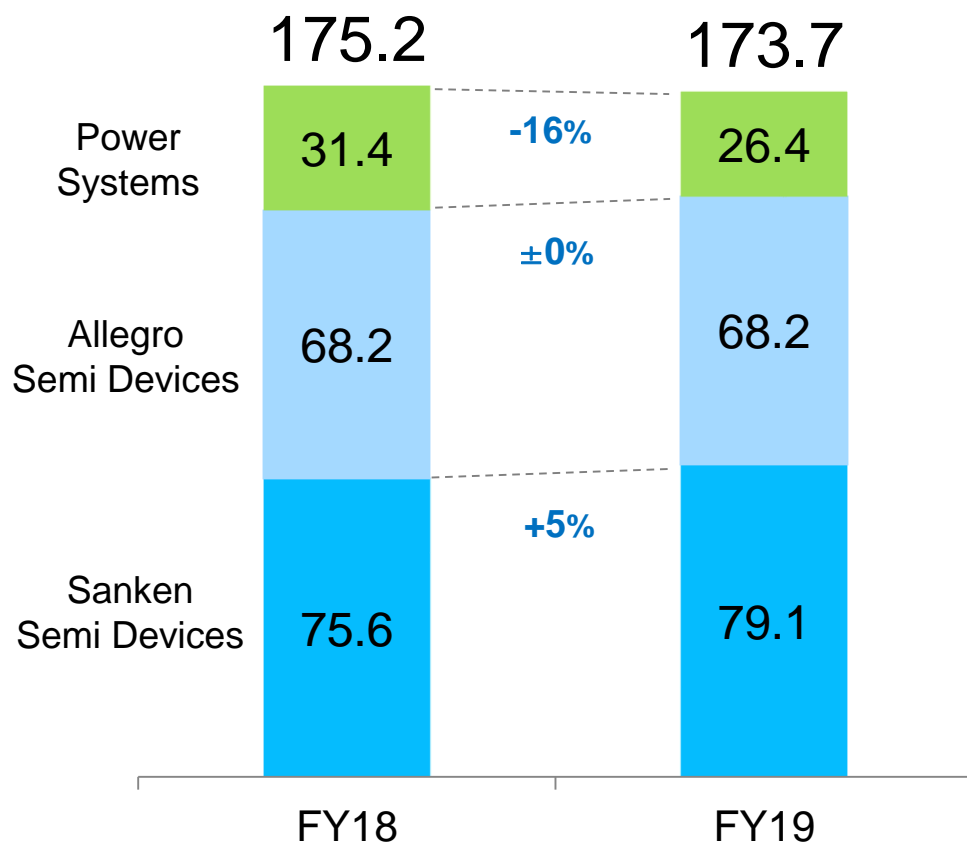
- Growth Strategies by Market

Financial Results

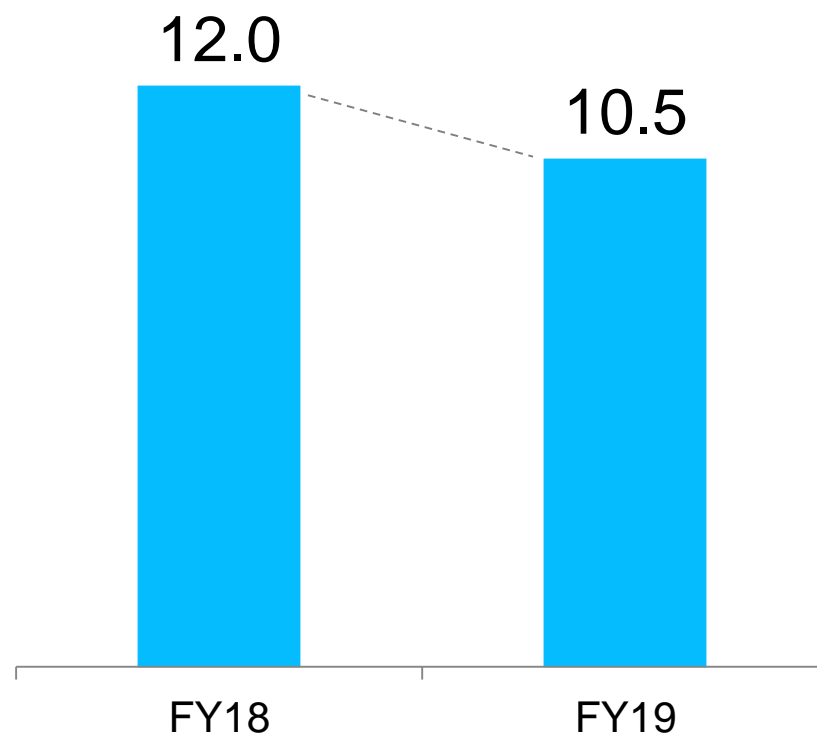
Summary of Results in FY March 2019

Despite strong performance in the 1H, profits declined for the full fiscal year due to a slowdown from the late 3Q, particularly Allegro's automotive sales.

Sales (Billions of Yen)



Operating Profit (Billions of Yen)



• Exchange rate (Yen/US\$) : FY18 110.86 FY19 110.93

Consolidated Results: FY March 2019

(Billions of Yen)

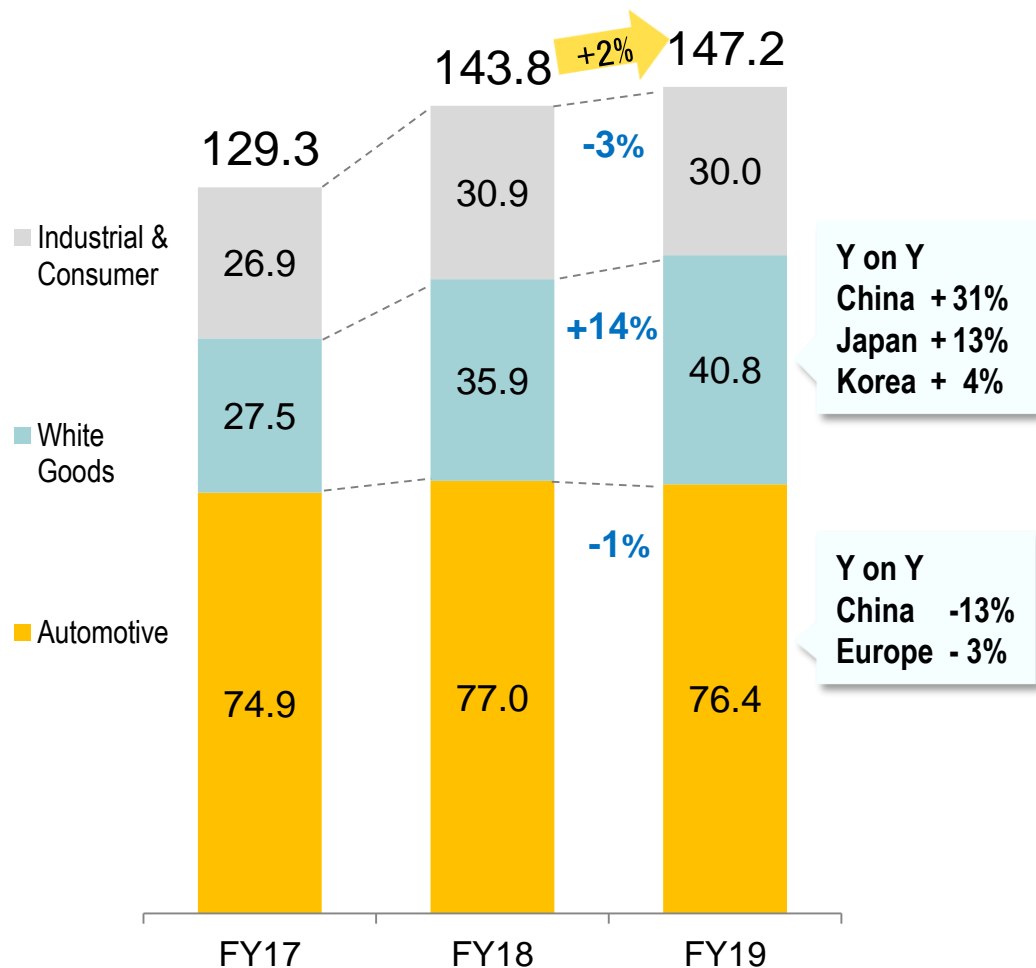
	FY18	FY19			Y on Y Changes	Guidance issued May 2018	Achieved (%)
	Full Year	1H	2H	Full Year			
Sales	175.2	88.2	85.5	173.7	-0.9	178.0	97.6
Semi. Devices	143.8	75.2	72.0	147.2	+2.4	151.8	97.0
Power Systems	31.4	13.0	13.4	26.4	-15.9	26.2	100.8
Operating Profit	12.0	6.3	4.2	10.5	-12.5	12.5	84.0
Ordinary Profit	11.8	5.3	3.9	9.2	-22.0	11.0	83.6
Extraordinary Income and losses	-18.3	0.0	0.1	0.1	—	—	—
NI attributable to controlling shareholder	-11.4	2.2	1.8	4.0	—	4.8	83.3

Exchange rate: FY18 110.86, FY19 110.93

• "Y on Y Changes" are derived from the figures presented here expressed in billions of yen.

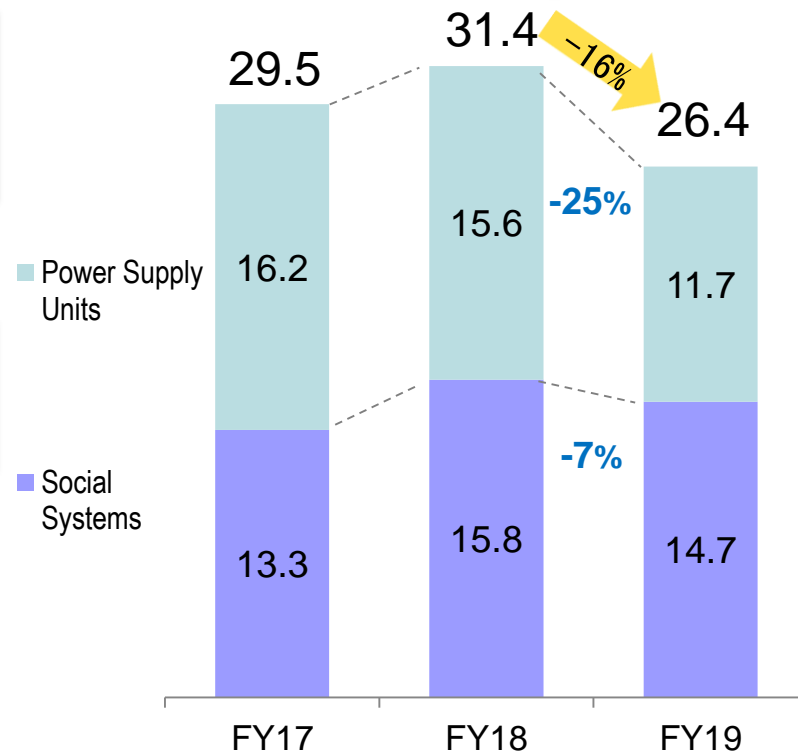
Consolidated Net Sales by Market

Semi Devices (Billions of Yen)



Power Systems (Billions of Yen)

- Sales of power supply systems for private-sector were sluggish due to restrained investment caused by the slowdown in the Chinese economy.
- The PM business withdrawal has steadily progressed.



Exchange Rate
(Yen/US\$)

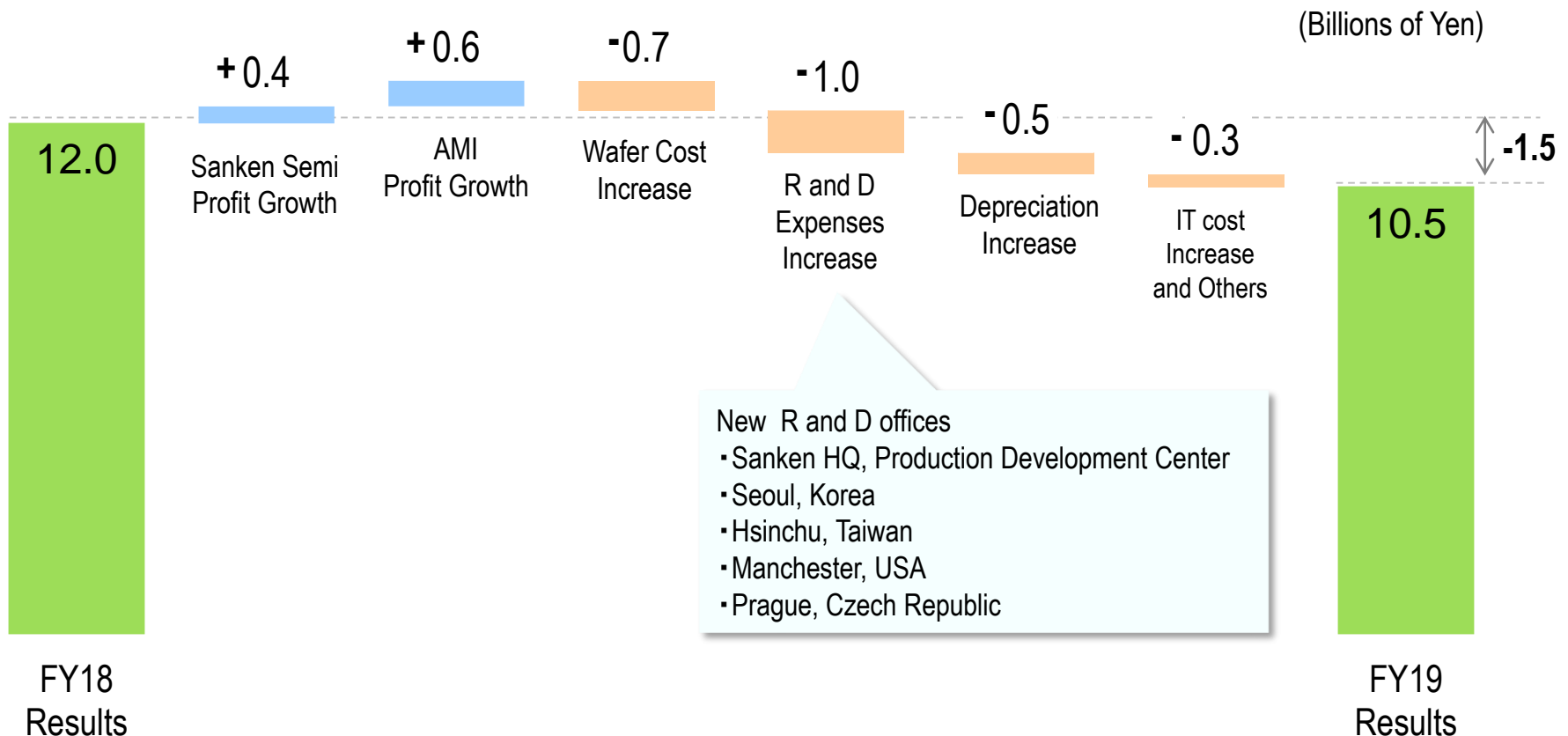
108.39

110.86

110.93

Factors of Change in Operating Profit

- Sales slowed mainly in Allegro's automotive business from 3Q.
- Profits declined due to factors such as higher wafer costs and higher fixed costs for new research and development offices.



• Allegro MicroSystems, Inc.(AMI) : A holding company for Allegro MicroSystems, LLC and Polar Semiconductor, LLC.

Guidance for FY March 2020



Summary of Guidance for FY March 2020

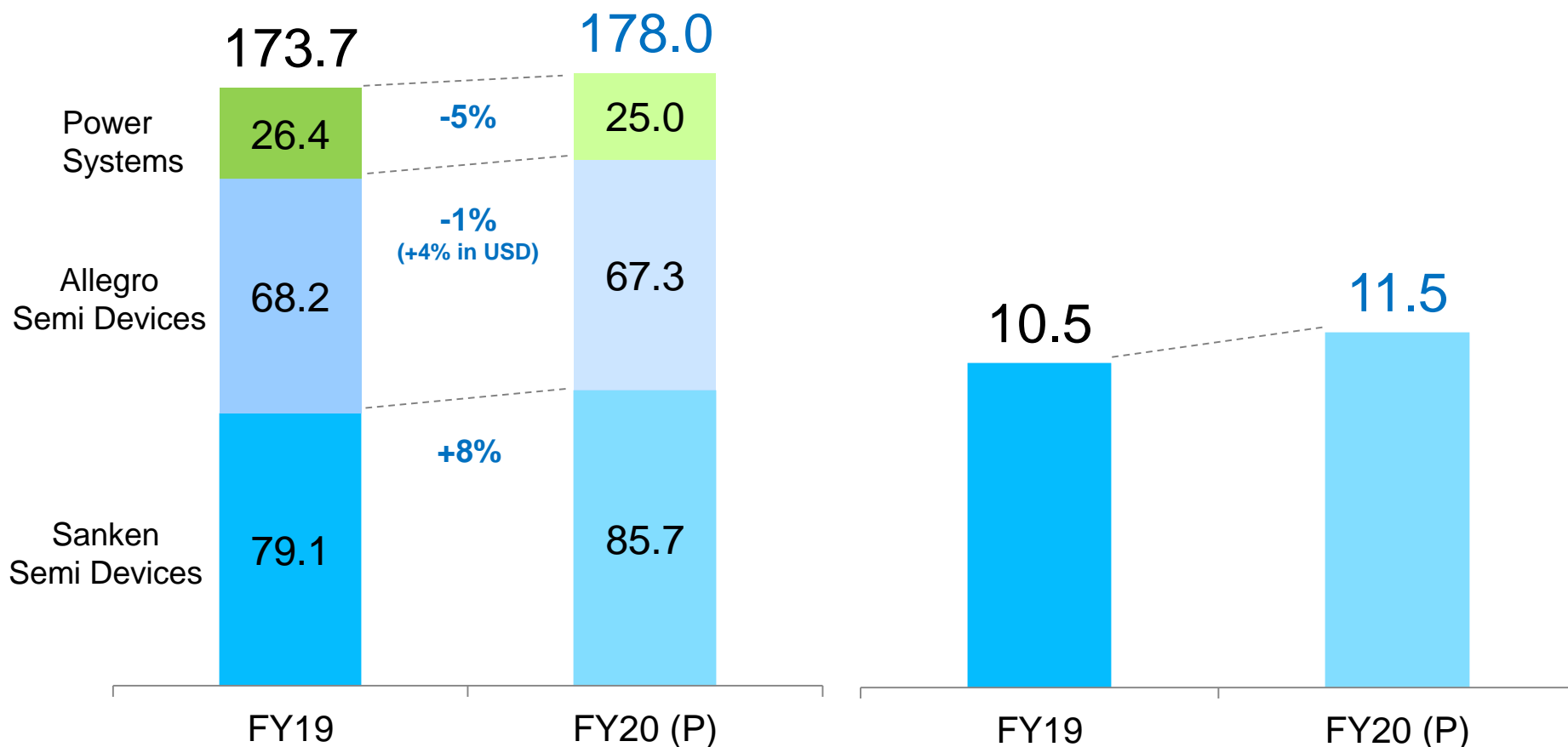
1H is still expected to suffer from the impact caused by the slower Chinese economy,
2H will show a pick up in demand and the company projects sales and profit increases.

Sales

(Billions of Yen)

Operating Profit

(Billions of Yen)



• Exchange rate (Yen/US\$) : FY19 110.93 FY20 105.00

Guidance for FY March 2020

(Billions of Yen)

	FY19 Actual			FY20 Projection			Y on Y Changes	
	1H	2H	Full Year	1H	2H	Full Year	Amount	%
Sales	88.2	85.5	173.7	85.0	93.0	178.0	+4.3	+2.5
Semi Devices	75.2	72.0	147.2	73.6	79.4	153.0	+5.8	+3.9
Power Systems	13.0	13.4	26.4	11.4	13.6	25.0	-1.4	-5.3
Operating Profit	6.3	4.2	10.5	3.5	8.0	11.5	+1.0	+9.5
Ordinary Profit	5.3	3.9	9.2	2.8	7.2	10.0	+0.8	+8.7
NI attributable to controlling shareholder	2.2	1.8	4.0	0.4	3.9	4.3	+0.3	+7.5

• Exchange rate: 105.00 Yen/US\$

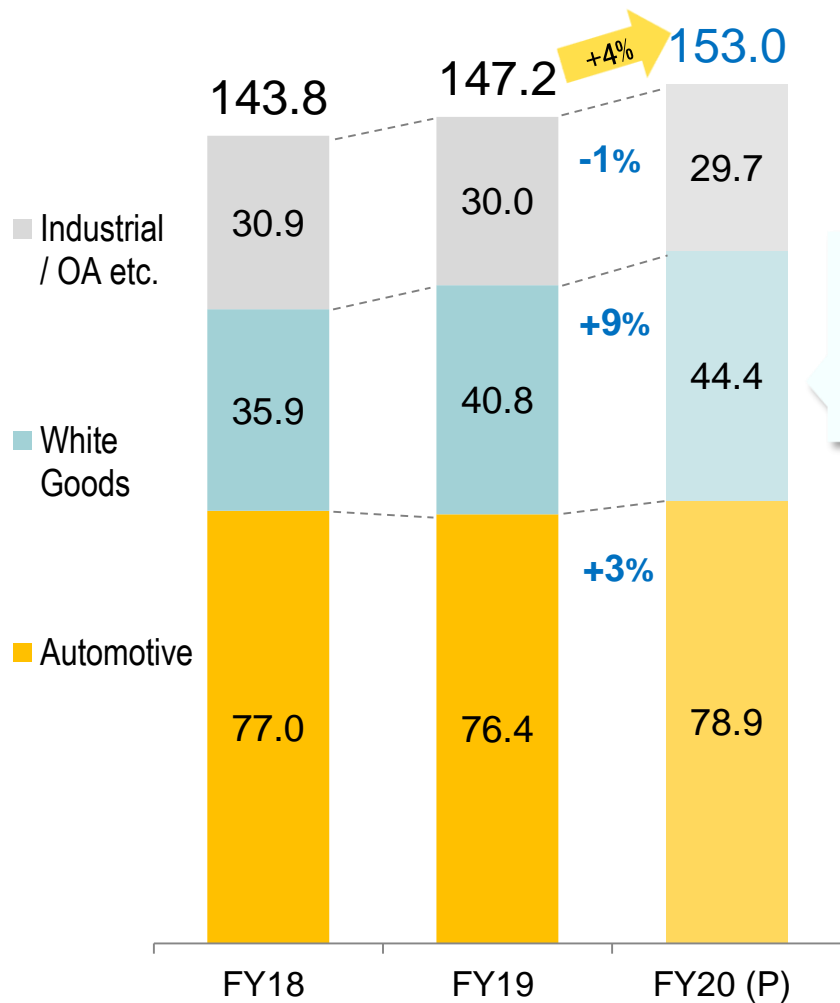
• "Y on Y changes" are derived from the figures presented here expressed in billions of yen.



Guidance for Consolidated Net Sales by Market

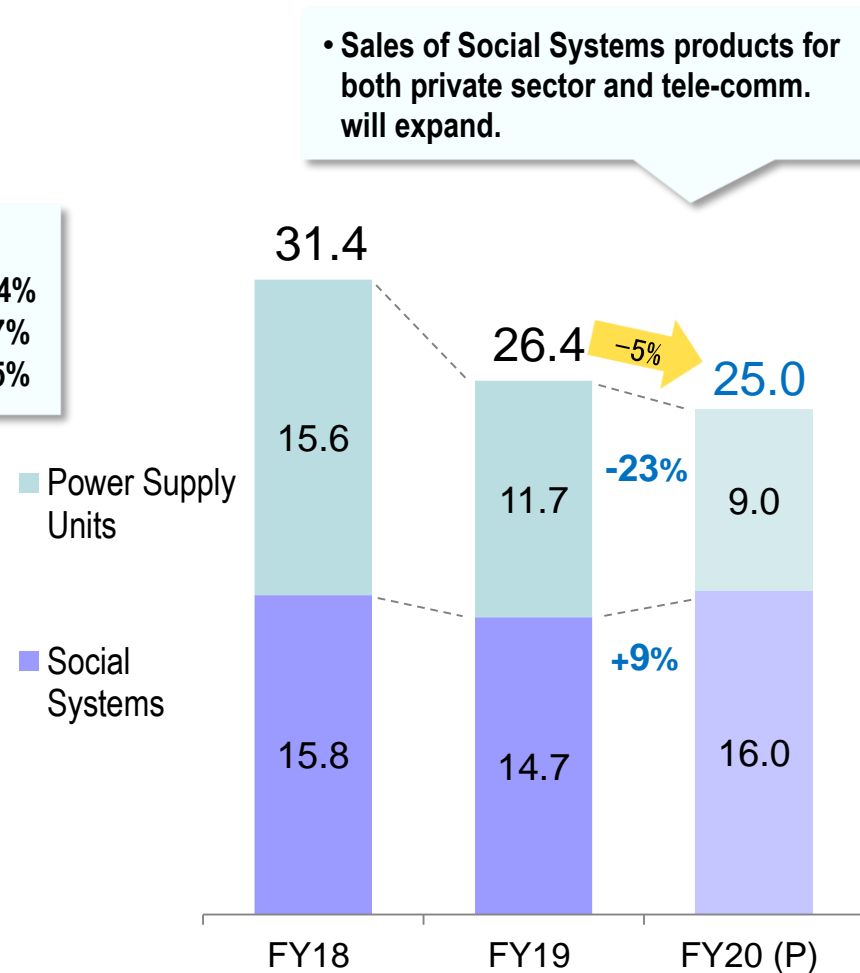
Semi Devices

(Billions of Yen)



Power Systems

(Billions of Yen)



Exchange Rate
(Yen/US\$)

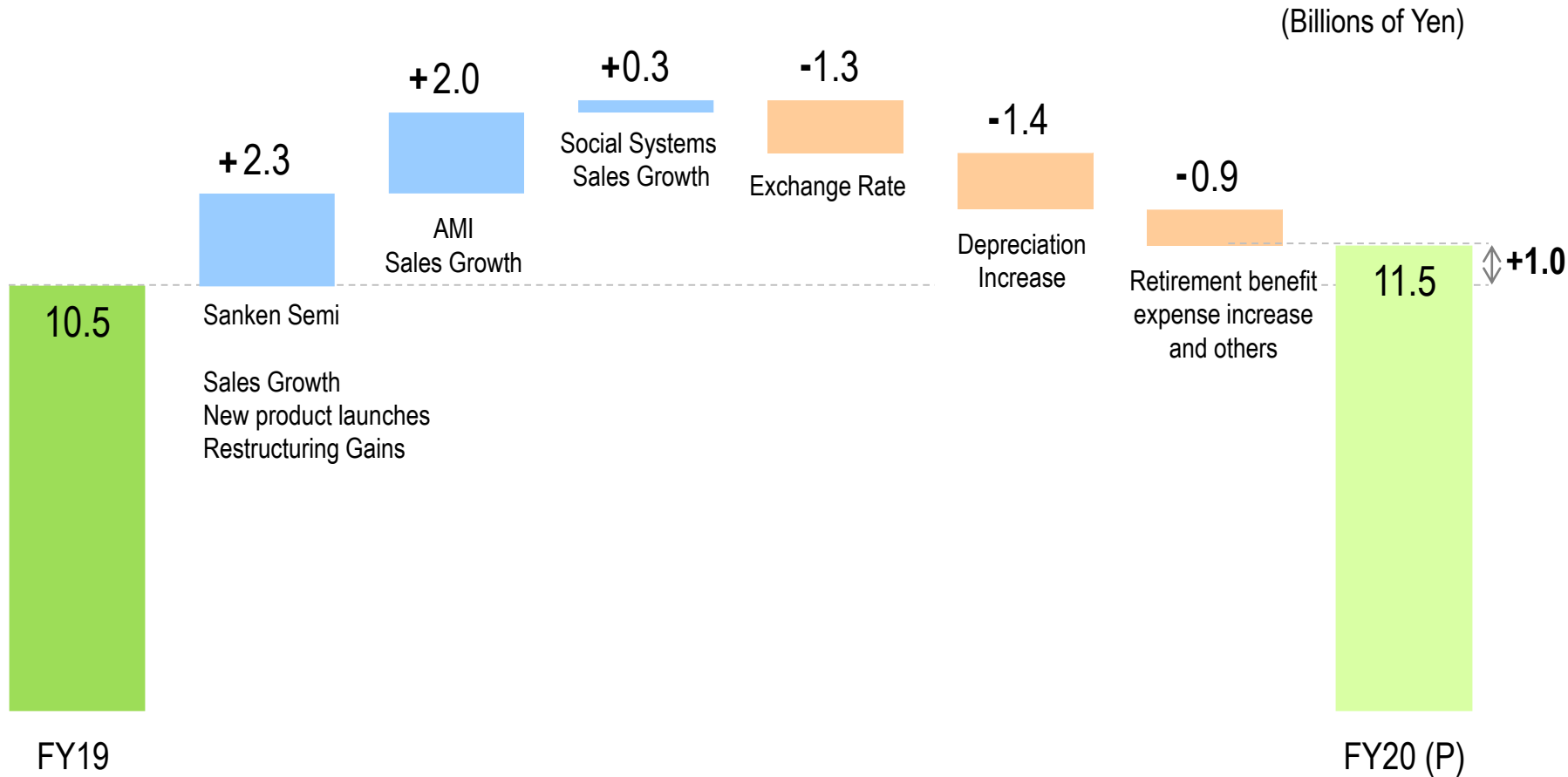
110.86

110.93

105.00

Factors of Change in Operating Profit

- SanKen expects profit increase via a combination of sales growth, new product introductions, and reduction of unprofitable products, etc.
- AMI expects automotive sales to recover in 2H



• AMI: Allegro MicroSystems, Inc.

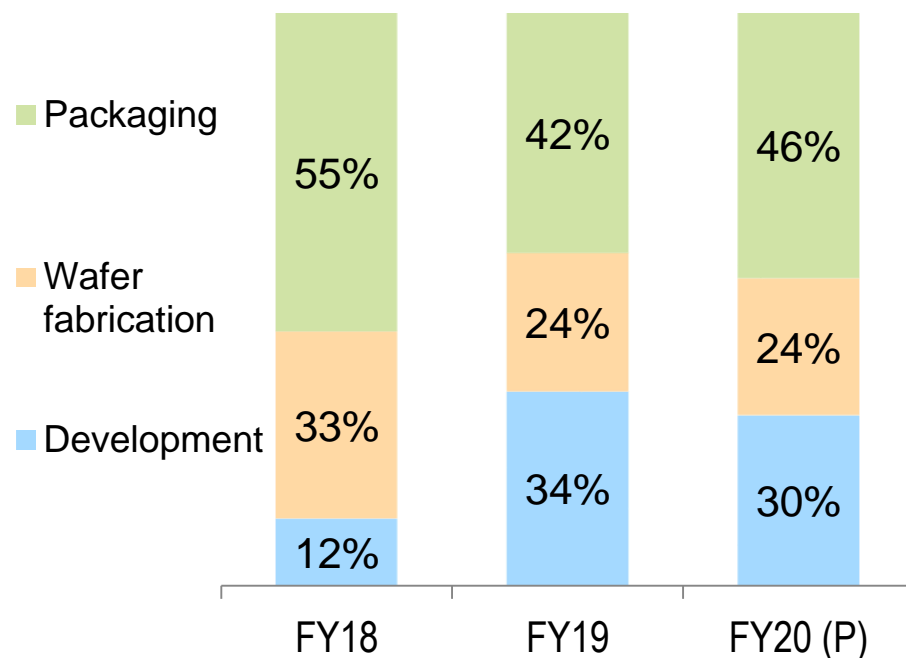
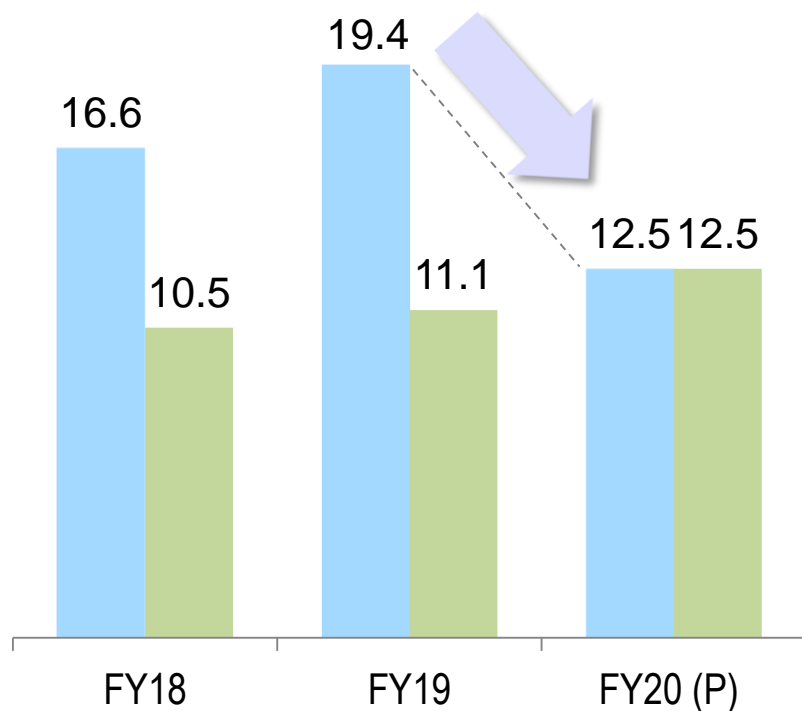
Capital Expenditure Trends

- FY19 : Implemented large-scale up-front payouts to implement growth strategies.
- FY20 : Significantly curtail capacity expansion investments to be compatible with amortization, but continue to invest in development.

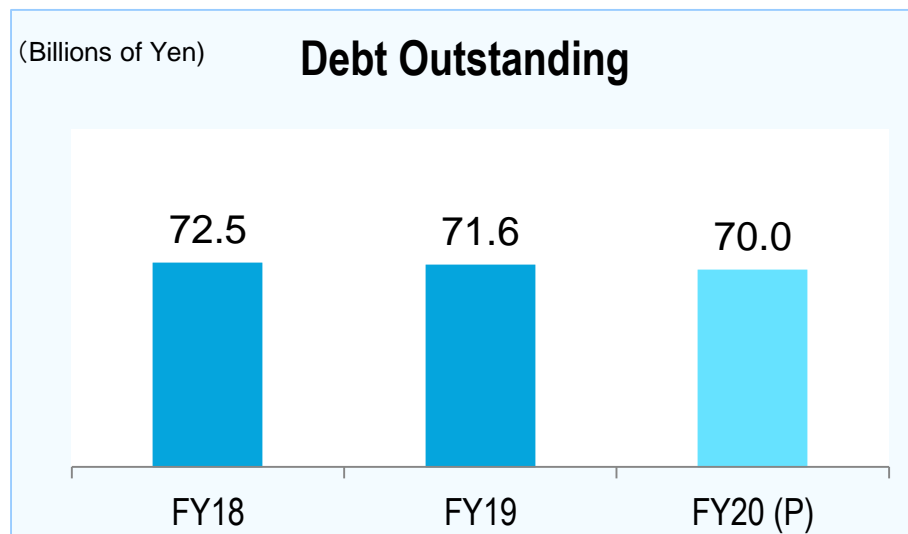
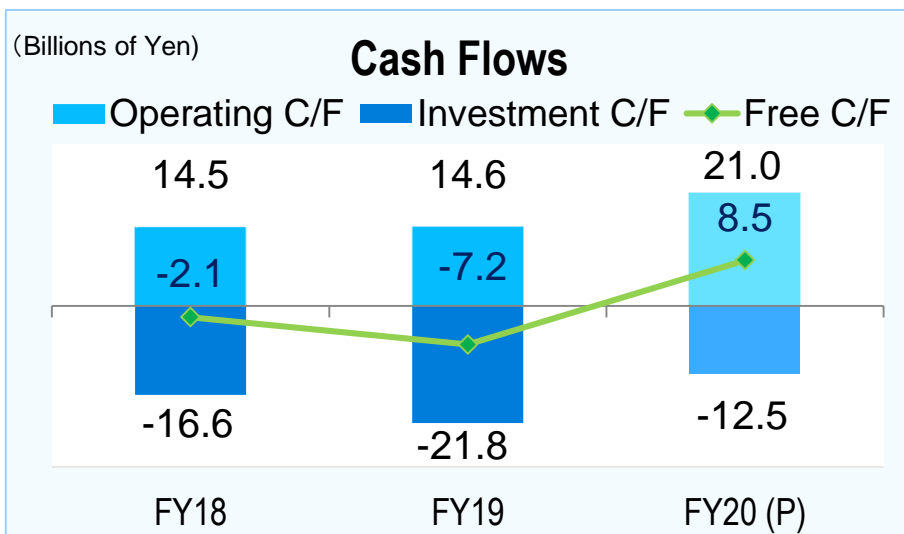
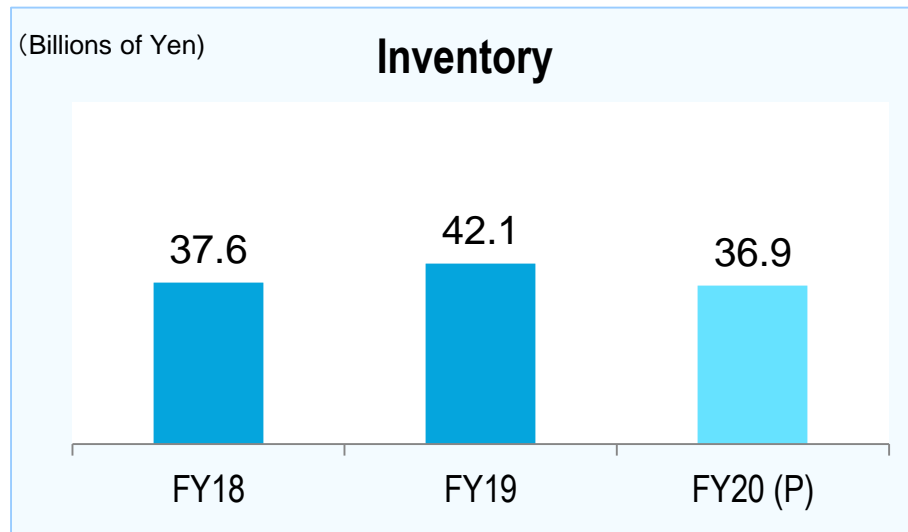
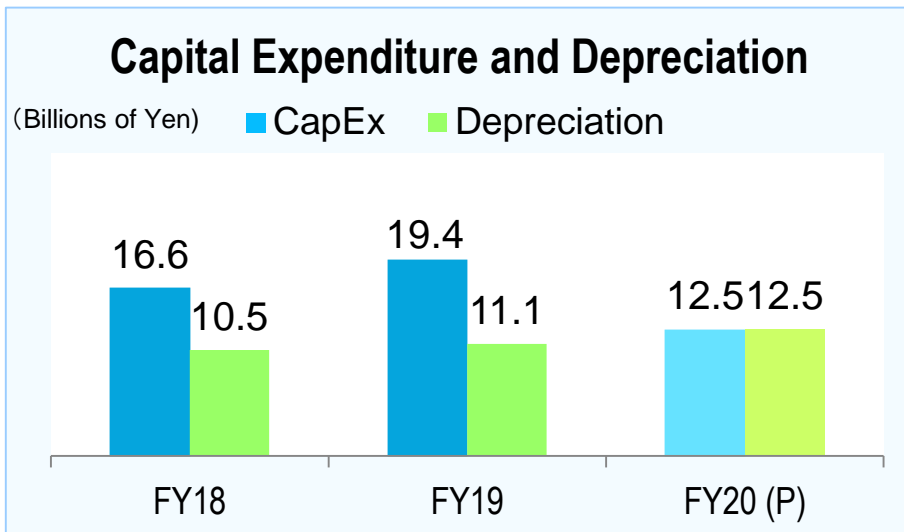
■ Capital Expenditure and Depreciation (Billions of Yen)

■ Semi Devices Investment Ratio

■ CapEx ■ Depreciation



FY20 Consolidated Financial Targets

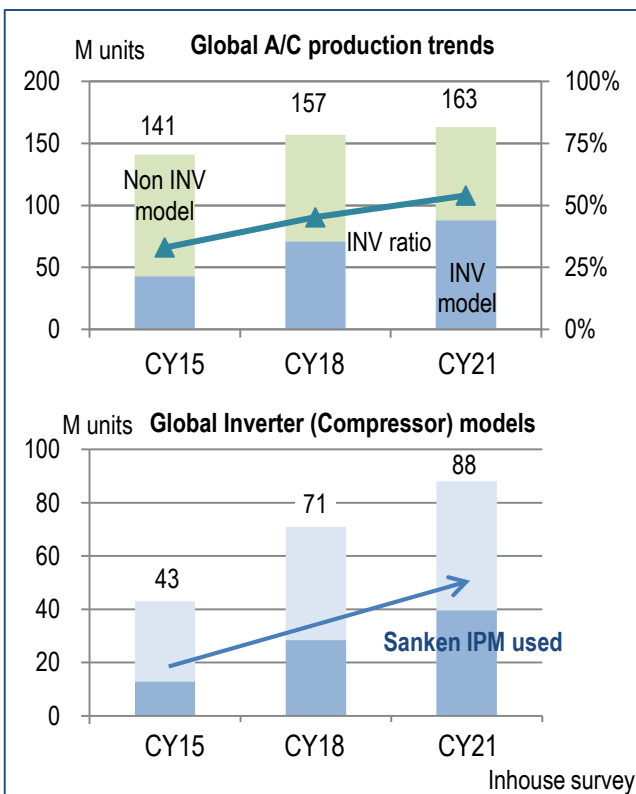


- Inventory : Reduce PSL chips to lower total inventory down to the level at the end of FY18.
- CapEx : Keep below the level of depreciation and generate free cash flow.

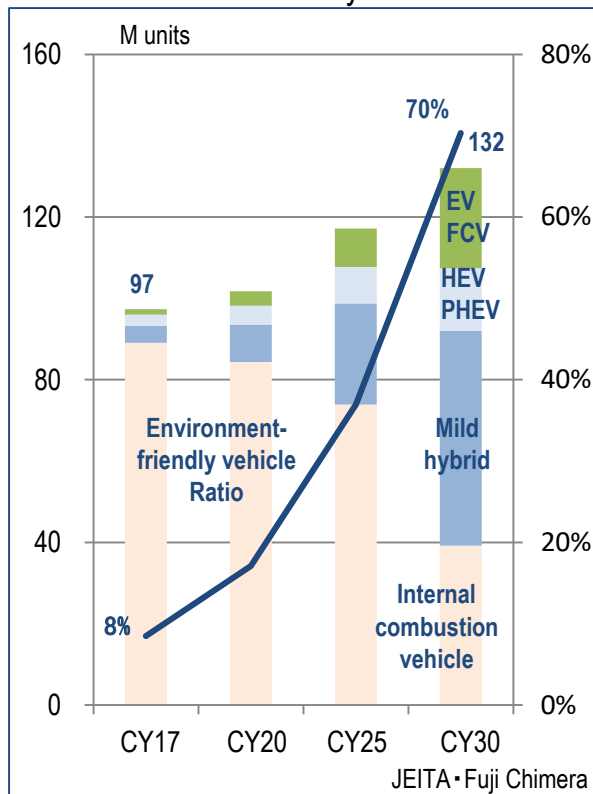
Growth Strategies

■ No change is observed in the long-term growth trend of strategic markets.

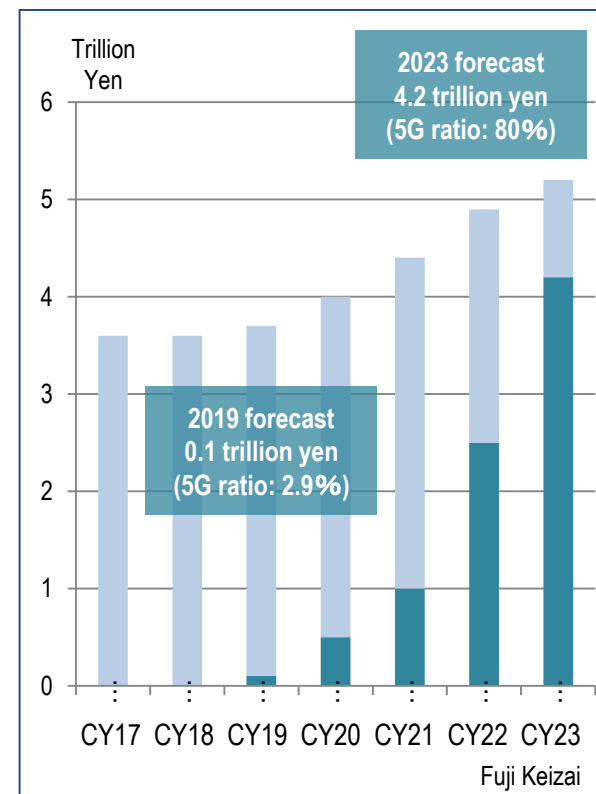
< Air Conditioner Market >



< Global production of environment-friendly vehicles >



< Global market for 5G compatible base stations >



- White Goods : “Inverterization” will continue in China as well as other emerging countries.
- Automobiles : “Environment” and “electrification” are the keywords, with 70% of vehicles compliant in 2030.
- Tele Comm. : 5G will steadily spread in the future, expanding to a ¥4 trillion+ market in 2023.

Semi Devices Growth Strategies

■ Press forward with our actions to achieve “Development Reform”

Stages of Development	Initiatives for growth	Objectives
Design Concept	Implement “the SPP” SanKen Power-electronics Platform	<ul style="list-style-type: none"> ▪ Semi Devices: platform design. ▪ Power Systems: modular design.
Fabrication Process	Seoul Power-device Design Center	<ul style="list-style-type: none"> ▪ Expedite development of leading-edge fabrication technologies
Package	Seoul Package Design Center	<ul style="list-style-type: none"> ▪ Expedite development of the next-generation packages and required element technologies.
Software Design	Taiwan SanKen Design Center	<ul style="list-style-type: none"> ▪ Design an array of firmware for digitally-controlled power ICs.
Production Line Design	Production Development Center	<ul style="list-style-type: none"> ▪ Strengthen production technology. ▪ Serve as a pilot-line for factory automation, IoT, and AI.
Reliability Assessment	Semi Devices Reliability Evaluation Center	<ul style="list-style-type: none"> ▪ Shorten reliability evaluation cycle time. ▪ Improve efficiency and functions.

Establishment and Effect of SPP

Operational Reform

- Improve development efficiency by 35%

Procurement Reform

- Standardization of parts and materials and reduce costs



Design and Development Reform

- Create a platform for technologies (elements, process, and package)

Production Reform

- Standardize production equipment to cut line construction time to a half.

- Reformulate functions at HQ campus to shorten new product development cycle time.

Accelerate cycle time in 3 centers for development

1. Technology Development Center : Product planning and conceptualization function
2. Production Development Center : Product development implementation, development function
3. Evaluation and Analysis Center : Product testing, analysis, and evaluation functions



Create competitive new products



Production Development Center

Consolidate engineers and technologies to form a development nucleus to shorten development cycle time to a half.

Scheduled to be completed in March 2021



CASE Development for Safety and Environment

Safety



Safety improvement for ADAS-assisted, autonomous, and connected vehicles

Power management (regulator) IC

- ADAS and autonomous-driving
- High-performance ECU
- Optical and other sensors

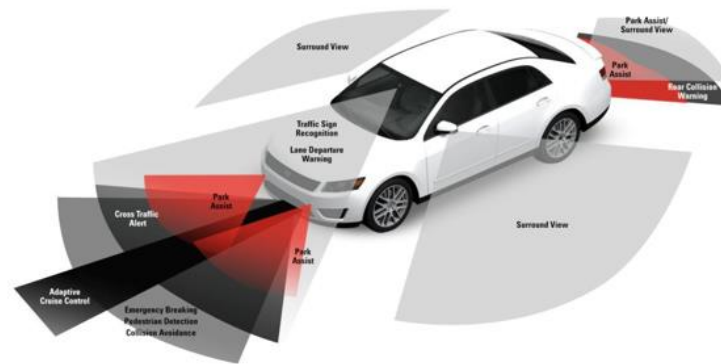
Supports CASE with optimal combination of digital and analog controls

Common technologies under the SPP platform

- ✓ Power Device
- ✓ Package
- ✓ Control System

Resource allocation for development projects

- Environment / Electrification 60%
- Conventional application 40%



Power Module, IPM

Automotive motors, OBCs and DC/DC

- Automotive IPMs
- Power Modules
- Discretes

Low loss and high heat dissipation for high temperature operation.

Eco car and Electrification

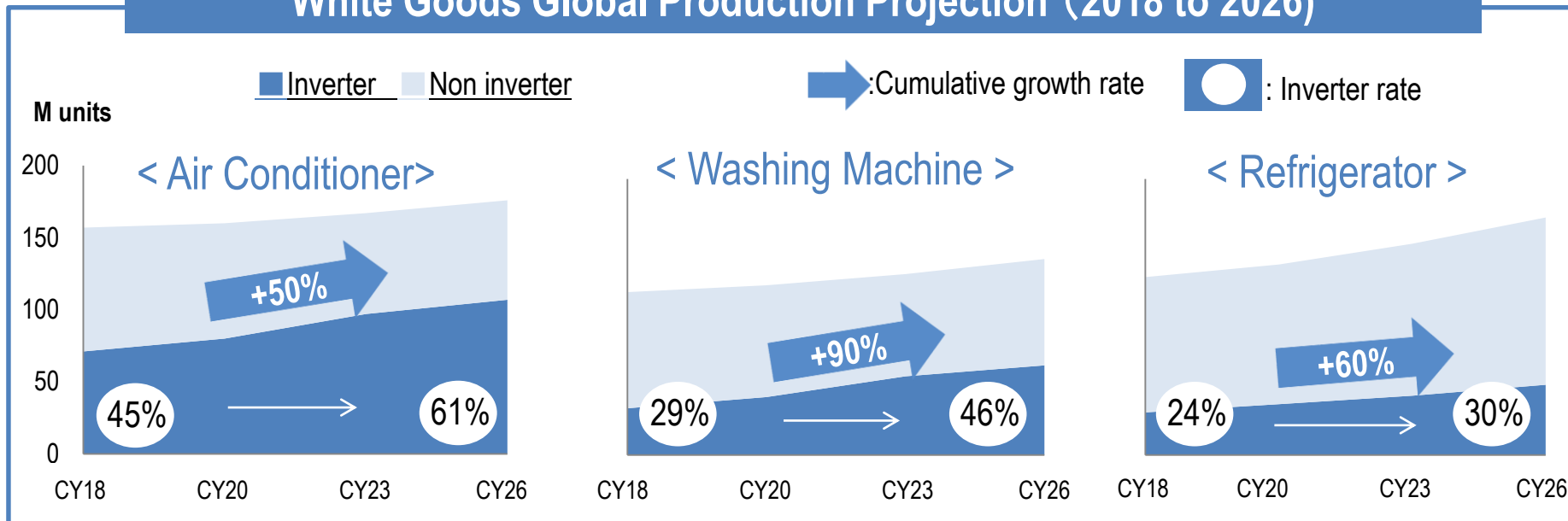
【Traction motor】
【Auxiliary motor】

↓
High Efficiency

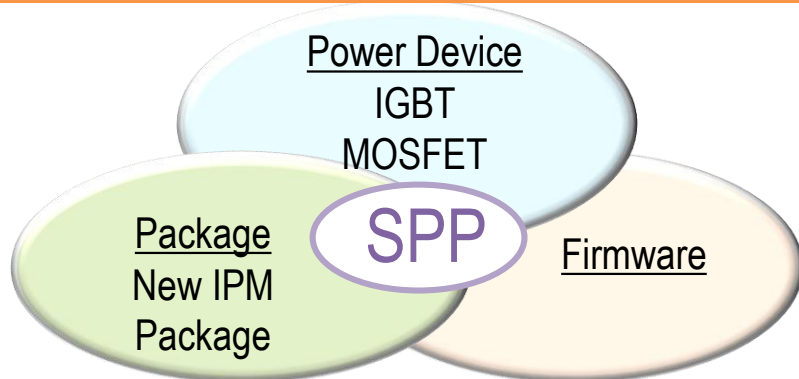
Environment

Provide IPM adjusted for specific inverter and DC motors.

White Goods Global Production Projection (2018 to 2026)

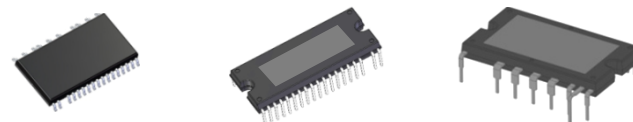


Combination of Technologies



To create next-generation IPM motor drivers

- Built-in advanced functionality
- Low loss and high value to price
- Small footprint, surface mounting
- Digital control



Focus on growth markets

Automotive

- Conventional (ICE, safety)
- High Efficiency / EV
- ADAS

Industrial / Consumers

- Renewable Energy
- Data Server Fan
- White Goods

■ Target Region

● China and North America

■ Resource Allocation for Auto

● Environment / Electrification : 60%

● Conventional: 40%

	Application	Product
Low-fuel consumption High efficiency	<ul style="list-style-type: none"> ▪ xEV Powertrain ▪ Cooling fans ▪ e-clutch 	<ul style="list-style-type: none"> ▪ Current sensor IC
High reliability High precision	<ul style="list-style-type: none"> ▪ Power steering ▪ Braking 	<ul style="list-style-type: none"> ▪ Position sensor IC ▪ Motor control IC
Energy saving	<ul style="list-style-type: none"> ▪ Motors ▪ Inverters ▪ Smart home 	<ul style="list-style-type: none"> ▪ Current sensor IC ▪ Motor control IC

- Early product launches and higher price competitiveness to capture growing market

Global Tele-comm. market

4G

+

5G

Projected investment in base stations :
4 trillion yen in 2023

Domestic infrastructure market

Government policy
to strengthen infrastructure

Demand for power supply :
35 billion yen

Overseas infrastructure market

-Partnered with 2 Indonesian companies
-PCS with power storage, UPS, ESS

UPS market only :
20 billion yen

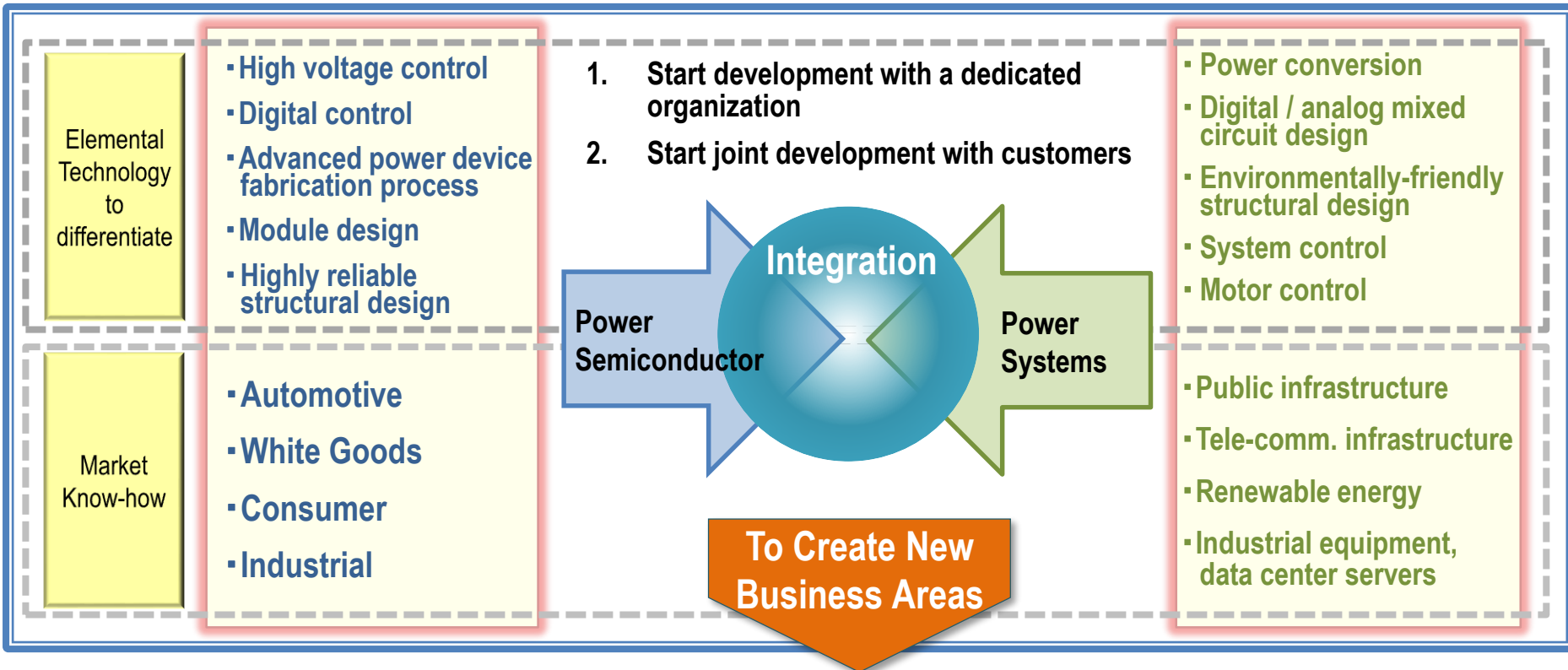
**Development
Reform**

- Headquarters (Kawagoe)
 - Adopt modular design schemes under the SPP
 - Improve development speed and lower design costs
 - Eliminate excessive quality

**Cost
Reduction**

- SLJ (China)
 - Lower cost with locally-sourced materials for large power supply modules
- SKO (Japan)
 - Assemble and inspect large power supplies required to be produced in Japan
 - Build automated lines to lower the cost of assembly and inspection
 - Assemble and inspect SLJ-produced modules into systems and assure quality
- SKI (Indonesia)
 - Mass-produce products for overseas markets with locally-sourced materials to reduce the costs

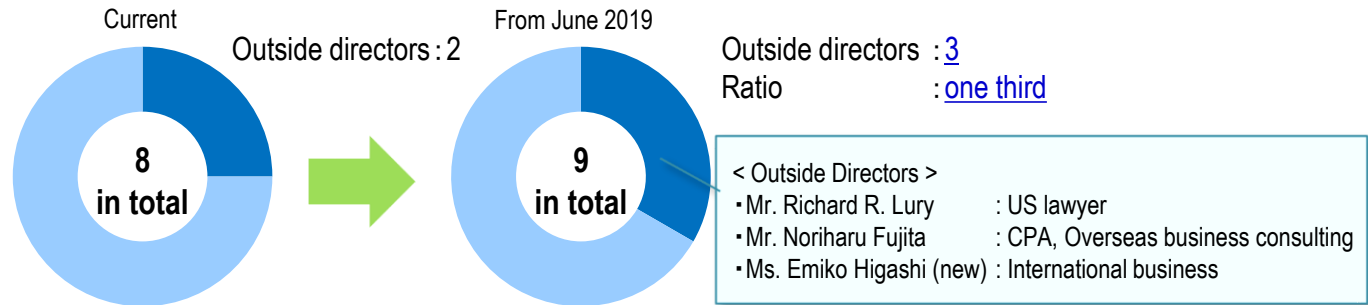
Integration of Power Systems and Semi Devices



【Integration Area】	Targets	Short-term goals	Long-term goals
Ultra-compact base station power supply for 5G	Smaller size and lighter weight (Device → Board → Module)	Compatible with “Local 5G”	Compatible with network connection
Wireless power supply system for automobiles, etc.	Smaller size, higher efficiency, and up-graded performance	Small capacity quick charging	Medium capacity quick charging
Integrated power supply compatible with IoT	Integrated management of multi-channel, dispersed power sources	Eco-friendly power supply	Power supply for power network
Power supply system for robotics servo motors	Smaller dimension and lighter weight, mechanical and electrical integration	Modular-type motor drivers	Intelligent features augmented

Structure of the Board

- Plan to elect a female outside director at the General Meeting of Shareholders in June



- Boost diversity of background at the Board, such as multi-culture, gender and skills.

Nomination Committee (non-statutory)

Established in November 2018, and fully operational in February 2019

- Deliberated on the management team post-the General Meeting of Shareholders in June.
- Will deliberate and report in the coming fiscal years on the appointment or dismissal of candidates based on the evaluation by the Compensation Committee

Compensation Committee (non-statutory)

Established in November 2019, and fully operational in January 2019

- Installed a performance-linked compensation system, consisting of basic compensation, short-term cash and long-term equity incentives.
- Adopted performance-linked indices such as operating income and ROE for calculation.

Will continue to elevate governance levels to ensure management transparency.

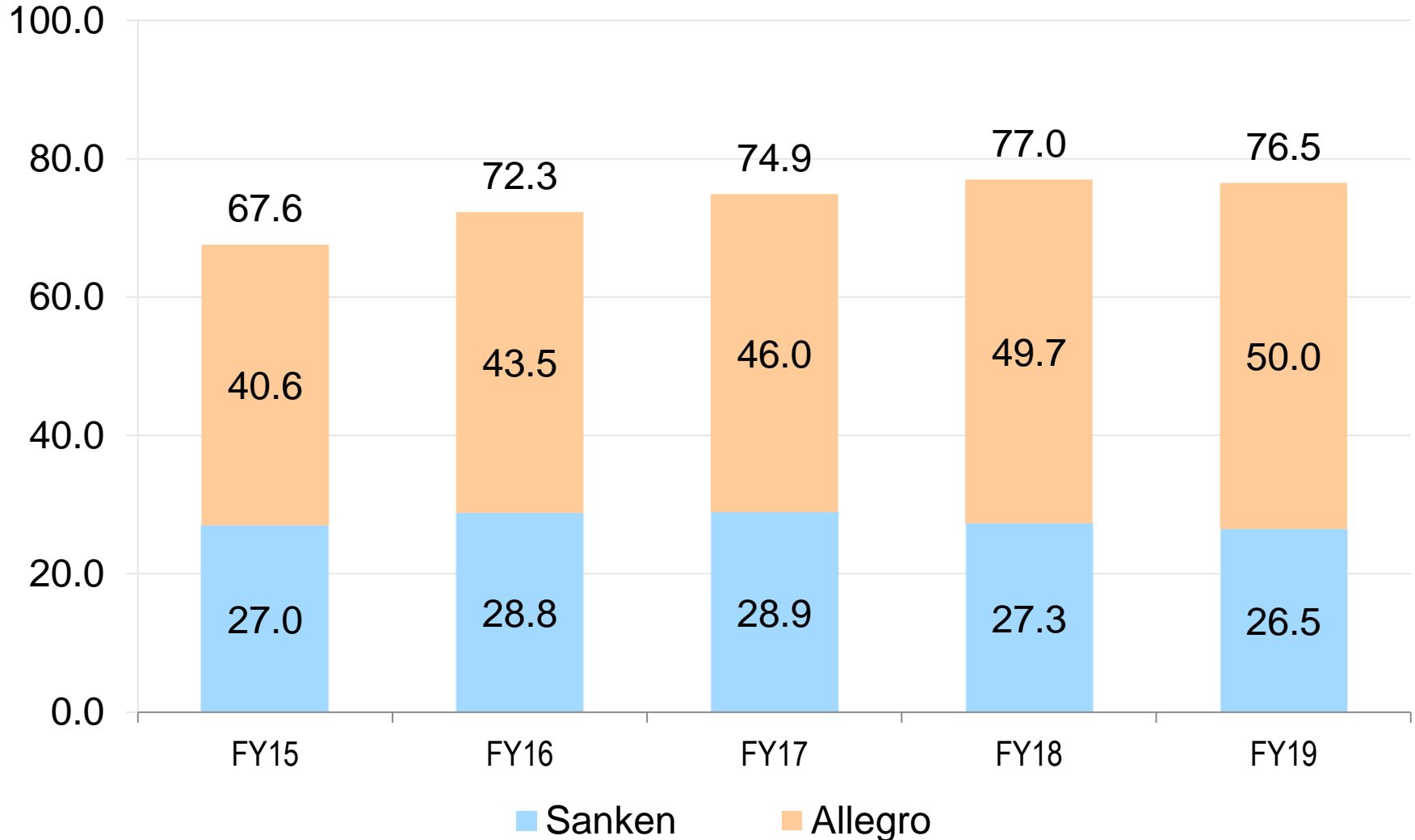




Sales of Automotive Products

(JPY Billion)

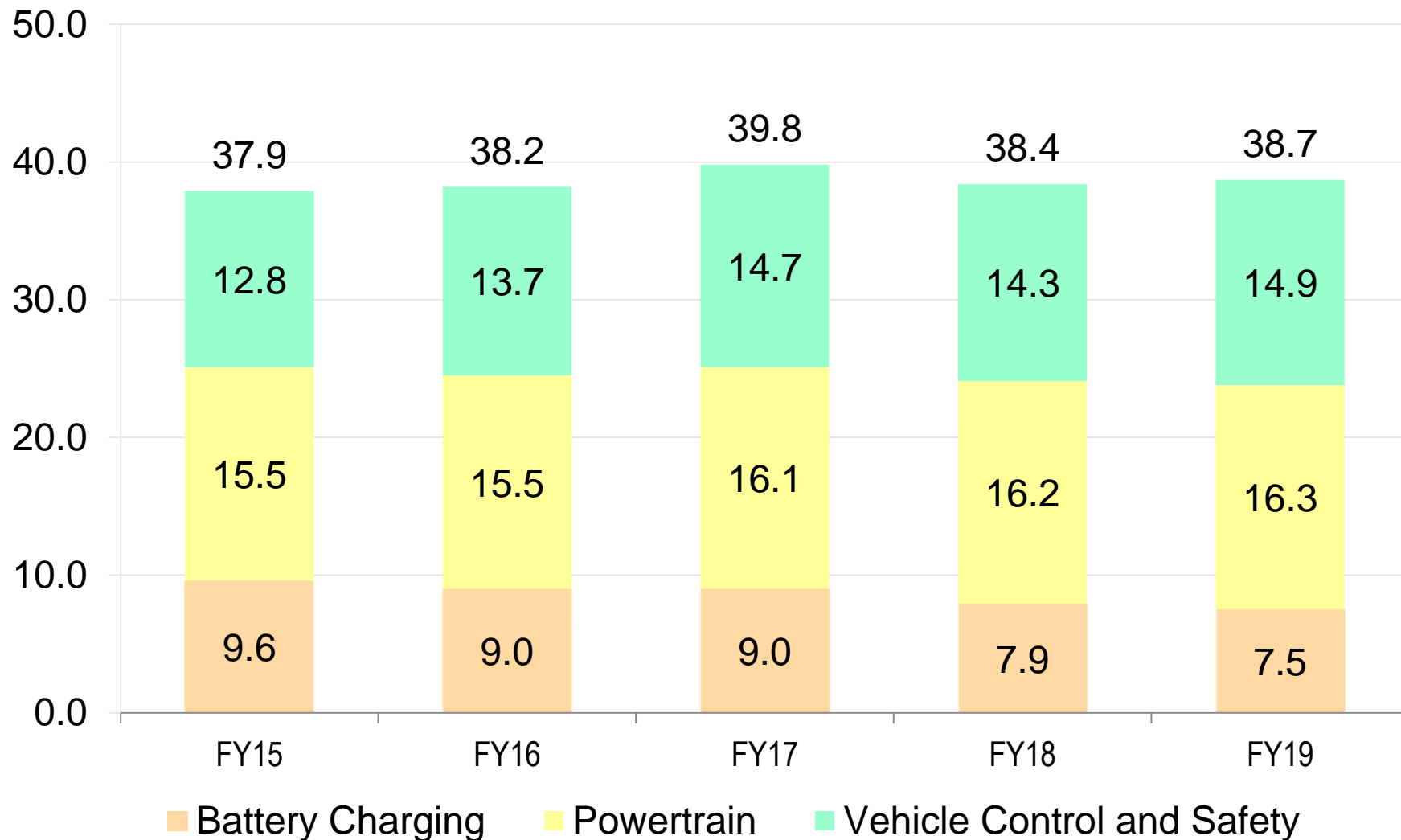
<Consolidated>



Sales of Automotive Products by application

(JPY Billion)

< Sanken Non-consolidated >





Sales for White Goods

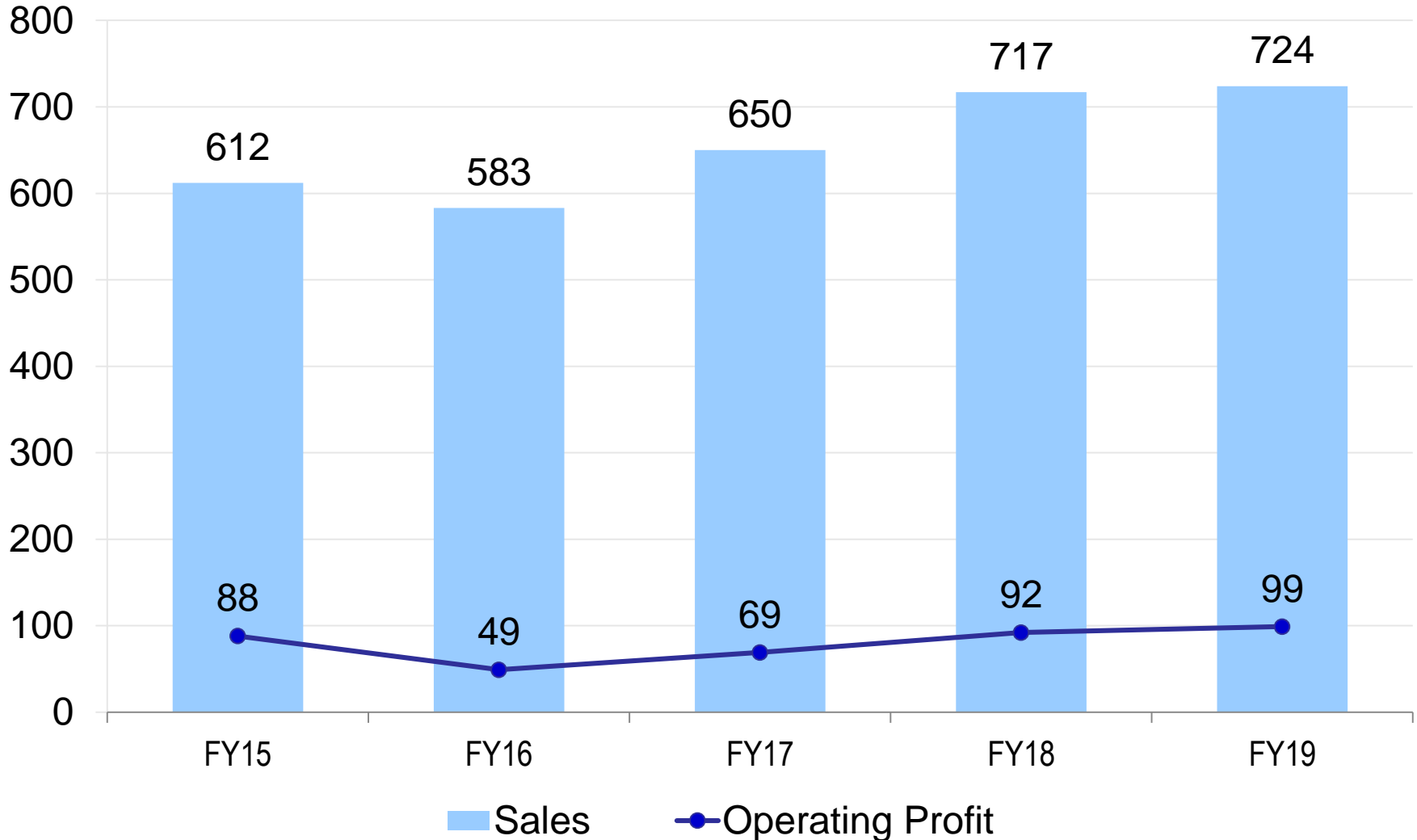
(JPY Billion)

<Sanken Non-consolidated>



Performance of Allegro MicroSystems, Inc. (AMI)

(\$ million)



Notice on Forward-looking Statement

This presentation contains forward-looking statements with respect to the Company's and its group affiliates' future results, plans and policies, strategies, performance goals and scheduled targets, and the management's views and judgments that are not yet firmly established facts. These forward-looking statements are formed based on the currently available information and assumptions deemed reasonable at present, and conditional upon known and unknown risks, uncertainties and many other factors. These risks, uncertainties and many other factors could cause actual results to be materially different from any future results that may be expressed or implied by such forward-looking statements. The Company does not undertake any obligation to update or revise any forward-looking statements, including, but not limited to, revisions of financial result forecast, unless the Company is enforced to do so by the provisions of applicable laws and regulations.

The electronics industry to which the Company belongs is constantly exposed to rapid changes in business environment and the Company's business performance and financial conditions are subjected to risks, uncertainties and other factors, which include, but not limited to, (i) macroeconomic environment, market demand and supply situations, and competitive conditions, (ii) fluctuations in the exchange rates, (iii) success or failure to catch up with technological innovation, (iv) rising prices and availability constraints of parts, supplies and materials, (v) changes in legal framework of various nations and political sub-divisions or sudden changes of social circumstances, and (vi) any other contingencies.