

Technology to Inspire Innovation

**Financial Results for 1H of FY2019
and Prospects for FY2019**

October 28, 2019

6807 Japan Aviation Electronics Industry, Ltd.

- I. Financial Results for 1H of FY2019**
- II. Prospects for FY2019**
- III. Initiatives for recovery**

I. Financial Results for 1H of FY2019

(From April 1, 2019 to September 30, 2019)

※ Total may not correspond to the total value of the items since amounts less than 100 million JPY are basically rounded off

Net Sales and Incomes

(JPY in 100 millions)

	FY2018		FY2019	Year/Year Change 1H FY2019/ 1H FY2018		vs. 1H FY2019 Projections		1H FY2019 Projections announced Apr, 2019
	1H	2H	1H					
Net Sales	1,180	1,042	1,008	-172	85%	-22	98%	1,030
Operating Income (to Net Sales)	94 7.9%	79 7.6%	72 7.1%	-22	77%	-5	93%	77
Ordinary Income (to Net Sales)	106 9.0%	74 7.1%	74 7.3%	-32	69%	-1	98%	75
Net Income (to Net Sales)	77 6.5%	58 5.6%	59 5.8%	-18	76%	3	105%	56

Exchange Rate (JPY/USD)	110.3	111.6	108.6 (Average)
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▶ Sales: 100.8 billion yen, -2.2 billion yen

- Sales decrease in automotive market due to decline in car production affected by sluggish global automobile sales (-2.7 billion yen versus projection)
- Connectors for mobile devices exceeded projection (+2.2 billion yen)
Orders that reached a high level in second quarter will contribute to sales in the 2H of the fiscal
- Industrial & Infrastructure market continued to be challenging

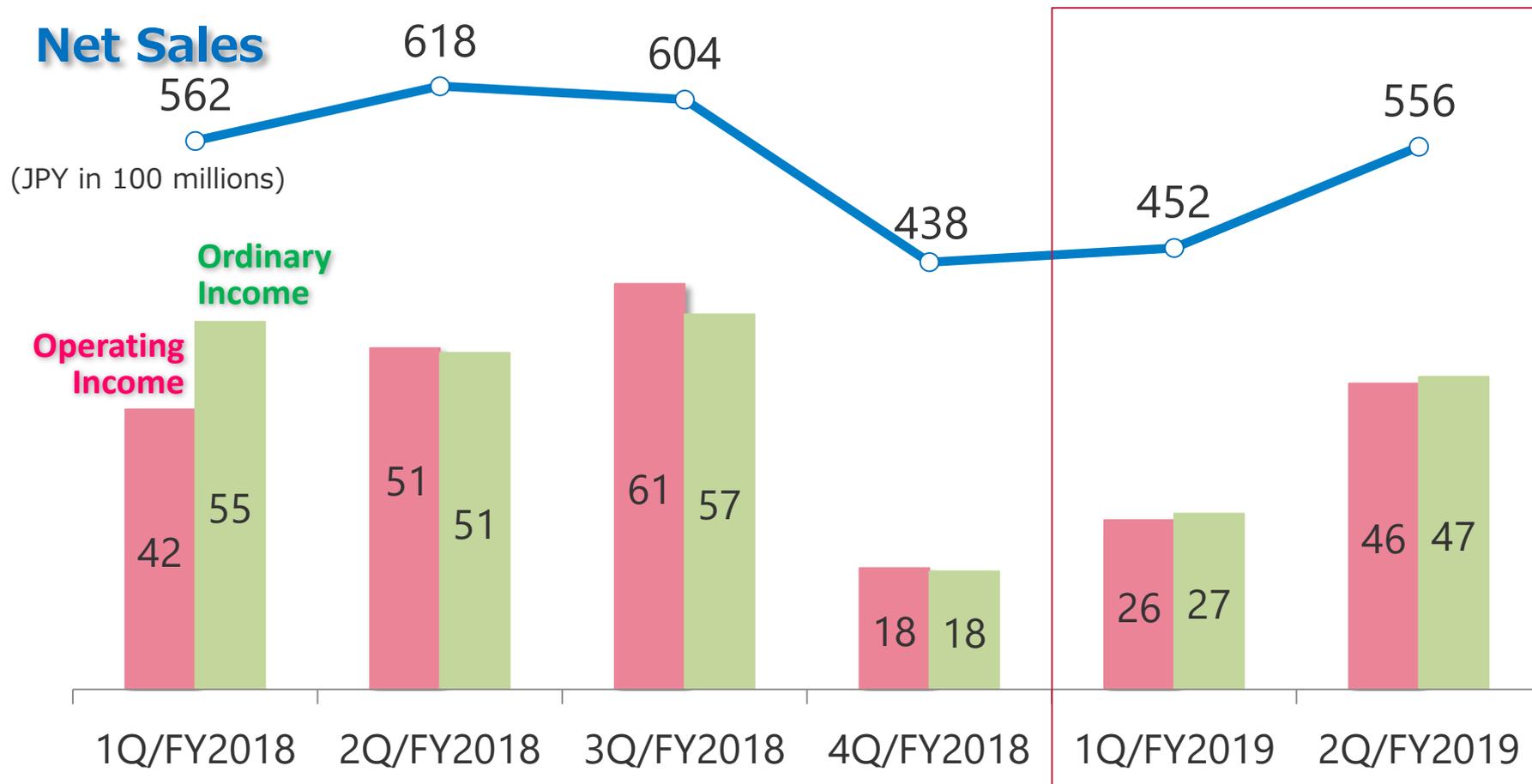
▶ Ordinary Profit: 7.4 billion yen, -0.1 billion yen

- Almost secured the forecast level despite of decline in sales and appreciated yen of 1.4 yen against the USD from the projected level, by restraining costs and improving non-operating profit & loss.

▶ Net Profit: 5.9 Billion yen, +0.3 billion yen

- Overachieved projection due to extraordinary profit from the sale of former Taiwan plant property

- ▶ Automotive and Industrial & Infrastructure market continued to be stagnant since 4Q of FY2018
- ▶ Sales and profits increased in 2Q of FY2019 due to the emerging demands for new smartphone models

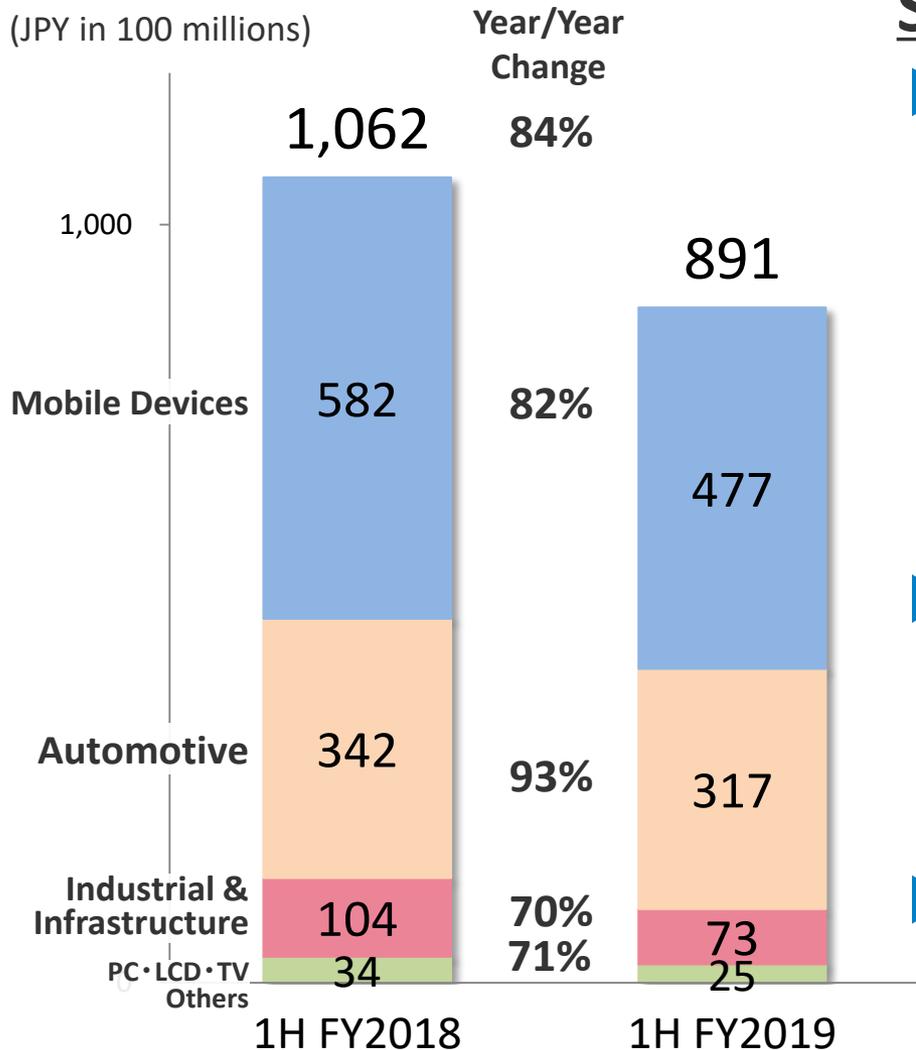


Net Sales by Business Segment

(JPY in 100 millions)

	FY2018		FY2019		Year/Year Change		vs. 1H 2019 Projections		1H FY2019 Projections announced Apr, 2019
	1H	2H	1H		1H FY2019/ 1H FY2018				
Connector	1,062	917	891	Component Ratio 88%	-172	84%	-14	98%	905
UIS	43	48	39	4%	-5	89%	-6	86%	45
Aerospace	70	82	75	7%	5	107%	-1	99%	76
Others	4	4	4	-	-1	81%	0	74%	4
Total	1,180	1,042	1,008	100%	-172	85%	-22	98%	1,030

Sales by Market Segment



Sales: 84% (of 1H FY2018)

▶ Mobile Devices

- Products with built-in procured components has significantly declined
- Sales to Chinese smartphones OEMs rose to the same level as in the 1H of FY2018
- USB Type-C “DX07 series” decreased from the year-earlier period

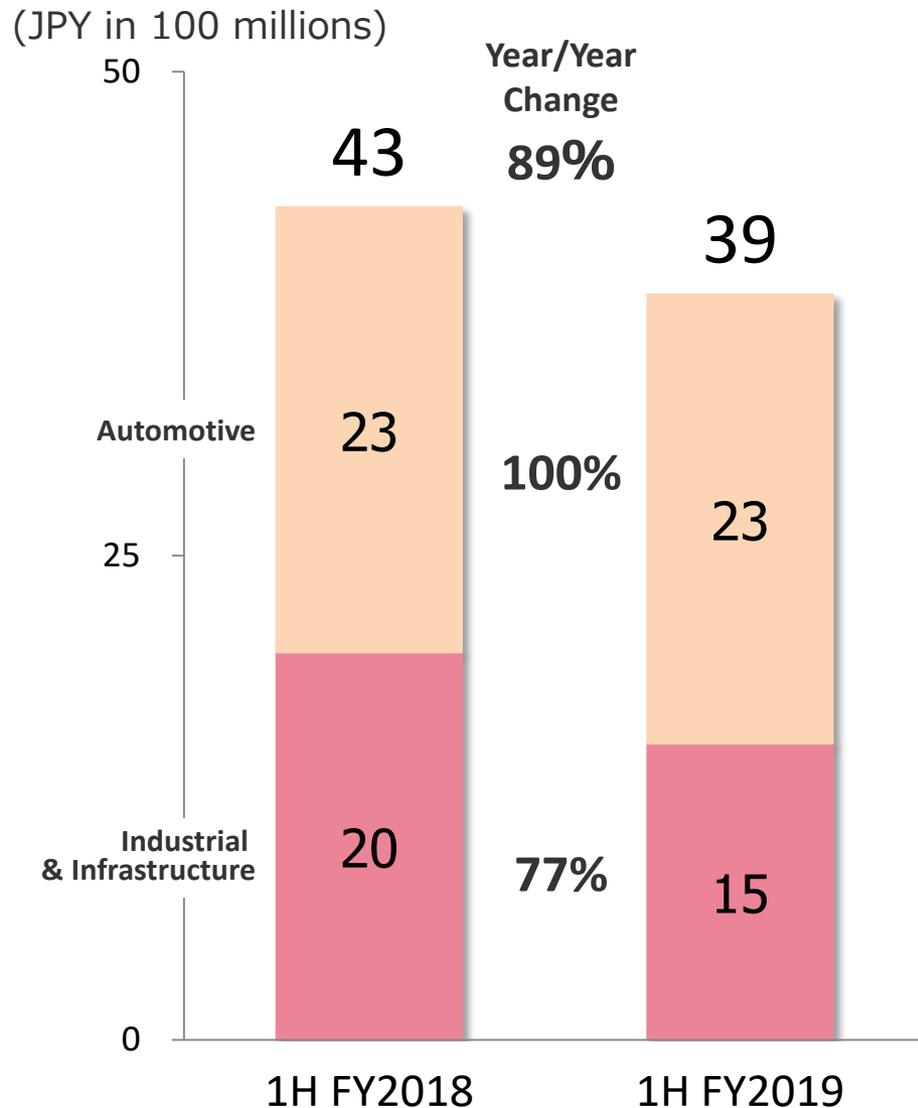
▶ Automotive

- Decreased from the year-earlier period due to reduced production of major customers

▶ Industrial & Infrastructure

- Market continued to be sluggish since the latter half of FY2018

Sales by Market Segment



Sales: 89% (of 1H FY2018)

▶ Automotive (In-vehicle touch panel)

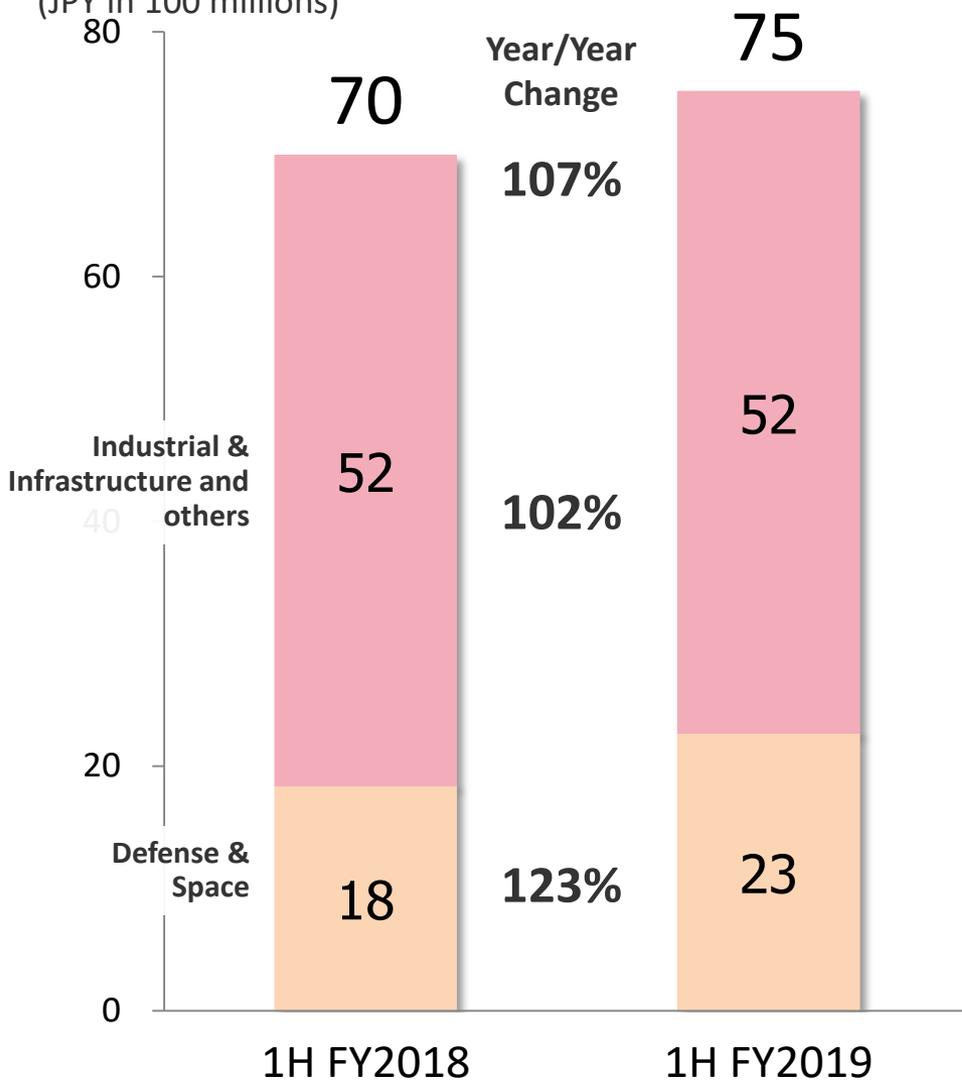
- Mass production of new film sensors shifted into full swing. Maintained the same level of sales as the previous year covering the decline in the automotive market

▶ Industrial & Infrastructure

- Market remained sluggish for operation panels for semiconductor manufacturing equipment and teaching pendants for robots

Sales by Market Segment

(JPY in 100 millions)



Sales: 107% (of 1H FY2018)

▶ Industrial & Infrastructure

- Sales of sensors for oil drilling continued to be strong
- Low sales of linear motors for semiconductor manufacturing equipment due to declining demand

▶ Defense & Space

- Sales of products for aircraft and rocket etc. increased due to a large number of projects' delivery resulting in the first half of fiscal year

※Sales to Industrial & Infrastructure includes automotive sensors

Operating Profit by Business Segment

(JPY in 100 millions)

	FY2018		FY2019	Year/Year Change
	1H	2H	1H	
Connector	106 10.0%	87 9.5%	85 9.5%	-21
UIS	3 8.0%	1 2.5%	-2 -5.0%	-5
Aerospace	7 1.6%	11 13.8%	10 13.6%	3
Others	-23	-20	-22	1
Total	94 7.9%	79 7.6%	72 7.1%	-22

※ Percentages(%) for FY2018 and 1H FY2019 indicate Operating Income to Net Sales Ratios.

II. Prospects for FY2019

(From April 1, 2019 to March 31, 2020)

▶ Business Environment

- Demand for smartphones is expected to remain strong despite of uncertainties in the 4Q
- Automotive and industrial & infrastructure markets is not expected to recover in the latter half



▶ Downward revision of earnings forecasts

▶ No change in direction of expanding the business opportunities in the mid-term

- Gain business opportunities through the launch of 5G
- Accelerate efforts in the expanding automotive markets related to CASE
- Investment in new products launches and future business expansion

Focus on securing revised forecasts and recovery from the next fiscal year onward

Prospects for FY2019

(JPY in 100 millions)

	FY2018	FY2019			Year/Year Change		vs. FY2019 Projections	FY2019 Projections announced Apr, 2019
		1H	2H Projections	FY2019 Projections	FY2019/FY2018			
Net Sales	2,221	1,008	1,022	2,030	-191	91%	-120 94%	2,150
Operating Income (to Net Sales)	173 7.8%	72 7.1%	73 7.1%	145 7.1%	-28	84%	-40 78%	185 8.6%
Ordinary Income (to Net Sales)	180 8.1%	74 7.3%	66 6.5%	140 6.9%	-40	78%	-40 78%	180 8.4%
Net Income (to Net Sales)	135 6.1%	59 5.9%	46 4.5%	105 5.2%	-30	78%	-30 78%	135 6.3%
Exchange rate	110.9	108.6	108 (JPU/USD)					110

Prospects for Net Sales by Business Segment

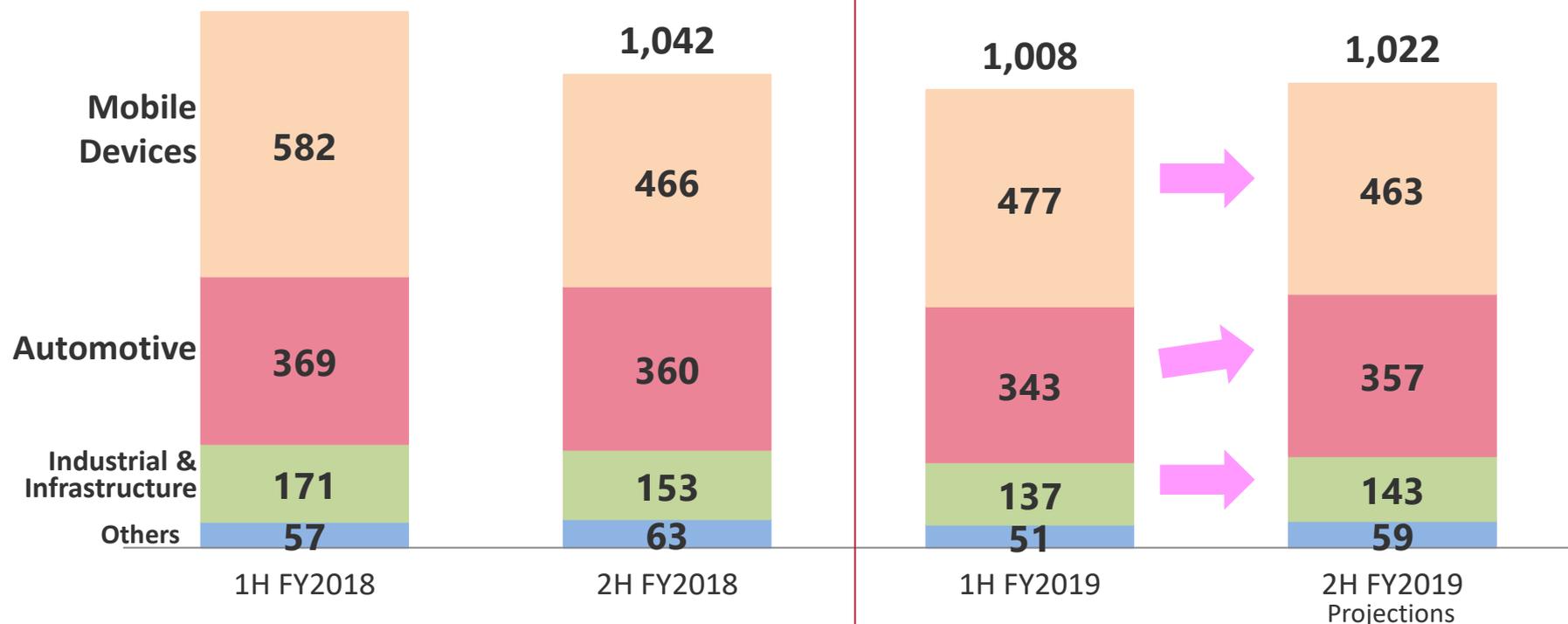
(JPY in 100 millions)

	FY2018	FY2019			Year/Year Change		vs. FY2019 Projections		FY2019 Projections announced Apr, 2019
		1H	2H Projections	FY2019 Projections	FY2019/FY2018				
Connector	1,979	1,062	703	1,765	-214	89%	-110	94%	1,875
UIS	81	43	52	95	14	117%	-5	95%	100
Aerospace	152	70	90	160	8	105%	-5	97%	165
Others	8	4	5	10	1	112%	0	96%	10
Total	2,221	1,180	850	2,030	-192	91%	-120	94%	2,150

Prospects of Sales by Market Segment

- ▶ **Mobile Devices:** Demand expected to remain strong despite of uncertainties in the 4Q
- ▶ **Automotive:** Connectors to remain sluggish
UIS to exceed the first half by the full-scale mass production of new film sensors
- ▶ **Industrial & Infrastructure:** Not expected to recover mainly in FA segment.
All businesses are expected to be on a par with the first half

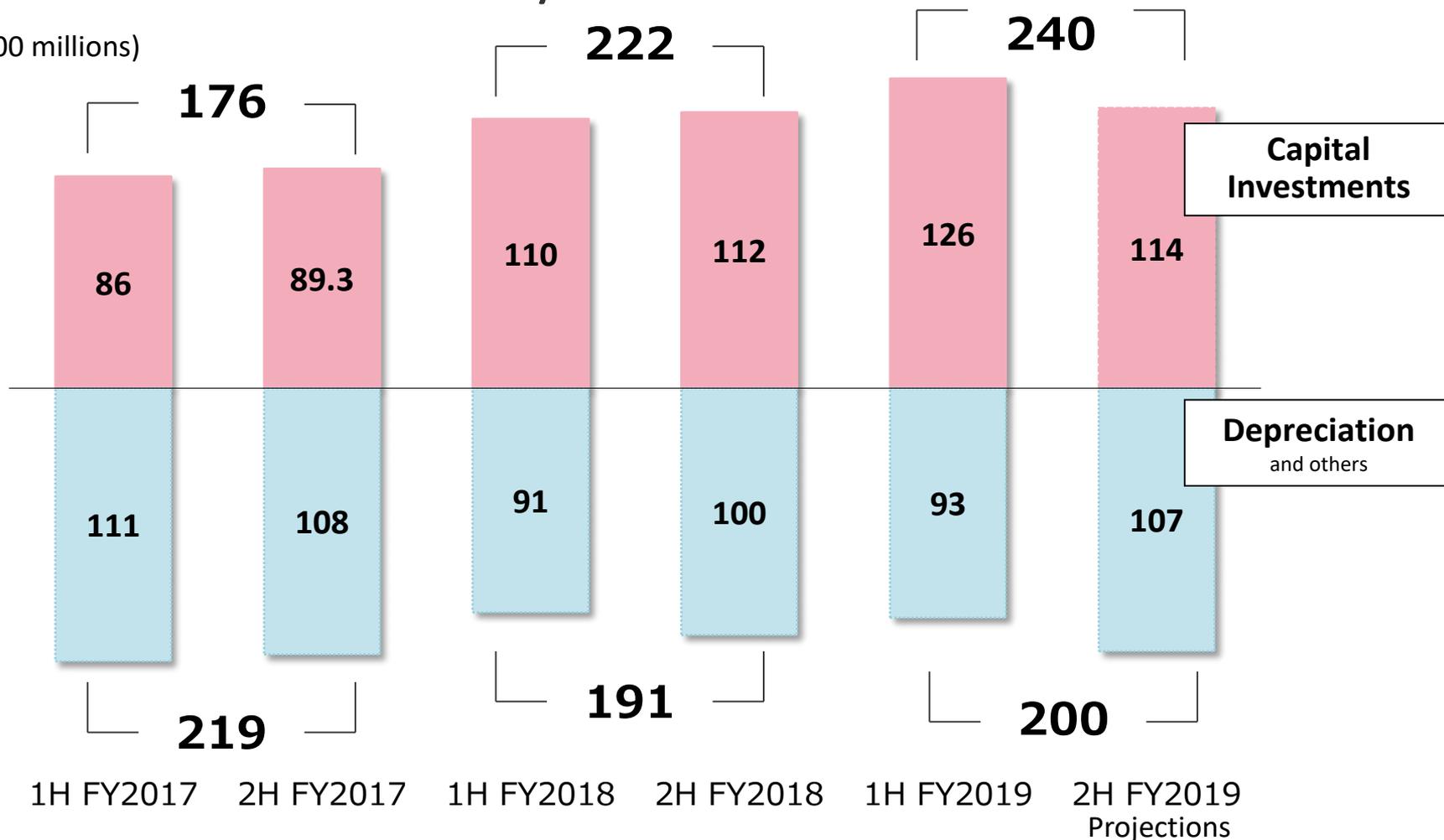
(JPY in 100 millions) **1,180**



Capital Investment & Depreciation

- ▶ Capital investment to be executed for new products mainly in the automotive and mobile device/5G sectors

(JPY in 100 millions)

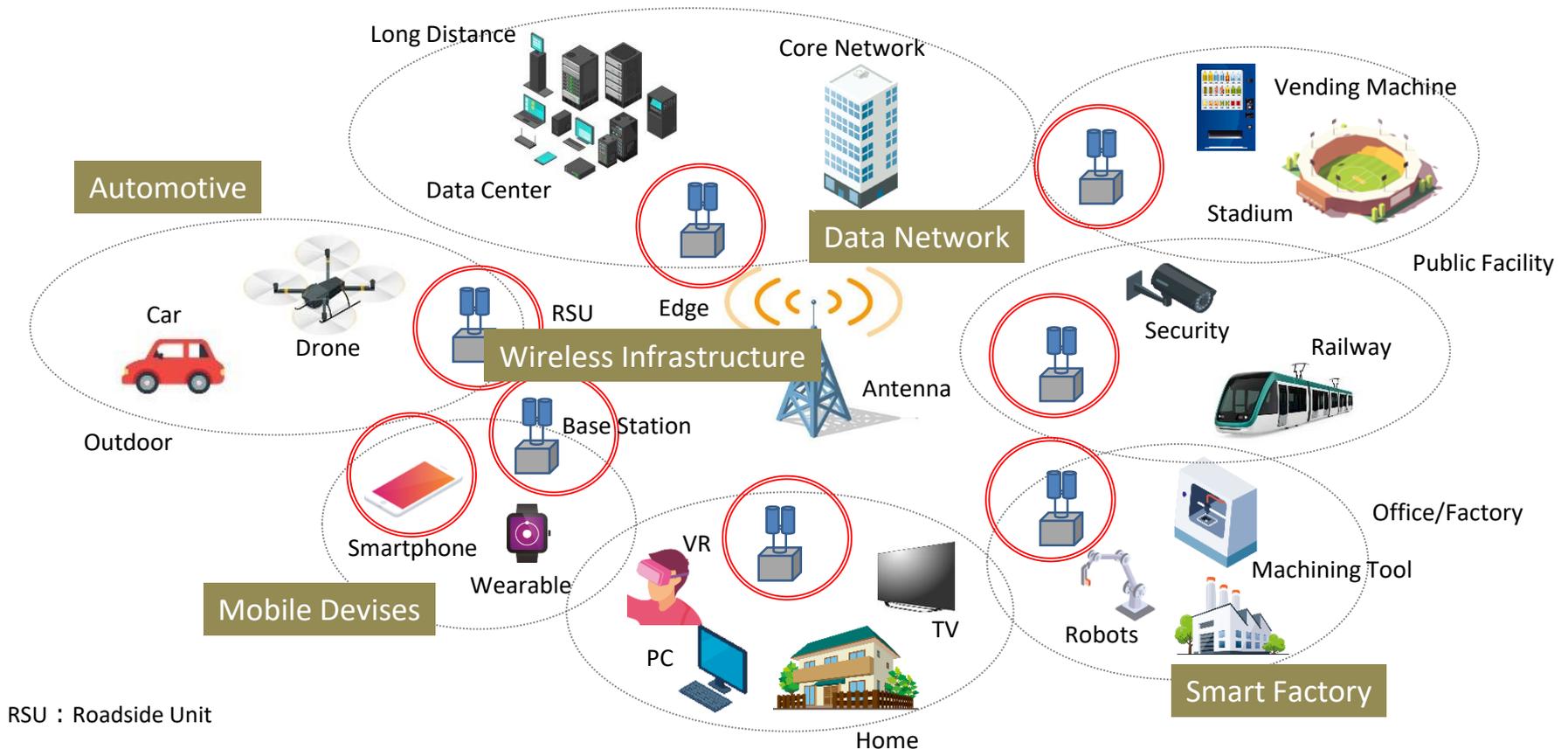


(Depreciation and others include disposal of fixed assets)

III. Initiatives for recovery

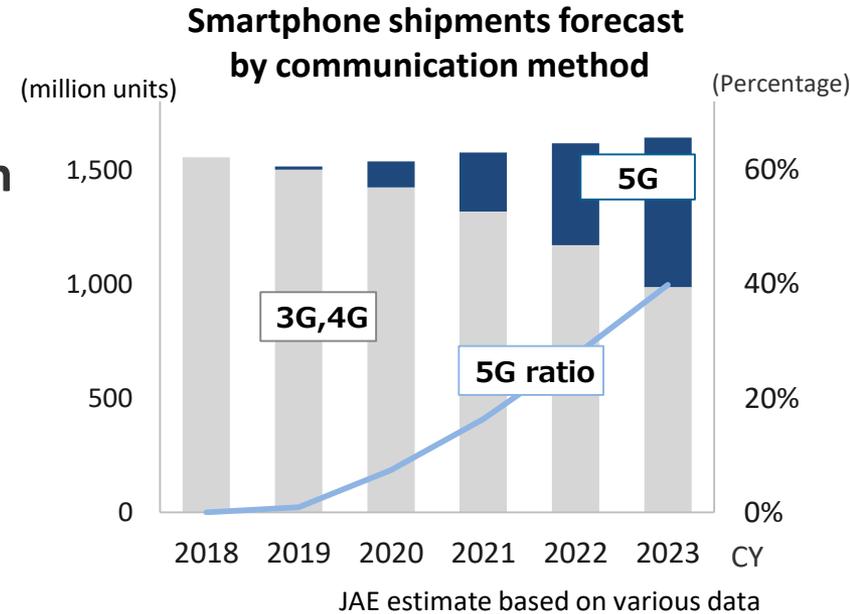
① Gain business opportunities through 5G

- ▶ Various devices will be utilized by 5G in future
- ▶ Secure business from smartphones and base stations as the first step



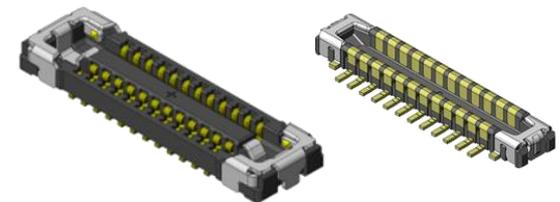
▶ Changes in connectors for 5G smartphones

- **Additional interconnection points** such as antennas and 5G modems
- Coping with larger capacity of batteries and the increasing sophistication of power management
- **Miniaturization** by increasing density



▶ Secure opportunities from technological changes and replacement demand

- Development and launch of new board-to-board connectors
- Expanding production capacity to further improve supply reliability



0.3mm Pitch Board-to-board connectors

- ▶ Base stations began to be installed in conjunction with the launch of commercial 5G services in Japan
 - Our environmental-resistant optical connectors and interior coaxial connectors has been adopted by Japanese base station manufacturers
 - Supply on a mass production basis has commenced in response to the service area expansion after the launch of 5G commercial services

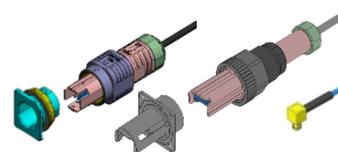
5G introduction Schedule in Japan

Compiled based on the Ministry of Internal Affairs and Communications website (fiscal year)

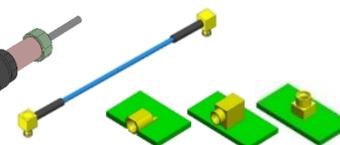
	2018	2019	2020	2021
Verification Test	[Blue arrow spanning 2018 to 2020]			
Frequency assignment		[Blue arrow pointing to Apr 10]		
Pre-service			[Blue arrow pointing to Sep]	
Commercial service			[Blue arrow pointing to July]	

Major products used for 5G base stations

Optical interface connectors



Interior coaxial connectors



Connectors for fan docking



Environmental-resistant round connectors for power supply

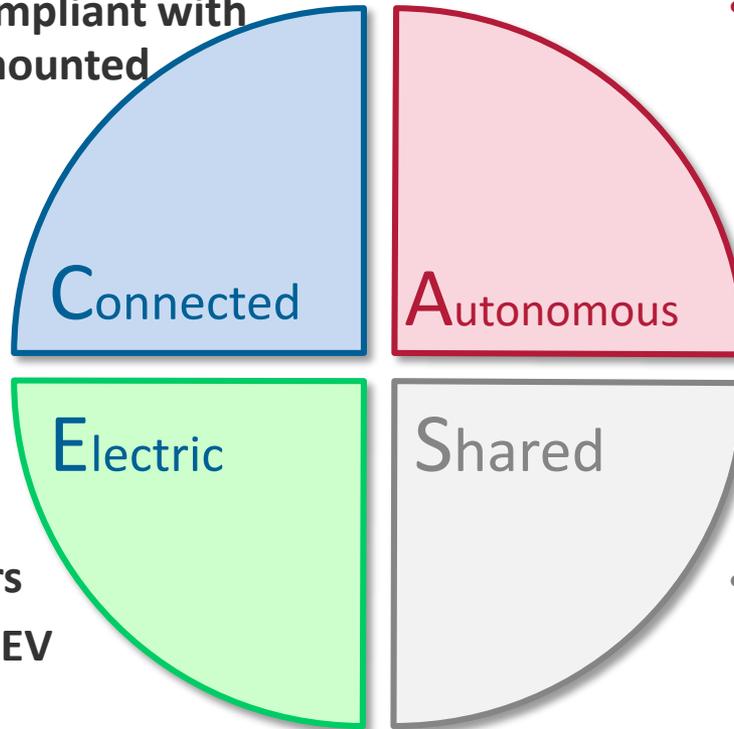


② Focus on CASE driven Automotive Markets

▶ Car manufacturer, Tier1, IT-related companies, etc. are focusing efforts on CASE

- Accelerating product development and sales related to CASE
- Expanding products compliant with global standards

- Develop connectors compliant with higher-speed vehicle-mounted networks
- Expand production of in-vehicle touch panels



- Enhance line-up of high-current and high-voltage connectors
- Expand connectors for EV charging devices

- Enhance lineup and accelerate lateral extension of connectors for ADAS in-vehicle camera



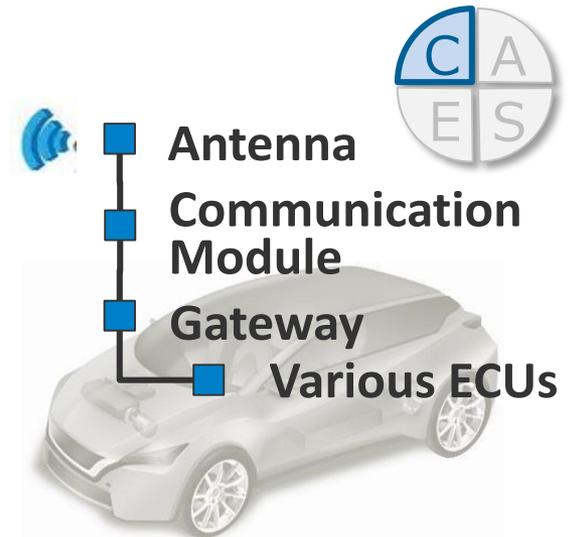
NEW

MX55J
for in-vehicle
Camera

- Accelerate connectivity with carry-on devices (smartphones, etc.)

▶ Technological changes and business opportunities triggered by Connected

- Sophistication of vehicle-mounted and external networks
 - Adoption of ICT-related technologies such as Ethernet and USBs
 - Expansion of wireless (5G, V2X) communications
 - Advancement of communication modules
- Increase in amount of data due to IT adoption and diffusion of automobiles



▶ Product enhancement by leveraging the know-how of ITC

- Develop Gigabit Ethernet connectors, on-board coaxial connectors, etc.
- Global deployment of products compliant with European and North American de facto standards

▶ Expand business of in-vehicle touch panels (film sensors)

- Expand sales and production by leveraging the advantages of larger screen size

Metal Mesh Type Film Sensor





▶ Connectors for in-vehicle cameras for ADAS and autonomous driving

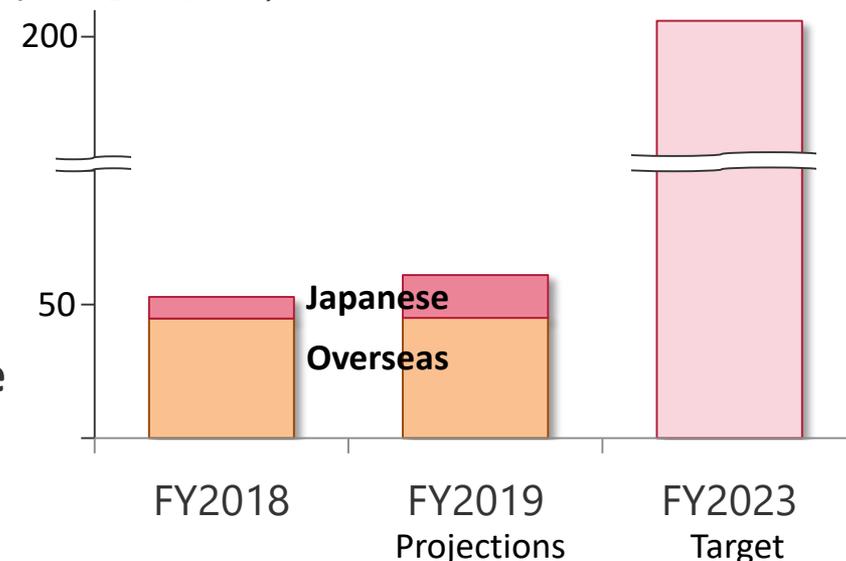
- Approximately 70% of FY2023 sales target has been secured
- Expanding product lineup and developing next-generation products
- Accelerate promotion to Japanese customers

▶ Squibb connectors for airbags

- Expansion of products compliant with European de facto standards
- Expand globally to manufacturers in Europe, North America and China

Sales of connectors for ADAS Cameras

(JPY in 100 millions)



NEW

AK Squibb connectors
for in-vehicle airbags
MX72A/B

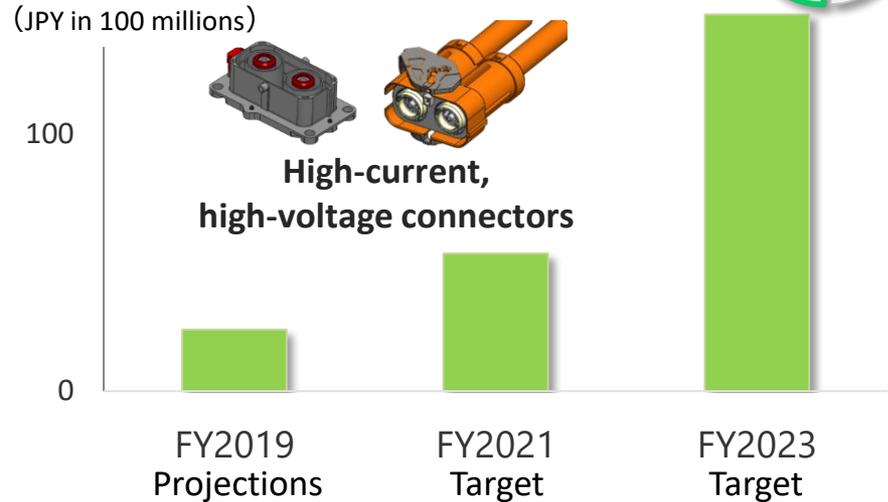
▶ **Enhancing connectors line-up for EV and expanding global sales**

- Establish technology for high-current connectors exceeding 400A
- Expand sales of connectors for BMS mainly in China

▶ **Expand sales of connectors for EV charging**

- Expanding to Europe, North America, Asia and other regions
- Develop and launch Combo-type for Europe and Japan-China harmonized protocols type

Sales of Connectors for EV



KW Series Lineup

Model	Image	Specifications
KW01		Quick-charge Connector 125A/500V
KW02		V2H Connector 25A/450V
KW03		Charging & Discharging V2G Connector 80A/500V

BMS: Battery Management System

Achieve FY2019 targets

Implement initiatives toward the next fiscal year and solidifying the foundation for growth

- Accurately grasp business opportunities related to smartphones and base stations, in the midst of technological and market changes triggered by 5G
- Expand product line-up and grow globally by capturing the increasing automotive demand over the mid-term by CASE
- Invest in new product launches for the aforementioned initiatives and business expansions from the next fiscal year onward

Technology to Inspire Innovation



JAE



<Cautionary Statement>

The plans, strategies & results forecasts and targets for our company and our consolidated affiliates (hereinafter JAE) noted in these materials are forecasts and targets as of October 28, 2019, and include risks and uncertainties.

The targets noted in these materials are not projections, and do not reflect current projections by the management team with regards to future results. Rather, these are targets to be attained by the management team through implementing business strategies.

Note that actual results may differ greatly from forecasts and targets, etc. based on various factors. Major factors that affect actual business results, etc. are the political and economic situations in Japan, the US, Asia and so forth that involve regions where JAE conducts business operations, demand fluctuations for JAE products (including software products) in the market, deflationary pressures caused by severe competition, the ability to continue supplying over our competitors, the ability to expand business operations in overseas markets, changes to the laws and regulations concerning business activities, and their transparency, potential legal responsibilities, exchange rates, etc, and there may be other factors beyond the ones listed here. Actual results may differ from management targets and other forecasts due to a worsening global economy and the global financial situation, stagnation in the domestic and overseas stock markets, etc. Note that descriptions concerning projections are current as of that day.

Although new risks and factors of uncertainty that occur at any anytime are evident, it is impossible to predict their occurrence or effects. In addition, details describing future predictions may not actually occur due to risk and uncertainties. Do not rely solely on these descriptions.

[Reference] Net Sales by Market Segment

(JPY in 100 millions)

	FY2018		FY2019		Year/Year Change		vs. 1H FY2019 Projections	1H FY2019 Projections announced Apr, 2019
	1H	2H	1H		1H FY2019/ 1H FY2018			
Mobile Devices	582	466	477	Component Ratio 47%	-106	82%	22 105%	455
Automotive	369	360	343	34%	-26	93%	-27 93%	370
Industrial & Infrastructure	171	153	137	14%	-34	80%	-8 95%	145
Others	57	63	51	5%	-6	89%	-9 85%	60
Total	1,180	1,042	1,008	100%	-172	85%	-22 98%	1,030

Overseas	848	726	711
Overseas Sales Ratio	71.9%	69.7%	70.5%

[Reference] Prospects for Net Sales by Market Segment **JAE**

Technology to Inspire Innovation

(JPY in 100 millions)

	FY2018	FY2019			Year/Year Change		vs. FY2019 Projections	FY2019 Projections announced Apr, 2019
		1H	2H Projections	FY2019 Projections	FY2019/FY2018			
Mobile Devices	1,049	477	463	940	-109	90%	0	940
Automotive	729	343	357	700	-29	96%	-80	780
Industrial & Infrastructure	324	137	143	280	-44	86%	-30	310
Others	120	51	59	110	-17	92%	-10	120
Total	2,221	1,180	1,022	2,030	-191	91%	-120	2,150

▶ ADAS (Advanced Driver Assistance System)

- The number of on-board cameras and sensors tends to increase due to the penetration of ADAS and automated driving
- Expand customer bases by utilizing prior results in European and Japanese OEMs

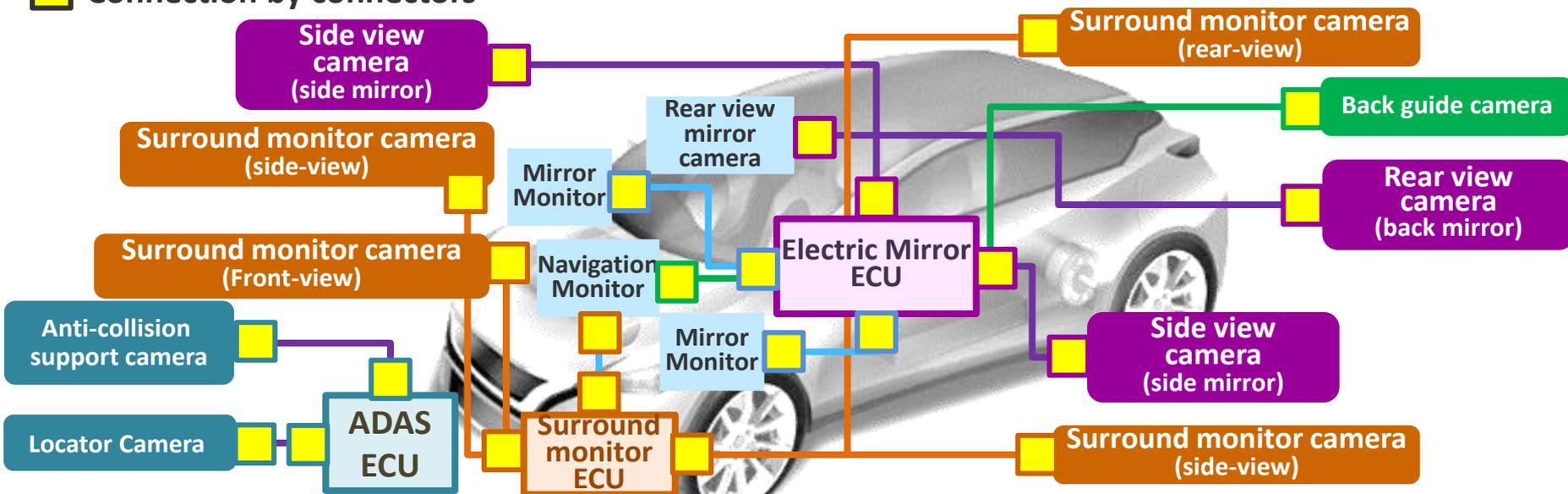


MX55 Series connector for camera



MX68 Series connector for high-speed transmission

■ Connection by connectors



Locator Camera: Camera for position measurement

ECU : Electronic Control Unit

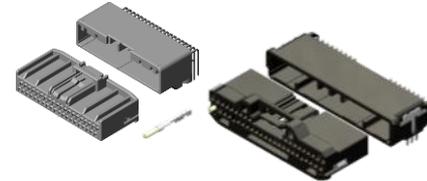
[Reference] Connectors for EV

▶ EV (Electric Vehicle)

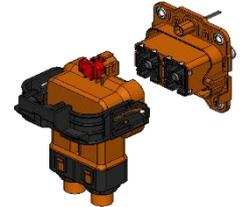
- Increase businesses based on results from service plug and battery monitoring ECU
- Development of 400A class high current technology

Products for EV

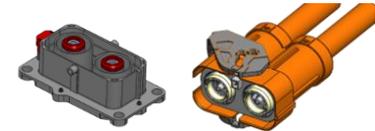
Connector for Battery Monitoring ECU



Service Plug



High current, high voltage connector



Service Plug: Plug to shut off high voltage circuit to protect workers from electric shock during maintenance work

