

*Change UMC, beyond EMS*

**Financial Results  
for the Third Quarter  
ended December 31, 2018**

**UMC Electronics Co., Ltd.**  
(Securities Code: 6615)



- 1 . FY2018 (Fiscal Year Ending March 2018)
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(Note) Monetary figures are rounded down to the nearest whole unit and ratios are rounded off to the first decimal place.



# Summary of Consolidated Financial Results

(Millions of yen)	FY2017 Q1-Q3	FY2018 Q1-Q3	YoY	
			Change	Percentage change
Net Sales	94,978	105,335	+10,357	10.9%
(Plant Output)* <sup>1</sup>	19,915 21.0%	23,501 22.3%	+3,586 +1.3pt	18.0% —
Gross Profit	5,605 5.9%	5,770 5.5%	+165 (0.4pt)	2.9% —
Operating Income	2,013 2.1%	1,658 1.6%	(355) (0.5pt)	(17.6%) —
Ordinary income	1,692 1.8%	856 0.8%	(836) (1.0pt)	(49.4%) —
Net Income	1,152 1.2%	688 0.7%	(464) (0.5pt)	(40.2%) —
USD Rate (JPY)	Average 111.71 End of period 113.05	Average 111.15 End of period 110.91	(0.56) (2.14)	

\*1 Plant Output= Net sales - Parts cost

The net sales of an EMS company depends heavily on the product unit price and thus the Company discloses it as an indicator of "plant output," which shows the added value.



# Summary of Consolidated Financial Results (FY2018/Q1~Q3)

(Millions of yen)	FY2017 Q1	FY2017 Q2	FY2017 Q3	QoQ (Q2 vs. Q3)	
				Change	Percentage change
Net Sales	31,162	37,279	36,892	(387)	+1.0%
(Plant Output)* <sup>1</sup>	6,552 21.0%	8,602 23.0%	8,346 22.6%	(255) (0.5pt)	(3.0%) -
Gross Profit	1,548 5.0%	2,225 6.0%	1,995 5.4%	(229) (0.6pt)	(10.3%) -
Operating Income	292 0.9%	760 2.0%	606 1.6%	(154) (0.4pt)	(20.3%) -
Ordinary income	(106) -	605 1.6%	356 1.0%	(249) (0.7pt)	(41.1%) -
Net Income	(50) -	540 1.5%	198 0.5%	(341) (0.9pt)	(63.2%) -
USD Rate (JPY)	Average 109.07 End of period 110.54	Average 110.27 End of period 113.58	Average 111.15 End of period 110.91	+0.88 (2.67)	

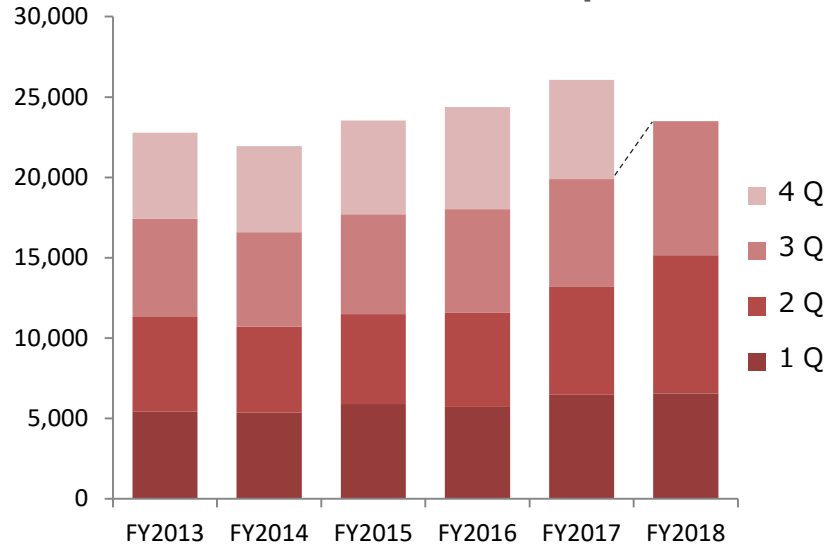
\*1 Plant Output= Net sales - Parts cost



# Performance Trends

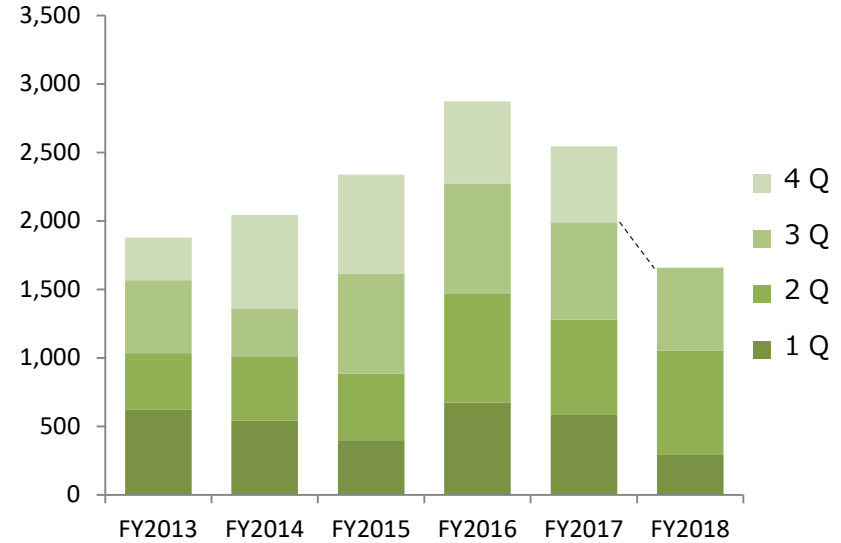
(Millions of yen)

## Trend of Plant Output

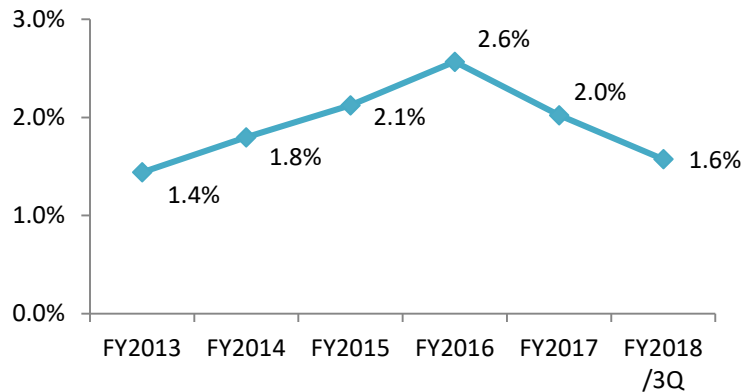


(Millions of yen)

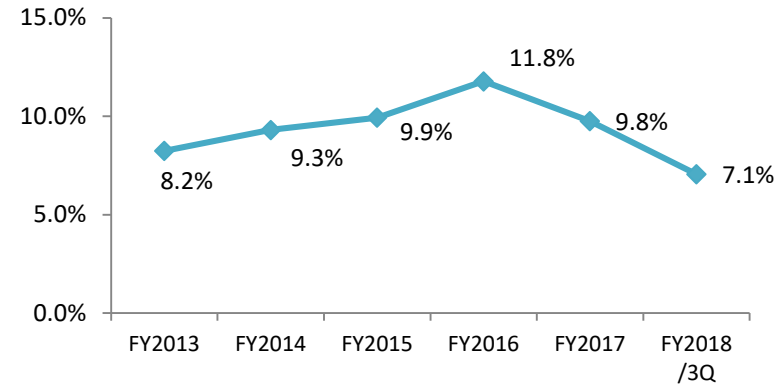
## Trend of Operating Income



## Trend of Operating Margin (Operating Income ÷ Net Sales)



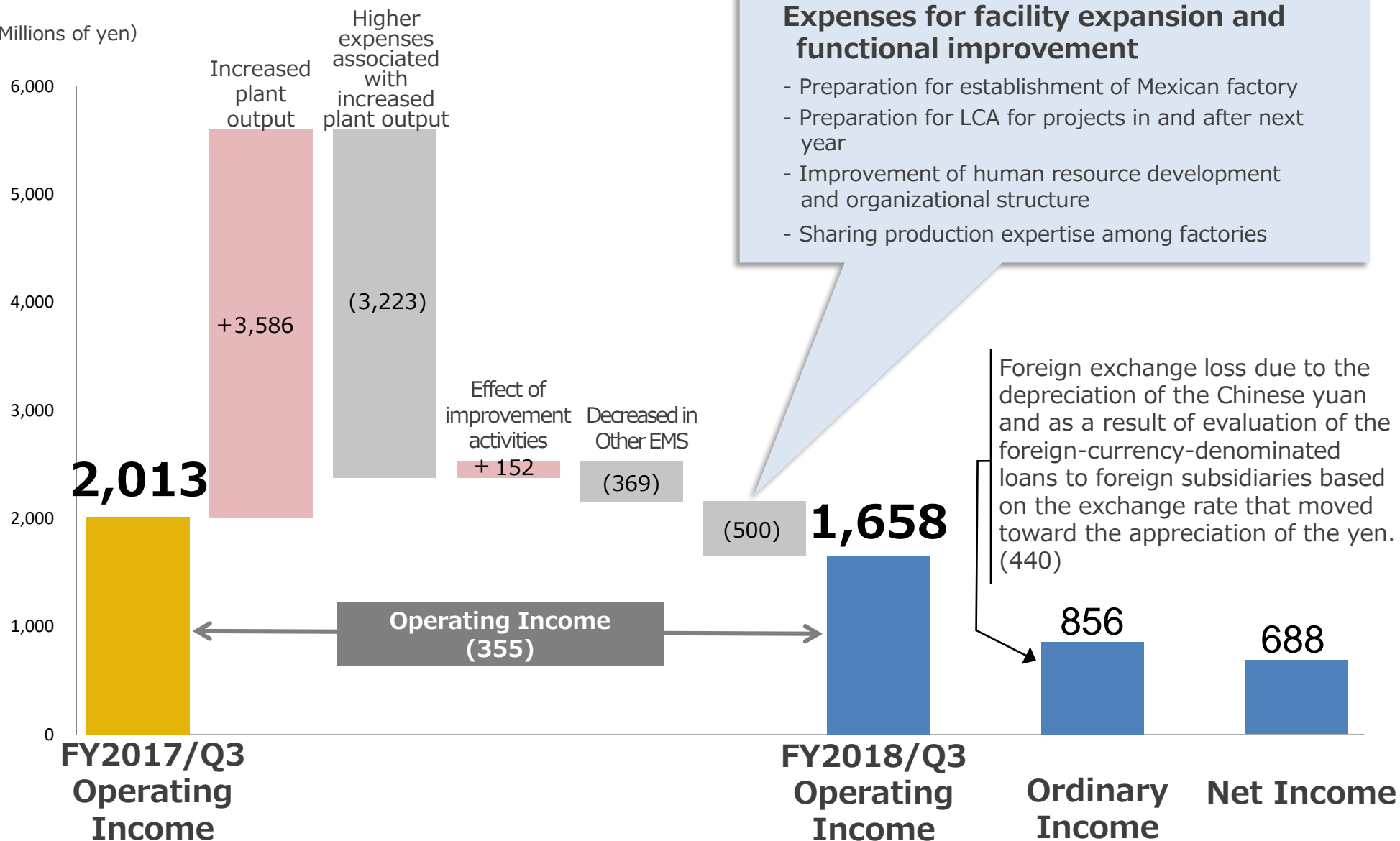
## Trend of Operating Margin (Operating Income ÷ Plant Output)





# Factors for Change in Consolidated Operating Income (FY2017/Q3 vs.FY2018/Q3)

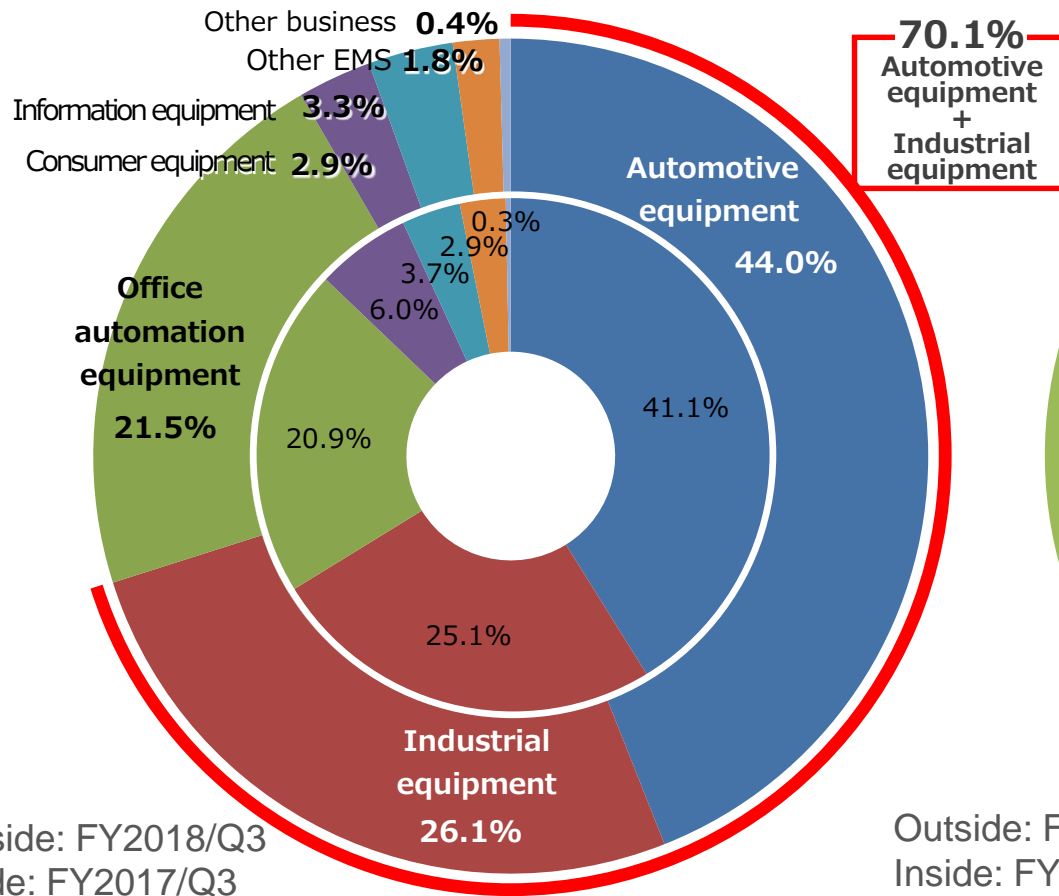
(Millions of yen)





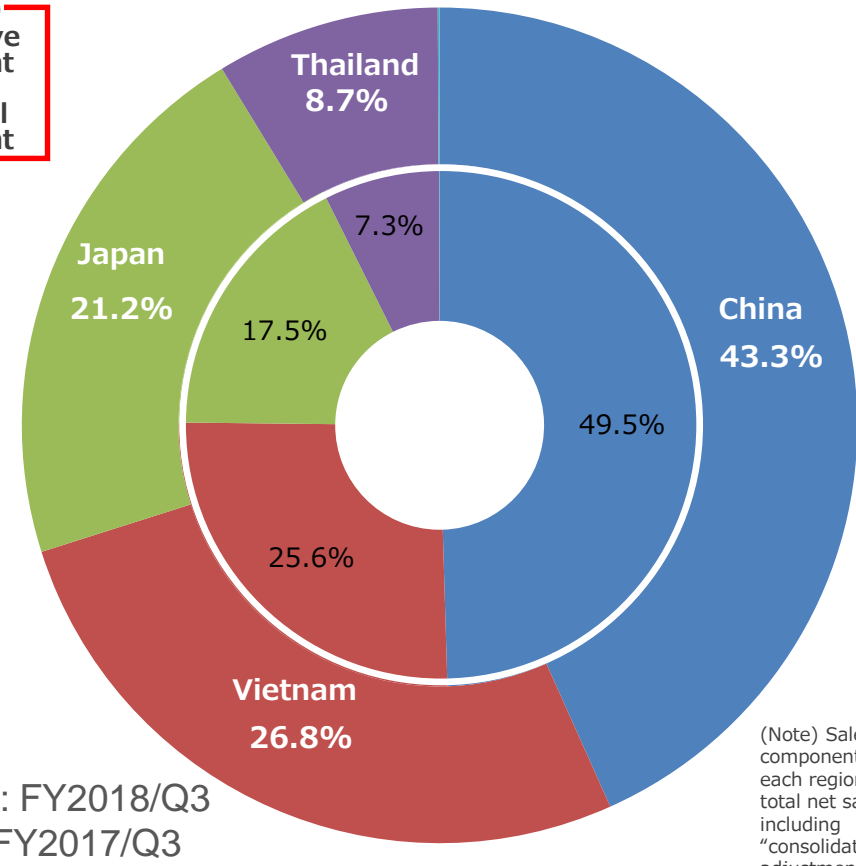
# Sales Breakdowns by Product Category and by Region

## Net sales by product category



**Ratio of automotive and industrial equipment sales rose 3.9% YoY**

## Net sales by region



**Base in Vietnam was growth**

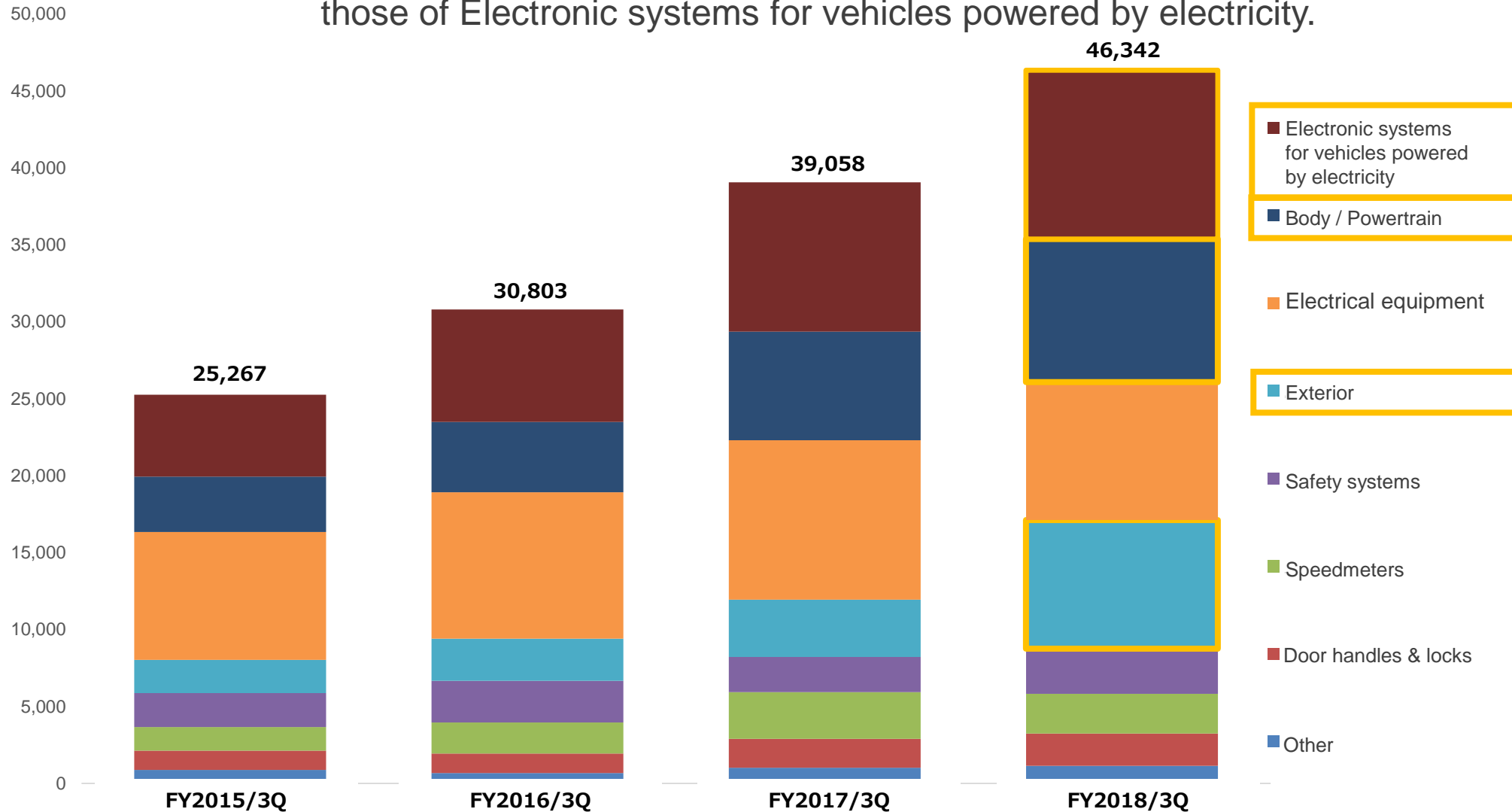
(Note) Sales component ratio of each region is ratio of total net sales not including "consolidation adjustments".



# Sales Breakdowns by Product Category

(Millions of Yen)

Sales related to exteriors and powertrain expanded in addition to those of Electronic systems for vehicles powered by electricity.





# Balance sheet

## Balance Sheet

FY2017

FY2018/Q3

(Millions of yen)

65,878	
Current Assets 44,990	Liabilities 24,586
	Interest bearing Debt 23,084
Noncurrent Assets 20,887	Net Assets 18,208

85,462	
Current Assets 61,114	Liabilities 32,294
	Interest bearing Debt 26,983
Noncurrent Assets 24,348	Net Assets 26,185

(Note) Interest-bearing debt is all liabilities recorded on the balance sheet on which the Company pays interest

## Cash Conversion Cycle

1.50months

Notes and accounts receivable –trade	21,289
Inventories	15,187
Notes and accounts payable-trade	20,775



1.71months

Notes and accounts receivable –trade	23,025
Inventories*	23,469
Notes and accounts payable-trade	25,651

\* Safety stock continues to accumulate as a measure against the current tightness of the electronic component market.

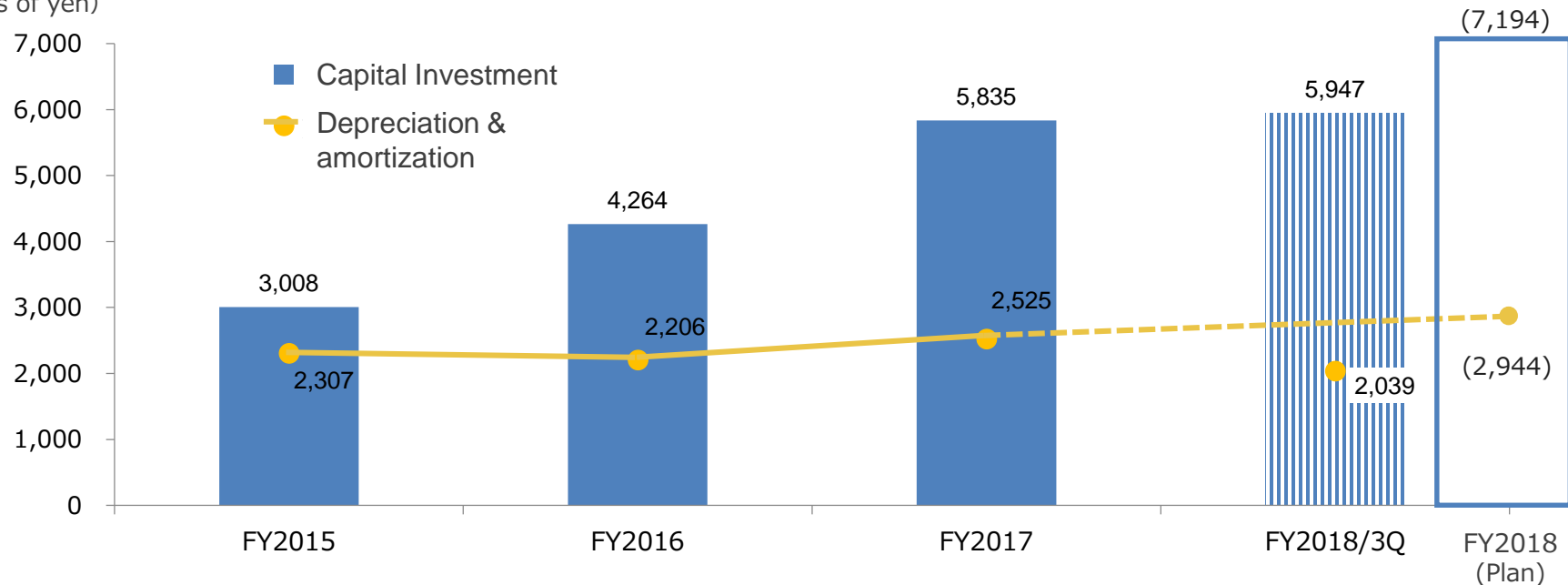
**Total Assets 65,878million**  
**Equity Ratio 27.6%**

**Total Assets 85,462million**  
**Equity Ratio 30.6%**



# Capital Investment and Depreciation & Amortization

(Millions of yen)



## Breakdown of Capital Investment

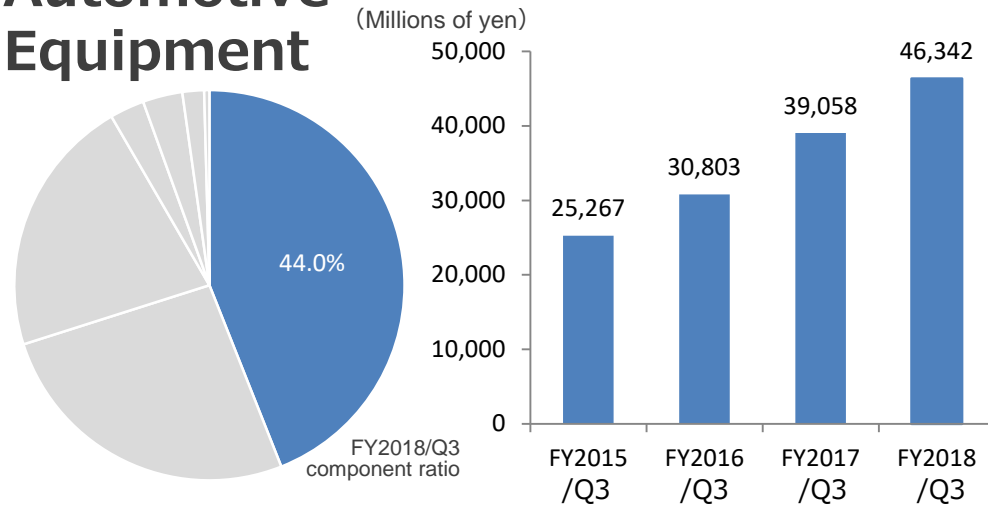
(Millions of yen)

	FY2015	FY2016	FY2017	FY2018/3Q Actual
Japan	318	860	852	3,287
China	1,157	1,233	1,712	1,158
Vietnam	959	664	965	658
Thailand	574	423	680	568
Mexico	0	1,081	1,624	276
<b>Total</b>	<b>3,008</b>	<b>4,264</b>	<b>5,835</b>	<b>5,947</b>

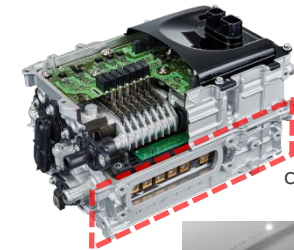


# Net Sales by Product Category

## Automotive Equipment



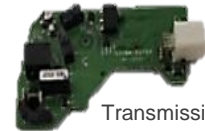
- ◆ Sales of critical safety parts such as powertrains, control and drive systems were strong because our track record in domestically produced power control products continued to be recognized in China.
- ◆ Expansion of exterior products that resulted from growing demand due to the shift to LED lights
- ◆ Expansion of body, powertrain, and safety systems
- ◆ Expansion of electrical equipment for environmentally friendly vehicles and connected cars.



Power control unit

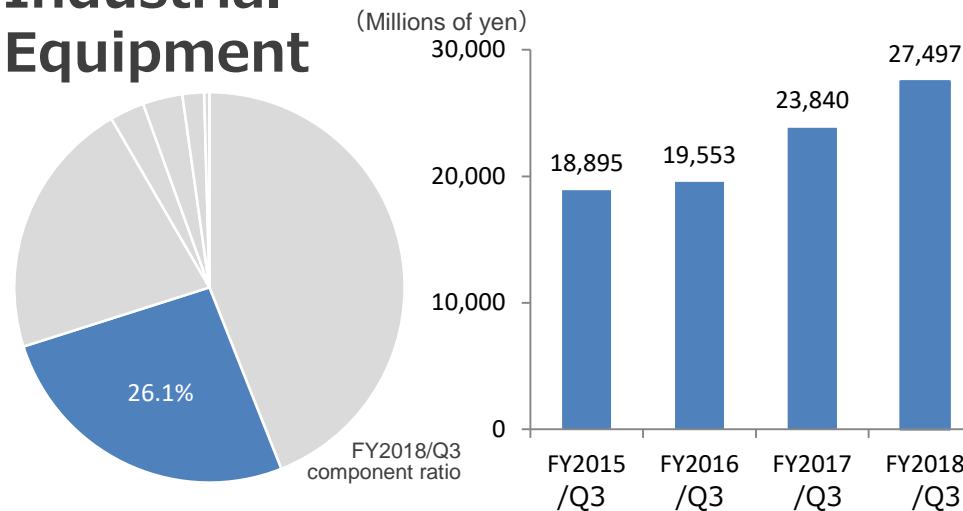


Exterior



Transmission control

## Industrial Equipment



- ◆ Contribution of server, storage, and network devices of UMC H Electronics Co., Ltd, a company that has recently become a consolidated subsidiary
- ◆ Strong sales of products for semiconductor testers  
Orders for finished products also received
- ◆ Products delayed for machine tool manufacturers in China.
- ◆ Transactions with new growing companies and Chinese companies increased



Server, Storage



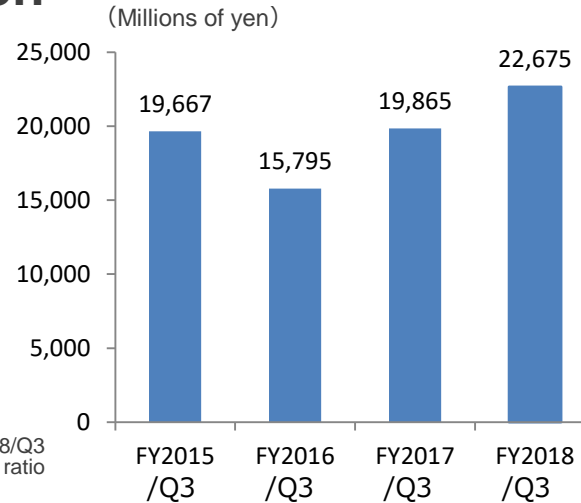
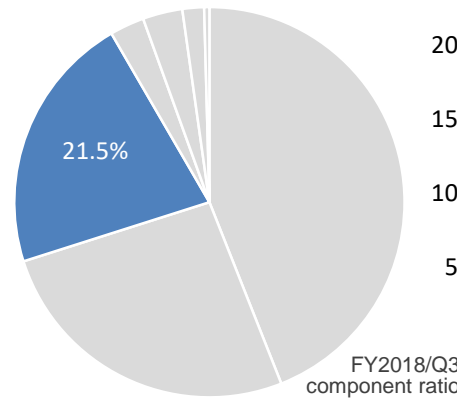
Industrial power supply



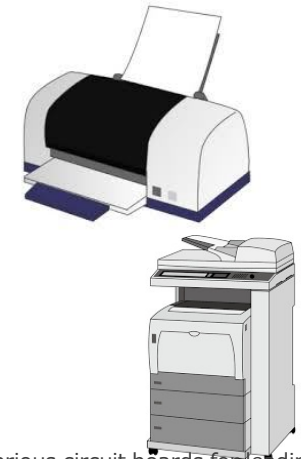
Semiconductor testers

# Net Sales by Product Category

## Office Automation Equipment

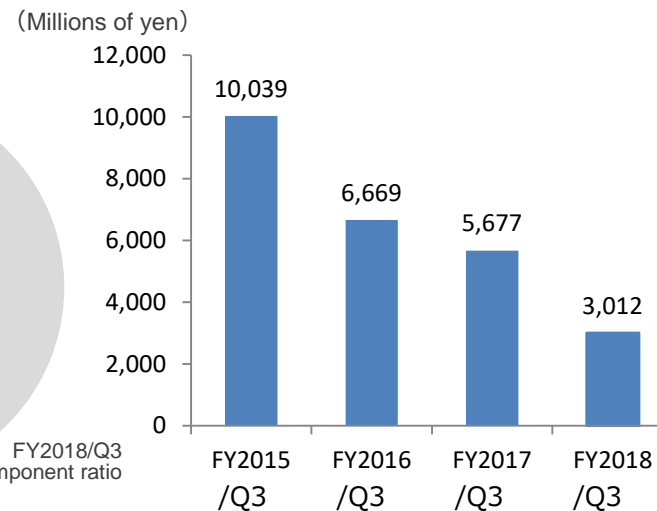
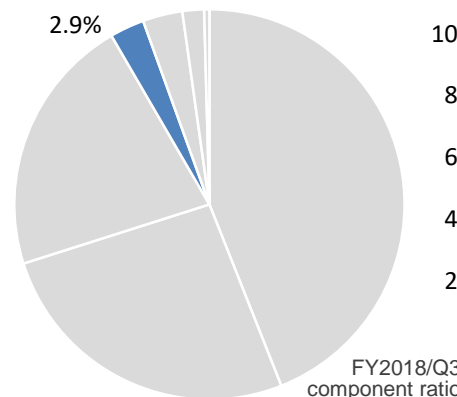


- ◆ Sales were strong on the back of an increase in the in-house share
- ◆ Sales related to color and monochrome laser printers were strong



Various circuit boards for leading printer manufacturers

## Consumer Equipment



- ◆ The manufacture of a product whose production lot was large was ended
- ◆ Price competition among brand manufacturers was fierce.
- ◆ Foreign manufacturers such as Chinese companies are promising.
- ◆ We are narrowing down to products with high added value.
- ◆ Proposing production base optimization.



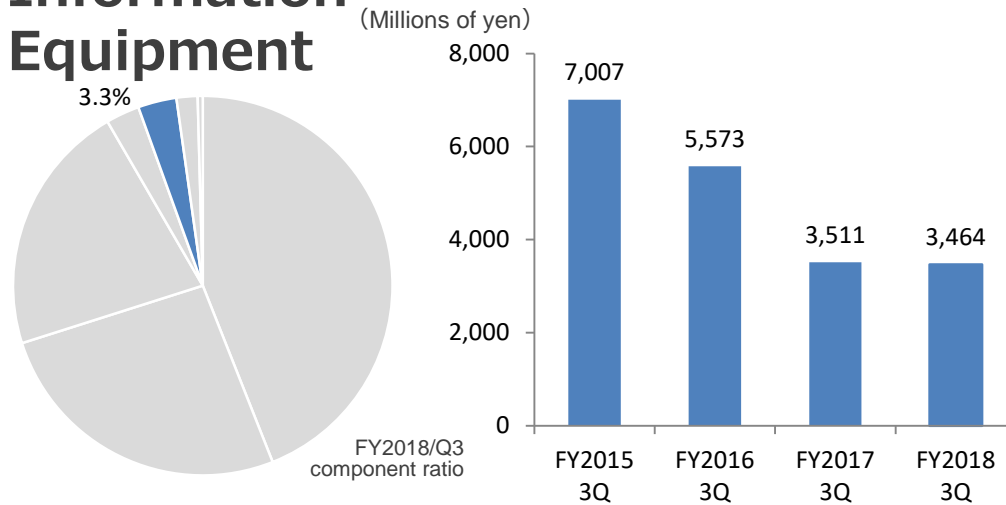
LED lighting



Circuit board for air purifier

# Net Sales by Product Category

## Information Equipment



- ◆ Transferred mature products with stable demand from China to Vietnam while maintaining cost competitiveness.



Optical pickup



## Factors for Adjustment in this Period and Future Perspective (1)

**Net sales and factory production remained almost as initially planned. Advanced costs for new projects, expenses for facility expansion and decrease in “Other EMS” are burdens.**

(Millions of yen)

FY2018	Previous prediction (May 11, 2018)	Current adjustment (Feb. 8, 2019)	Percentage change	Factors
Net Sales	141,914	139,748	(1.5%)	<ul style="list-style-type: none"> <li>•Automotive industry continued to be good</li> <li>•Decrease in “Other EMS” in Japan</li> <li>•Deceleration in demand in the industrial equipment industry of China</li> </ul>
Plant Output	30,183	30,502	+1.1%	
Gross Profit	7,489	7,516	+0.3%	<ul style="list-style-type: none"> <li>•Costs for launching new automotive projects at some facilities</li> <li>•Increase in costs such as labor costs for system enhancement for important customers expected to increase greatly in the future</li> </ul>
SGA	4,810	5,500	+14.3%	
Operating Income	2,678	2,016	(24.7%)	<ul style="list-style-type: none"> <li>•Inter-account transfers occurred in part of production cost and SGA</li> <li>•Foreign exchange loss due to evaluation of foreign-currency-denominated loans to foreign subsidiaries based on the exchange rate that rapidly moved toward the appreciation of the yen</li> </ul>
Ordinary Income	2,295	1,097	(52.2%)	
Net Income	1,799	860	(52.2%)	



## Factors for Adjustment in this Period and Future Perspective (2)

### Perspective: Toward the Collection of Advanced Costs

**Long-awaited start of mass production in projects for electric vehicles**

#### China

Prepare for the launch of the new automotive equipment project

#### China

Start mass production for the new automotive equipment project (electric vehicles), which has been anticipated for three years

**Many new automotive equipment projects in Thailand and Mexico**

#### Thailand and Mexico

Establish a quality assurance system for automotive equipment customers  
Enhance the organization in preparation for an increase in production volume  
Strengthen the production preparation activities for new products

#### Mexico

Transfer the production of products for North America from China facility  
Launch many automotive equipment projects for North America and Europe

#### Thailand

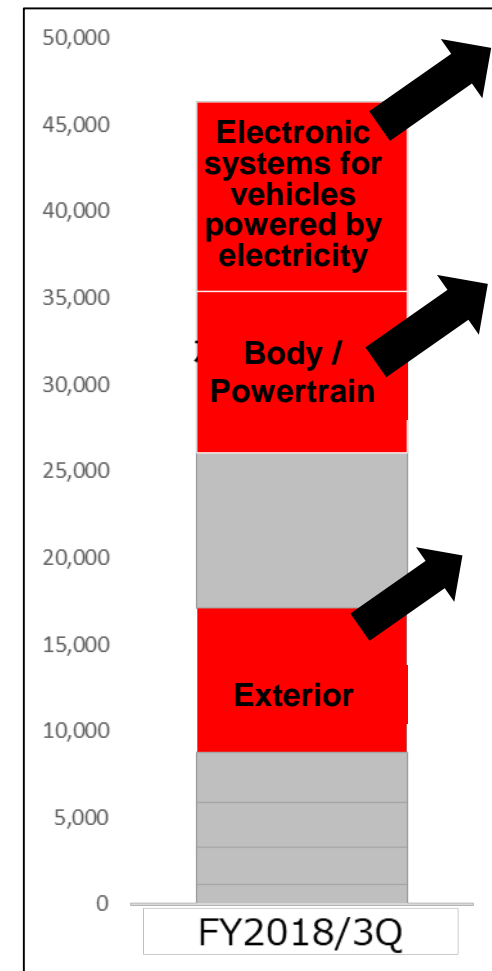
Launch many Japanese and European automotive equipment projects (expand production area)

#### Japan

Enhance the support system for large volume orders

#### Japan

Capital investment and optimization of production allocation







# Responding Flexibly to Customer Demand — New Business Chances

## Japan (Miyazaki and Saga)

Capacity increase + Stable supply

### Expanding automotive and exterior products

**2018**  
Open Saga plant

- Increase production capacity in Kyushu region

**2019**

Introduce an SMT line at Miyazaki plant

- Increase profit
- Increase production capacity through capital investment to produce outsourced items internally
- Optimize the production allocation

Shift systems and organization outside Japan with Chinese factories as the main production base

Quickly adapt to business in Mexico, which is expanding due to the trade conflict between the U.S. and China and NAFTA.

European Tier 1  
(Exterior products)

Prepare for the expansion of automotive models

## Thailand

Automotive and exterior products:  
Increased needs for Europe and Thailand

**2018**

- Increase in new products and customers
- Quality improvement and strengthening of production preparation activities for new products

**2019-21 New projects**

- Body and powertrain
- Exterior products
- Electrical equipment
- European Tier 1

- Expand production area (+5,000 m<sup>2</sup>)

**2019**

Transfer production of products for North America from China to Mexico

**2018**  
New Wuhan factory  
(Exterior products)

Prepare for new Dongguan factory

## Mexico and North America

Automotive and exterior products:  
Prepare for the production of electrical systems for electric vehicles

**2018**

- Establish a quality assurance system for automotive equipment customers (obtain ISO certification)
- Organize factories and secure and educate human resources
- Start mass production of automotive products
- FAT and SMT expansion constructions

**2020**

**New projects**

- Body and powertrain
- Exterior products
- European Tier 1

- FAT and SMT Line expansion constructions
- Launch critical safety parts for exterior and automotive products

**2019**

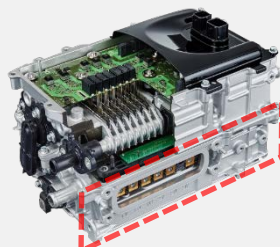




# New Automotive Equipment Project: Roadmap to Mass Production

## HV

FY2016 Local production in China



Power control unit manufactured by UMC



## Increasing presence of UMC Electronics with a track record of overseas mass production

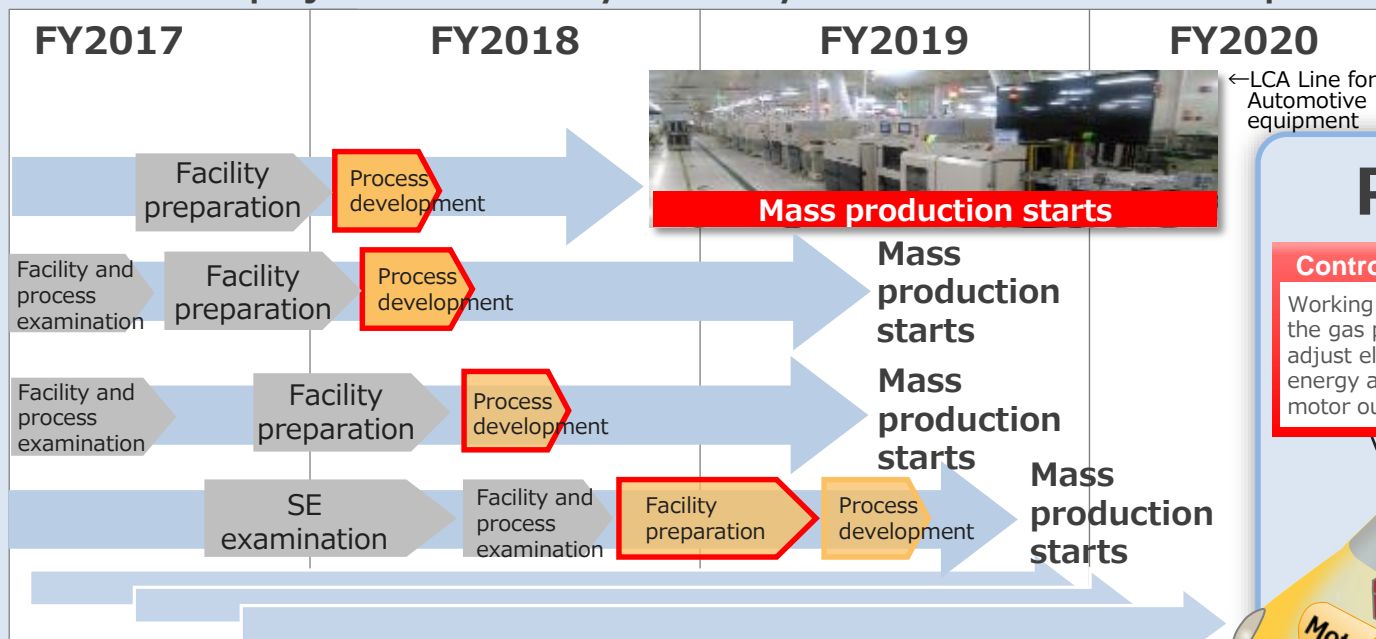
### PHV

FY2018 Local production in China

### EV

FY2019 Local production in China

More than 10 projects are currently underway ahead of the start of mass production



The validation processes of car manufacturers and Tier 1 customers are being steadily cleared at each stage of production preparation activities.

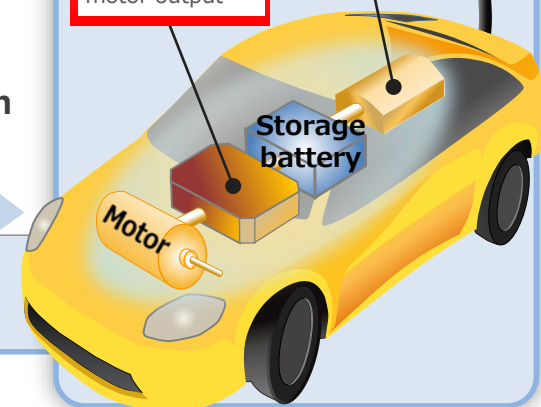
### PHV / EV

**Control unit**  
Working with the gas pedal to adjust electric energy and motor output

**Battery charger**  
Charges from an outlet

**Storage battery**

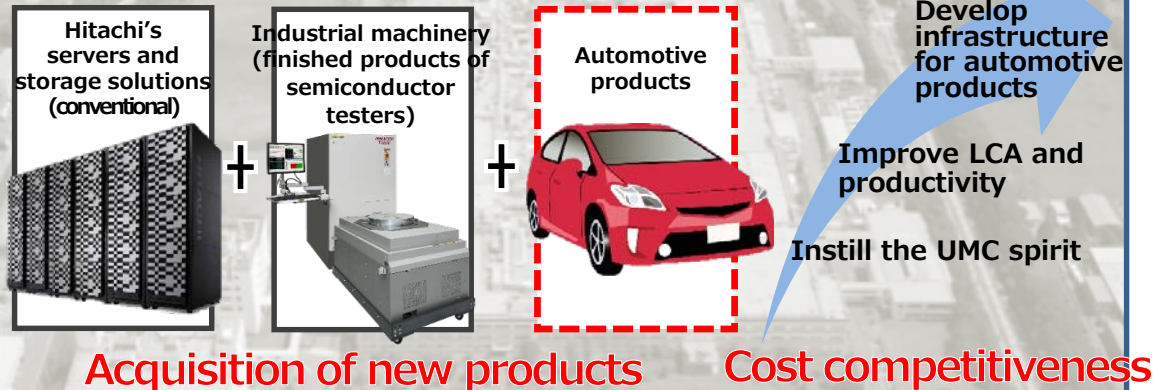
**Motor**





# Concept of UMC H Electronics

## Building competitive EMS plants



## UMC H Electronics

- Provide usable spaces of 6,000 m<sup>2</sup> by the first half of FY2019. Allocate 54 available staff members to the new business.
- Currently, under negotiation with automotive equipment customers about the projects whose production will start in 2019 to 2022.
- Promote sales activities for the new project for the Hitachi Group.

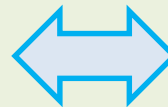
### Toward establishment of an on-vehicle environment

#### Needs of Automotive Equipment Customers

Looking for manufacturing partners

- that want to narrow down their area of specialty
- that completely adhere to their own concept of manufacturing

(Traceability system, component acceptance flow, abnormality response flow and facility maintenance)



Shift systems and organization outside Japan with Chinese factories as the main production base

#### Manufacturing Power of UMCE

- ① SE activities and "Manufacturing through a total solution (from upstream design to mounting technologies and production)"
- ② Smart factory realized by self-developed LCA (Low-cost automated equipment)
- ③ Advanced production preparation activities and improvement activities
- ④ Production results of automotive products  
(Transmission control, engine control, startup/actuation, audio, interior environment control, body control, lamp control and security)

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