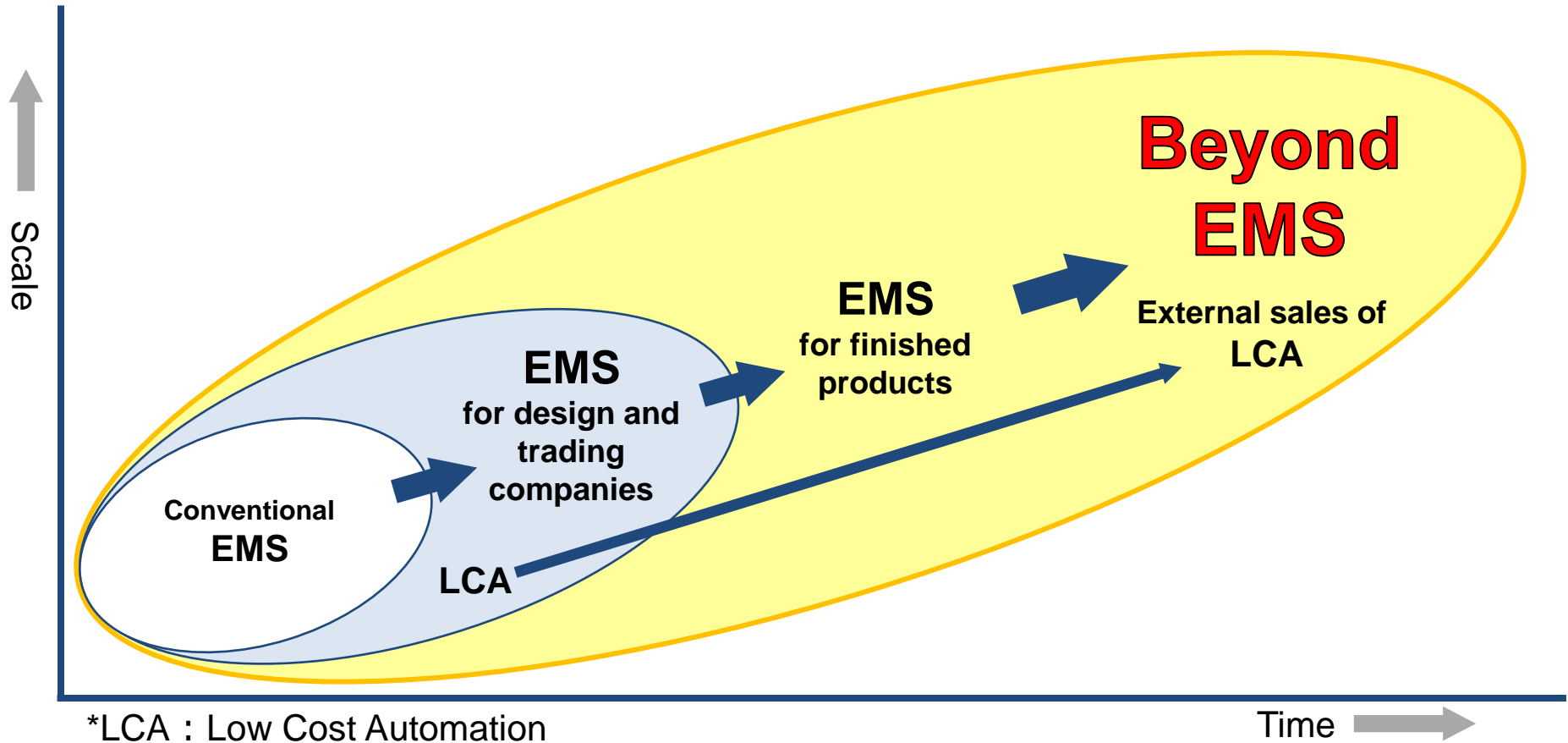


Change UMC, beyond EMS

**New Medium-Term
Management Plan**
(Fiscal 2018 to Fiscal 2020)

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

Change UMC, beyond EMS



Changes in Circumstances Surrounding Manufacturing

Change in free trading environment

- The business model in which goods are produced in a specific region and delivered to customers around the world is now affected by protectionism.

Significant changes in market needs

Automobiles

- The trend towards electric vehicles, plug-in hybrid vehicles, automatic driving and the connection of vehicles to the Internet has sped up the Electronification of automobiles.
- Various countries are actively introducing electric vehicles.
- More and more products are being marketed as global models.

Industrial Equipment

- The use of IoT, AI and cloud technologies has boosted demand for information infrastructure.
- Energy conservation, robots and automation have spread.

Further expansion of needs for global production bases

Big Picture of New Medium-Term Management Plan: UMC's Key Measures

1 Collaboration with Hitachi, Ltd.

- ✓ Production of server, storage and network devices as finished products
- ✓ Production of semiconductor testers as finished products
- ✓ Expanded production of Hitachi-branded products
- ✓ Possibility of production of server, storage and network devices at UMC's overseas sites
- ✓ Introduction of automotive products
- ✓ Increase in manufacturing capacity
- ✓ Integration of personnel
- ✓ Application of know-how to smart factories

2 Rapid response to customers' needs

- ✓ Increase in new projects at all sites
- ✓ Increase in big accounts in the automotive equipment sector
- ✓ Increase in big accounts in the industrial equipment sector

3 Actions for two major consuming areas: Local consumption of local products

- ✓ Operate multiple sites mainly in the Asian and American markets
- ✓ Expansion of the factory in Dongguan, China
- ✓ Consideration of a new factory in Wuhan, China
- ✓ Consideration of a new factory in the United States
- ✓ Consideration of the erection of new factories

4 Building up manufacturing capacity

- ✓ SE (Simultaneous Engineering) activities based on actions in the upstream design process
- ✓ Shortening of period until product launch
- ✓ High quality production lines
- ✓ Direct delivery to end users
- ✓ Upscale LCA production and external sales
- ✓ Realization of smart factories

Key Measure 1: Collaboration with Hitachi, Ltd.

Excerpt from presentation material produced by Hitachi, Ltd. (published on May 9)

“Actions for Strengthening MONOZUKURI”
モノづくり強化の取り組み

HITACHI
Inspire the Next

2018/4/3 UMCエレクトロニクス社とモノづくり強化協業で基本合意
“Reaching basic agreement with UMC Electronics on collaboration for strengthening manufacturing on Apr. 3, 2018”

日立ストレージの
高品質なモノづくり力 + UMCエレクトロニクス社
ポリウムオペレーションの
コスト競争力

“Hitachi Storage Solutions’ high quality manufacturing capabilities” + “UMC Electronics’ cost competitiveness in volume operation”

**競争力ある新たな製造業の
ビジネスモデルを確立**
“Establishing a new competitive business model for manufacturing”

高品質かつコスト競争力の高い日立ブランドのストレージを
需要が急拡大するデータセンター市場向けをはじめとする、
国内外の幅広いお客さまに提供

“Offering Hitachi-branded storage solutions with high quality and cost competitiveness to the data center market with rapidly growing demand and a wide range of customers in Japan and overseas”

UMCエレクトロニクス社・ユー・エム・シー・エレクトロニクス株式会社 © Hitachi, Ltd. 2018. All rights reserved.

Translation by
UMC Electronics

[Hadano Site]

◆ Land area: approx. 190,000 m² (Building area: 67,000 m²)

[Koriyama Site]

◆ Land area: approx. 70,000 m² (Building area: 17,000 m²)

Hadano Site

Expertise and technical strength for maintaining the world's top-rated efficiency and quality and mother factory configuration that supports global production

Products



Koriyama Site

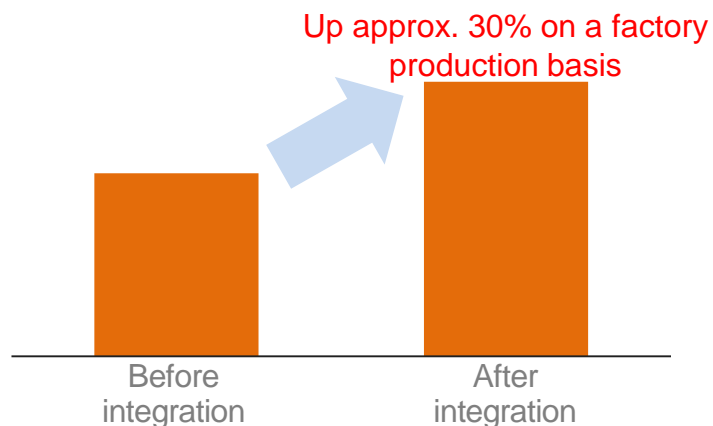
Production expertise for maintaining cost effectiveness, high quality and high reliability and for rapid responses to changes in production

Products

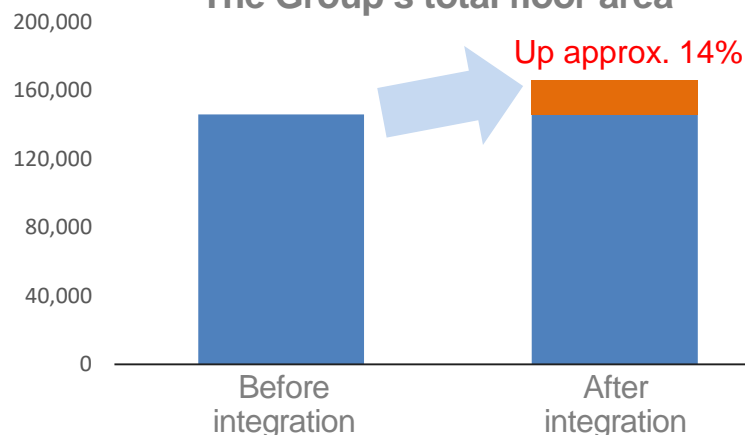


Excerpts from material produced by Hitachi, Ltd.

Increase in production of the Group's factories



The Group's total floor area





Key Measure 1: Collaboration with Hitachi, Ltd.

UMC is commissioned by ADVANTEST CORPORATION to manufacture semiconductor testing system products.



Conventional commissioned manufacturing

Commissioned to perform the SMT process for board production

Pre-processed SMT

Inspection / shipping



Scope of commissioned services to be enlarged through collaboration with Hitachi, Ltd.

Commissioned to manufacture system products

Assembly

Inspection

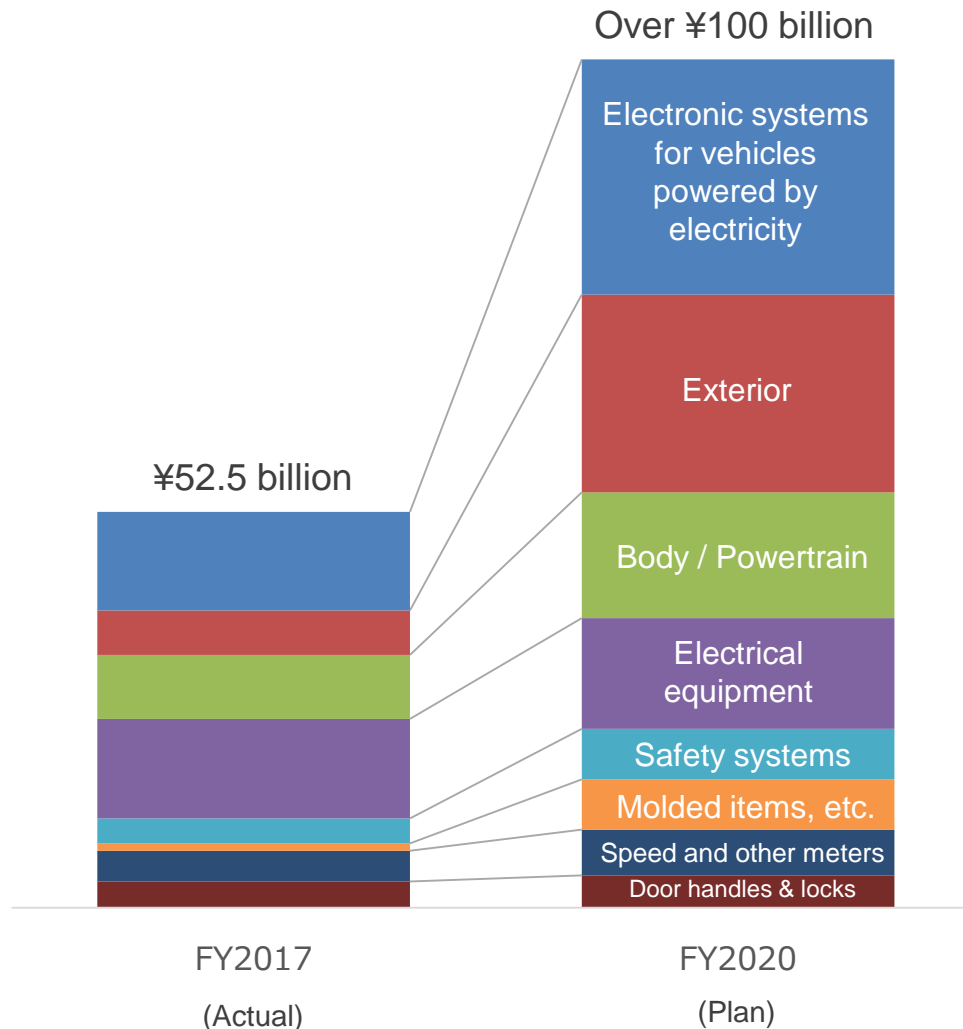
Packing & Shipping

Trends in demand for semiconductors and semiconductor testers

- As next-generation technologies, such as the Internet of Things (IoT) and artificial intelligence (AI), have come into being, there is an increase in data volume, dubbed the data explosion.
- The increase in data processing speed induced a shift in data centers from HDDs to SSDs and a big jump in needs for semiconductor memories and processors.
- In the second half of 2018, full-scale investment will commence in 5G mobile phone base stations. Instant high-speed connection leads to a considerable rise in Fintech and other industrial data traffic. Accordingly, server and storage capacities will also expand.
- With the shift to electric vehicles and automatic driving, high performance computing (HPC) and OLED display drivers, the market is entering a long semiconductor super cycle.

Key Measure 2: Rapid response to customers' needs Automotive Equipment

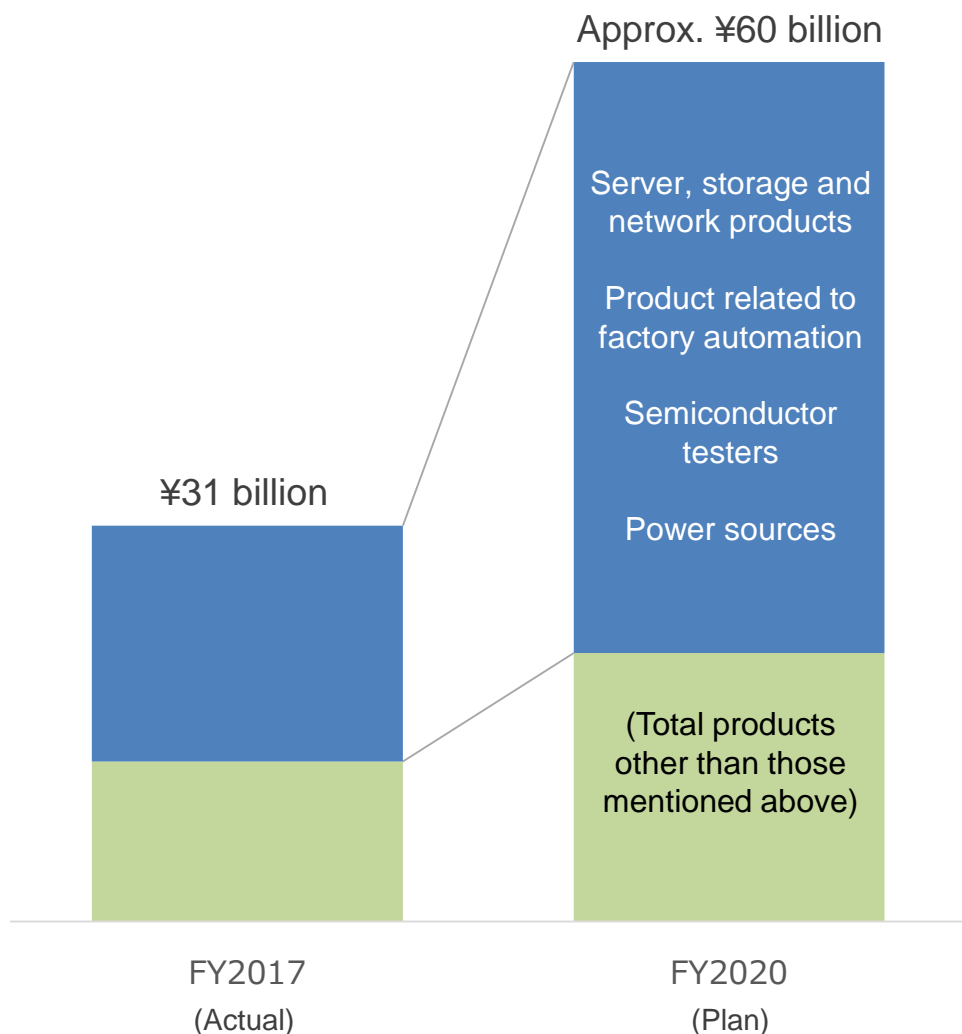
Breakdown of Automotive Equipment



- Start of mass production of products relating to vehicles powered by electricity (i.e. electric, plug-in hybrid and hydrogen vehicles) and its contribution to results
- Start of mass production of exterior products and its contribution to results
- Growth of body system and power train system products
- Growth of electric equipment
- Growth of brakes and safety systems
- Growth of molded items

Key Measure 2: Rapid response to customers' needs Industrial Equipment

Breakdown of Industrial Equipment



- Products related to information infrastructure (server, storage and network products)
- Products related to factory automation
- Semiconductor testers (mass production commenced at Hadano site)
- Power source substrate business

Key Measure 2: Rapid response to customers' needs

**New projects are underway at all sites
(with a view to commercialization in 2018-2020).**

In China

Category	Application
Industrial Eqp.	Low/high voltage power sources
Industrial Eqp.	3D printers
Consumer Eqp.	Electronic cigarettes
Automotive Eqp.	Electric systems for vehicles powered by electricity (1)
Automotive Eqp.	Exterior (1)
Automotive Eqp.	Electric systems for vehicles powered by electricity (2)
Automotive Eqp.	Electric systems for vehicles powered by electricity (3)
Automotive Eqp.	Electric systems for vehicles powered by electricity (4)
Automotive Eqp.	Exterior (2)

In Japan

Category	Application
Industrial Eqp.	Semiconductor testers
Automotive Eqp.	Exterior
Automotive Eqp.	Electric systems for vehicles powered by electricity (1)
Automotive Eqp.	Power train systems (1)
Automotive Eqp.	Electric systems for vehicles powered by electricity (2)
Automotive Eqp.	Power train systems (2)

In Mexico

Category	Application
Automotive Eqp.	Body systems
Automotive Eqp.	Exterior

In Thailand

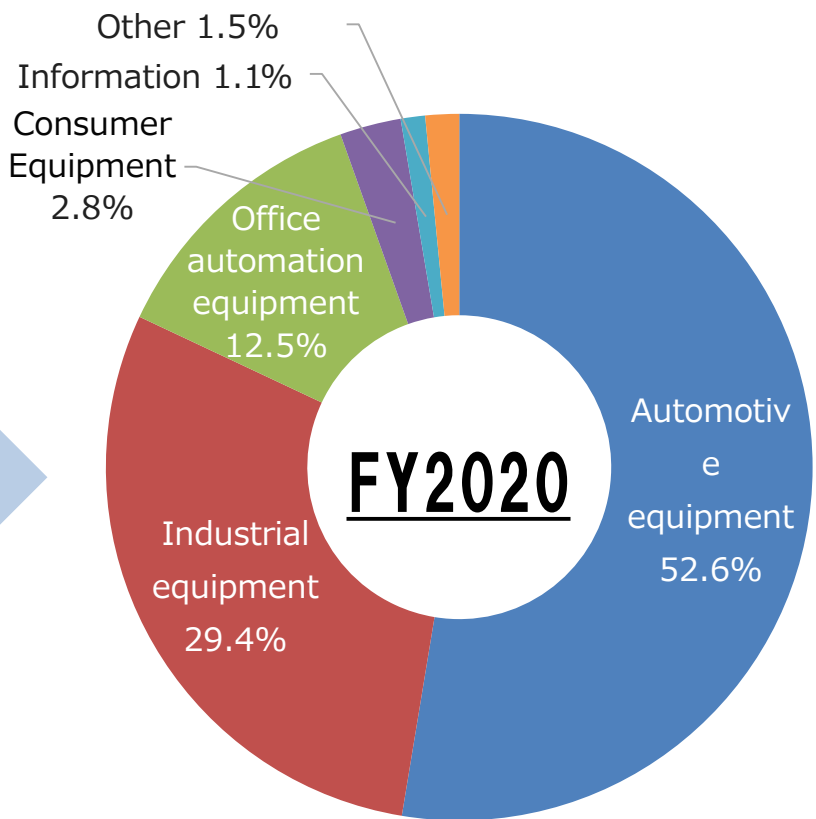
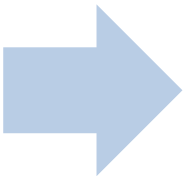
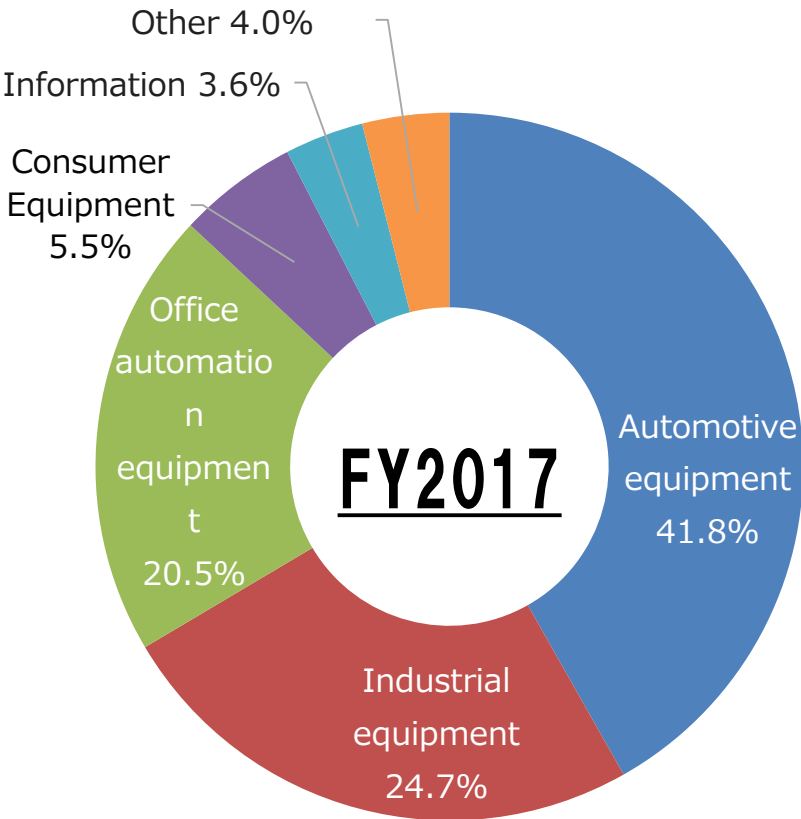
Category	Application
Automotive Eqp.	Exterior (1)
Automotive Eqp.	Electric systems
Automotive Eqp.	Exterior systems (2)
Automotive Eqp.	Electric systems for vehicles powered by electricity
Industrial Eqp.	Inverters
Automotive Eqp.	Exterior (3)

In Vietnam

Category	Application
Automotive Eqp.	Exterior, electric systems
Office Automation Eqp.	In house share increase

Key Measure 2: Rapid response to customers' needs

Sales share by product category



Automotive + Industrial Equipment
66.5% → 82.0%

Key Measure 2: Rapid response to customers' needs

Structure and activities using UMC's characteristics and strengths to win orders from various customers

Teams led by Program Managers

Individual teams serve specific customers exclusively. They therefore make proposals that respond fully to their needs to establish long-term partnerships.

Fast & First

Rapid Response

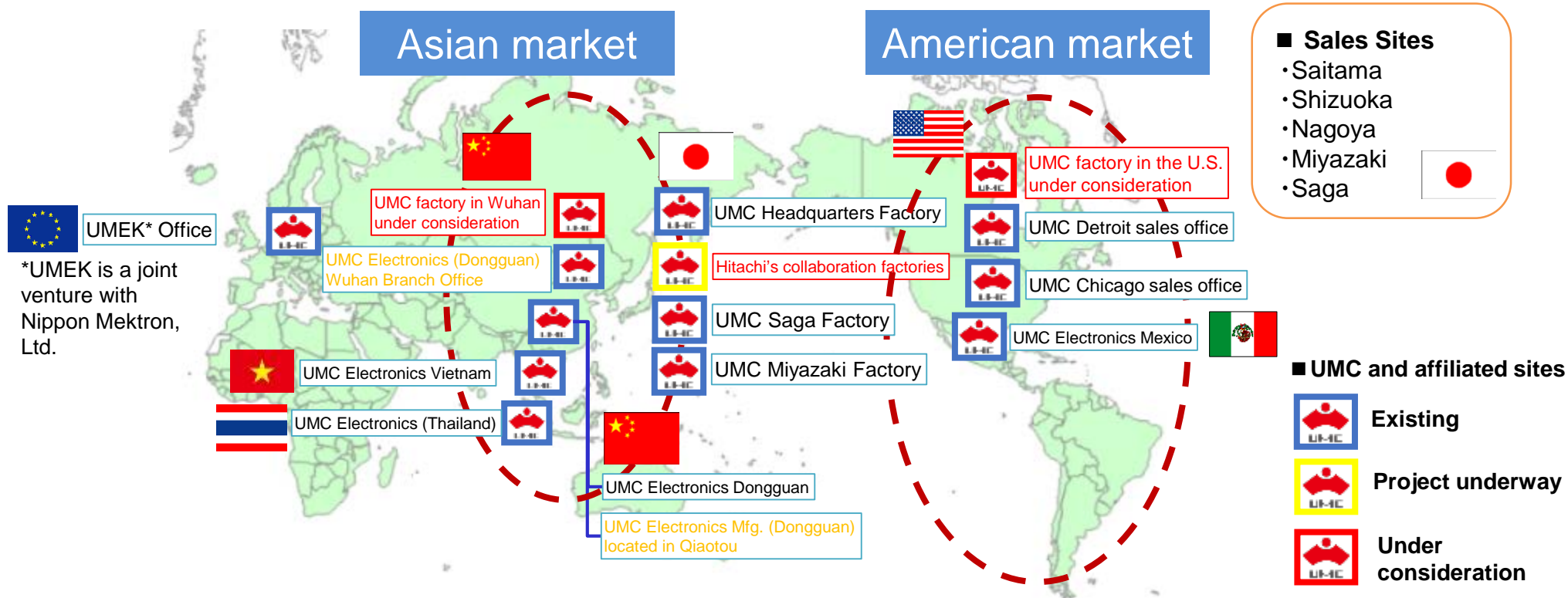
Capturing major accounts

1	Top-ranked manufacturer in the industry that takes the lead in manufacturing expertise	Making proposals on SE* to discover new methods and technologies together with customers
2	Manufacturing that focuses its efforts on technologies while leaving manufacturing to suppliers	A fabless approach that brings UMC's manufacturing capacity to the fore
3	Leading manufacturer that specializes in an existing product category	UMC creates plans for resolving problems facing customers.

*SE: Simultaneous Engineering



Key Measure 3: Actions for two major consuming areas (Local consumption of local products)



[Asian market]

- Extension of the factory and the LCA center in Dongguan, China
- Consider building a new production site in Wuhan, China
- Extension of the LCA center in Vietnam

[American market]

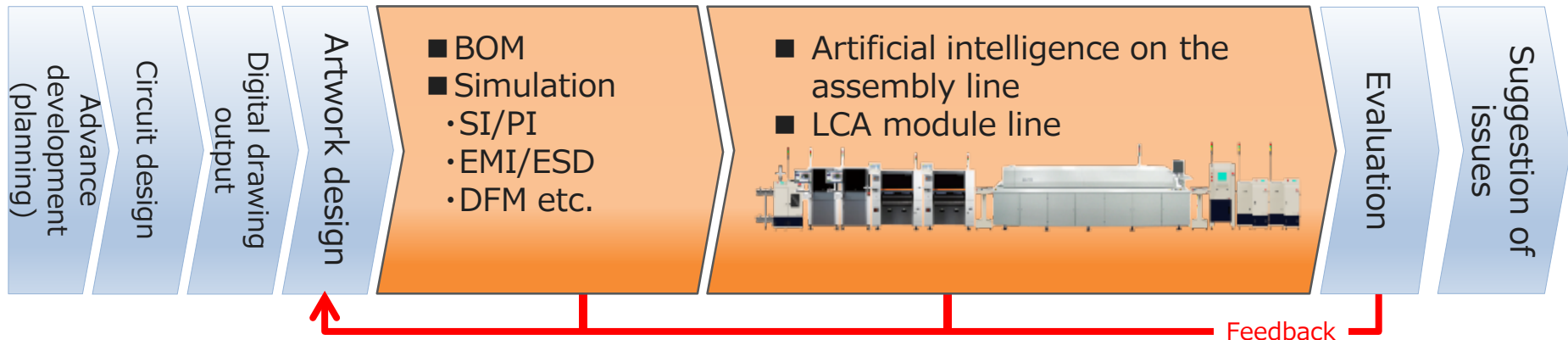
- Start of operation at the factory in Mexico
- Consider building a new factory in the United States
- Work on design and development support in the United States

Key Measure 4: Building up manufacturing capacity

Shorten the schedule and provide a high quality response based on actions starting in the upstream design process

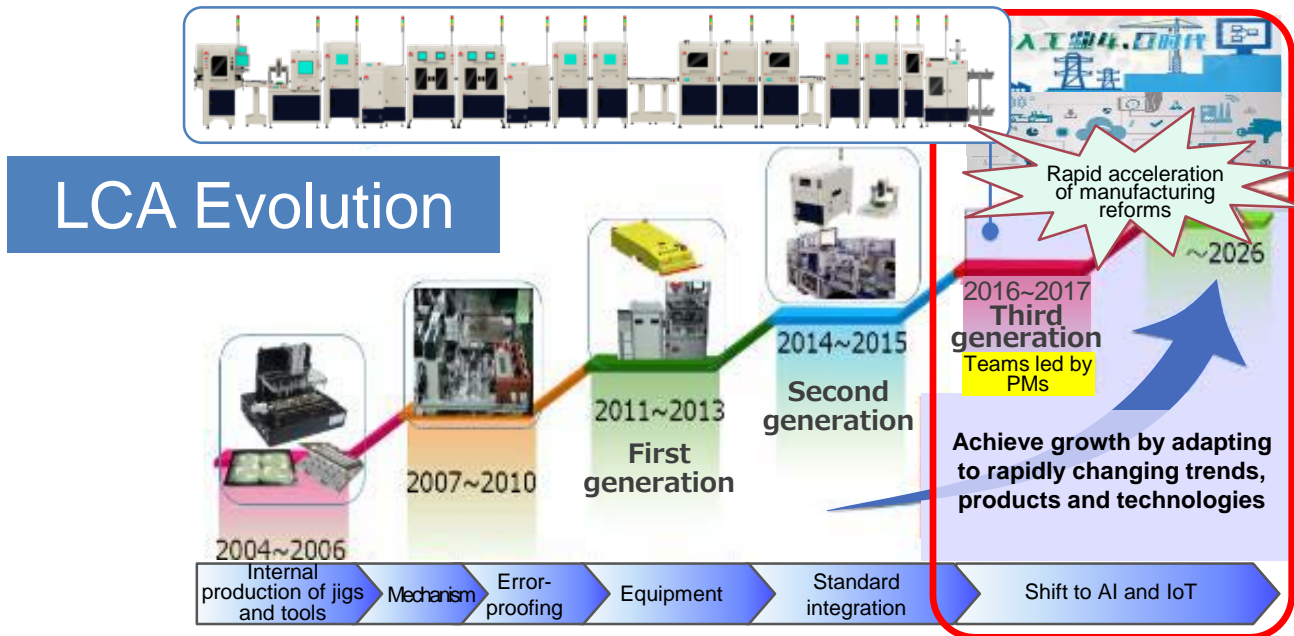
PM (Program Manager) system

Customer communication on issues to solve problems (SE activities)





Key Measure 4: Building up manufacturing capacity



Introduction of LCA to all sites

- Transplanting the mechanism and structure in which the China sites serve as core factories to other countries (development of personnel)

Future sales of LCA to outsiders

	FY2015	FY2016	FY2017	FY2018 (plan)
LCA production quantity	154	404	536	900

■ Enlargement of LCA development

Site in China:

At the site in Dongguan, its production space and the LCA center will be extended.

LCA Center: 1,500 m² → 6,000 m²

Site in Vietnam:

A new LCA center of 1,440 m² will be constructed.

LCA Center: 640 m² → 2,080 m²

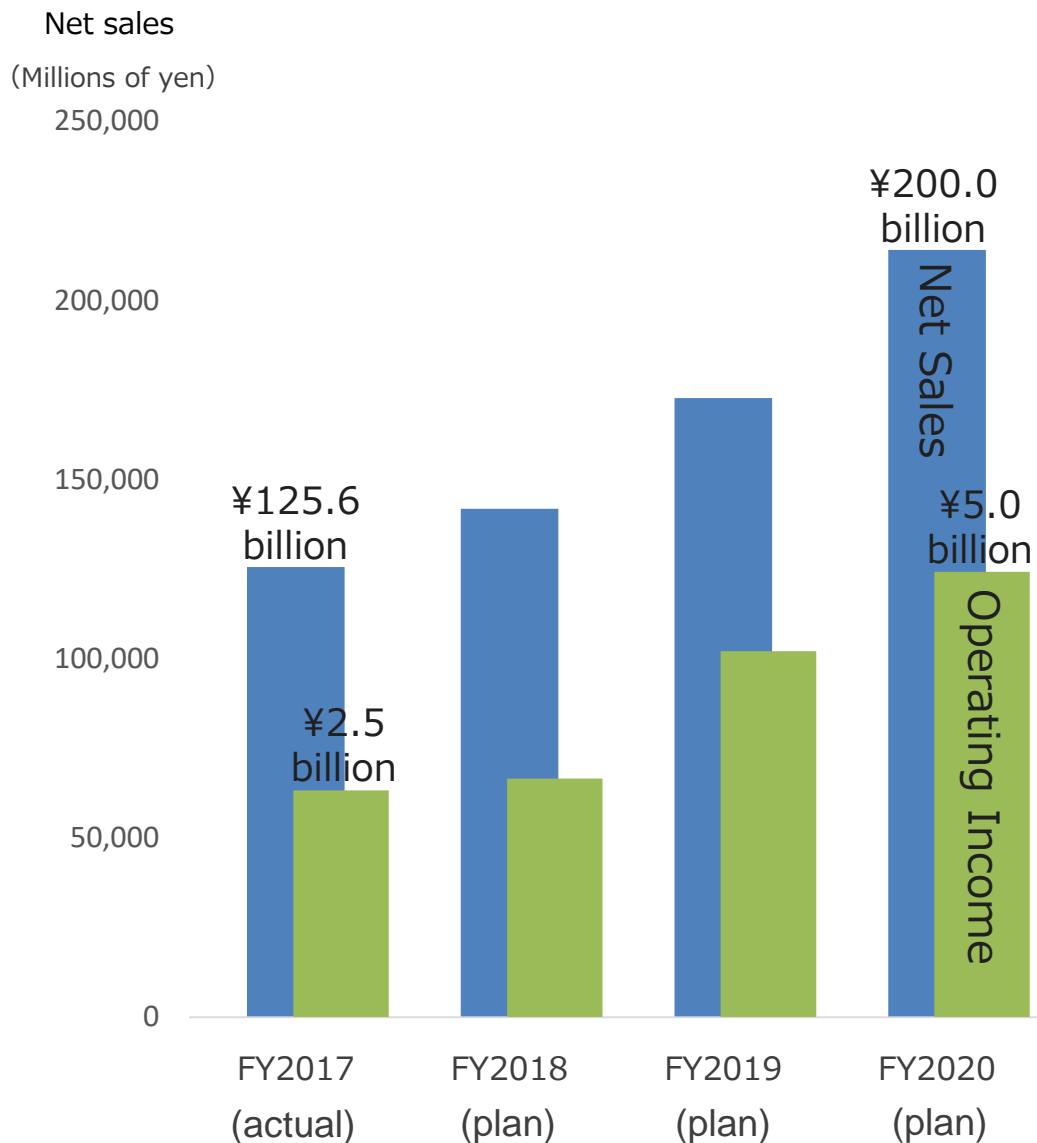


Conceptual drawing of the Vietnam LCA Center

Using LCA and Hitachi's software to create smart factories



Net Sales and Operating Income plan



Operating Income
(Millions of yen)

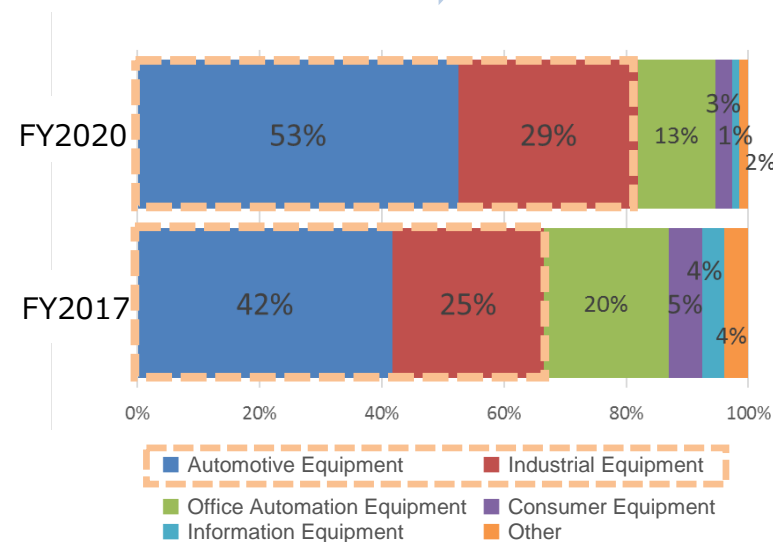
FY2018 Forecast

Net Sales : ¥200.0 billion

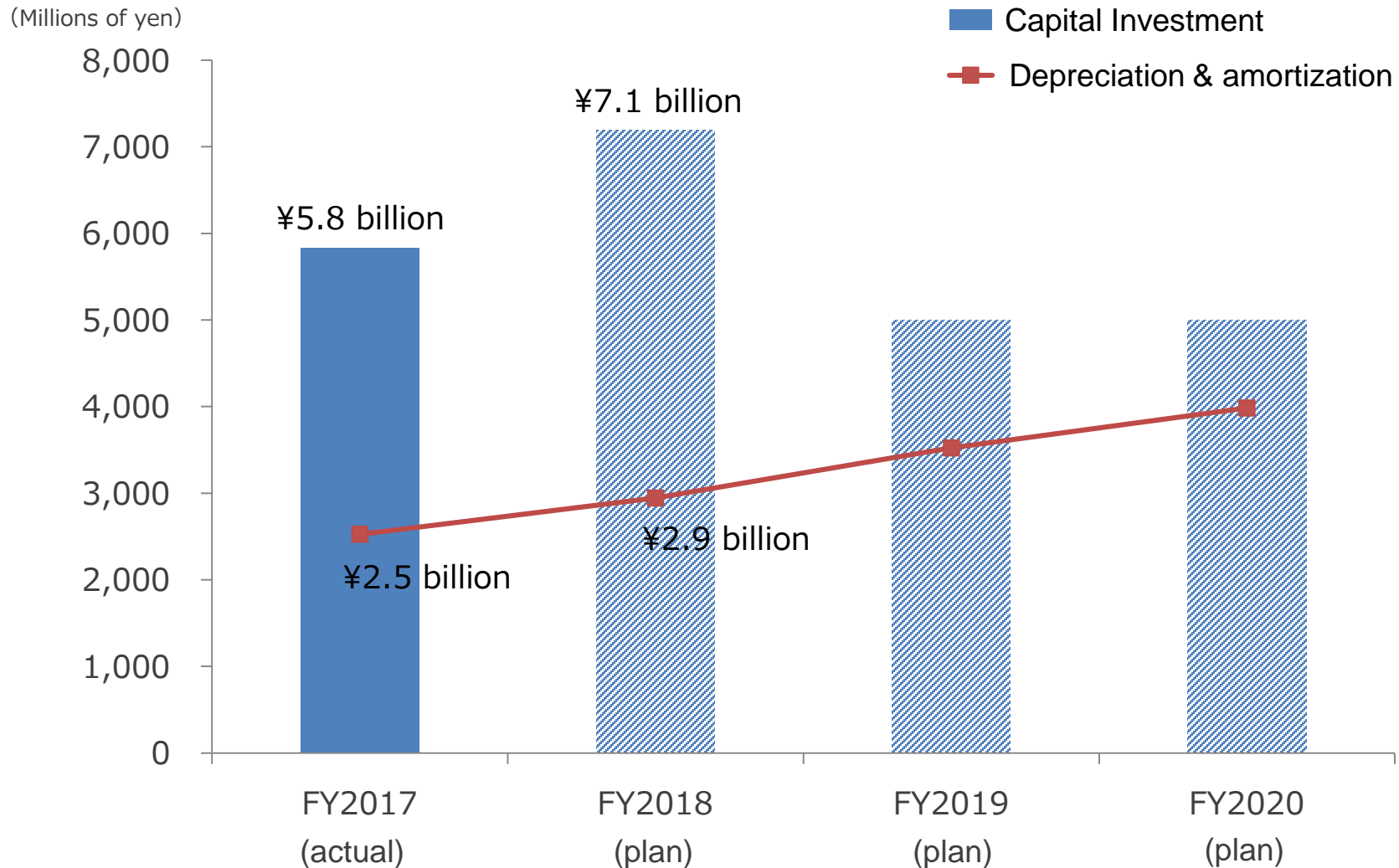
Operating Income : ¥50 billion

Automotive + Industrial Equipment

67% → 82%



Capital Investment and Depreciation & Amortization



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