

# Corporate Strategy

May. 2019

**MITSUBISHI ELECTRIC CORPORATION**

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### Note

FY2015: April 1, 2015-March 31, 2016  
FY2016: April 1, 2016-March 31, 2017  
FY2017: April 1, 2017-March 31, 2018  
FY2018: April 1, 2018-March 31, 2019  
FY2019: April 1, 2019-March 31, 2020  
FY2020: April 1, 2020-March 31, 2021

## Introduction

With the start of the Japanese era “Reiwa” after “Heisei”, a new chapter in history begins.

The environment surrounding us has accelerated its speed of change, and the social challenges which accompany them have also become more diverse. To enhance the quality of life in our society, as stated in our corporate mission, it is necessary to solve these challenges one by one.

In order to satisfy all of our stakeholders, which include society, customers, shareholders and our employees, and to simultaneously achieve high-quality growth, we will further promote initiatives for value creation in the following four fields with many social challenges:



*T. Sugiyama*  
Takeshi Sugiyama  
President & CEO

"Life" focusing on the daily lives of people, "Industry" enabling creation of things necessary for life, "Infrastructure" providing the foundation for society, and "Mobility" connecting all of the fields above-mentioned. In addition to enhancing our business foundation, we will transform our business models and take measures to provide integrated solutions uniting all the capabilities inside and outside of our Group.

We will also prepare to establish a new organization that can create and incubate new businesses which are difficult to handle under the current framework.

The market environment continues to be difficult, but we will steadily execute Business Transformation and Operational Transformation and fully commit to achieving sustainable growth.

# 1. Strategy

## 《Strategy》

Mitsubishi Electric will provide integrated solutions to address diversifying social challenges, in the four fields of Life, Industry, Infrastructure and Mobility, uniting all the capabilities inside and outside of the Group. For this purpose, we will enhance our business foundation fostered over the past 100 years and further transform business models.

\*Business foundation fostered over the past 100 years: connection with customers, technologies, personnel, products, corporate culture.

Corporate Mission

The Mitsubishi Electric Group will continually improve its technologies and services by applying creativity to all aspects of its business.  
By doing so, we enhance the quality of life in our society.

Initiatives to Create Value

**Provide integrated solutions uniting all the capabilities inside and outside of the Group**  
Transforming business models  
Enhance the 100-year business foundation × Strengthen all forms of collaboration = Evolution of Technology Synergies and Business Synergies

Social Challenges



# 1. Strategy

Mitsubishi Electric Group will contribute to meeting the SDGs' globally shared 17 goals by continuing to pursue sustainable growth through all corporate activities, including value creation to solve social challenges

## SUSTAINABLE DEVELOPMENT GOALS

Society 5.0

-ともに創造する未来-

Contribute through value creation

<p><b>7 AFFORDABLE AND CLEAN ENERGY</b></p> 	<p><b>11 SUSTAINABLE CITIES AND COMMUNITIES</b></p> 	<p><b>13 CLIMATE ACTION</b></p> 
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Satellites

Surveillance Control Systems

Power Systems

Transportation Systems

Image Analyzing Solution

Contribute through all corporate activities

<b>1 NO POVERTY</b>	<b>2 ZERO HUNGER</b>	<b>3 GOOD HEALTH AND WELL-BEING</b>	<b>4 QUALITY EDUCATION</b>	<b>5 GENDER EQUALITY</b>	<b>6 CLEAN WATER AND SANITATION</b>
<b>7 AFFORDABLE AND CLEAN ENERGY</b>	<b>8 DECENT WORK AND ECONOMIC GROWTH</b>	<b>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</b>	<b>10 REDUCED INEQUALITIES</b>	<b>11 SUSTAINABLE CITIES AND COMMUNITIES</b>	<b>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</b>
<b>13 CLIMATE ACTION</b>	<b>14 LIFE BELOW WATER</b>	<b>15 LIFE ON LAND</b>	<b>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</b>	<b>17 PARTNERSHIPS FOR THE GOALS</b>	<b>SUSTAINABLE DEVELOPMENT GOALS</b>

Recycling (Home Appliances)

Strengthen Corporate Governance and Compliance on a Continuous Basis

Reduce Environmental Burden During Production

Tree Planting

Respect Human Rights and Promote the Active Participation of Diverse Human Resources

Intuitively-interfaced remote-control

Initiatives to Realize an Inclusive Society

SOCIO-ROOTS Fund

⇒ Further promote initiatives to create value, such as simultaneous achievement of “sustainability”, and “safety, security, and comfort”

**– ESG Topics –**

Received the highest rating from CDP<sup>(\*1)</sup> .  
 - "A List" company for "Climate Change" and "Water Security" for three consecutive years (Jan.2019)  
 - "Supplier Engagement Leader" (Feb.2019)



Increase mass production of motor and inverter systems for EV by the new plant in the Czech Republic (Operation to start Apr.2020)



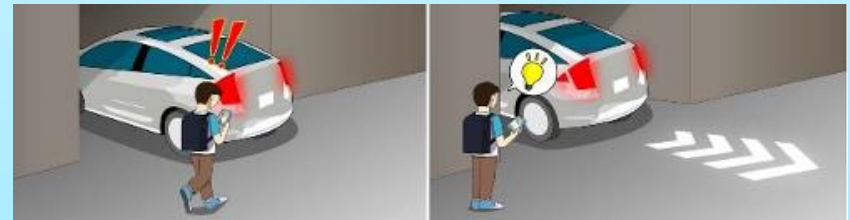
**Continue our Commitment to the UN Global Compact**  
 Continue CSR activities in accordance with UN Global Compact principles in the areas of Human Rights, Labour, the Environment and Anti-Corruption



**Won awards for the Kids Design Awards<sup>(\*2)</sup> for 10 consecutive years (Sep.2018)**



**MITSUBISHI microwave grill oven "ZITANG RG-HS1"**  
 - received "The Minister of State for Gender Equality Award"



**"Study on safe and secure lighting"**  
 - received "The Kids Design Association Chairman's Award"

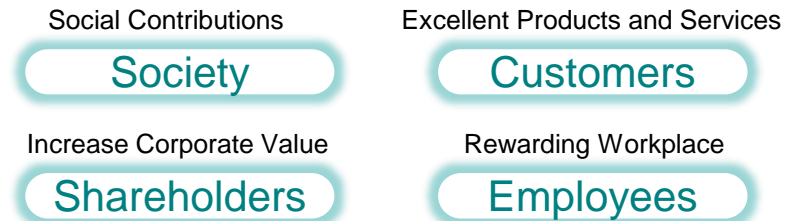
\*1 : An international NPO working to enhance environmental disclosures.  
 \*2 : The Kids Design Awards is a program held by the Kids Design Association, and recognizes outstanding works that realize and disseminate the philosophies of designs for children ("kids"). They would be designs which contribute to the safety and security of children, develop the creativity and shape the future of children, and allow people/society to comfortably raise children.

## 2. Management Policy

— Maintain and evolve Balanced Corporate Management —



### ■ Pursue the Satisfaction of the Four Stakeholder Categories



### ■ Strive for Continuous Innovation

Always improving.  
Always delivering new value.

### ■ Toward a Higher Level of Growth

Growth Targets for FY2020

- Revenue 5 trillion JPY or more
- OPM 8% or more

Management Targets to be Continuously and Stably Achieved

- ROE 10% or more
- Debt Ratio 15% or less

\*Debt Ratio represents ratio of Bonds and borrowings to total assets 6

### 3. Forecast for FY2019 (Consolidated performance)

	FY2015	FY2016	FY2017	FY2017	FY2018	FY2019
	U.S.GAAP			IFRS		
	Actual	Actual	Actual	Actual	Actual	Forecast(Apr.2019)
(Billions of JPY)	120JPY/USD 133JPY/EUR	109JPY/USD 119JPY/EUR	111JPY/USD 130JPY/EUR	111JPY/USD 130JPY/EUR	111JPY/USD 128JPY/EUR	105JPY/USD 125JPY/EUR
Revenue	4,394.3	4,238.6	4,431.1	4,444.4	4,519.9	4,630.0
Operating Profit	301.1	270.1	318.6	327.4	290.4	295.0
(%)	6.9%	6.4%	7.2%	7.4%	6.4%	6.4%
Profit before income taxes	318.4	296.2	364.5	353.2	315.9	320.0
Net Profit	228.4	210.4	271.8	255.7	226.6	240.0
ROE (Return On Equity)	12.4%	10.9%	12.6%	11.7%	9.7%	
Stockholders' Equity	1,838.7	2,039.6	2,259.3	2,294.1	2,399.9	
(%)	45.3%	48.9%	53.0%	53.3%	55.1%	
Debt	404.0	352.1	311.4	311.9	298.4	
(%)	10.0%	8.4%	7.3%	7.2%	6.9%	
FCF (Free Cash Flow)	111.2	217.3	62.2	83.7	29.1	
Dividend (JPY per share)	27	27	40	40	40	
Dividend ratio(%)	25.4%	27.5%	31.6%	33.6%	37.9%	

\*Mitsubishi Electric adopts International Financial Reporting Standards (IFRS) from FY 2018.

\*Net Profit represents Net profit attributable to Mitsubishi Electric Corp. stockholders.

\*Debt represents Bonds and borrowings.



### 3. Forecast for FY2019 (Segment Forecast)

		FY2015	FY2016	FY2017	FY2017	FY2018	FY2019
		U.S.GAAP			IFRS		
		Actual	Actual	Actual	Actual	Actual	Forecast(Apr.2019)
		120JPY/USD 133JPY/EUR	109JPY/USD 119JPY/EUR	111JPY/USD 130JPY/EUR	111JPY/USD 130JPY/EUR	111JPY/USD 128JPY/EUR	105JPY/USD 125JPY/EUR
Energy & Electric Systems	Revenue	1,264.6	1,227.9	1,241.9	1,253.0	1,296.7	1,330.0
	Operating Profit	50.3	44.3	51.7	65.4	82.5	83.0
	(%)	4.0%	3.6%	4.2%	5.2%	6.4%	6.2%
Industrial Automation Systems	Revenue	1,321.9	1,310.1	1,444.9	1,444.9	1,467.6	1,480.0
	Operating Profit	159.1	140.0	190.8	187.3	142.5	133.0
	(%)	12.0%	10.7%	13.2%	13.0%	9.7%	9.0%
Information & Communication Systems	Revenue	561.1	447.7	436.0	438.1	426.2	440.0
	Operating Profit	14.9	12.7	11.9	11.3	12.2	17.0
	(%)	2.7%	2.8%	2.7%	2.6%	2.9%	3.9%
Electronic Devices	Revenue	211.5	186.5	202.2	202.2	199.9	220.0
	Operating Profit	16.8	8.3	14.5	14.1	1.4	7.0
	(%)	8.0%	4.5%	7.2%	7.0%	0.7%	3.2%
Home Appliances	Revenue	982.0	1,004.4	1,049.3	1,049.3	1,074.0	1,110.0
	Operating Profit	63.8	69.6	56.0	55.4	59.4	64.0
	(%)	6.5%	6.9%	5.3%	5.3%	5.5%	5.8%
Others	Revenue	707.7	713.6	764.3	659.0	676.7	680.0
	Operating Profit	23.6	23.2	23.9	24.0	24.1	23.0
	(%)	3.3%	3.3%	3.1%	3.6%	3.6%	3.4%
Total	Revenue	4,394.3	4,238.6	4,431.1	4,444.4	4,519.9	4,630.0
	Operating Profit	301.1	270.1	318.6	327.4	290.4	295.0
	(%)	6.9%	6.4%	7.2%	7.4%	6.4%	6.4%

\*Mitsubishi Electric adopts International Financial Reporting Standards (IFRS) from FY 2018.

\*Inter-segment revenue are included in the above chart.

## 4. Toward a Higher Level of Growth

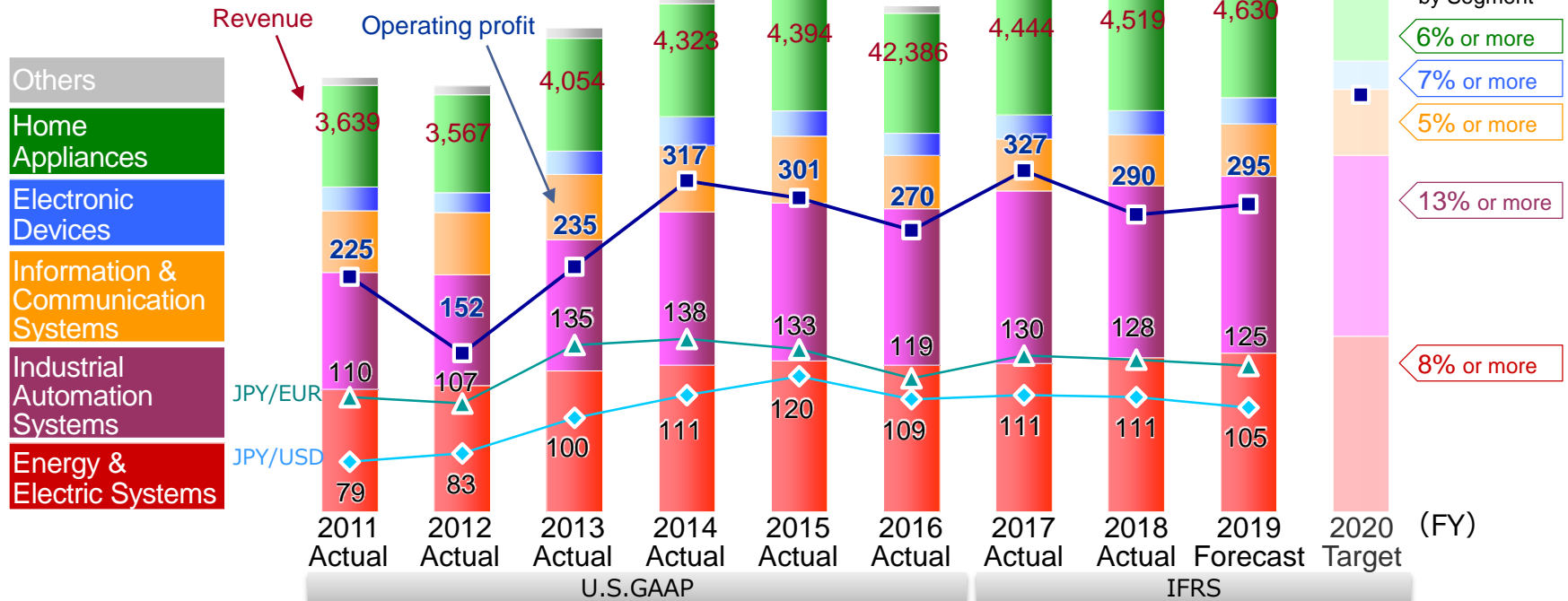
As slowdown in economic growth makes the business environment ever more harsh, in FY2019, we will keep an eye on outcomes of past investments as well as on the progress of profitability improvements, and continue with initiatives to achieve Growth Targets for FY2020 and sustain growth into the future

Expand Technology Synergies and Business Synergies  
Invest for sustainable growth beyond FY2020

Maximize investment outcome  
Improve low profitability businesses

Proactive investments mainly in growth drivers  
Strengthen business portfolios

(Billions of JPY)



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
OPM (%)	6.2	4.3	5.8	7.3	6.9	6.4	7.4	6.4	6.4	8% or more
ROE (%)	10.3	5.7	10.9	13.9	12.4	10.9	11.7	9.7	10% or more	10% or more
Debt Ratio (%)	16.0	15.9	10.3	9.4	10.0	8.4	7.2	6.9	15% or less	15% or less

\*Debt Ratio represents ratio of Bonds and borrowings to total assets

## 4. Toward a Higher Level of Growth

Maximize investment outcome to realize Growth Targets for FY2020 and sustain further growth beyond FY2020

•Up to FY2020: Expand businesses in Japan, North America, Europe and China •FY2020 and beyond: shift gear to expand business in emerging countries

### Japan

Achieve stable growth and greater profitability as a core operating region to drive business expansion

- Power**
  - HVDC<sup>(\*1)</sup> verification facility (Amagasaki, Nov.2018)
  - Transfer particle therapy system business (Jun.2018)
- Building**
  - Installation training center for elevator (Inazawa, Apr.2019)
  - ZEB<sup>(\*2)</sup> test facility (Kamakura, Jun.2020)
- Air-Conditioning & Refrigeration**
  - Development engineering/testing facility (Shizuoka, Jun.2019)
- FA**
  - The 2<sup>nd</sup> FA development center (Nagoya, Jul.2017)
- Automotive**
  - Developed next-generation driving-assistance technology concept car "EMIRAI4" (Oct.2017)
  - New plant and new laboratory for electric powertrain system (Himeji, May 2018, Aug.2019)
- Space**
  - Increase capital investment for DMP<sup>(\*3)</sup> (Jun. 2017, 2019)
  - New plant for satellite (Kamakura, Oct. 2017, Apr. 2020)
- Others**
  - New plant for communication system and network camera system (Koriyama, Oct.2018)

### North America/ Europe/ China

Achieve greater competitiveness in current markets while increasing the scale of operations

Major initiatives since FY2017

#### North America

Air-Conditioning & Refrigeration

- Established a distribution J/V with Ingersoll Rand (US, May 2018)

FA

- Invested in Realtime Robotics, Inc.<sup>(\*4)</sup> (US, May 2019)
- Agreed to acquire ICONICS, Inc.<sup>(\*5)</sup> (US, May 2019)

#### Europe Automotive

- New plant for electric powertrain system (Czech, Apr.2020)

Space

- Established Sapcorda Services<sup>(\*6)</sup> (Germany, Aug.2017)

FA

- Acquired ASTES4 SA<sup>(\*7)</sup> (Switzerland, Aug.2018)

#### China

FA

- New plant (Apr.2017) and expansion (Dec.2018)

\*1 HVDC: High Voltage Direct Current, \*2 ZEB: net Zero Energy Building  
 \*3 DMP: Dynamic Map Platform Co., Ltd from Jun.2017, formerly Dynamic Map Planning Co., Ltd.  
 \*4 Realtime Robotics, Inc.: Technology startup that develops motion-planning technologies.  
 \*5 ICONICS, Inc.: Software company focused on SCADA (Supervisory Control and Data Acquisition) a software used together with programmable logic controllers or other automation products to monitor, or gather data from, productions sites.) The acquisition is subject to regulatory approval.  
 \*6 Sapcorda Services: Joint venture established with Bosch, Geo++, and u-blox to bring high precision GNSS (Global Navigation Satellite System) positioning services to Mass Markets.  
 \*7 ASTES4 SA: Company engaged in automated sorting solutions for sheet metal laser processing machines.

### Asia (excl. China)/ Others

Cultivate new markets by developing local business networks

#### Thailand Building

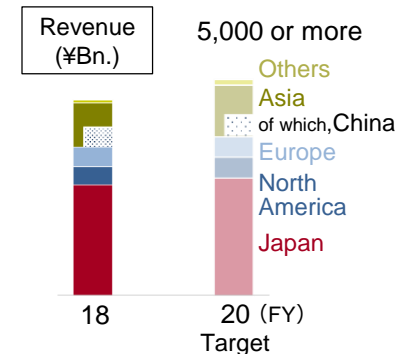
- New elevator test tower (Jun.2017)

#### Korea Building

- New plant for elevator (Mar.2018)

#### Turkey Air-Conditioning & Refrigeration

- New plant for RAC (Dec.2017)

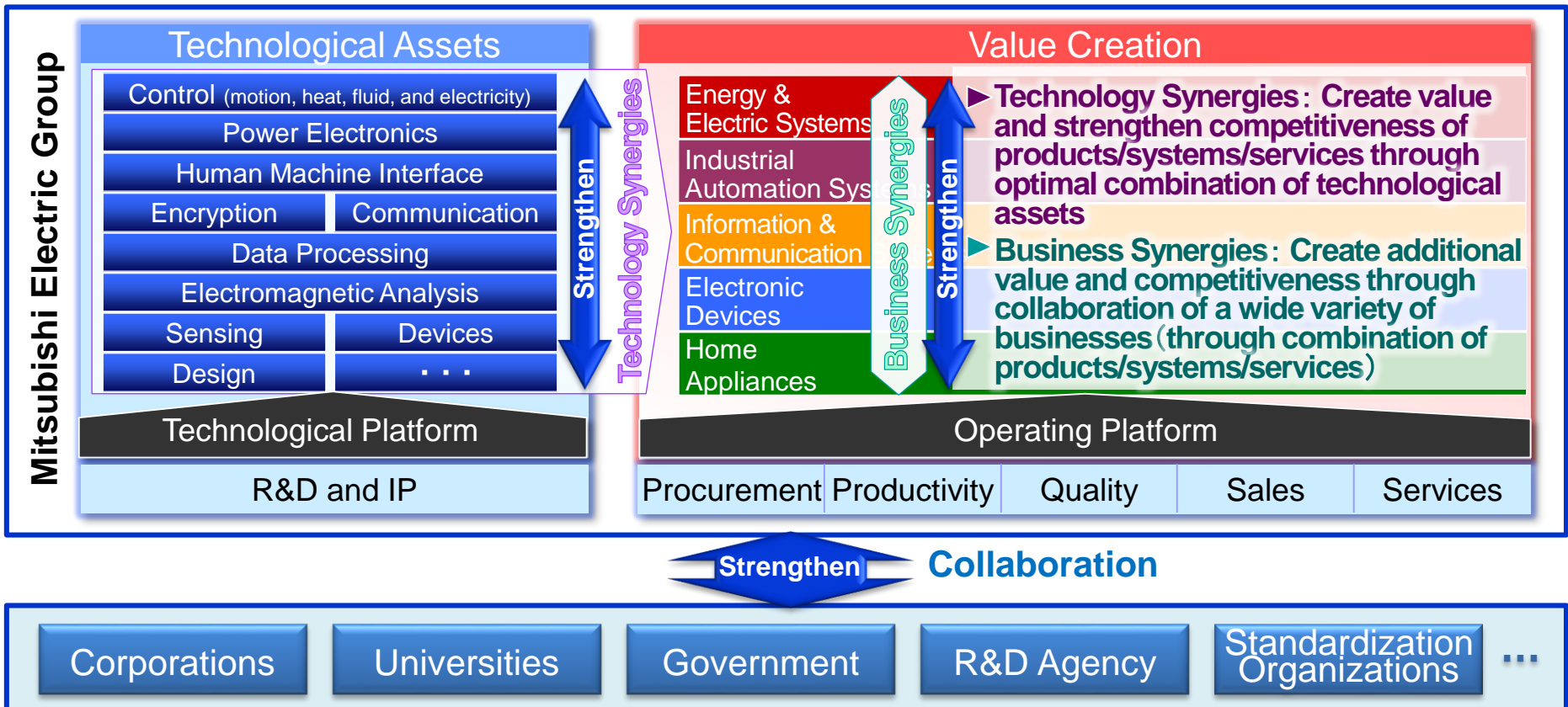


## 4. Toward a Higher Level of Growth

### Strength of the Mitsubishi Electric Group

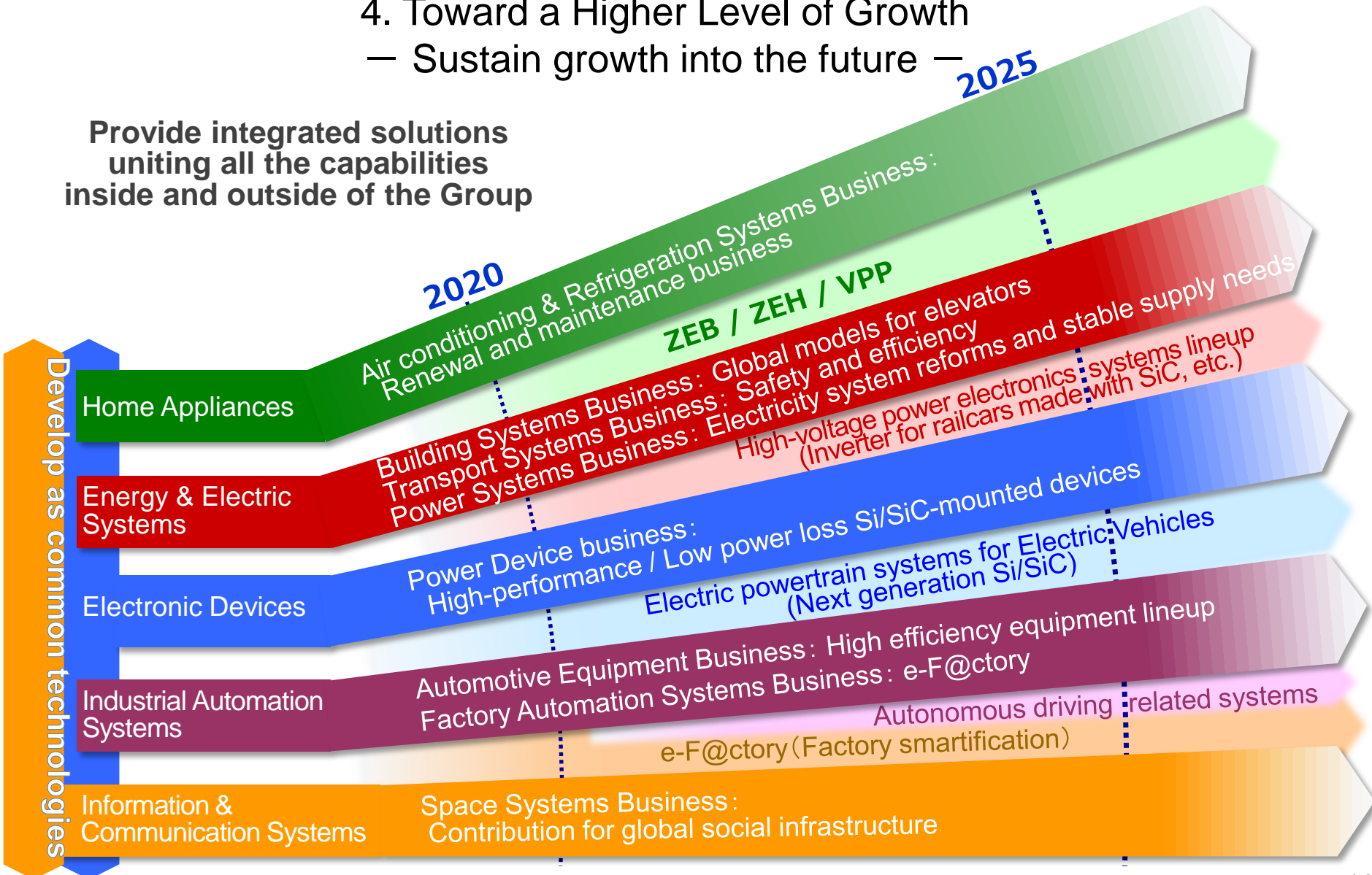
- A wide range of technological assets such as controls and power electronics
- Activities in diverse businesses with different business features
- “Kaizen” (improvement) culture taking root in every field, including production, quality management, sales, services, etc.

Fully leverage our strength through all forms of collaboration inside and outside of the Group



## 4. Toward a Higher Level of Growth — Sustain growth into the future —

Provide integrated solutions uniting all the capabilities inside and outside of the Group

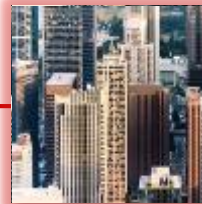
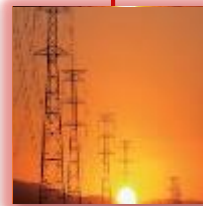


\*ZEH: net Zero Energy House, VPP: Virtual Power Plant, Si: Silicon, SiC: Silicon Carbide

## 5. Growth Drivers

### Energy & Electric Systems

- **Power Systems**  
Power generation systems,  
Transmission & distribution systems,  
Power distribution systems, etc.
- **Transportation Systems**  
Inverters, main motors and  
air conditioning systems for railcars,  
Train Vision, Train control and  
management systems,  
Railcar operation management systems,  
Signaling systems, etc.
- **Building Systems**  
Elevators, Escalators,  
Building management systems, etc.
- **Public Systems**  
Water treatment systems,  
Disaster prevention systems, etc.



## Growth Drivers



### Industrial Automation Systems

- **Factory Automation (FA) Systems**  
PLCs, AC servomotors,  
CNCs, Industrial robots,  
Laser processing machines, etc.
- **Automotive Equipment**  
Alternators, Starters,  
EPS system products,  
Car multimedia,  
Electric powertrain systems,  
Preventive safety / Autonomous driving related products, etc.

### Information & Communication Systems

- **Space Systems**  
Satellites, Ground systems for  
satellite control, etc.
- **Defense Systems**  
Radar equipment, Antennas, etc.
- **Communication Systems**  
Optical, wireless and satellite  
communications systems, etc.
- **Video Monitoring Systems**  
Network camera systems
- **IT Solution**

### Electronic Devices

- **Power Devices**  
SiC modules, IGBT modules, etc.
- **High Frequency and Optical Devices**  
High frequency devices (GaN and  
GaAs), Optical devices, etc.
- **TFT LCD Modules**

### Home Appliances

- **Air-Conditioning & Refrigeration Systems**  
Room and package air conditioners,  
Multiple AC units for buildings, Lossnay  
ventilation systems, Chillers, etc.
- **Housing Equipment**  
Smart appliances, Lighting, HEMS, etc.
- **Kitchen and Other Household Appliances**

## 5. Growth Drivers

### Power Systems Business

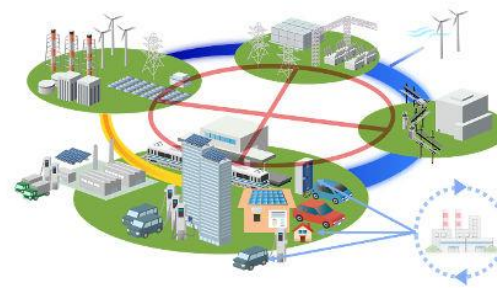
Provide products, systems and services which contribute to stable utilization of electricity and efficient business management for clients

■ **Respond to needs to use energy effectively and stabilize power systems, which have increased with the expansion of renewable energy and distributed energy resources**

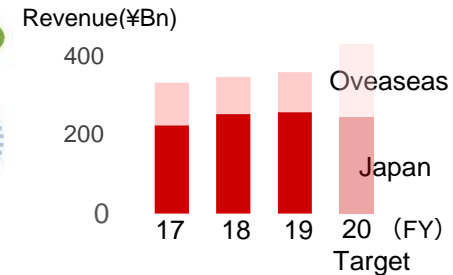
- Provide power electronics systems, high capacity energy storage systems, integrally management solution of distributed energy resources(VPP solution)

■ **Provide systems which support the electricity system reforms**

■ **Maintain aging products, and respond to needs for replacement into high efficiency products with a shorter construction period**



- Expand introducing new products and systems (Maximize investment outcome)
- Strengthen aftermarket service business (Japan/ Americas / Middle East, etc.)



### Transportation Systems Business

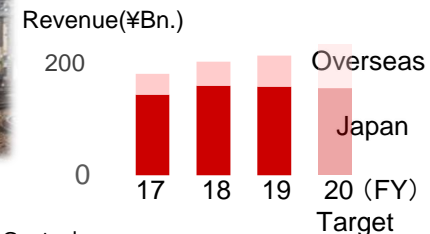
Improve efficiency and safety by leveraging the strength of products and systems which can realize “driving” “braking” and “controlling” in a single company

- **Improve energy efficiency of railcars and regenerative power during braking**
- **Safe and efficient train operation using train control which applies wireless technology (CBTC)**
- **Contribute to improving the utilization of various equipment through managing the product lifecycle of rail car electrical products**

- Launch a system which realizes faster accident responses enabled by visualizing information such as in-service car status and equipment conditions between the train operator and control center.
- Expand renewal/ maintenance/ aftermarket service utilizing the local bases



- Capture demand in Japan/ Europe/ India, etc. (Maximize investment outcome)
- Strengthen aftermarket service business (Europe/ Americas, etc.)



\*CBTC: Communication Based Train Control

## 5. Growth Drivers

### Building Systems Business

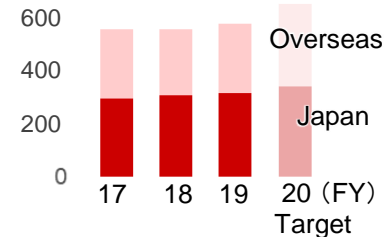
Provide total support from new installation to maintenance, and renewal, through highly safe and reliable products as well as high field engineering capabilities

- **Provide safety and reliability based on a rich track record, and achieve energy-savings by reducing size and weight of product lineup**
- **Reduce operation cost and energy consumption of the total building**
  - Provide a one-stop solution from assisting the ZEB design through to energy saving after operation, and support increasing the value-added of the building
- **Minimize the downtime of elevators during renewal periods**
  - Provide new renewal products which realize “0 days” (less than 24 hours) of continuous downtime for elevators during Construction (Number of units up for renewal by FY2020: c. 90,000 units)
- **Provide premium maintenance services**



- Capture demand in China/ India/ ASEAN, etc. (Maximize investment outcome)
- Strengthen aftermarket service business (Japan/China, etc.)

Revenue(¥Bn.)



### Air-Conditioning & Refrigeration Systems Business

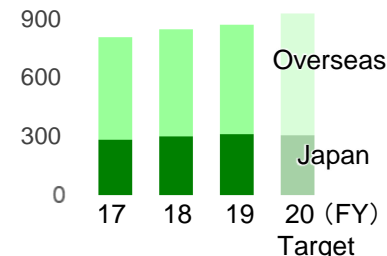
Offer renewal and maintenance solutions which meet the needs of each region through high functionality/high efficiency devices and advanced control technologies

- **Respond closely to the needs of different regions**
  - Respond to the broad range of needs from room air-conditioning to large size air-conditioning and refrigeration systems including chillers, through MEHITS (formerly: DeLclima)
  - Promote local production for local consumption through strengthening the global production system
- **Develop renewal and maintenance business**
  - Accelerate solution service proposals by collaborating with the Building Systems Business
  - Strengthen the system to make proposals for equipment operation systems and remote management services
- **Respond to environmental and energy-saving regulations, and lower environmental burden**
  - Renew into new refrigerant air conditioners in short construction periods by utilizing the existing piping (Replacement models)
  - Adopt technologies such as all-SiC DIPIPM mounting, aluminum flat tube heat exchanger, and high efficiency compressors



- Capture demand in North America/ Europe/ China, etc. (Maximize investment outcome)
- Maximize synergies with MEHITS

Revenue(¥Bn.)



\*MEHITS: Mitsubishi Electric Hydronics & IT Cooling Systems S.p.A.,  
DIPIPM: Dual Inline Package Intelligent Power Module



## 5. Growth Drivers

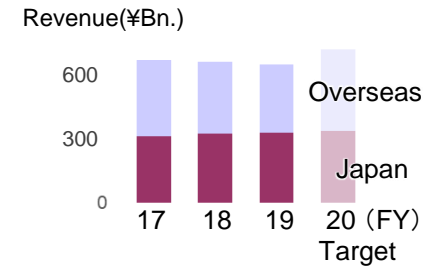
### Factory Automation (FA) Systems Business

Contribute to the smartification of factories by further evolving the 『e-F@ctory』

- **Strengthen 『e-F@ctory』 supporting products / solutions**
  - Launch FA products compatible with " CC-Link IE TSN" that enable integration of Information communications and machine control on one network.
  - Launch "MELSERVO-J5", the new general purpose AC servo system which contributes to increased productivity by one of industry's highest performance and cutting edge predictive maintenance
- **Establish systems to strengthen production and stabilize supply**
  - Strengthen production capacity (servo, inverter)
  - Expansion of production bases (Japan/China/India)



- Promote e-F@ctory
- Capture demand in China/ India/ ASEAN, etc. (Maximize investment outcome)



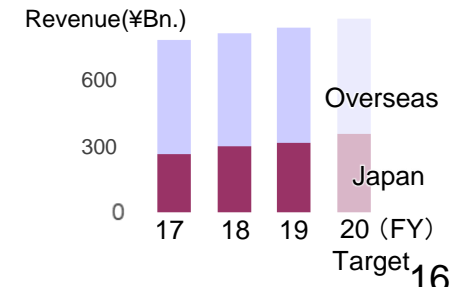
### Automotive Equipment Business

Realize environment-friendliness, safety and security, and comfort by coordinating and integrating a wide range of high efficiency equipment, including electric powertrain systems, and advanced control technology

- **Reduce environmental burden and Improve fuel mileage**
  - Contribute to lowering environmental burden and improving fuel efficiency by globally supplying diverse high efficiency equipment groups and providing electric powertrain systems
- **Improve comfort during driving**
  - Contribute to further improving comfort through next-generation information equipment which integrates entertainment/ navigation/ connectivity/ driver assistance functions
- **Realize a safe and comfortable autonomous driving**
  - Contribute to realizing an autonomous driving society by connecting and integrating existing products and system control technology, and by strengthening collaboration with communication technology/ infrastructure businesses with the view of advanced driving support



- Expand global supply of high efficiency equipment (Maximize investment outcome)
- Expand equipment for electric vehicles
- Expand preventive safety / Autonomous driving related businesses



## 5. Growth Drivers

### Space Systems Business

Contribute to building a global social infrastructure through satellite systems products across various areas

- **Contribute to the prevention of global warming, enhanced monitoring of climatic phenomena and global environment, and understanding of disaster situations (observational satellites)**

- Development of “Ibuki-2” to improve the measurement accuracy of green house gas concentration distribution, “Himawari-8,9” to improve resolution and drastically reduce imaging time, and “Daichi-2” to improve resolution and wider observation of land

- **Offer high-precision positioning Information (positioning satellites)**

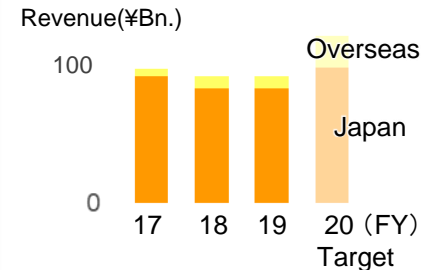
- Start of service by quasi-zenith satellite system “Michibiki”

- **Advance communications/ broadcasting infrastructure in various regions (communication satellites)**

- Development of “TURKSAT-4A/ 4B” for TURKSAT (Turkey) and “Es’hail 2” for Es’hailSAT (Qatar)



- Capture satellite systems demand in Japan and overseas (Maximize investment outcome)
- Expand high-precision positioning related businesses (autonomous driving, etc.)



### Power Devices Business

Provide key devices for energy-savings based on the most advanced power semiconductor technology by anticipating the needs of customers

- **Increase the value and competitiveness of customer’s products**

- Supply low power loss 7<sup>th</sup> generation IGBT devices which enable energy-savings and improve product performance

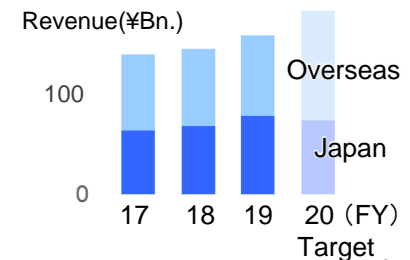
- **Realize low electricity consumption**

- Develop and supply low power loss SiC mounted devices

Power Device for Automobiles



- Expand launching 7<sup>th</sup> generation IGBT modules and SiC modules



Railcars

Make the inverter for railcars compact and lighter, ensure lower losses and high reliability

Automobiles

Make inverters compact, expand interior spaces, improve fuel mileage

Home Appliances

Further energy-savings, compact refrigerating systems, flattening and miniaturizing devices

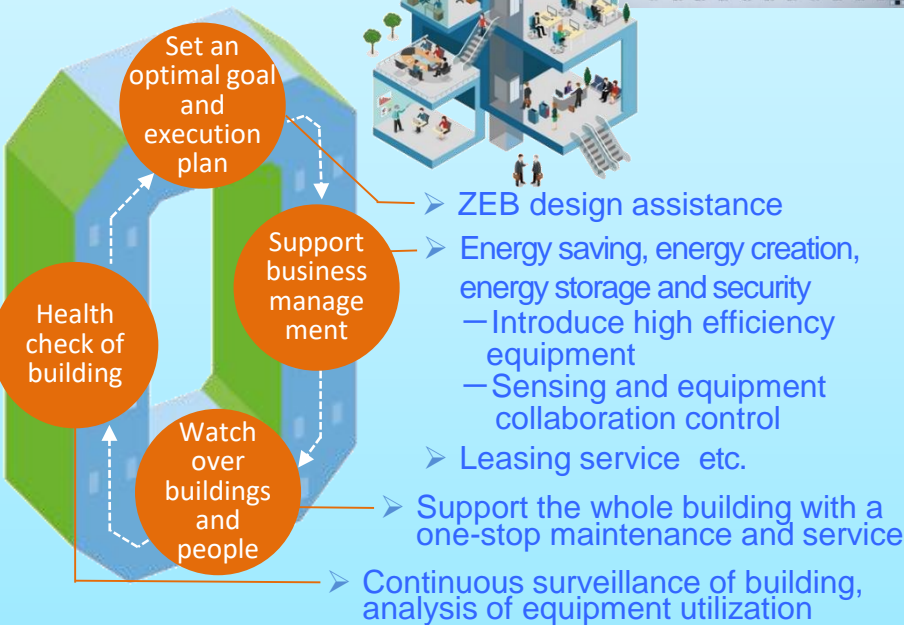
Industrial

Improve productivity of machine tools by enabling high-torque, high speed, high function

## 6. Technology Synergies and Business Synergies — Energy-saving ,safety, security and comfort for buildings —

Provide a one-stop solution: from the consulting for ZEB facilities to providing the actual products, systems and services for air-conditioning, ventilation, lighting, elevators, water heaters, power distribution, solar power, security, BEMS, and O&M, etc.

**ZEB**  
ONE-STOP  
SOLUTION

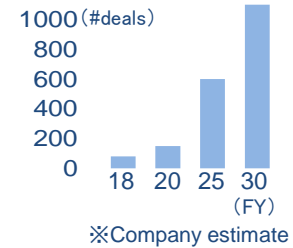


### ■ One of the top ZEB Planners to have cases receiving FY2018 subsidies

Number of cases receiving subsidies(METI and MoE) :  
6 out of 37 cases



ZEB deals  
Market size projection  
(Japan)



### ■ Drive technological development via “ZEB+®(Zeb Plus)” concept that contributes to more convenient office environments

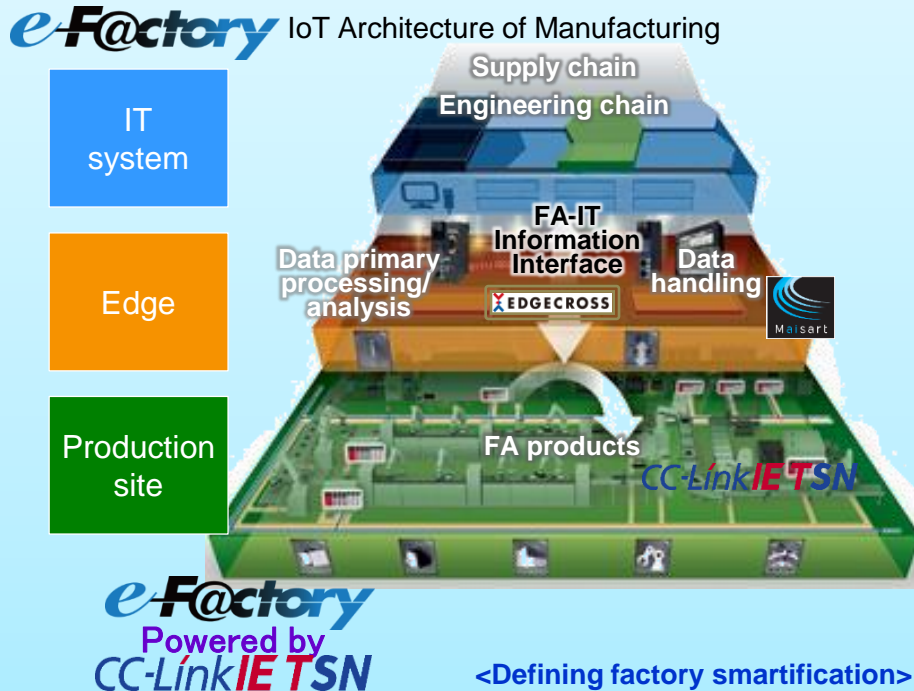


ZEB test facility with the aim to combine superior energy saving and comfort (Kamakura, to open in Jun.2020)

## 6. Technology Synergies and Business Synergies

— Strengthening competitiveness of manufacturing through IoT —

Contribute to the acceleration of factory smartification by further evolution of **e-F@ctory** which incorporates TSN(\*) technology



- ① Flexible system architecture
- ② High-speed, high-accuracy motion control communication
- ③ Easier engineering and maintenance

- ① Updating Production facilities
- ② Improvement of productivity and quality
- ③ Increased efficiency of equipment and facility operations

### ■ Launching CC-Link IE TSN compatible products

Sequencer, Servo, Robot, Indicator, Inverter, CNC etc. (May 2019~)



### ■ "Real-time Data Analyzer"- Data analysis/diagnosis software utilizing AI

Assist preventive maintenance/ quality management in the manufacturing field. Rolling out "data analysis services"





### ■ Expanding e-F@ctory Alliance activities

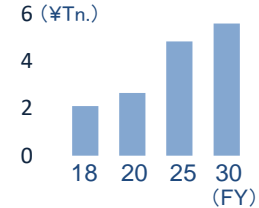
Launched e-F@ctory Alliance group  
Thailand : Feb. 2019  
Singapore : Apr. 2019



### <Partner Alliances>\* Mar. 2018 → Mar. 2019

	No. of Participating companies	c.610 → c.700
	No. of Participating companies	c.3,300 → c.3,620
	No. of connected products	c.1,800 → c.1,910

### Market expectation of Intelligent Production



\*Company estimate based on Fuji Keizai Co., Ltd data

\*TSN: Time Sensitive Networking (next-generation technology for Ethernet).

CC-Link IE TSN enables integration of machine control and information communications through the time sharing method.

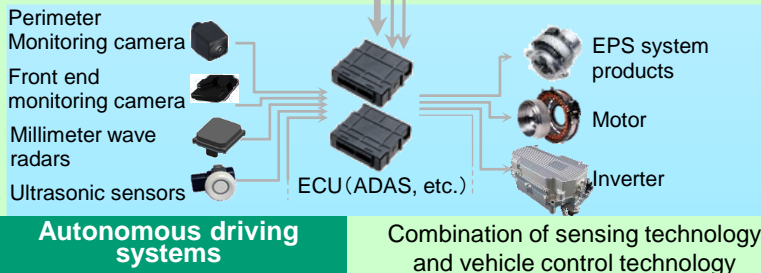
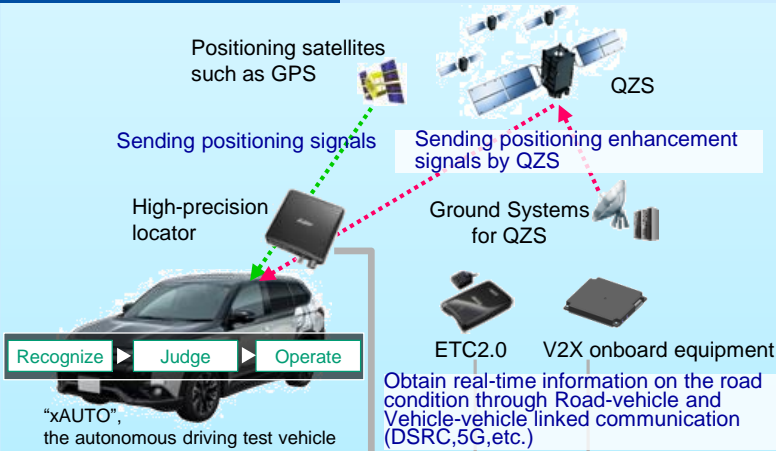
## 6. Technology Synergies and Business Synergies

— Safe, secure and comfortable autonomous driving society —

Contribute to realizing a safe and comfortable autonomous driving society from both “autonomous driving systems” and “vehicle-infrastructure cooperative systems”

### Vehicle-Infrastructure Cooperative systems

Utilizing information infrastructure such as QZS and ITS



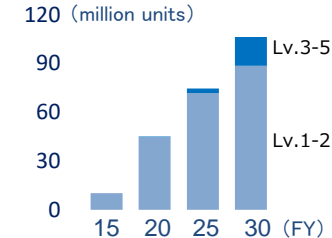
\*ITS: Intelligent Transport Systems, QZS: Quasi-Zenith Satellites, ECU: Electronic Control Unit, ADAS: Advanced Driver Assistance System, DSRC: Dedicated Short Range Communication, V2X: Vehicle to X, 5GAA: 5G Automotive Association, Sapcorda Services: joint venture established with Bosch, Geo++, and u-blox (Aug.2017)

### Demonstration experiment for autonomous driving

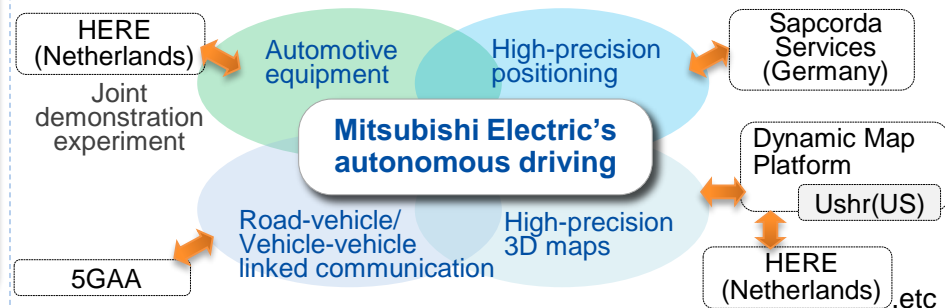


- Demonstration experiment for high reliability/ low latency cellular V2X system in anticipation of 5G communication technology (Apr.2019~)
- Public road test for autonomous driving vehicles utilizing high-precision positioning (Aug.2018~)

### Outlook on market size for autonomous driving systems



### Relationship of Mitsubishi Electric's autonomous driving related technologies and major business development partners



Through cooperation with partners in and outside Japan, promote strengthening of competitiveness, global expansion, and standardization

## 6. Technology Synergies and Business Synergies — Further expanding Mitsubishi Electric AI technology “Maisart” —

Compact AI which is our original technology promote the wider applicability of AI in diverse business

**Mitsubishi Electric  
AI technology  
“Maisart”**



**Deep Learning**

Compact algorithm  
Implement high level AI for all equipment

**Reinforcement Learning**

Implement our AI in a short period of time  
by speedy learning

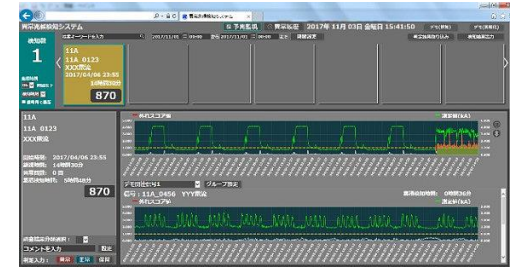
**Big data analysis**

Efficiently analyze large volumes of data with  
limited amount of computation

**Maisart** : Mitsubishi Electric's **AI** creates the **State-of-the-ART** in technology

### ■ Anomaly Detection System

Prevent facility anomalies and support continuous plant operations

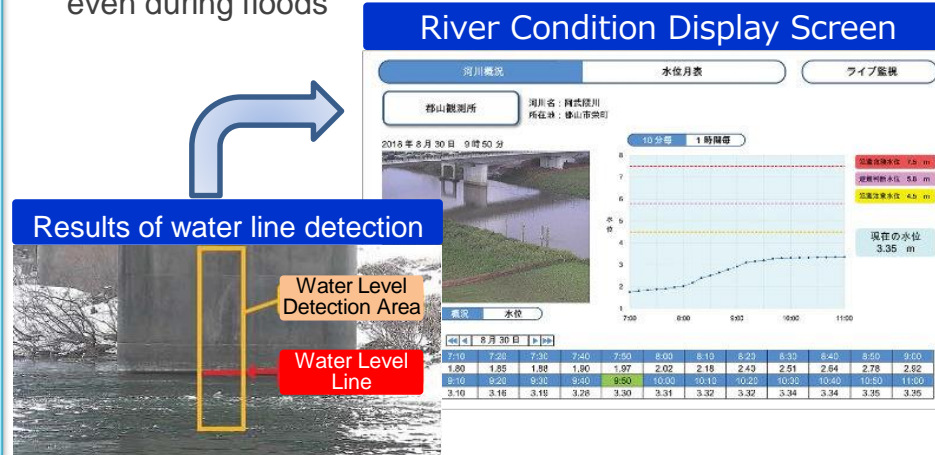


\*Being evaluated for a domestic electric power company's thermal power plants

### ■ Water Level Measurement Imaging Device

**“Field Edge®”**

Can stably measure water levels and provide information even during floods



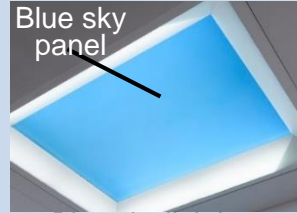
\*Received the “2018 R&D100 Awards” (organized by US R&D Magazine)

# 7. For Sustainable Growth Research and Development —



## Life Lighting technology simulating the blue sky

Expresses blue sky and natural light creating sense of depth indoors



Blue sky lighting prototype product



Sample Application



## Industry Dot forming technology achieving high-precision 3D metal shaping

Improve productivity in wide applications such as parts formation and overlay repair



Consecutive forming (conventional)

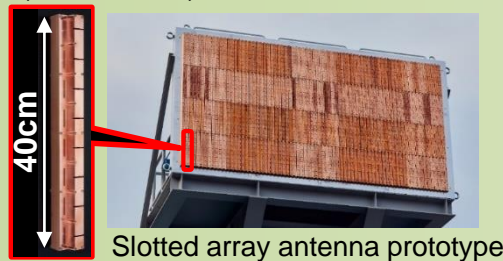


Dot forming (new)

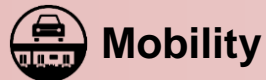


## Infrastructure Injection-molded-resin slotted waveguide array antenna<sup>(\*)</sup>

Reduce weight and cost of high performance antennas



Slotted array antenna prototype

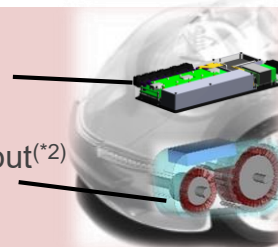


## Mobility Power unit motors for hybrid vehicles

Contribute to increased vehicle cabin space and fuel efficiency

World's top power density<sup>(\*)</sup> power unit

World's top class output<sup>(\*)</sup> power density motor



## Common Technologies

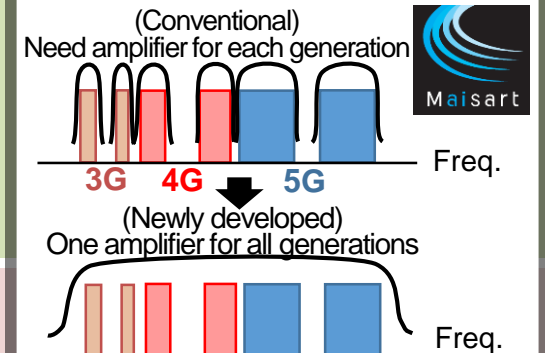
- Language recognition
- Content recognition of spoken language

こんにちは  
Guten Tag  
Hello  
Hola  
Bonjour  
你好 ...

Maisart

## Seamless speech recognition technology

Simultaneously recognize which language and spoken content without preconfigured settings



## Ultra-Wideband Digitally Controlled GaN Amplifier

Contribute to large-capacity communication and reduction of power consumption of mobile base stations

\*1 Part of the R&D was implemented with subsidies from Japan Science and Technology Agency's Adaptable and Seamless Technology transfer Program(A-STEP)

\*2 According to Company research

## 7. For Sustainable Growth – Intellectual property activities –

Protect technology based business advantages through patents over the medium and long term, and actively pursue intellectual property activities worldwide

Patent PCT application ranking **#2** globally  
World Intellectual Property Organization (WIPO) Top among Japanese companies

Design registration numbers ranking **#2** in Japan  
Japan Patent Office (JPO)

Patent registration numbers ranking **#1** in Japan  
Japan Patent Office (JPO)

Patent asset size ranking (all industries) **#1** in Japan  
Patent Result Co., Ltd.

\*Statistics of WIPO/ JPO: Jan.1- Dec.31, 2018,

\*Statistics of Patent Result: Apr.1, 2017- Mar.31, 2018

### **“Awards for a good-standing company Utilizing the Intellectual Property Rights System”**

in the FY2019 Intellectual Property Achievement Award of the Japan Patent Office

#### **(Award from the Minister of Economy, Trade and Industry)**

- Acknowledges the company’s overall intellectual property rights activities which effectively utilizes the Design rights Protection system

#### Examples



User-friendly (including children) Open-side design hand dryer



Universal design elevator which provides a comfortable moving space

### **“FY2018 National Invention Award”**

#### **【Invention Award】**

#### **Interior design-oriented air conditioner design**

- No front-side vent – our original design
- Flat and square shaped – a completely new design for air conditioners
- World’s top-class energy efficiency and flatness of design

“Kirigamine FL series”- air conditioner providing stylish design and comfortable space



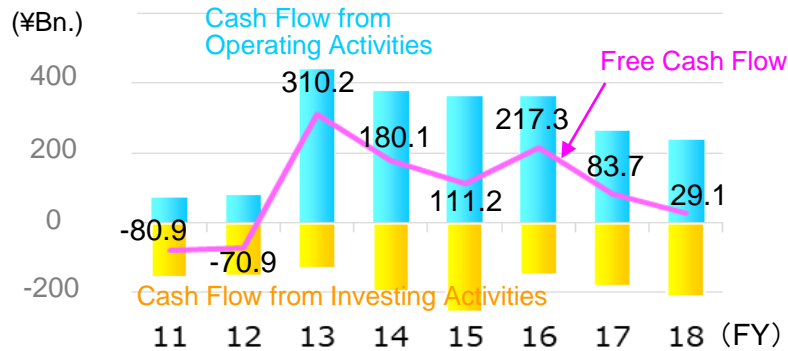


## 7. For Sustainable Growth

— Balance “Growth”, “ Profitability/ Efficiency”, and “ Soundness” —

### Stable Generation of Cash Flow

#### ■ Cash Flow\*



### Strategic Investments for "Growth"

Refer to the following page for details .

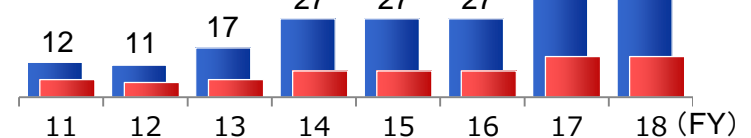
### Shareholder Returns according to Increase in Earnings

#### ■ Dividend

(JPY per share)

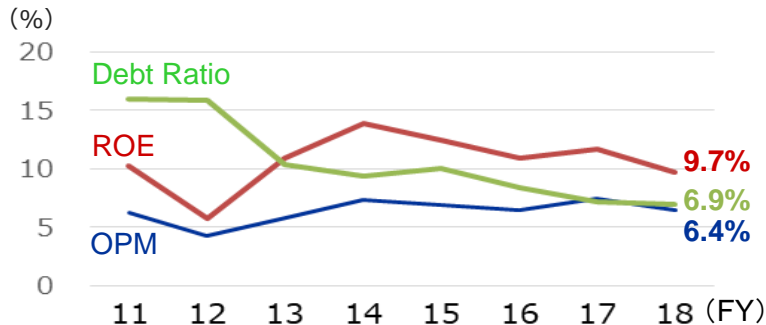
■ Annual Dividend

■ Interim Dividend



### Continuous improvements of "Profitability/Efficiency" and "Soundness"

#### ■ OPM/ ROE/ Debt Ratio\*



【Growth Target for FY2020】

**OPM** 8% or more

Enhance earning power by maximizing investment outcome, and creating additional value through Technology Synergies and Business Synergies

【Management Targets to be Continuously and Stably Achieved】

**ROE** 10% or more

Continuous improvement of ROE through improvement of ROIC (Mitsubishi Electric version) of each business units

**Debt Ratio** 15% or less

The target, “15% or less,” represents the Company’s financial discipline, which will allow the Company to secure the financing capability to raise necessary funds to invest for further growth.

※Data up to FY16 are presented in accordance with U.S.GAAP. FY17, FY18 in accordance with IFRS

\*Debt Ratio represents ratio of Bonds and borrowings to total assets

## 7. For Sustainable Growth

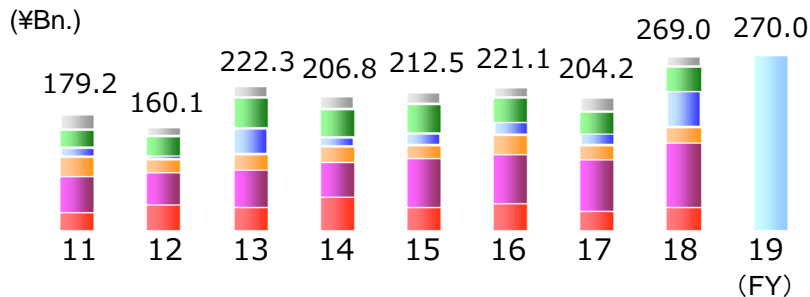
— Balance “Growth”, “ Profitability/ Efficiency”, and “ Soundness” —

### Strategic Investments for "Growth"

#### Proactive investments mainly in growth drivers

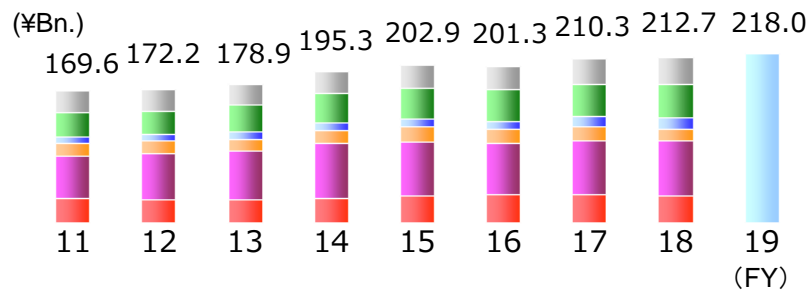
##### ■ Capital Investment

Capital investment for sustainable growth



##### ■ R&D

Balance short-, medium-, and long term development investments



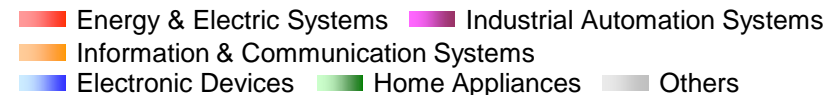
#### Strengthen Business Portfolios

##### ■ Constantly review and refresh business portfolio

- Reallocation of business resources to promising areas through regeneration of businesses
- Continuous creation of new businesses which underpin future growth

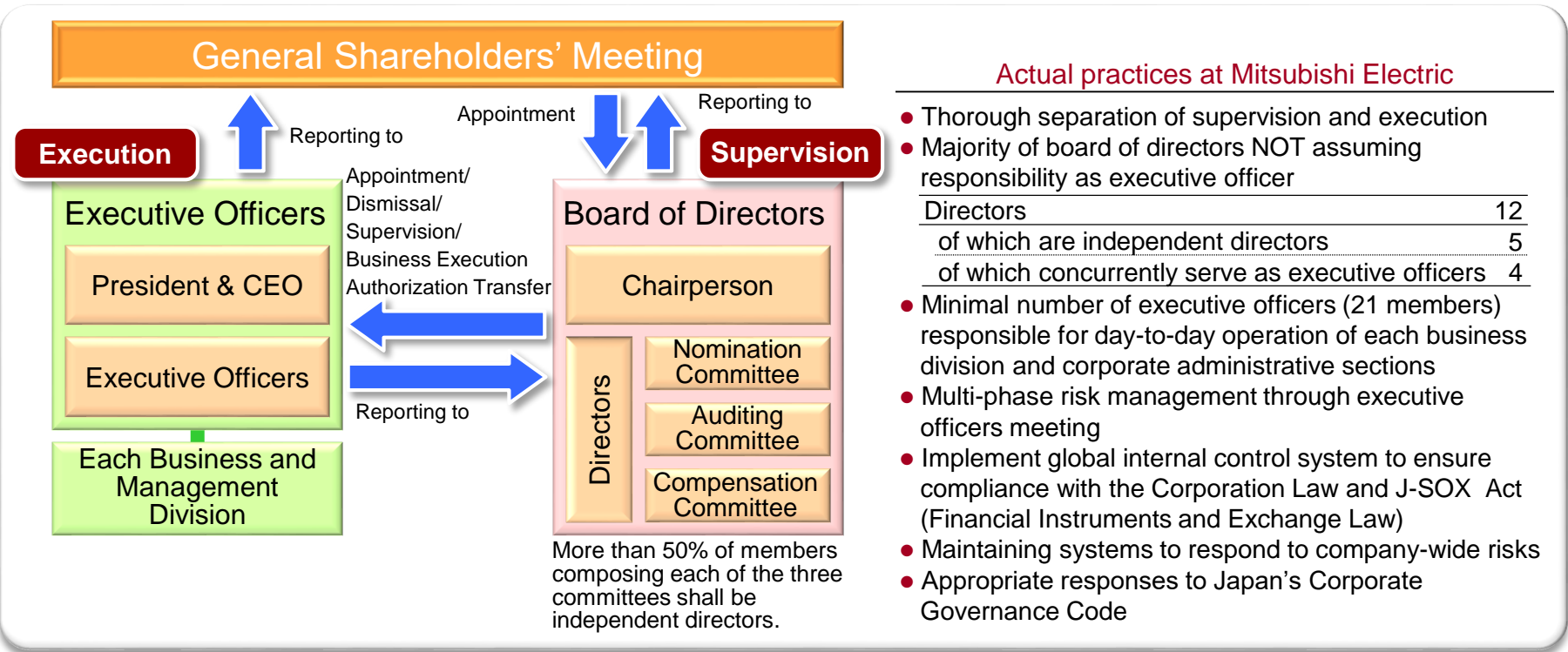
##### ■ Growth contributing collaboration and M&A

- Supplement missing parts (products/ services/ technology) essential to strengthen the business
- Secure distribution-/ service-network (supply chain) in entering new regions/ markets
- Acquire talent in order to strengthen business execution capabilities



## 7. For Sustainable Growth — Corporate Governance —

In June 2003, Mitsubishi Electric became a company with a committee system (currently: nomination committee system company) and separated the supervisory and executive functions of management, to further continue with the promoting flexibility of operations and transparency of management



### Actual practices at Mitsubishi Electric

- Thorough separation of supervision and execution
  - Majority of board of directors NOT assuming responsibility as executive officer
- |   |    |
|---|----|
| Directors   | 12 |
| of which are independent directors                | 5  |
| of which concurrently serve as executive officers | 4  |
- Minimal number of executive officers (21 members) responsible for day-to-day operation of each business division and corporate administrative sections
  - Multi-phase risk management through executive officers meeting
  - Implement global internal control system to ensure compliance with the Corporation Law and J-SOX Act (Financial Instruments and Exchange Law)
  - Maintaining systems to respond to company-wide risks
  - Appropriate responses to Japan's Corporate Governance Code

Appropriate response to revisions of legislation and other external factors

Appropriate disclosure to shareholders and other stakeholders

# *Changes for the Better*

## Cautionary Statements

The expectation of operating results herein and any associated statement to be made orally with respect to the Company's current plans, estimates, strategies and beliefs, and any other statements that are not historical facts are forward-looking statements. Words such as "expects," "anticipates," "plans," "believes," "scheduled," "estimated," "targeted," along with any variations of these words and similar expressions are intended to identify forward-looking statements that include but are not limited to projections of revenues, earnings, performance and production. While the statements herein are based on certain assumptions and premises that the Company trusts and considers to be reasonable under the circumstances to the date of announcement, you are requested to kindly take note that actual operating results are subject to change due to any of the factors as contemplated hereunder and/or any additional factor unforeseeable as of the date of this announcement.

Such factors materially affecting the expectations expressed herein shall include but are not limited to the following. As such, additional factors may arise at any given time.

1. Any change in worldwide economic and social conditions, as well as laws, regulations, taxation and other legislation
2. Changes in foreign currency exchange rates, especially JPY/dollar rates
3. Changes in stock markets, especially in Japan
4. Changes in balance of supply and demand of products that may affect prices and volume, as well as material procurement conditions
5. Changes in the ability to fund raising, especially in Japan
6. Uncertainties relating to patents, licenses and other intellectual property, including disputes involving patent infringement
7. New environmental regulations or the arising of environmental issues
8. Defects in products or services
9. Litigation and legal proceedings brought and contemplated against the Company or its subsidiaries and affiliates that may adversely affect operations or finances
10. Technological change, the development of products using new technology, manufacturing and time-to-market
11. Business restructuring
12. Incidents related to information security
13. Occurrence of large-scale disasters including earthquakes, typhoons, tsunamis, fires and others
14. Social or political upheaval caused by terrorism, war, pandemic by new strains of influenza and other diseases, or other factors

