

Power Electronics Systems Energy Business Strategies

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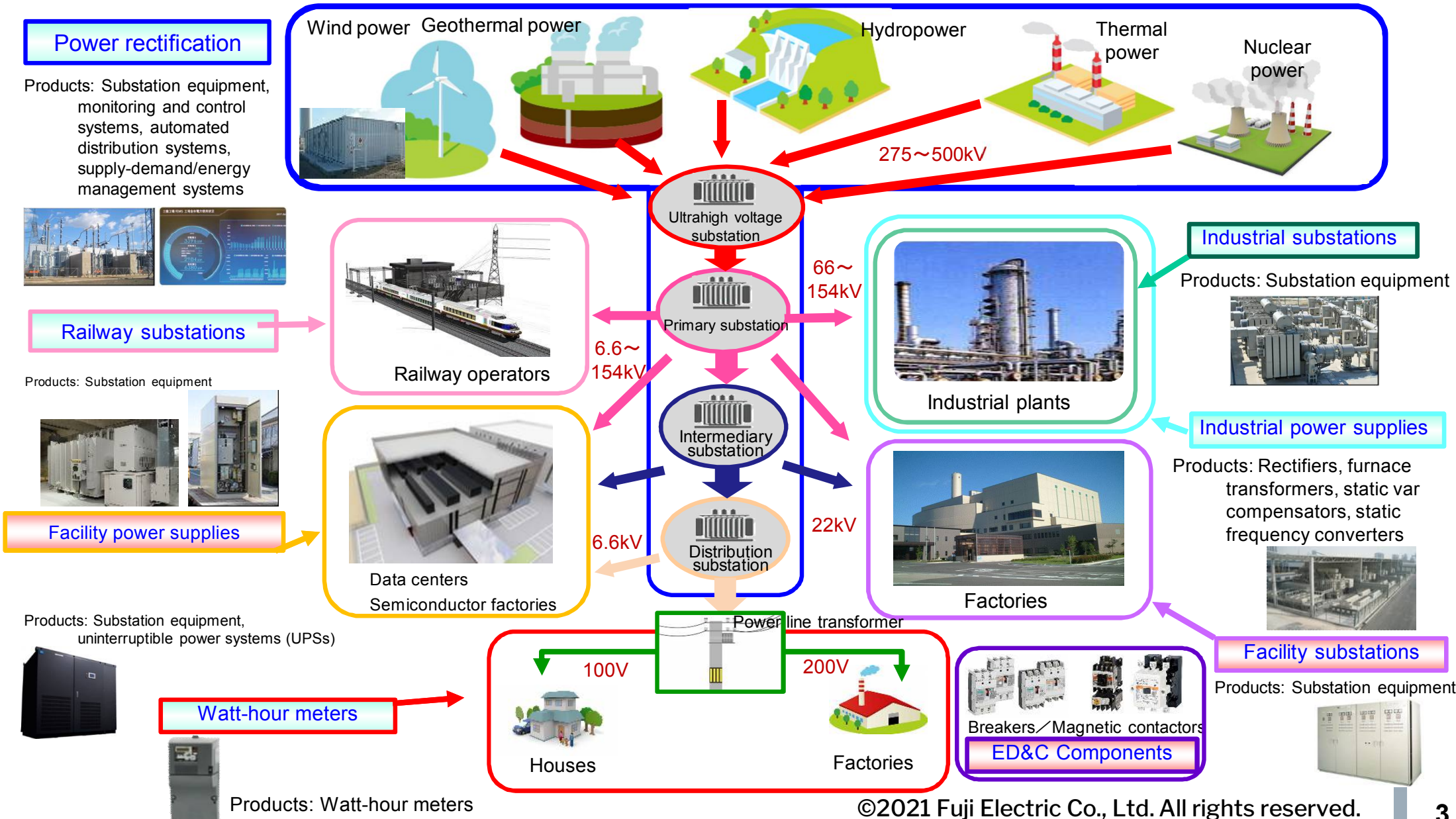
Fuji Electric Co., Ltd.

■ Business Overview

■ FY2021 Management Plan

- Market Outlook
- Business Policies
- Business Plan
- Priority Measures
- Capital Investment / Research and Development

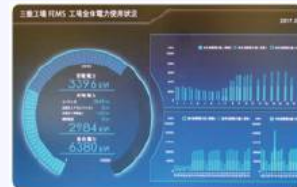
Contributions to stabilization, optimization, and reliable supply of power



Contributions to stabilization, optimization, and reliable supply of power

Energy Management

33% of total net sales



Energy management systems (EMS)



Leading domestic share

Smart meters



(High-capacity transformers)
Power grid substations



(Substation equipment)
Industrial substations



No.1 global share*

(High-capacity rectification equipment)
Industrial power supplies

Main Customers

Energy Management

Electric power company, new power company, public utilities, steel, nonferrous metals, oil, chemicals, railways

Power Supply and Facility Systems

33% of total net sales

Leading domestic share



Uninterruptible power systems (UPSs)



Switchgears and controlgears

Power Supply and Facility Systems

- Data center
- Semiconductor
- General industries

ED&C Components

34% of total net sales

No. 1 domestic share*



Magnetic contactors

No. 2 domestic share*


















Molded-case circuit breakers

ED&C Components

- Machine manufacturer
- Power distribution board manufacturer

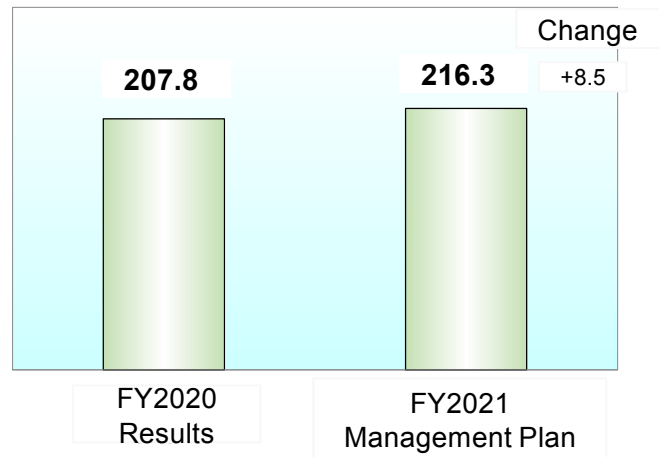
* Based on FY2020 performance; Source: Fuji Electric Co., Ltd.

Note: Percentages of total net sales represent FY2020 performance and are calculated before deduction and adjustment for inter-segment sales.

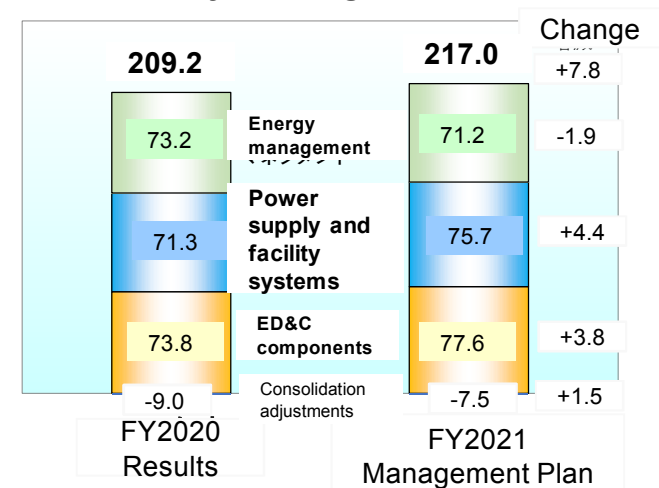
	Field	Japan / Overseas	YoY Change	Market Outlook (FY2021)
Energy Management 	Power	Japan		Intensifying competition due to retail deregulation, ongoing investment curtailment (minimal investment) Ongoing move to address aging substation facilities, conserve electricity, and increase power lines in response to internet data center demand
		Overseas		Rising power distribution system investment in India and Indonesia due to growth in power demand Strong conditions in Middle East but reduced investment due to move away from oil and political unrest
	Industrial	Japan		Trend toward curtailing capital investment, but ongoing investment for reinforcing operating foundations
		Overseas		High level of opaqueness, but resumption of previously dormant capital investment following gradual recovery after conclusion of COVID-19 pandemic, upgrade demand targeting aged facilities in Asia, and production capacity augmentation demand
	Railway	Japan		Losses recorded by railway operators in FY2020 due to COVID-19 pandemic Massive reduction in capital investment, only minimal necessary investments for ensuring safe and reliable transportation
		Overseas		Progress in railway construction plans centered on Asian emerging countries, investment execution projected in FY2021 and beyond
Power Supply and Facility Systems 	Power supplies	Japan		Ongoing construction investment by foreign internet data center operators , sluggish investment by domestic internet data center operators Recovery in small to medium-sized projects in Japan anticipated following conclusion of COVID-19 pandemic
		Overseas		Internet data center demand construction plans broadening out of Singapore and into surrounding countries in Southeast Asia Brisk investment accompanying increased semiconductor demand, investment first targeted at construction in South Korea
	Facility electrical equipment	Japan		Recovery in machine tool and semiconductor fields
		Overseas		Ongoing investment in public infrastructure facilities and commercial facilities and based on semiconductor investment plans
ED&C Components 	Japan		Machine tool export recovery centered on products for China coupled with gradual recovery in domestic demand Low level of switchboard projects, and consequently flat growth, despite favorable performance in certain projects for internet data centers	
	Overseas		Favorable conditions in China continuing from second half of fiscal 2020; uncertainty in Asia with regard to impacts of COVID-19 pandemic on investment plans, but brisk investment anticipated centered on semiconductors	

Deployment of sales promotion measures and reinforcement of management constitution to accomplish medium-term management plan targets

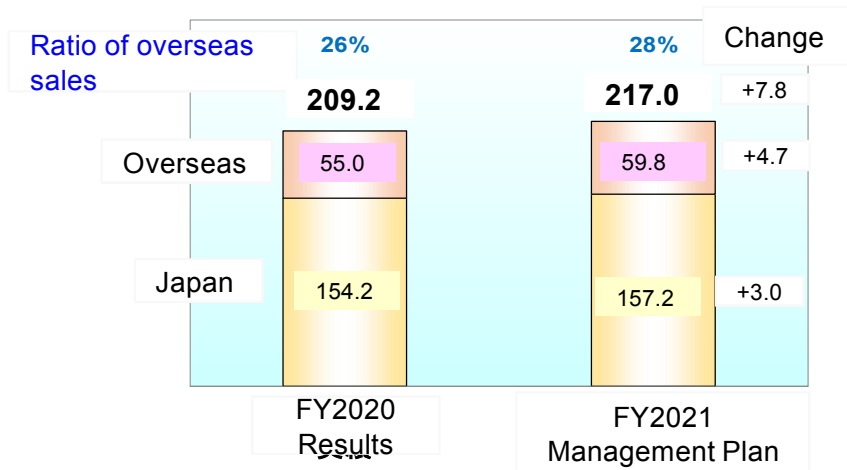
Amount of Orders Received (Billion yen)



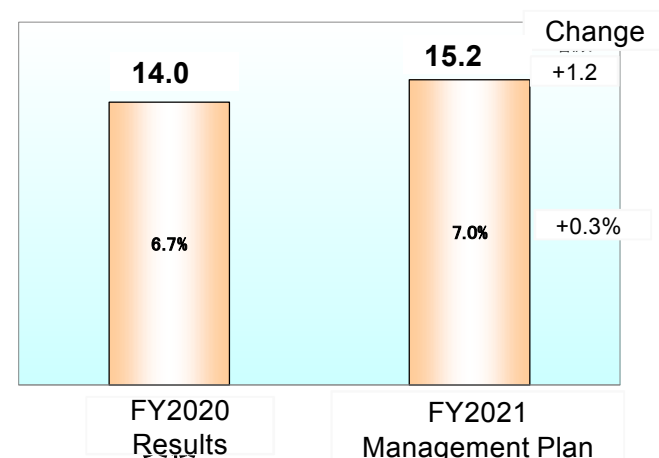
Net Sales by Subsegment (Billion yen)



Net Sales in Japan / Overseas (Billion yen)



Operating Income / Operating Margin (Billion yen)



◆ Energy Management

- Expansion of overseas operations centered on Southeast Asia
- Improvement of system accommodation capabilities

◆ Power Supply and Facility Systems

- Ongoing acquisition of large-scale internet data center and semiconductor project orders
- Promotion of comprehensive electrical equipment orders and reinforcement of service structures

◆ ED&C Components

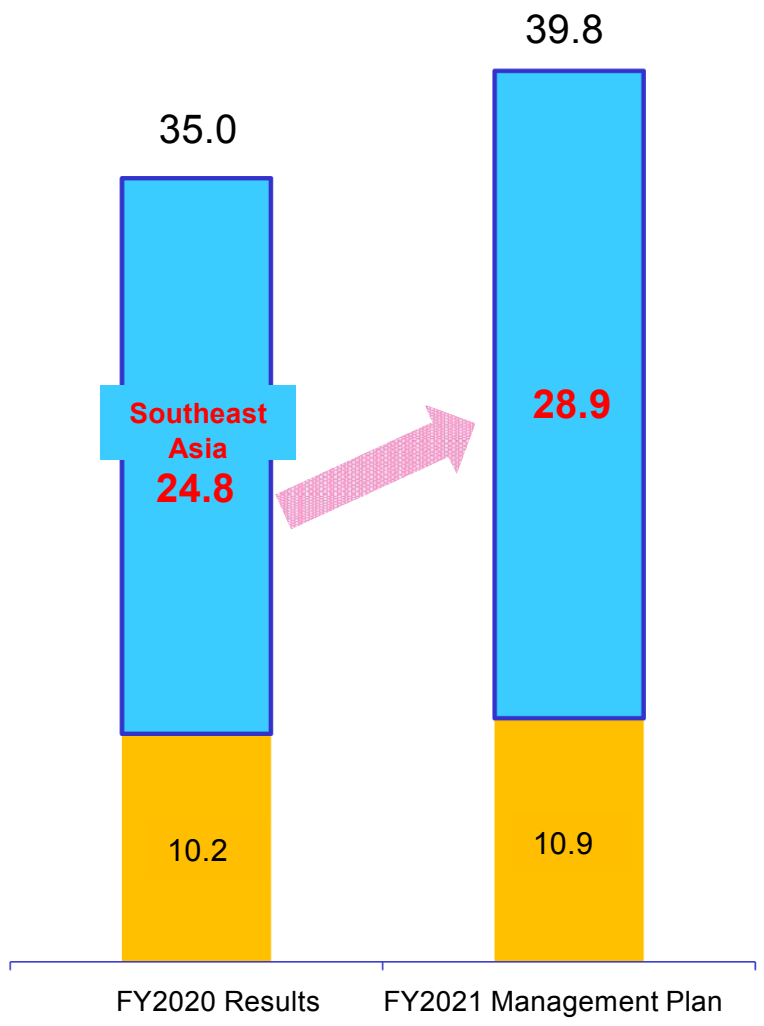
- Implementation of drastic structural reforms (exhaustive reinforcement of sales, model lineup, and manufacturing operations)

Expansion of Overseas Operations

Overseas Sales by Region

(Billion yen)

Note: Excludes ED&C components



Operating Environment

Brisk investment in power infrastructure, in response to growing power demand in emerging Southeast Asian countries; public infrastructure; and commercial facilities and growing internet data center- and semiconductor-related investment

Priority Measures

◎Expansion of overseas operations centered on Southeast Asia

■ Introduction of new products

- Acceleration of development of products for global market (global GISs, global transformers, High-capacity UPSs)
- Launch of newly developed global substation equipment

■ Enhancement of engineering support

- Approach toward systems project negotiations centered on FMT engineering center

■ Maintenance and augmentation of domestic and overseas production bases

- Production technology improvement and increased coordination with overseas bases
- Provision of technical support from Japan to overseas production bases

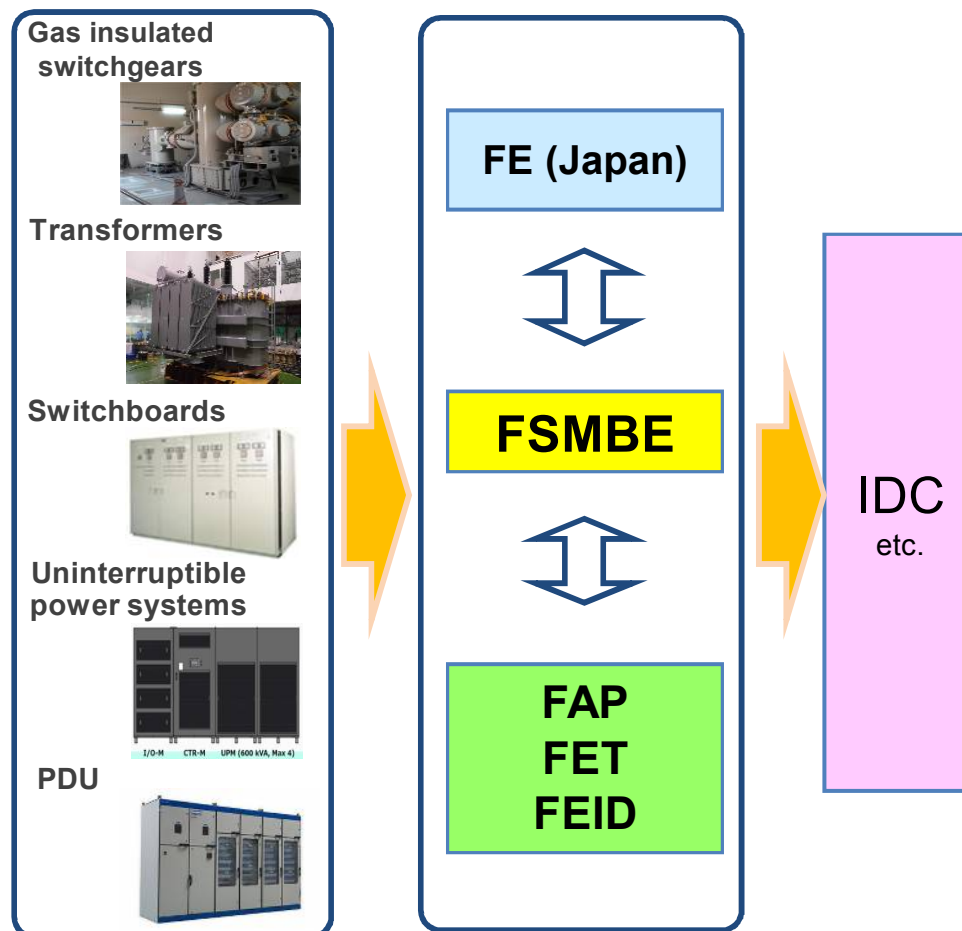
GIS: Gas insulated switchgears; UPS: Uninterruptible power system; FMT: Fuji Electric Manufacturing (Thailand) Co., Ltd.)

Growth of Asian Market (Launch of New Products)

- Launch of substation equipment newly developed for overseas markets
- Promotion of vendor registration by capitalizing on track record of serving foreign internet data center operators in Japan
- Coordination with FSMBE to promote sales of Fuji Electric and FSMBE products through mutual sales channel

Launch of products developed for overseas markets

Model		Specifications	2020	2021	2022	2023
Ultrahigh-voltage	Global GISs	145kV 40kA	Sales	Sales		
		168kV 40kA	Development		Sales	
		245kV 63kA	Development		Sales	
	Global transformers	115kV 50MVA			Sales	
		FR3-compatible	Development		Sales	
		230kV 200MVA		Development		
High-voltage	MV panels compliant with IEC standards	24kV 25kA	Development		Sales	
UPS	Large capacity UPS 7500WX	1200kVA	Development		Sales	
		Ultra-large capacity		Development		Sales
Low-voltage	Low-voltage switchgears and control gears	PDU			Sales	
		M-CUBE2	Development		Sales	



Expansion of Asian plant businesses through enhanced engineering support
Coordination between FMT engineering center and production bases to approach systems project negotiations

Focus Target Industries in Asia



Power



Industrial



Infrastructure



Trading



Data centers



Power generation / new energy

Sales / After Services

FET



Thailand

FEID



Indonesia

FESP



Philippines

FAP



Singapore

FEV



Vietnam

FESM



Malaysia

Overseas Sales Bases

Coordination

Overseas Production Bases

Manufacturing Coordination

FMT

FTU

FSMBE

FCN

Fuji Furukawa Engineering & Construction Co., Ltd.
(equipment construction)

Coordination

FMT Engineering Center



Business Strategies

Asian Business Division (new)

FTU

FCN

FMT



GIS

Transformers

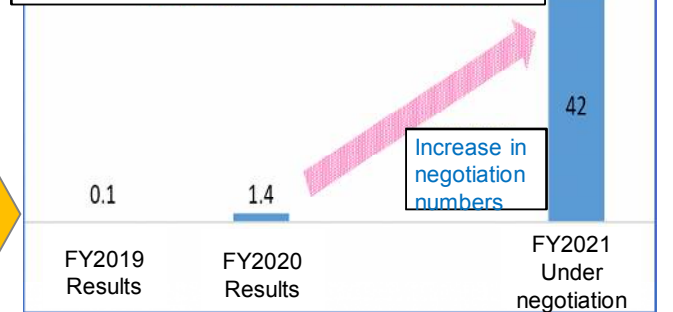
UPSs

Switchboards

Inverter boards

Control boards

Negotiations Approached through Coordination with FMT Engineering Center (100 million yen)



Principal Measures at Domestic and Overseas Production Bases

Japan

- Improvement of production technologies at **mother bases** (standardization, in-house production, automation, etc.)
- Enhancement of coordination with and technical support for overseas bases

Overseas

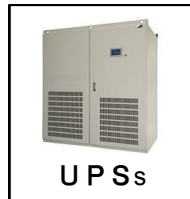
- Provision of manufacturing and engineering support to Asian bases via **FMT regional mother factory**
- Production of large-capacity UPSs at FCN and deployment of medium-capacity UPSs made at FCN throughout Asia

Overseas

Technical and manufacturing support for large-capacity IDC UPSs

FCN (India)

UPSs (medium/large capacity)



Deployment of medium-capacity UPSs throughout Asia

FSMBE (Singapore)

Switchboards



FTU (Thailand)

Transformers (PTR, DTR)



FMT (Thailand)

<Regional mother factory>

- Switchboards
- UPSs
- Switchgears



FMT engineering center

Japan

Smart meters

New engineering building
Scheduled for completion in Oct. 2021
Reinforcement of UPS development system



Tokyo Factory



GE Fuji Meter Co., Ltd

- Switchboards
- Small/medium-capacity UPSs

Tsukuba Factory



Chiba Factory



Technology building

Kobe Factory

- Switchboards
- UPSs



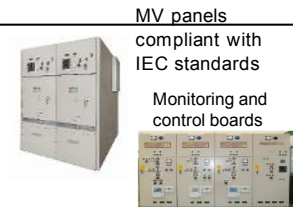
- Transformers
- Molded-case transformers
- Switchgears
- Conversion devices



Molded-case transformers



Smart meters



MV panels compliant with IEC standards
Monitoring and control boards



Vacuum circuit breakers



GIS



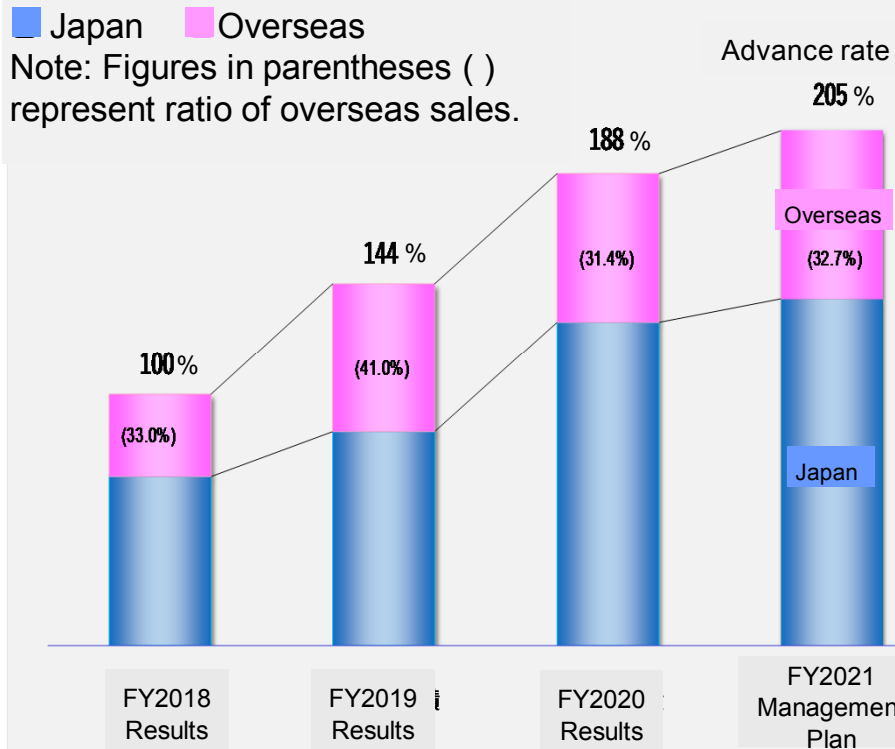
LV panels compliant with IEC standards

Switchboards

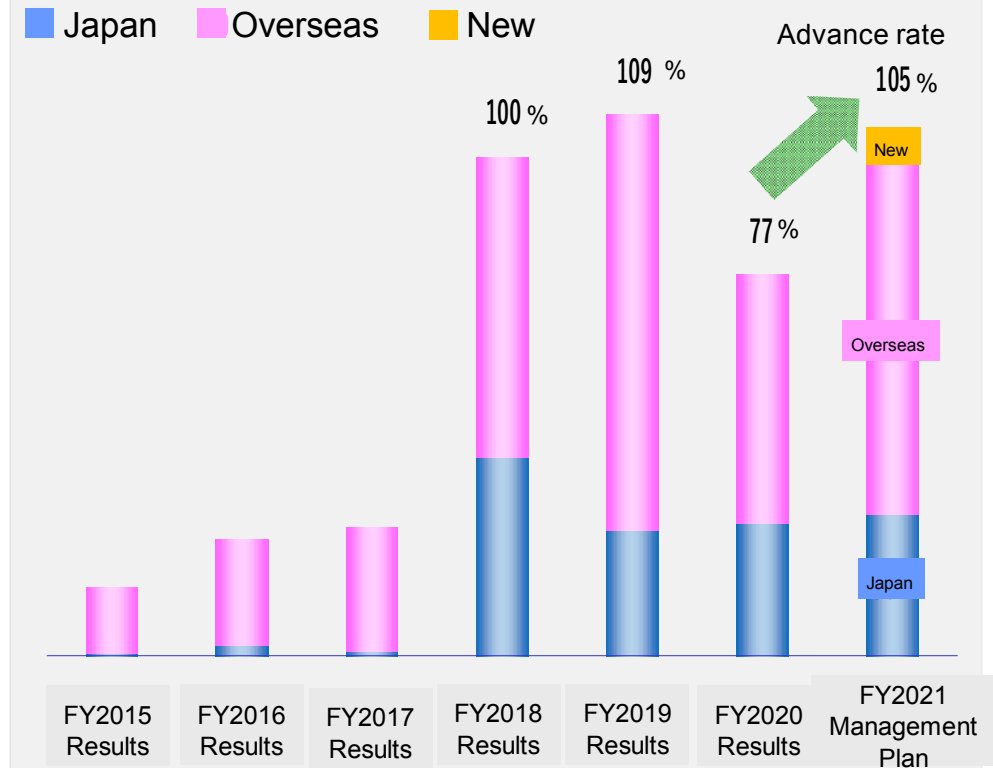
New product/model

- Growth of share by **proposing large-capacity UPSs (7500WX)** for internet data centers increasing capacity
- Proposal of comprehensive electrical equipment orders to **acquire ongoing orders from existing customers and approach new customers**
- Bolstering and training of staff to **increase number of engineers** capable of proposing comprehensive electrical equipment orders
- Acceleration of production rationalization and development through factory **standardization and in-house production**

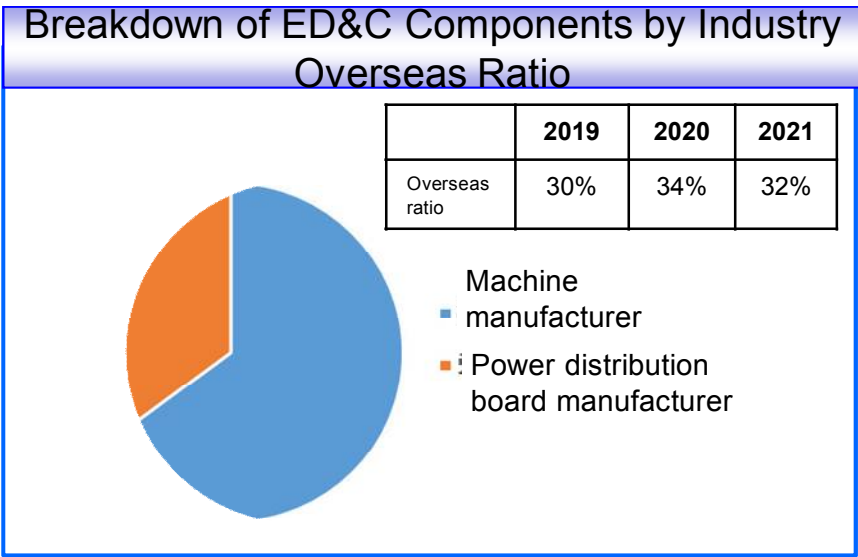
Internet Data Center-Related Sales



Semiconductor-Related Sales



Construction of structure resilient to demand fluctuations through business structure reforms

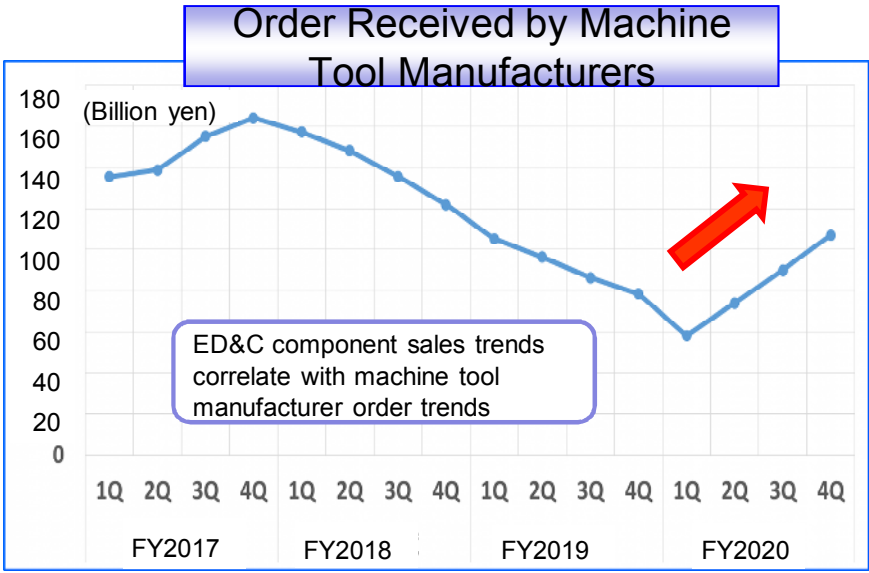


Operating Environment

Mixture uncertainty despite current demand recovery trend

Policies for FY2021

Continuation of measures to reform constitution and lower break-even point from FY2020 to build strong management structure resilient to demand fluctuations



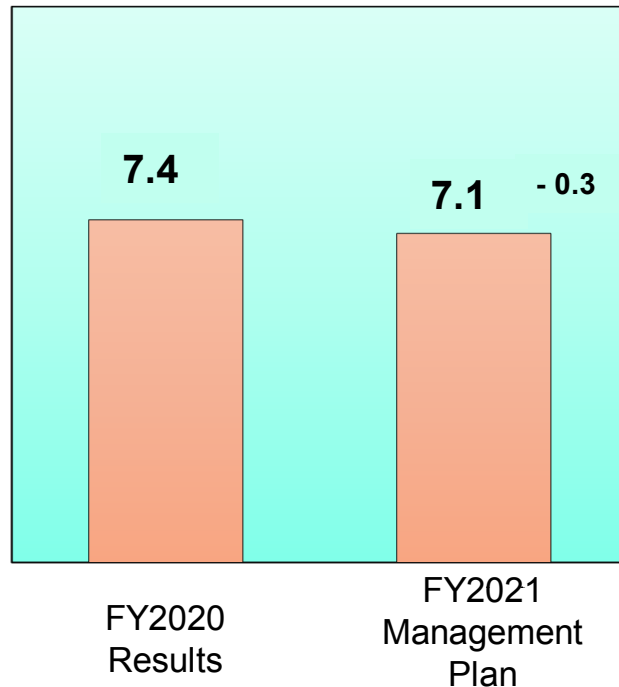
Priority Measures for FY2021

- Enhancement of competitiveness of existing models and development of differentiated products
- Revision of domestic sales business structures and overseas business strategies
- Pursuit of exhaustive fixed cost reductions through manufacturing streamlining

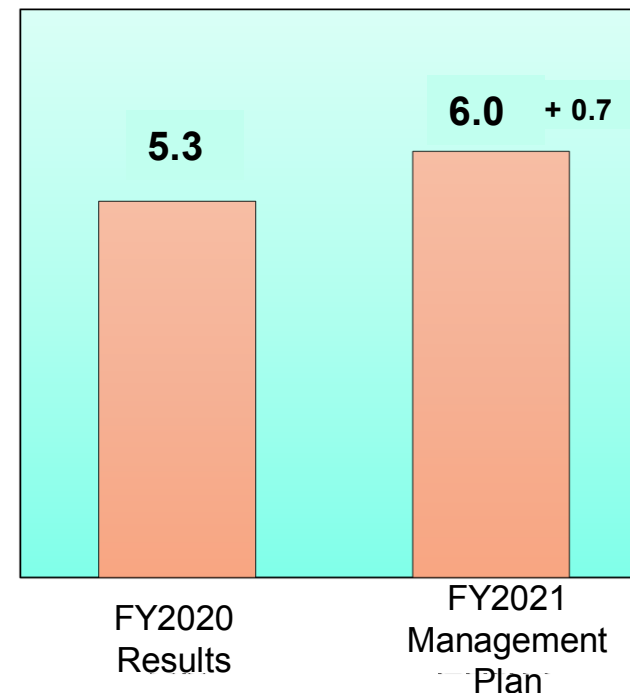
Source: Japan Machine Tool Builders' Association

Capital Investment and Research and Development

Capital Investment (Billion yen)



Research and Development (Billion yen)



- ◆ Energy Management
 - Factory rationalization, upgrades, and repairs
- ◆ Power Supply and Facility Systems
 - Factory rationalization, upgrades, and repairs
- ◆ ED&C Components
 - Equipment augmentation (switch control, low-voltage power distribution, IoT)

- ◆ Energy Management
 - Transformers, gas insulated switchgears
- ◆ Power Supply and Facility Systems
 - Global products (large-capacity UPSs)
- ◆ ED&C Components
 - Core products (magnetic switches, command switches)

Note: The R&D expenditure figures above represent expenditures that have been allocated to segments based on theme and may therefore differ from figures contained in consolidated financial reports.

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