SEMICONDUCTOR & DEVICE BUSINESS 2025

Semiconductor & Device Business

MITSUBISHI ELECTRIC CORPORATION

May 28, 2025

MITSUBISHI ELECTRIC
Changes for the Better

Contents

1 Executive Summary

Key Points

- **Capital allocation plan partially reviewed considering market changes**
- **ROIC to be enhanced by sustaining an upward trend in EBITDA* margin over the medium term**

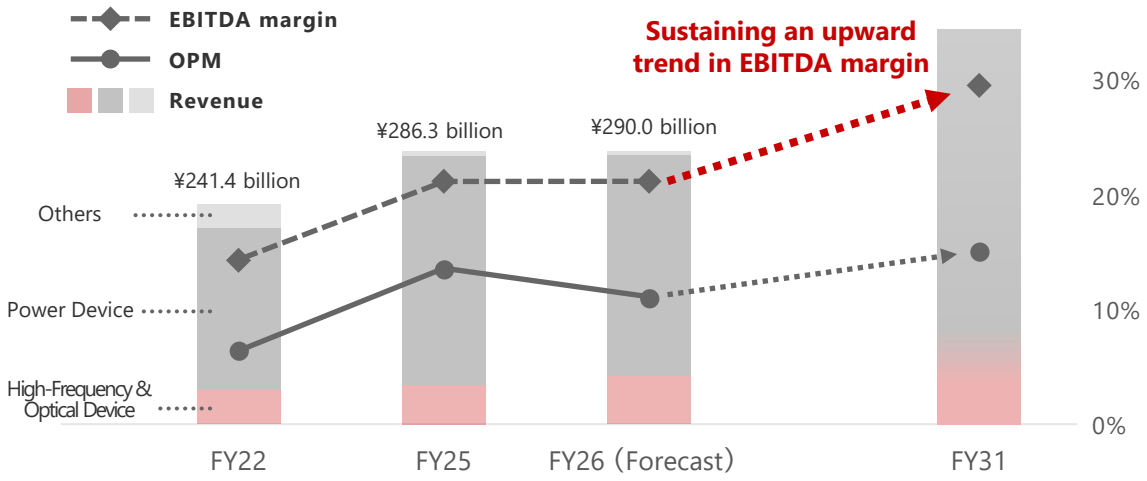
*1 EBITDA：Earnings Before Interest Taxes Depreciation and Amortization

Executive Summary

		FY25 Actual	FY26 Forecast
Semiconductor & Device Business	Revenue	¥286.3billion	¥290.0billion
	OPM	14.2%	10.7%
	ROIC	8.0%	5.5%

Record high profits for two consecutive years*1

Revenue, OPM & EBITDA margin



Growth Strategy for FY31

Capital allocation plan reviewed considering market changes

- Investments for the power device business to be restrained/ postponed and partially shifted to the growing optical device business, intended to maintain a stable earnings base

Improving profitability and strengthening competitiveness of power device business

- In addition to reviewing capital investment schedules, we will expedite measures to enhance profitability and improve productivity to resume growth following market recovery
- Proceeding with the construction of the new plant (Shisui area, Kumamoto Prefecture, Japan) as planned to promote the transition to larger-diameter (200mm) SiC power semiconductor wafers in anticipation of mid- to long-term market expansion
- Competitive SiC power semiconductors will be developed and supplied steadily through collaboration with Coherent

Expanding optical device business for data centers

- Exploring demand in the ultra-high-speed range by leveraging our leading share*2 position in EML*3 devices, as the data center market grows rapidly

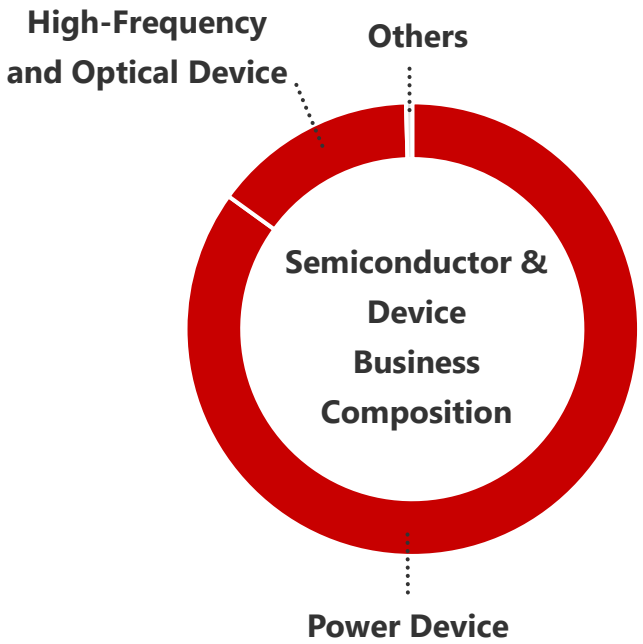
*1 Since the spin-off of Renesas in 2003 *2 No.1 global market share in optical devices for data centers (actual results in EML for data centers for FY2023, according to Mitsubishi Electric estimate)

*3 EML: Electro-absorption Modulator integrated Laser diode

2 Growth Strategy

Business Overview

Provide key devices that support carbon neutrality and a safe, secure and comfortable lifestyle, to realize GX[*1] and DX[*2]



	Main products
Power Device Business	● **Power Device (Si、SiC)** ＜Application fields＞ xEV, Consumer appliances (air conditioner, etc.), Renewable energy (photovoltaic, wind power, etc.), HVDC[*3]、UPS[*4] and switching power supply, Railway vehicles, Motion control, etc.
High-Frequency & Optical Device Business	● **High-Frequency Device** ＜Application fields＞ 5G base stations, Satellite communications, Radar (consumer and defense), etc. ● **Optical Device** ＜Application fields＞ Data center, Optical fiber communication, etc.

*1 GX: Green Transformation *2 DX: Digital Transformation *3 HVDC: High Voltage Direct Current *4 UPS: Uninterruptible Power Supply

Key Strategies

Capital allocation plan partially reviewed considering market changes to maintain a stable earnings base

Driving renewed business growth by improving profitability and strengthening competitiveness in power devices and expanding optical devices for data centers

	Business environment and order trends	Opportunities/challenges
Power Device Business	**<Mid- to long-term>** ● Expansion of the power semiconductor market towards decarbonization (2023→2028 CAGR 14%)*1 ● Expansion of the SiC power semiconductor market driven by adoption in electric vehicles (2023→2028 CAGR 30%)*1 **<Recent>** ● Slowdown in the shift to BEVs ● Stagnant demand for consumer and industrial appliances ● Changes in competitive structure due to an increase in players, etc. ● Expansion in HVDC demand due to rising use of renewable energy	**＜Opportunities＞** ● Expansion of the power module market where we maintain a top-class position*2 ● Expansion of application fields for SiC power modules, where we are strong ● Increasing demand for HVDC power modules, in which we hold the top market share*3 **＜Challenges＞** ● Improving profitability considering recent market slowdown ● Strengthening competitiveness, including collaboration with other companies
High-Frequency & Optical Device Business	**<Mid- to long-term, recent＞** ● Rapid expansion of demand for data centers due to the proliferation of cloud services and generative AI ● Expansion of Mitsubishi Electric defense systems business amid rising defense spending in Japan	**＜Opportunities＞** ● Increasing demand for optical devices for data centers, where we hold the top market share*4

Key Strategy 1 Common

Capital allocation plan partially reviewed

Capital investments for power device business to be restrained/ postponed

Partially shifted to optical device business

Key Strategy 2 Power Device Business

Expediting initiatives to enhance profitability and productivity

Key Strategy 3 High-Frequency & Optical Device Business

Expanding business by leveraging top market share*4 in optical devices for data centers

*1 Source：OMDIA *2 No.2 in global market share of power modules (2024 actual, source：OMDIA) *3 No.1 in global market share of power modules for VSC-type HVDC systems (FY24 actual, according to Mitsubishi Electric estimate)
*4 No.1 in global market share of optical devices for data centers (FY24 actual of EML for data centers, according to Mitsubishi Electric estimate)

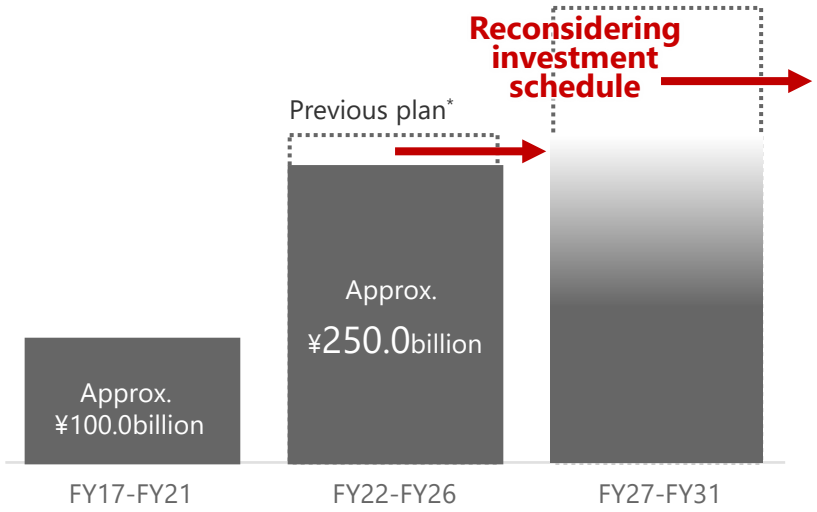
Growth Investment

New plant for SiC 200mm wafers (Shisui area, Kumamoto Prefecture, Japan) will be built as planned, promoting the transition to larger diameters

Capital investments for increasing production capacity of power devices to be restrained/ postponed and partially shifted to increase production capacity of optical devices

Capital investment amount

(Power Device Business)



*1 Plan announced in May 2023

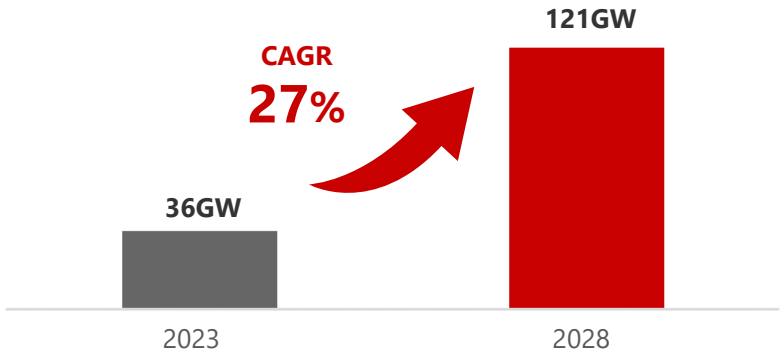
＜Growth investment plan＞

	Investments to date	Major investments planned
Capital investment	**<Wafer process>** ● Enhancing production capacity (Si 200mm, SiC 150mm) ● Enlarging wafer diameters (Si 300mm, SiC 200mm) ● Building new plant and installing equipment (Shisui area, Kumamoto Prefecture) **＜Assembly & inspection＞** ● Building new plant (Fukuoka area)	**＜Wafer process＞** ● ~~Expand Shisui area, Kumamoto Prefecture~~ 【Extend to FY32 or beyond】 ● Enhancing production capacity (Si 300mm, SiC 200mm) ● Enhancing production capacity (optical devices) 【Additional】 **<Assembly & inspection>** ● Enhancing capacity for module assembly and inspection processes
Development investment	● Standardization and commonization ● Developing Si 300mm wafer mass production technology ● Developing SiC elemental technology	● Developing compact design modules for the automotive market ● Developing highly reliable modules for the renewable energy and HVDC markets ● Developing next-generation chips for consumer and automotive markets (RC-IGBT、Trench type SiC-MOSFET) ● Developing SiC 200mm wafer mass production technology
M&A, etc.	● Invested to the new SiC business being carved out from Coherent ● Invested to Novel Crystal Technology (Development of Gallium-oxide Power Semiconductors)	● Strategic investment to strengthen alliances

Accelerating Business Expansion for HVDC Market | Power Device Business

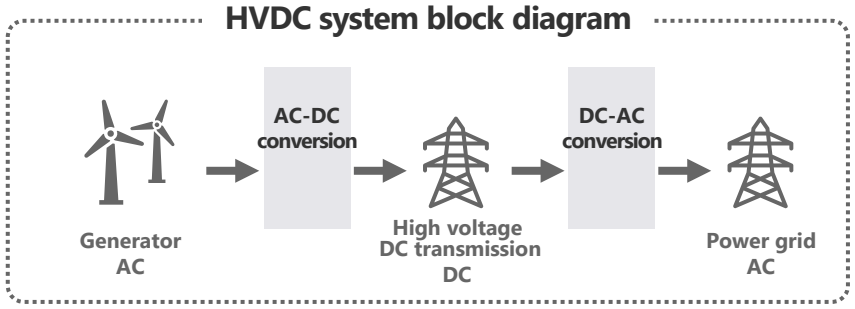
Strengthening the high-voltage and high-current segment, where we have expertise for the rapidly growing HVDC market, enhancing the profitability of the power device business

VSC*1-type HVDC market size (cumulative capacity)



Source：Mitsubishi Electric estimate

HVDC system block diagram



Maintaining top market share by leveraging strong customer base

Holding the top share*2 in the rapidly growing HVDC market

- To ensure stable power supply in response to the increase in demand for renewable energy, investments in the development of transmission networks and system stabilization are accelerating, leading to rapid growth in the HVDC market
- VSC-type HVDC systems utilizing IGBT*3 power semiconductors are becoming more widely adopted, especially in Europe

  → **We hold the top global market share in IGBT power semiconductors for VSC-type HVDC systems**

Strengthening the high-voltage and high-current segment, where we have expertise, leveraging our strong customer base

- **Enhancing product lineup:** Advanced development of IGBT with low loss, high voltage and large current
- **Strengthening the supply framework:** Increasing production capacity in line with growing demand (increase by 1.5 times from FY24 to FY27)
- **Further enhancement of market presence：** Further strengthening relationships with leading European and US companies, and enhancing our presence in Europe through R&D activities, in addition to collaboration with internal user BUs

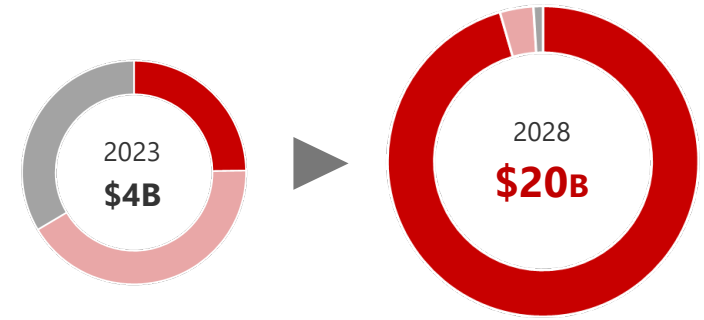
*1 VSC: Voltage Sourced Converter *2 No.1 in global market share of power modules for VSC-type HVDC systems (FY23 actual, according to Mitsubishi Electric estimate)

*3 IGBT: Insulated Gate Bipolar Transistor

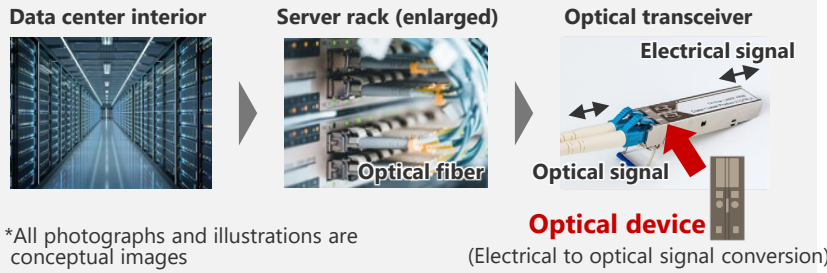
Expanding Optical Devices for Data Centers | High-Frequency & Optical Device Business

Exploring demand in the ultra-high-speed range with EML*1 devices that lead technology trends, by leveraging our market-leading position

Optical network market trends for data centers



Sales of Ethernet transceivers for deployments in Cloud datacenters
Source: LightCounting Ethernet Optics: Cloud, Enterprise And Telecom, March 2025



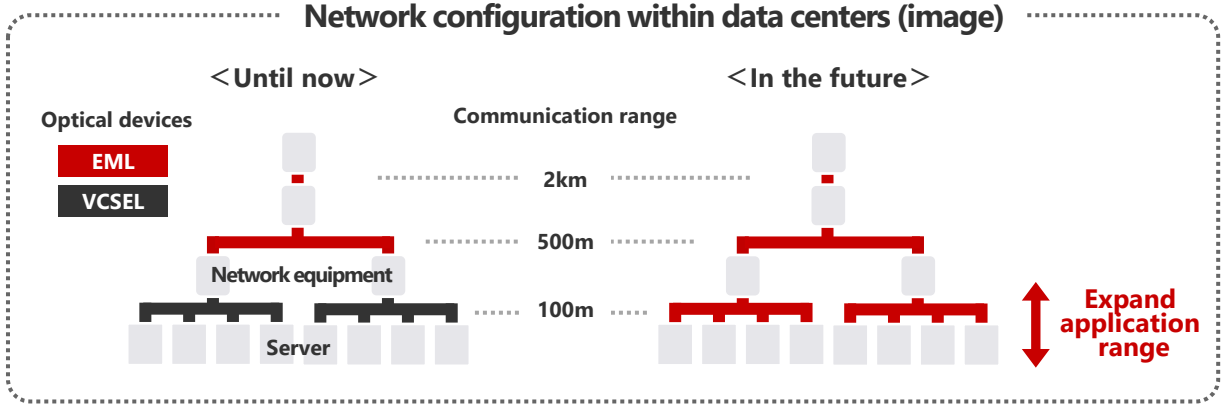
*All photographs and illustrations are conceptual images

Expanding business in devices for ultra-high-speed range, by leveraging our strength as the market leader*2

Providing EML devices that lead technological trends

- **Cutting-edge device development**: Collaborate with leading industry companies to develop EML devices optimized for their needs
- **Enhancing production capacity in anticipation of market expansion:** Timely enhancement of production capacity to meet rapidly increasing demand
- **Creating new market opportunities:** Given the advantages of EML devices, which can operate at ultra high speed, the application range of EML devices will be expanded to communication distances of less than 100m, replacing VCSEL*3, which has issues with high-speed operation

Network configuration within data centers (image)



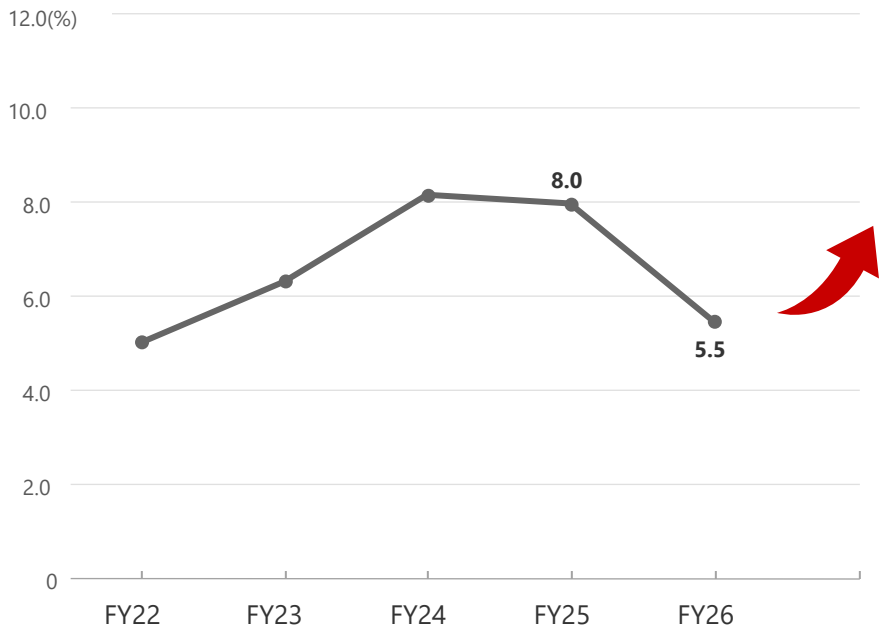
*1 EML: Electro-absorption Modulator integrated Laser diode
*2 No.1 in global market share of optical devices for data centers (FY23 actual of EML for data centers, according to Mitsubishi Electric estimate) *3 VCSEL: Vertical Cavity Surface Emitting Laser

Initiatives to Improve ROIC

ROIC will temporarily decline due to the start-up of the new plant (Shisui area, Kumamoto Prefecture, Japan) and the revision of exchange rate assumptions.

ROIC to be enhanced by sustaining an upward trend in EBITDA margin over the medium term

ROIC*1



Capital allocation partially reviewed

- The budget for investments in the power device business to be partially shifted to the more profitable optical device business, considering changes in the market environment

Enhancing profitability and productivity

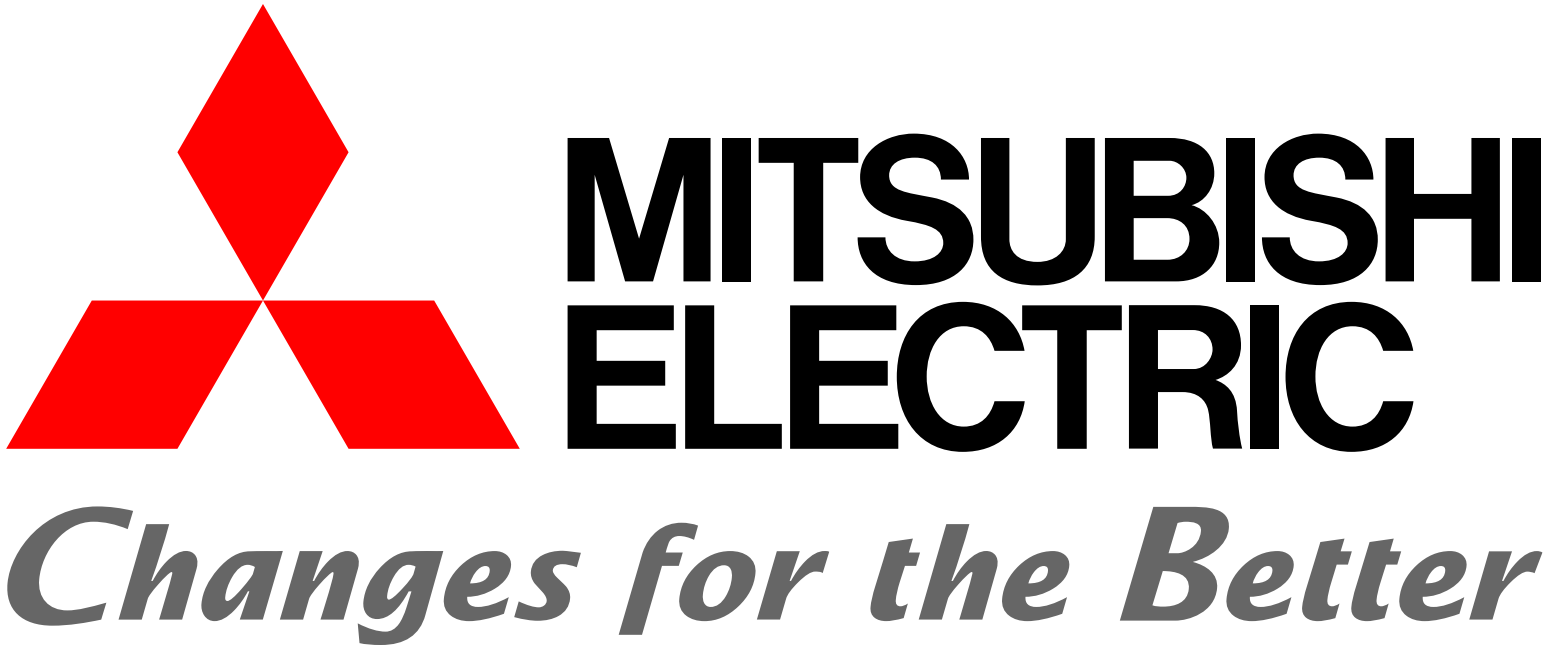
- Increase profits through the sales expansion of SiC power semiconductors and optical devices
- Accelerate the transition from older generation products to more productive new generation products
- Radically strengthen the cost competitiveness of SiC 200mm wafers
  - Launch fully automated state-of-the-art factory (Shisui area, Kumamoto Prefecture, Japan) [scheduled for completion in September 2025]
  - Collaborative achievements with Coherent are entering the harvesting phase

*1 ROIC: ROIC (Mitsubishi Electric version): A comprehensive business efficiency indicator which is calculated by asset items (fixed assets, working capital, etc.) per different segments (and not by capital and liability) so that it is easier to track and improve performances of each business segment

Cautionary Statement

While the statements herein, including the forecasts regarding the Mitsubishi Electric Group, are based on assumptions considered to be reasonable under the circumstances on the date of announcement, actual results may differ significantly from forecasts.
The main factors materially affecting the expectations expressed herein include but are not limited to the following:

1. Changes in worldwide economic and social conditions, as well as regulations, taxation and other legislation
2. Changes in foreign currency exchange rates
3. Changes in stock markets
4. Changes in the fund-raising environment
5. Changes in the supply and demand of products, as well as the material procurement environment
6. Establishment of important patents, status of significant licenses and disputes related to key patents
7. Litigation and other legal proceedings
8. Issues related to quality and defects in products or services
9. Laws, regulations and issues related to the global environment, especially responses to climate change
10. Laws, regulations and issues related to human rights
11. Radical technological innovation, as well as the development, manufacturing and time-to-market of products using new technology
12. Business restructuring
13. Information security incidents
14. Large-scale disasters, including earthquakes, tsunamis, typhoons, volcanic eruptions and fires
15. Social, economic and political upheaval due to heightened geopolitical risks, war, conflict, terrorism or other factors
16. Social, economic and political upheaval due to pandemics or other factors
17. Important matters related to Mitsubishi Electric Corporation's directors and executive officers, major shareholders, affiliated companies and other stakeholders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