SUSTAINABILITY BRIEFING

Sustainability Briefing

MITSUBISHI ELECTRIC CORPORATION

March 26, 2024

MITSUBISHI ELECTRIC
Changes for the Better

Contents

1 Vision for Sustainability

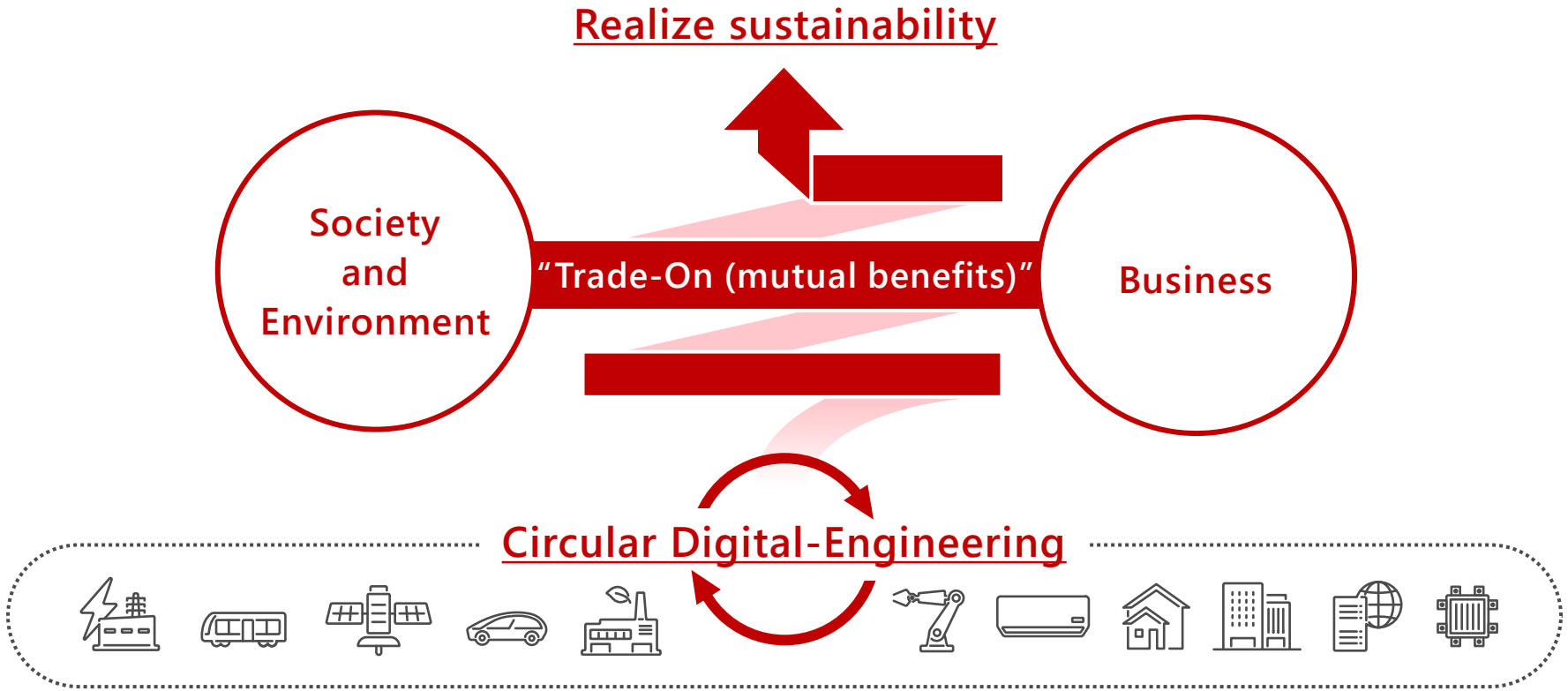
Purpose

We, the Mitsubishi Electric Group, will contribute to the realization of a vibrant and sustainable society through continuous technological innovation and ceaseless creativity.

MITSUBISHI ELECTRIC
Changes for the Better

Mitsubishi Electric Group Strives for “Trade-On (mutual benefits)”

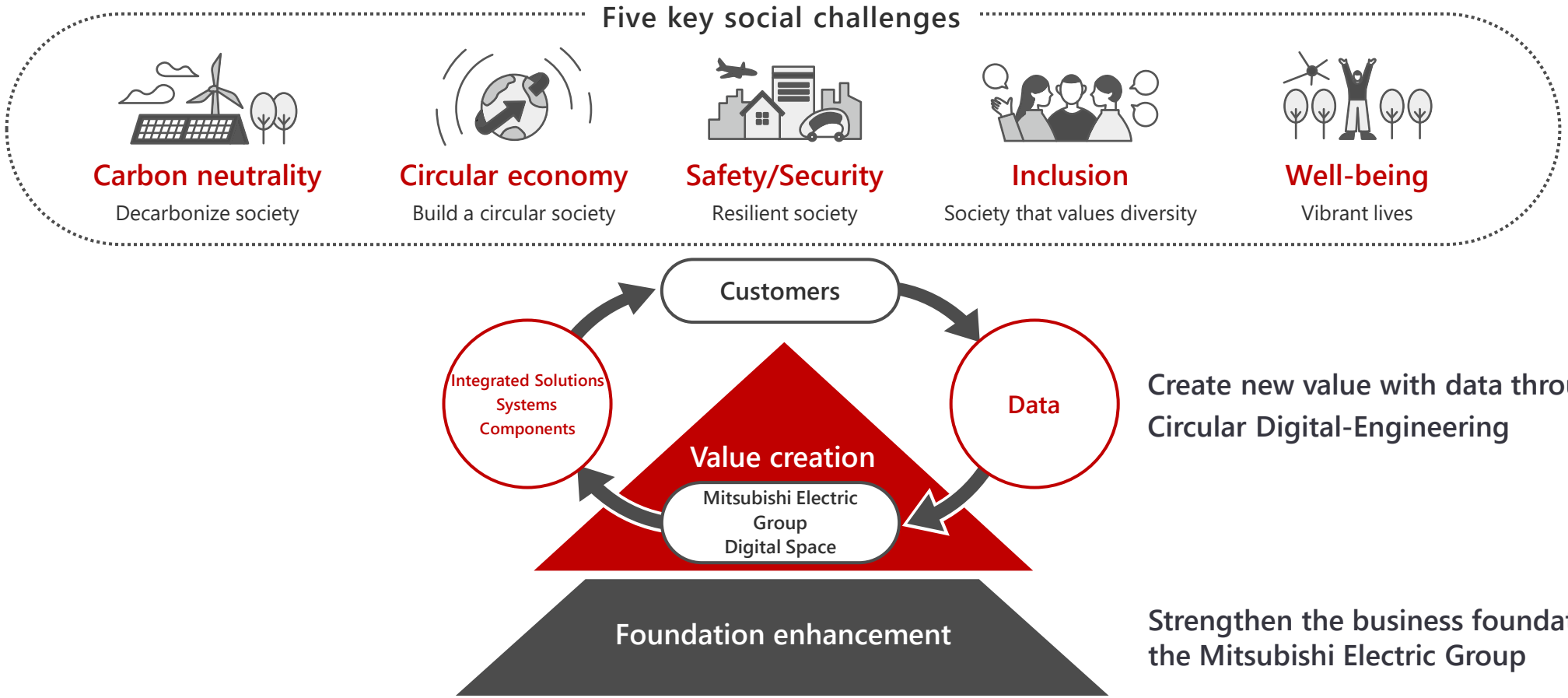
Innovate through Circular Digital-Engineering and grow our business while enriching society and the environment
Realize sustainability together with every employee by striving towards “Trade-On (mutual benefits)”



Foundation Enhancement and Value Creation

Value creation by Circular Digital-Engineering is critical to addressing the five key social challenges

Enhance the foundations in all aspects including digital and support continuous value creation



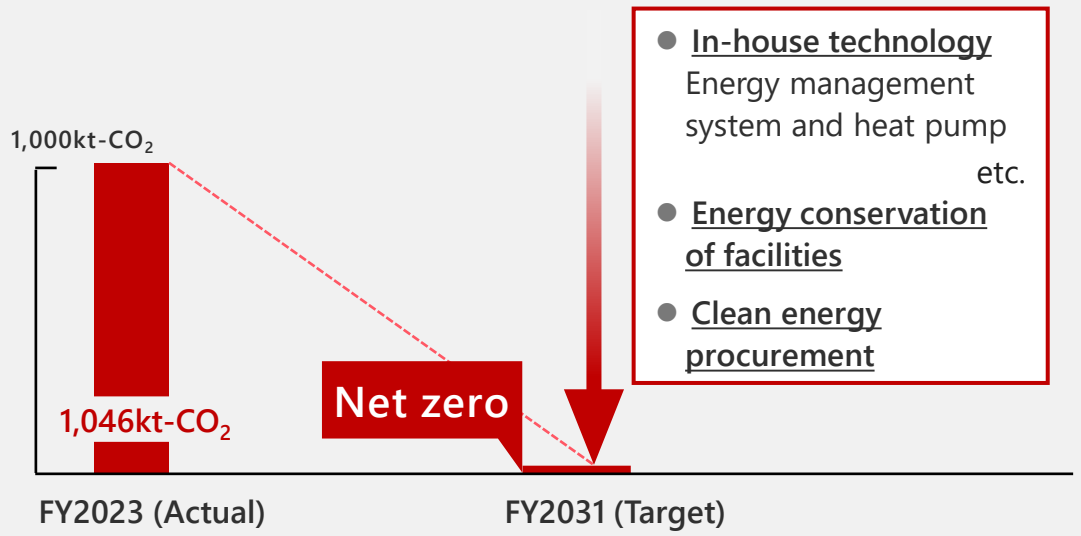
Realization of a Green Society

Mid- to long-term targets toward carbon neutrality

FY2031 — Aim for net zero greenhouse gas emissions from factories and offices

Accelerate initiatives to reduce greenhouse gas emissions by leveraging in-house technology

Factories and offices (Scope1 and 2[*1])

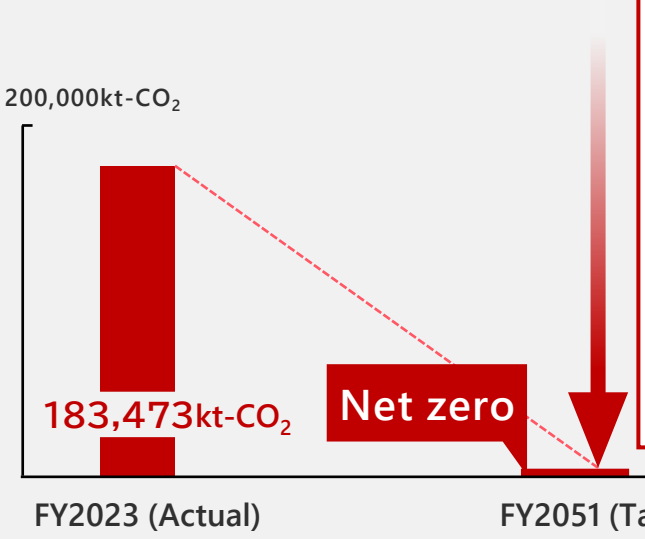


- In-house technology
  Energy management system and heat pump
  etc.
- Energy conservation of facilities
- Clean energy procurement

FY2051 — Aim for net zero greenhouse gas emissions in the entire value chain

Contribute to reduction of emissions from society through technological innovation

Entire value chain (Scope1, 2, 3[*1])



- Contribution to increased adoption of clean energy
- Reduction of emissions by products
  Reduction of power consumption by products and offering energy saving & generating solutions
  etc.
- Creating new technologies
  Carbon recycle, etc.

*1 Scope1: Direct emissions by companies (fuel combustion and industrial processes); Scope2: Indirect emissions from the use of electricity, heat, and steam supplied by other companies; Scope3: Indirect emissions other than Scope 1 and 2 (emissions from other companies related to the company's activities)

Realization of a Green Society

Invest in green-related sector*1 with an eye on future business opportunities

Reduce greenhouse gas emissions from factories and offices

By the FY2031, Aim to power all factories and offices with 100% clean energy*2

- Technology development and capital investment for carbon neutrality, such as an energy management system, energy conservation, electrification, and review of the manufacturing process

Electrification of production facilities
(Cleaning process, etc.)

In-house test for using hydrogen in the manufacturing process
(Using hydrogen to power brazing burners, etc.)

- Expand adoption of renewable energy

Sites that have achieved 100% green energy by FY2023

Japan **9** sites 

Overseas **10** sites 

Create and expand businesses that contribute to the realization of a green society

Seven years between FY2025-FY2031
Green-related R&D investment: Approx. ¥900.0 bn*3

- R&D for carbon recycling and circular use of materials and products
- Energy management that contributes to an expanded adoption of renewable energy
- R&D for energy conservation & electrification of equipment and next-generation power semiconductors*4

*1 Carbon neutrality and circular economy *2 Introduction of renewable energy facilities, procurement of 100% non-fossil fuel power, etc. *3 Estimated figures calculated based on past achievements and growth rates
*4 SiC (silicon carbide), Ga2O3 (gallium oxide), etc.

Realization of a Green Society

External evaluations and initiatives regarding carbon neutrality

Received top-ratings from CDP*1

Climate and Water "A List"

Sixth time in each category

Supplier Engagement Leader

Fourth consecutive selection and seventh time

Obtained updated certification from SBT Initiative*2

Obtained updated certification with new targets that aim to keep the average global temperature rise due to climate change within 1.5˚C compared with pre-industrial levels.

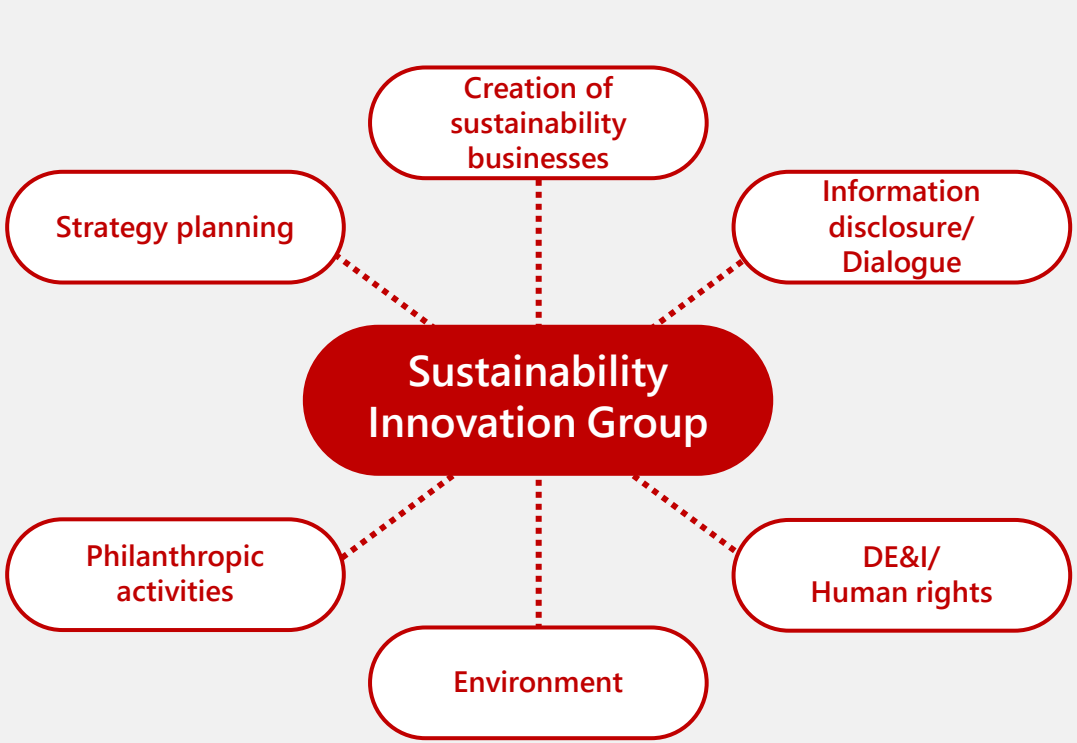
*1 An international NGO that surveys, evaluates, and discloses environmental initiatives of corporations and governments

*2 An international initiative led by the UN Global Compact(UNGC), World Wide Fund For Nature (WWF), the CDP and World Resources Institute (WRI)

Recent Activities on Sustainability: Enhancement of Management Structure

Establish the Sustainability Innovation Group for comprehensive and strategic promotion of value creation and foundation enhancement to strengthen sustainability management (April 2024)

Establishment of the Sustainability Innovation Group



Value creation

Create new businesses that address social challenges

[Example: GIST*1 project]

Bring together members from business divisions across the company and work on business creation from a global and sustainability perspective

Foundation enhancement

Strengthen business foundation to enable sustainable growth

[Example: Formulation and promotion of the mid-term Environmental Plan 2025]

Formulate specific plans based on the Environmental Sustainability Vision 2050*2. To achieve carbon neutrality, circular economy, and nature positivity*3, accelerate the reduction of environmental impact in the entire value chain

Environmental Sustainability Vision 2050

*1 GIST: Global Initiative for Sustainable Technology
*2 The Mitsubishi Electric Group's long-term environmental vision toward 2050 *3 To stop the loss of and restore biodiversity

Recent Activities on Sustainability: Industry-Government-Academia Collaboration

To solve complex and diversifying social challenges, enhance organizational collaboration that involves not only joint research based on specific technology development themes but also comprehensive theme-setting

The University of Tokyo

Established the "Future Design Committee by Mitsubishi Electric and the University of Tokyo"

Design an ecosystem for achieving a circular economy and identify challenges and solutions for their realization

Waseda University

Concluded a basic agreement on a comprehensive collaboration for the realization of a sustainable society

Explore joint research themes in five social challenge areas, and advance activities for producing R&D results that contribute to society

Tokyo Institute of Technology

Established the "Mitsubishi Electric Energy & Carbon Management Collaborative Research Hub"

Conduct R&D on technologies related to green transformation (GX), and explore and create new technologies based on insights into the future and analysis of technology trends

National Institute of Advanced Industrial Science and Technology (AIST)

Established the "Mitsubishi Electric-AIST Human-Centric System Design Collaboration Laboratory"

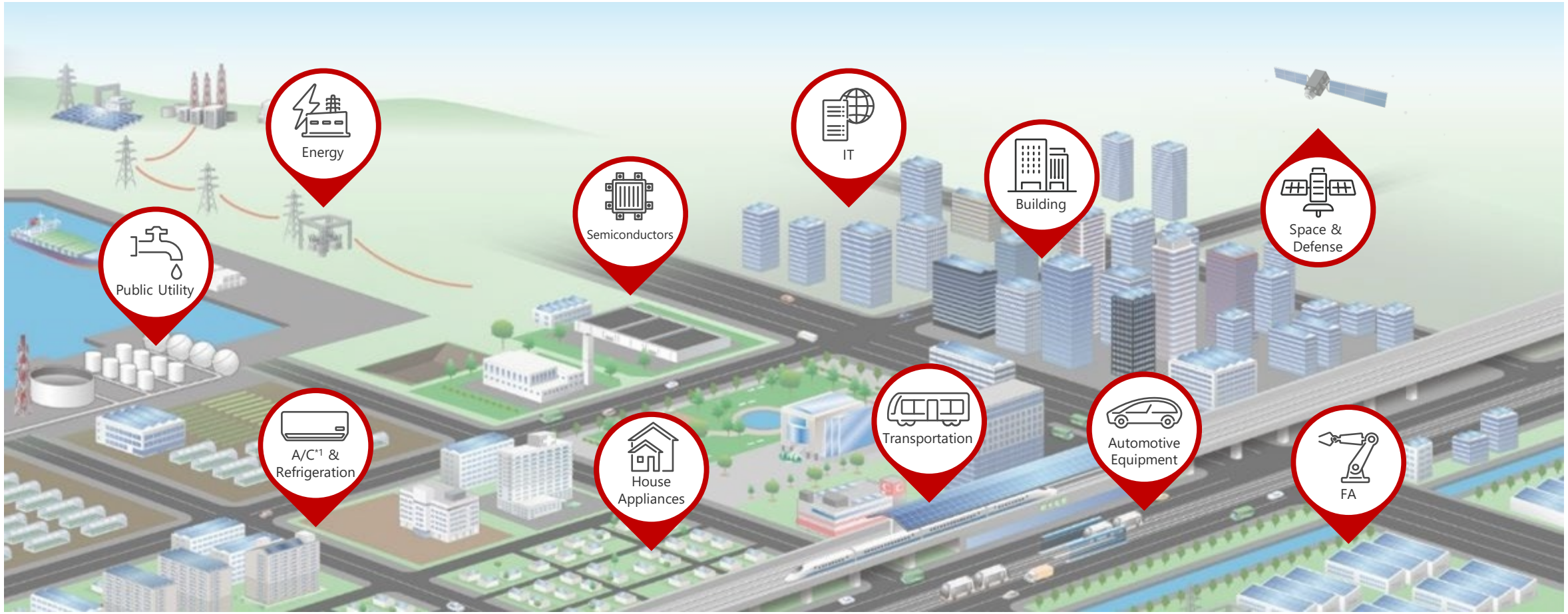
Conduct R&D on CPS*1 building technologies and system designs that integrate CPS and connect industries

*1 CPS: Cyber-Physical Systems

2 Initiatives for Addressing Social Challenges

Mitsubishi Electric Group Contributes to Every Corner of Society

Address social challenges through our businesses by leveraging the Mitsubishi Electric Group's strengths in a wide range of fields, from home to space



*1 A/C : Air Conditioning

Addressing Social Challenges Through Our Businesses

Contribute to green transformation of society across all fields by leveraging the Mitsubishi Electric Group's strengths

Green society

Accelerate the reduction of environmental impact in the entire society

Carbon neutrality | **Circular economy**

Energy conservation	Electrification	Renewable energy	Resource circulation
Promote energy conservation by developing components with higher efficiency and offering energy management systems	Accelerate the transition from fossil fuels to electricity as the energy source for vehicles and heating systems	Contribute to increased adoption of renewable energy and stable power supply by delivering highly reliable power systems	Develop business models that create resource circulation such as carbon recycling

Solutions / Systems / Components

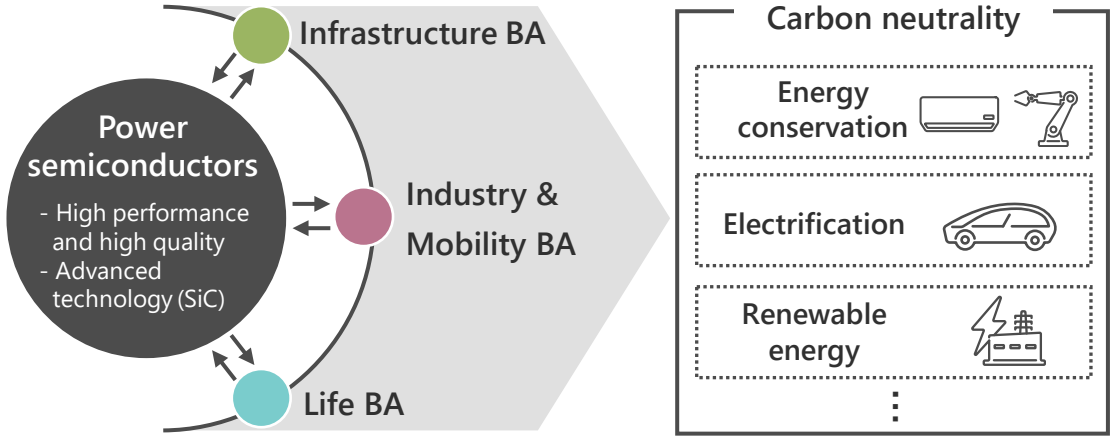
Addressing Social Challenges Through Our Businesses

Power semiconductors

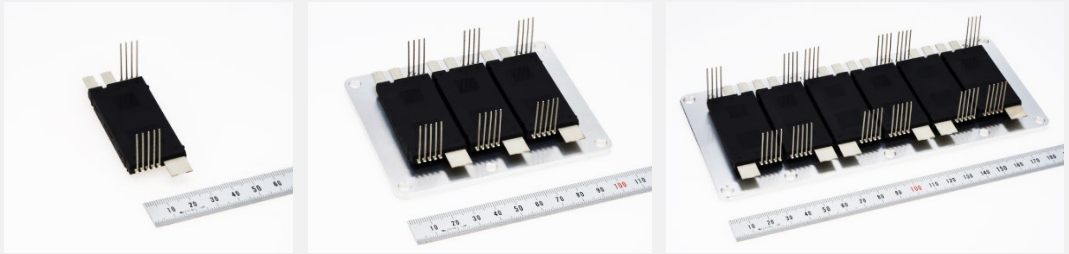
Contribute to the green transformation (GX) of the world by pursuing technological evolution in power semiconductors, which are key devices for reducing energy consumption of electronic equipment, electrifying vehicles, improving renewable energy conversion efficiency, and others.

Features

Contribute to the achievement of carbon neutrality by leveraging technological synergy within the Mitsubishi Electric Group



New SiC/Si power semiconductor modules for xEV J3 Series



- Since the start of mass production in 1997, Mitsubishi Electric's power semiconductor modules for xEV have contributed to the widespread use of EVs. By 2022, they were installed in power trains for more than 26 million*1 cars around the world
- The new products contribute to making inverters smaller, with SiC-MOSFET*2 and RC-IGBT*3(Si) installed in the same package and the module size reduced to approx. 40% of conventional products

*1 Aggregated the number of xEVs equipped with Mitsubishi Electric's power semiconductors for automotives *2 MOSFET: Metal Oxide Semiconductor Field Effect Transistor
*3 RC-IGBT: Reverse Conducting Insulated Gate Bipolar Transistor

Addressing Social Challenges Through Our Businesses

ZEB[*1] solutions

Contribute to the achievement of carbon neutrality while both conserving energy and improving comfort in buildings

Features

- As a ZEB planner, offer one-stop support from planning to design, construction, and maintenance, for both the construction of new buildings and the renovation of existing buildings
- Offer solutions that integrate facilities necessary for ZEB (air conditioners, lighting fixtures, ventilatiors, hot water supply systems, and elevators) with digital technologies, as well as field knowledge of maintenance and operation management

ゼロエネルギーのその先へ。三菱電機
ZEB+ ゼブプラス
net Zero Energy Building

ZEB PLANNER
ZLD29P-00020-C

Systems and components that contribute to improving the value of buildings

Air conditioners

Lighting fixtures

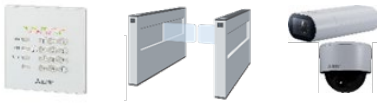
Ventilators

Hot water supply systems

Elevators

UPS,[*2] etc.

Building management systems



Smart city/building IoT platform

スマートシティ・ビルIoTプラットフォーム［ヴィルフィーユ］
Ville-feuille®

Example of renovating existing building into ZEB: Nishishinjuku Sanko Building

- Reduced primary energy use by 62% through efficient facilities (air conditioners, lighting fixtures, and ventilatiors), centralized air conditioning control and other measures.
- Achieved energy conservation and a comfortable office environment

*1 ZEB: Net Zero Energy Building *2 UPS: Uninterruptible Power Supply

Addressing Social Challenges Through Our Businesses

Contribute in all fields to create a safe, secure, and comfortable society by leveraging the Mitsubishi Electric Group's strengths

Safe, secure, and comfortable society

Contribute to realizing a safe, secure, and comfortable society in **133** countries and regions*1 in the world

Safety/Security | **Inclusion** | **Well-being**

Disaster prevention and mitigation	Improving transportation accessibility	Resolving labor shortages	Comfortable lifestyle
Contribute to the maintenance and management of aging infrastructure, as well as early recovery after disasters	Develop highly convenient transportation networks that ensure comfortable mobility for everyone	Automate on-site operations to save labor and utilize digital technology to facilitate the transfer of skills from experienced engineers	Create an environment where everyone can live a healthy and vibrant life

Solutions / Systems / Components

*1 Number of countries and regions where our products and systems are sold

Addressing Social Challenges Through Our Businesses

3D measurement app “Rulerless”

Contribute to improving the efficiency of disaster damage investigation and preventing and mitigating disasters, with an application that utilizes a LiDAR*1 scanner installed on smartphones

Features

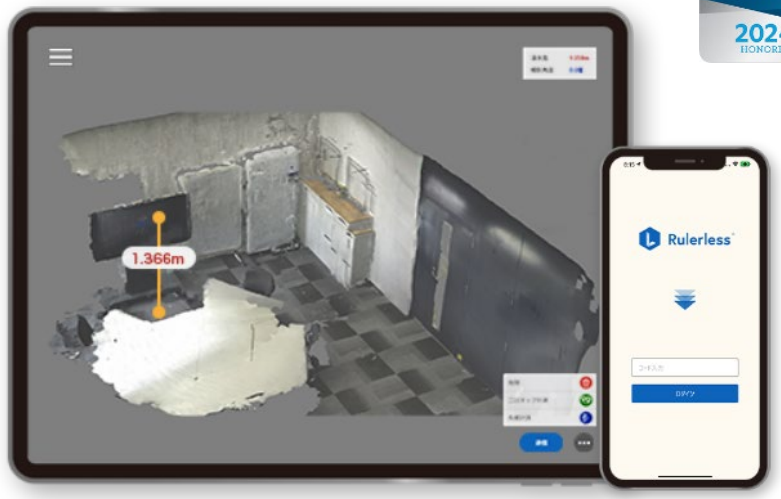
- Make 3D models of and measure close-by space and objects, based on photos taken and 3D point cloud data acquired with a LiDAR *1 sensor built into smartphones
- Contribute to prompt support of disaster victims by improving the efficiency of house damage investigation, facility inspection, and other measurement work at the time of disasters

Intended occasion of use

Disaster investigation

Facility inspection

Equipment delivery simulation



Received the CES 2024 Innovation Award in the Mobile Devices, Accessories & Apps category

*1 LiDAR (Light Detection and Ranging): A technology to measure the distance to and shape of an object, based on the time until the irradiated laser bounces back

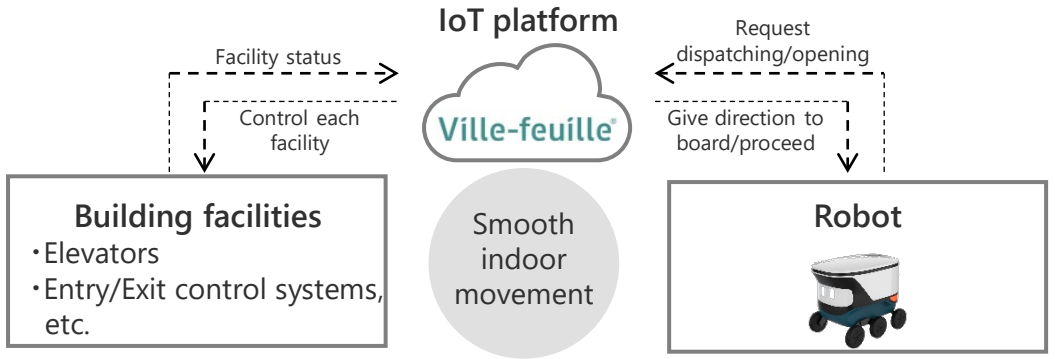
Addressing Social Challenges Through Our Businesses

Product delivery service using self-driving robots

Contribute to addressing social challenges, such as labor shortages in the transportation and delivery industry, by working on the social implementation of delivery robots with excellent driving performance that can seamlessly move vertically and horizontally both indoors and outdoors

Features

- Improve customer convenience by delivering products using high-performance self-driving robots with excellent outdoor driving performance
- Ensure smooth indoor movement by operating together with elevators, entry/exit control systems, etc. (under development)



Business partnership with Uber Eats Japan and Cartken

- Formed a business partnership with Uber Eats Japan and Cartken to offer online delivery services using self-driving robots.
- Started offering services in a select part of Tokyo from March 2024

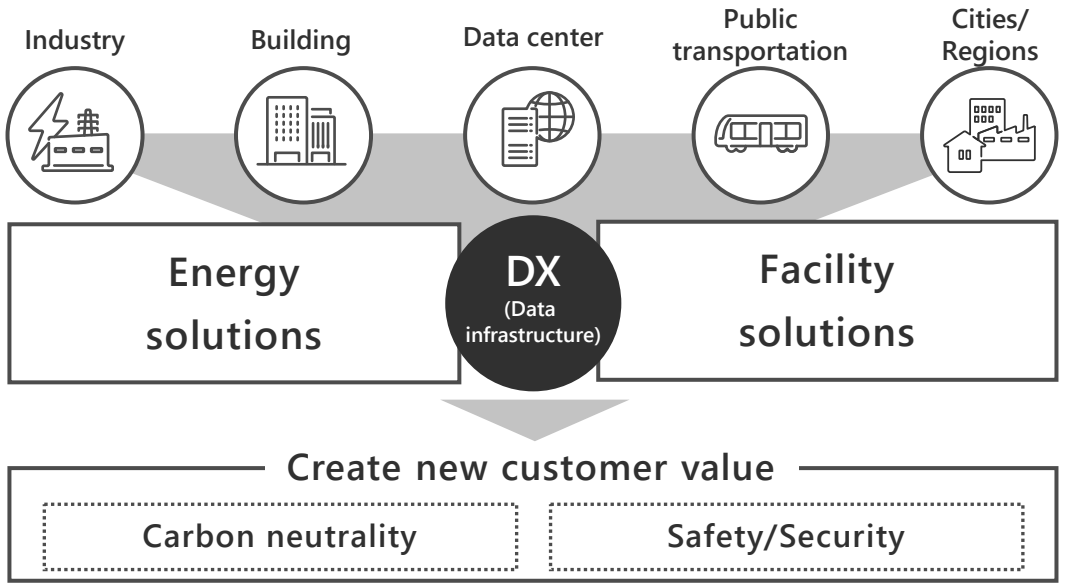
Creating New Solutions to Address Social Challenges

Energy & Facility solutions

Utilize digital technologies and create integrated solutions that cover from procurement and optimal management of energy to efficient operation and maintenance of facilities to realize carbon neutrality that has economic rationality, as well as a safe and secure society

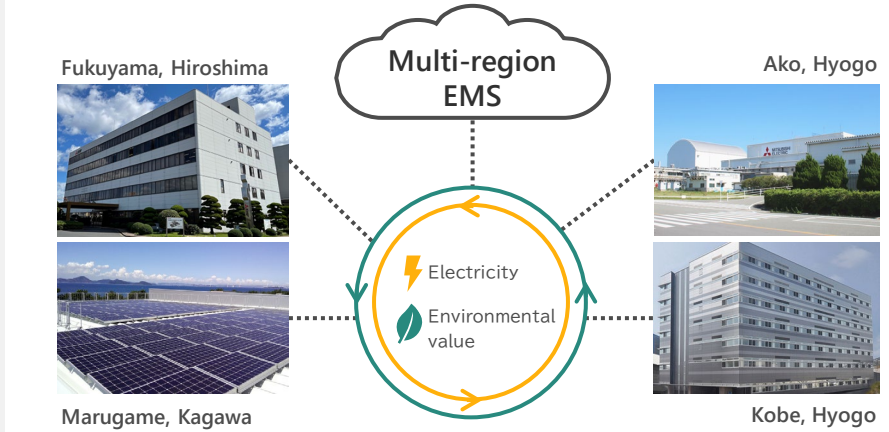
Features

Utilize IoT, AI, and other digital technologies to accumulate and analyze data from customers, and address all challenges customers face in relation to energy and facility



[In-house test case]

Multi-region EMS*1

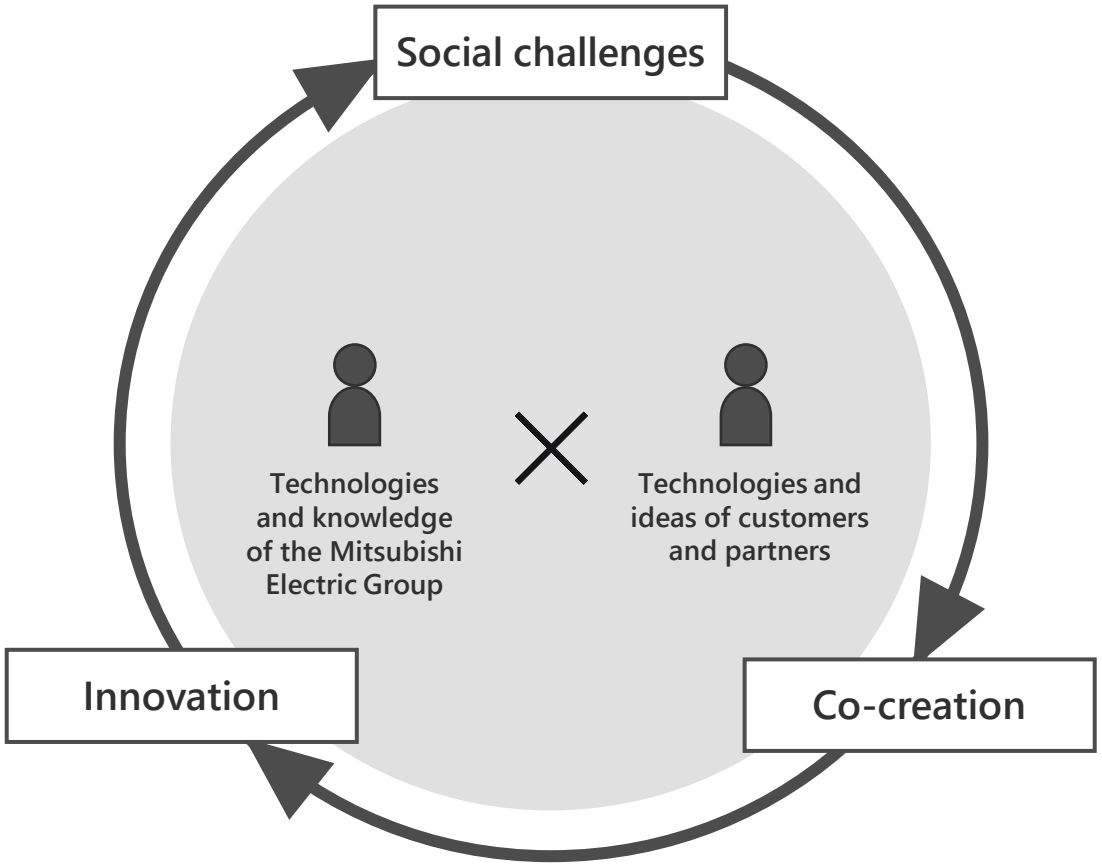


- Connect multiple factories and offices in different electricity supply areas, and test self-consignment of renewable energy, optimal operation of power storage systems, and management of environmental value over two years starting from March 2024

*1 An energy management system that optimizes the transferring of renewable power between multiple locations and helps companies achieve decarbonization targets

Open Innovations for Addressing Social Challenges

Accelerate initiatives in fields of innovation for addressing social issues by leveraging co-creation with startups and customers, as well as investments and M&As, including corporate venture capitals



Create innovation by collaborating with startups

Invest in and collaborate with startups to address social challenges

HaydenAI

Ensures the safety of and optimizes urban transportation by leveraging image analysis technology

Hydroleap

Solves water pollution problems with wastewater treatment and purification technology

EVERCOMM
Thrive to Net-Zero

Offers solutions to support the achievement of carbon neutrality in the manufacturing industry

HACARUS

Resolves shortages of workers for visual inspections at manufacturing sites by leveraging AI technology

Co-creation with customers and partners

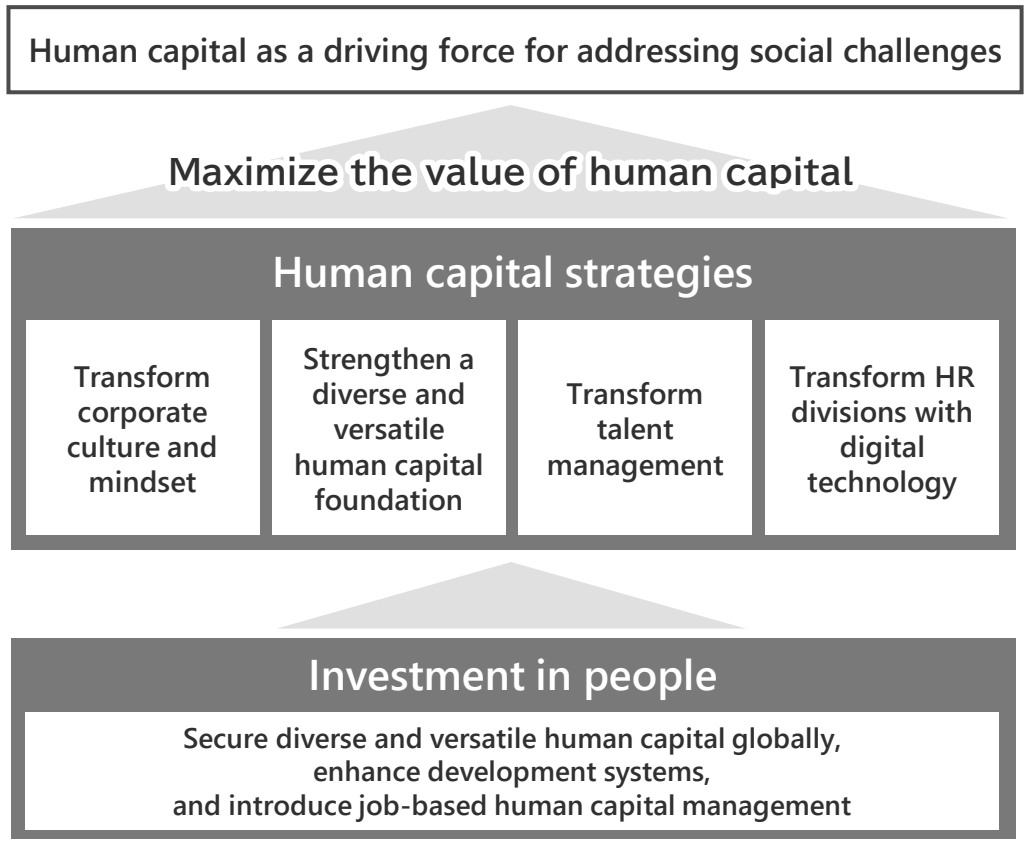
Create new value through by co-creation with customers and partners by leveraging the Mitsubishi Electric Group's technology assets

kao

Contributes to the realization of a circular society by leveraging know-how in the plastic recycling business

Human Capital as a Driving Force for Addressing Social Challenges

Globally secure and develop human capital that will be a driving force for promoting sustainability management, accelerate human capital strategies that are linked to management strategies, and promote DE&I[*1] and other initiatives to maximize the value of human capital



Recent initiatives and strategies

Encourage self-initiative and challenging spirit, and enhance career ownership

- Enhance in-house job offering/application systems and personal career development support programs
- Revamp the salary and compensation system to incorporate job-based human capital management

Enhance DE&I initiatives

- Promote diversity in senior management[*2] based on global succession management
- Early appointment of personnel for managerial positions linked with a management candidate development system

KPI for DE&I

Ratio of female/ non-Japanese in senior management	Results as of FY2023 end 3%	
	Target for FY2031 (non-consolidated)	30%
Ratio of female in managerial positions	Results for 2H FY2023 2.6%	
	Target for FY2031 (non-consolidated)	12%

*1 DE&I: Diversity, Equity & Inclusion *2 Senior management: Executive Officers and Directors

Strengthen Business Foundation for Sustainable Growth

Fulfill corporate social responsibility and strengthen business foundations for sustainable growth

Human rights

Promote continuous improvement activities to ensure that our business activities do not have a negative impact on human rights

Human rights initiatives based on international norms

- Continue to carry out Human Rights Due Diligence
- Continue activities to identify and address risks involving major human rights violations in the supply chain

Corporate Governance

Further improve the flexibility and transparency of management, and strengthen the supervisory function

Improvement of the effectiveness of the Board of Directors

- Conduct third-party evaluation of the effectiveness of the Board of Directors and pursue sustainable improvements
- Ensure that independent outside directors account for more than half of the Board of Directors and the three statutory committee members
- Appointed independent outside directors to chairpersons of the Board of Directors and the three statutory committees

Sustainability-oriented corporate culture

Proactively communicate with stakeholders and foster a corporate culture that aims to address social challenges from a mid- to long-term perspective

Activation of internal communication

- Implement the Purpose Project, which provides every employee with the opportunity to think about their “My Purpose”

Active engagement in IR/SR*1 activities

- Hold enhanced dialogues with shareholders, investors, and other stakeholders through IR Days, briefings, and other events

*1 IR･SR: Investor Relations・Shareholder Relations

Major Non-financial Indicators

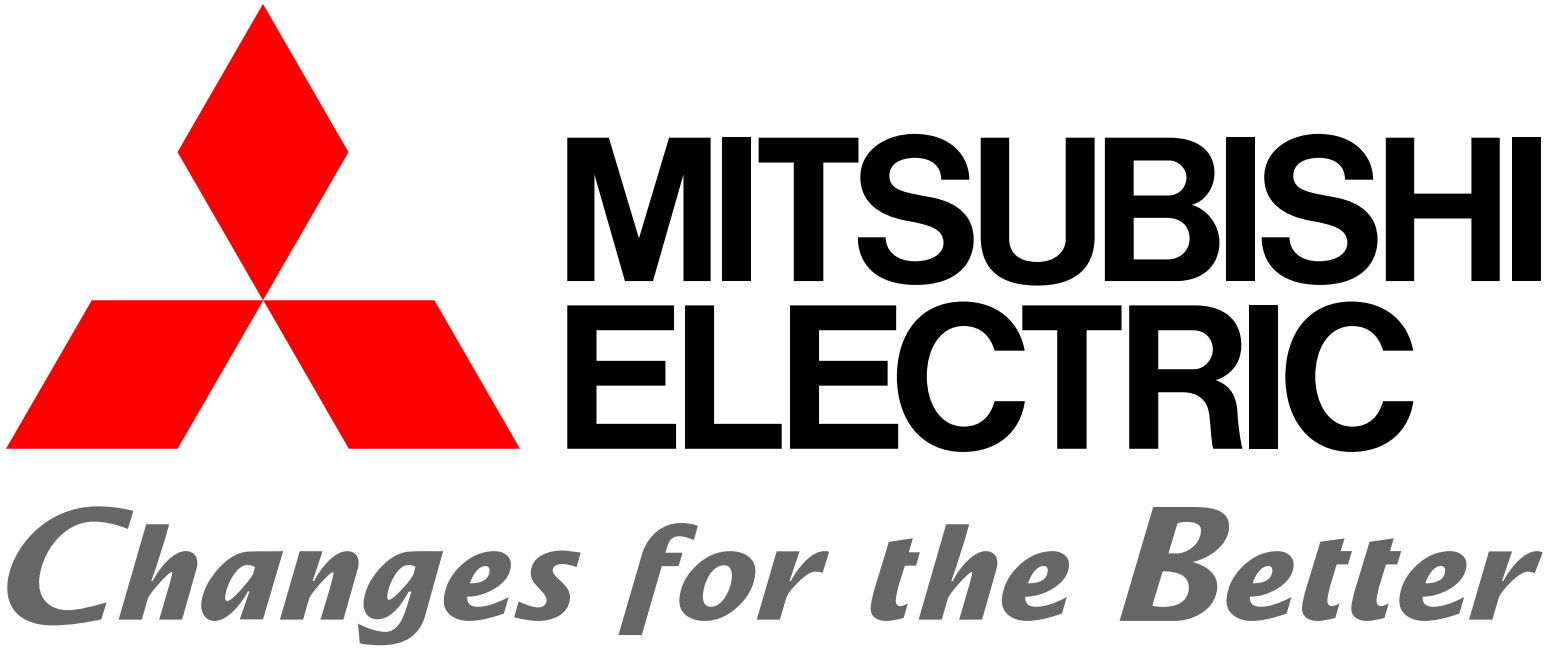
Materiality	Targets/Initiative indicators	
Realize a sustainable global environment	Achieve carbon neutral	● FY2031 : Aim for net zero greenhouse gas emissions from factories and offices ● FY2051 : Aim for net zero greenhouse gas emissions in the entire value chain ● Provide products, services and solutions that contribute to carbon neutrality
	Achieve circular economy	● FY2036 : 100% effective use of wasted plastics
Realize a safe, secure, and comfortable society	Contribution through business activities in the areas of safety/security, inclusion, and well-being	● Provide products, services and solutions that contribute to safety/security, inclusion and well-being
Respect for all people	Promote human rights initiatives that are based on international norms	● FY2031 : Establish human rights initiatives based on international norms ● FY2031 : Realize a responsible supply chain
	Realize workplace where diverse and versatile human capital gathers and works together	● FY2026 : Employee engagement score*1 70% or more (non-consolidated) ● FY2031 : Ratio of female/non-Japanese in senior management*2 30% or more (non-consolidated) ● FY2031 : Ratio of female in managerial positions 12% or more (non-consolidated)
Strengthen corporate governance and compliance on a sustainable basis	Increase effectiveness of the Board of Directors	● Maintain the ratio of independent outside director at 50% or more
	Prevent recurrence of improper quality control practices	● Promote three key reforms (quality assurance, organizational culture and governance), monitoring of the three reforms by the Board of Directors, and appropriate information disclosure
	Understanding and practices of a compliance motto "Always Act with Integrity"	● Provide compliance education on a continuous basis
	Improve the Cybersecurity maturity level	● FY2029 : Achieve level 2 or higher*3 in the Cybersecurity Maturity Model Certification across the Group
Create a sustainability-oriented corporate culture	Understanding and practices of sustainability by employees	● FY2026 : Understanding on the operation of business in line with the corporate purpose and goals according to the results of the employee awareness survey 75% or more (non-consolidated)
	Promote communication with stakeholders both inside and outside the company	● Issue the Sustainability Report and the Integrated Report, hold dialogues with experts, and conduct sustainability report questionnaires

*1 Ratio of employees who respond that they feel that they are proud and motivated to work for the Company in the employee awareness survey
*2 Senior management: Executive Officers and Directors *3 Framework for Cybersecurity Maturity Model Certification set forth by the U.S. Department of Defense (CMMC 2.0)

Summary

Mitsubishi Electric Group's Sustainability Management

- Pursue the realization of sustainability by striving for "Trade-On (mutual benefits)," where we grow our business while solving social challenges
- Strengthen business foundations and create new value by accelerating sustainability initiatives and investments
- Taking on the challenge of sustainability innovation by bringing together the technological capabilities nurtured in a wide range of fields and the creativity of each employee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