

# **Sustainability Briefing 2025**

February 27, 2025 Mitsubishi Chemical Group Corporation





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1 ESG Management as a Key Driver for Achieving KAITEKI Vision 35

- **2** Sustainability
- **3 Human Capital**
- **4** Governance



### Contents

# 1 ESG Management as a Key Driver for Achieving KAITEKI Vision 35

Manabu Chikumoto Representative Corporate Executive Officer, President & Chief Executive Officer



### We lead with innovative solutions

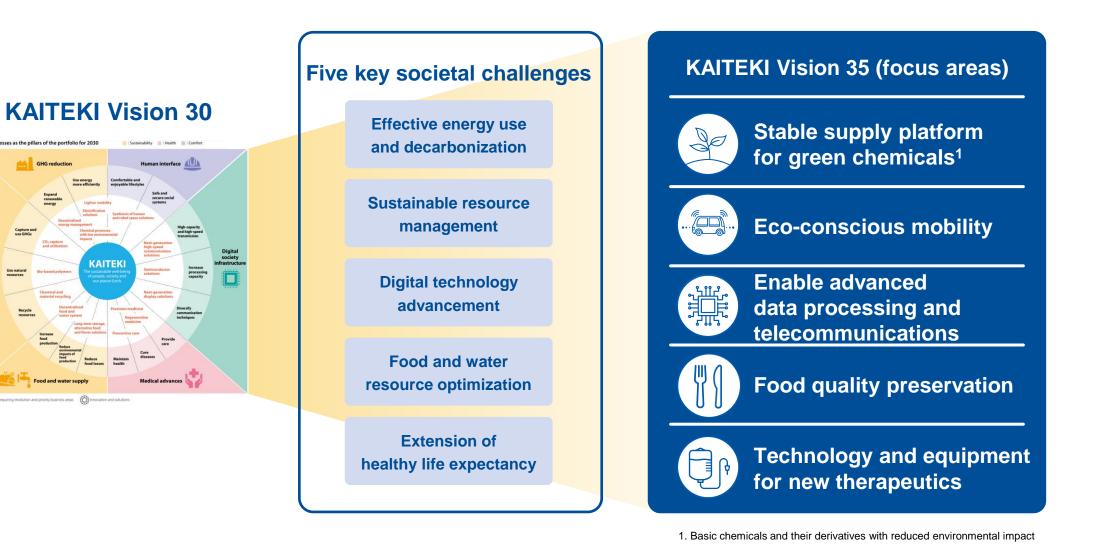
### to achieve KAITEKI,

### the well-being of people and the planet.



### **Targeted business areas for KAITEKI Vision 35**

KAITEKI Vision 35 is rooted in our Purpose and addresses pressing issues facing society

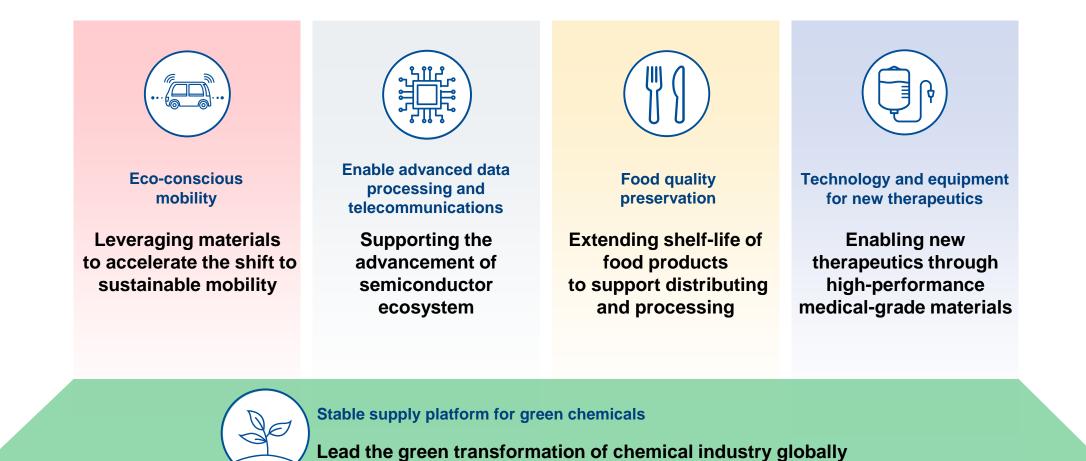


Carbor

### **Our Vision across five business focus areas**



Become a Green Specialty Company that provides optimal solutions and solve societal challenges



### KAITEKI Vision 35 Strengthening ESG Management



#### Environment

Social

Achieve carbon neutrality in FY2050, contributing to a long-term sustainable society

Company and individuals achieve

human capital of the entire Group

growth together, maximizing the

#### Short- and medium-term measures

- GHG reduction through optimal fuel conversion
- Utilization of water resources
- Waste reduction · CO2 utilization (bio/CCUS)
- Commercialization and scale-up of recycling for various chemicals
- Global collaboration
- Strengthen supply chain management (incl. human rights due diligence)

#### Who we need

- Mindset to take challenges as opportunities
- Distinctive skills and strengths
- Soft skills that cannot be replaced by AI
- Strong sense of ownership
- "Connect" mindset

#### Long-term measures

- Fuel conversion to hydrogen and ammonia
- CCUS Implementation
- Utilization of biomass feedstock
- Regional and industrial complex cooperation

#### What we offer

**Mutual** 

contribution

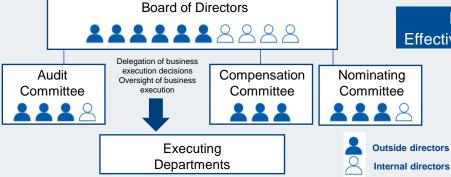
and benefit

- Opportunities for personal development through large-scale, impactful project
- Fair reward system for individual
   achievements and contribution to the team
- Transparent working environment encouraging autonomy

#### Governance

Mitsubishi Chemical Group Corporation

Establishing a corporate governance structure underpinning the transformation and the enhancement of corporate value



#### Measures to Enhance the Effectiveness of the Board of Directors

- Strengthen monitoring functions
- Enhance discussions on strategy
- Improve the effectiveness of the Nominating Committee

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The world is becoming more complex, the pace of change is relentless, our customers are expecting and demanding more.

Our way forward is clear.

As a "Green Specialty Company" we are committed,

to solving social problems and to delivering impressive results to customers

with the power of materials.



### Contents

# **1** Sustainability

Noriyuki Mita Vice President, Chief Sustainability Officer



### **Sustainability**

# KAITEKI Vision35 and Sustainability

- Overview of Sustainability
- CN Initiatives, GHG Emissions
- CE Initiatives
- Progress on Specific Projects
- Sustainability Promotion Structure



# KAITEKI Vision35 and Sustainability

# We lead with innovative solutions to achieve KAITEKI,

### the well-being of people and the planet.

Forecast approach to leverage our strengths and enhance profitability



### KAITEKI Vision 35

Medium-Term Management Plan 2029

New

Backcast approach from identified social issues to be addressed

Present 2024

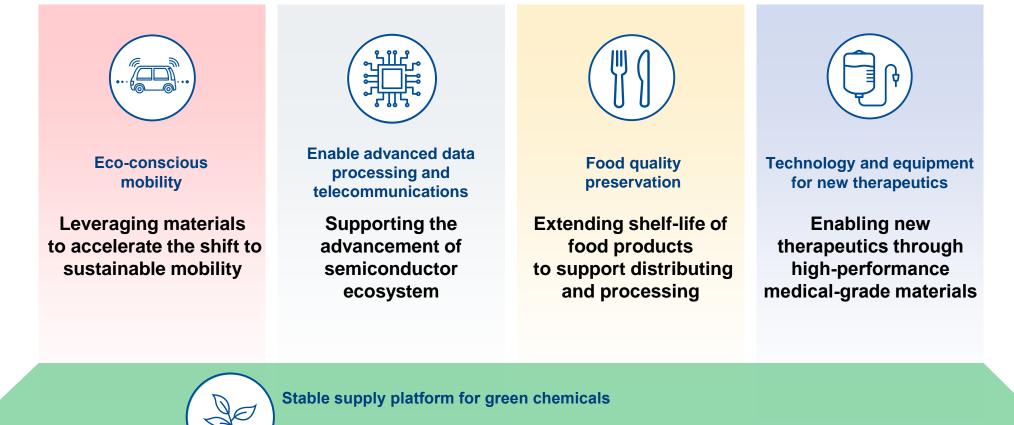
Mitsubishi Chemical Group Corporation

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### **Our Vision across five business focus areas**



Become a Green Specialty Company that provides optimal solutions and solve societal challenges



Lead the green transformation of chemical industry globally

### **Sustainability**



Achieve carbon neutrality; contributing to a long-term sustainable society



#### Drive initiatives in five business focus areas

Short- and
medium-term
measures

- GHG reduction through optimal fuel conversion
- Utilization of water resources
- Waste reduction
- CO<sub>2</sub> utilization (bio/CCUS<sup>1</sup>)
- Commercialization and scale-up of recycling for various chemicals
- Global collaboration
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#### Long-term measures

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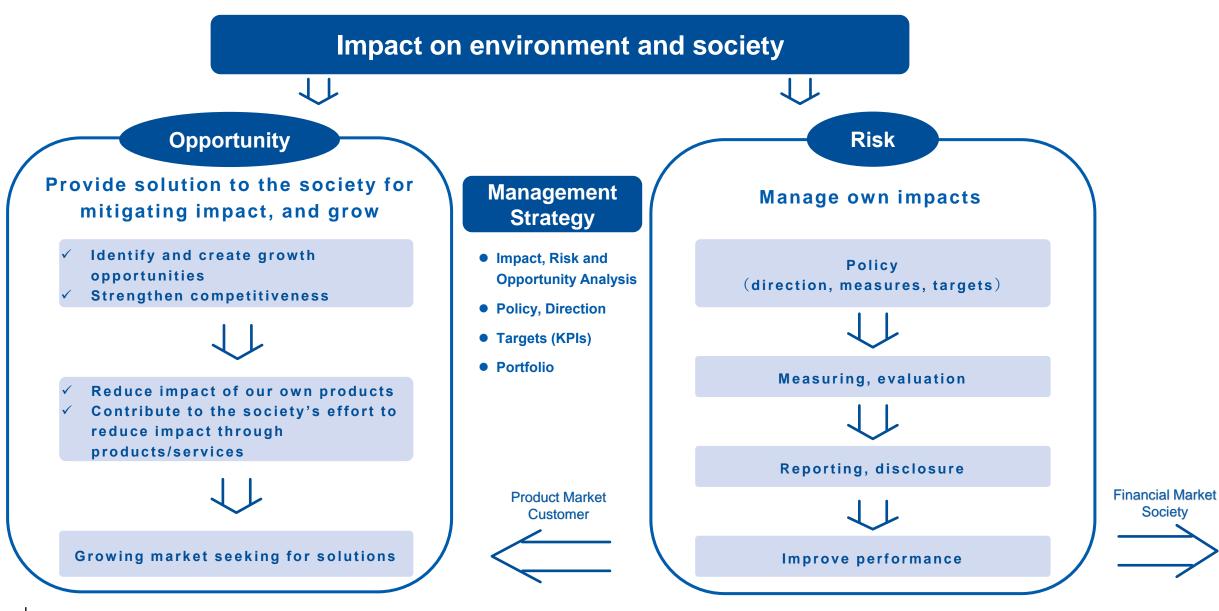


# **Overview of Sustainability**

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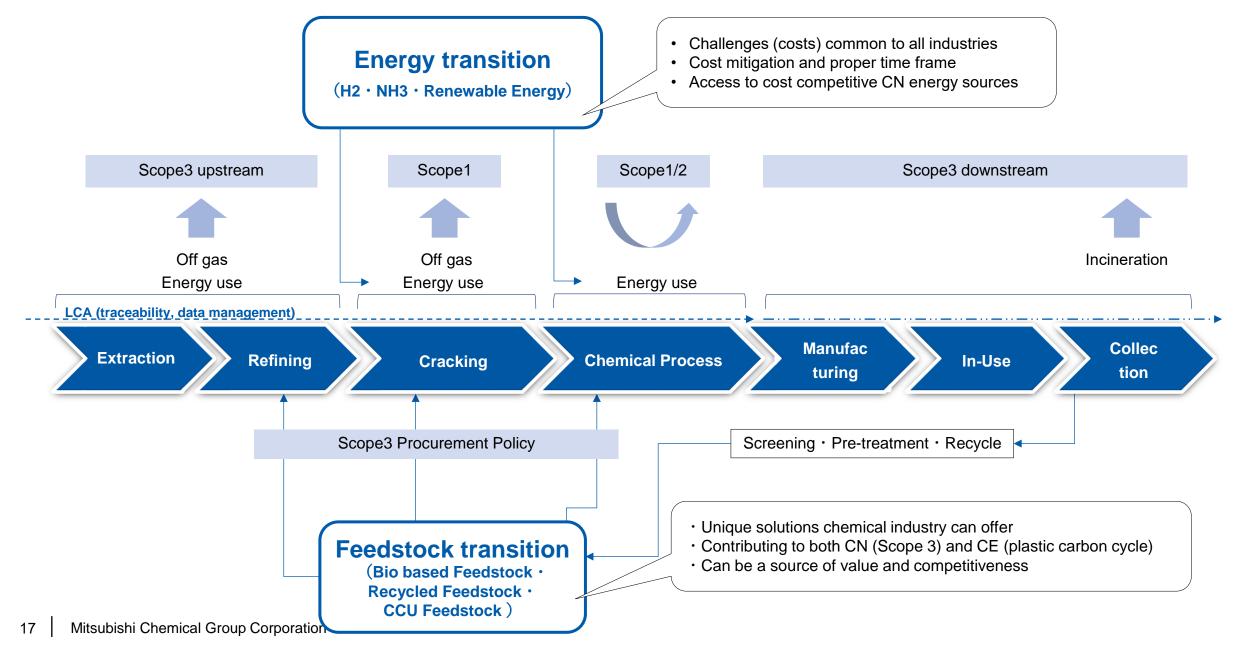
### **Overall Picture of Sustainability**





### **Direction for Decarbonization of Chemical Industry**





### **Mitsubishi Chemical Group Initiatives**



We are working to commercialize all three routes: recycling, biomass, and CO2



### Chemical recycling of waste plastic by oilification using supercritical water

Demonstrative operation to begin in FY2025 @ Kashima





## Production of plant-derived ethylene and propylene from bioethanol

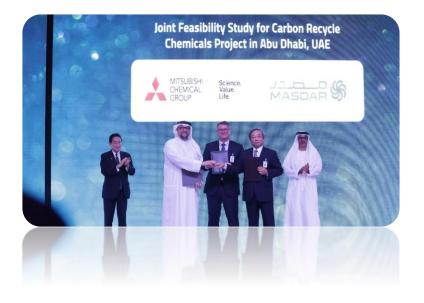
Commercialization @ Kashima under consideration





#### Production of polypropylene from CO2 and green hydrogen

Commercialization @ Abu Dhabi under consideration



### Key Issues and Major Initiatives at MCG



	STEP1: Strengthen MCG's Initiatives	STEP2: Contribute to Growth Areas in Sustainability
Environmental Impact Reduction	Energy transition + feedstock transition • CCS	
	Reduce impact of water and waste on ecosystems and soil	Contribute towards effective use of water and waste (land)
CE Promotion	Promote CE-	related business opportunities(address ELV Directive, etc.)
LCA Promotion	CFP/PEF calculation and lab	elling of products/businesses
Sustainability Disclosure/ Reporting	Comply with sustainability disclosure regulations (CSRD, SSBJ etc.)	
Data Management		product and business data (PCF/PEF) labelling and disclosure/reporting
Supply chain Management	Enhance sustainable procurement	



### Incorporating Sustainability (GX) into Business Strategy



#### Needs for GX

#### ► Needs for CN/CE

- ✓ CN (Scope3, GHG reduction)
- ✓ CE (recycle, bio rate)
- ✓ Other environmental footprints

#### Markets growing through GX

- ✓ Energy
- ✓ Mobility
- ✓ Building and construction
- ✓ Consumer good / waste disposal
- ✓ Digital

#### Solutions to be provided by MCG

#### GX of MCG products and services

- ✓ GHG reduction / low CFP
- ✓ Circular materials (bio, recycle)
- ✓ Other environmental footprints

#### Providing GX solutions to others (society, consumers, customers)

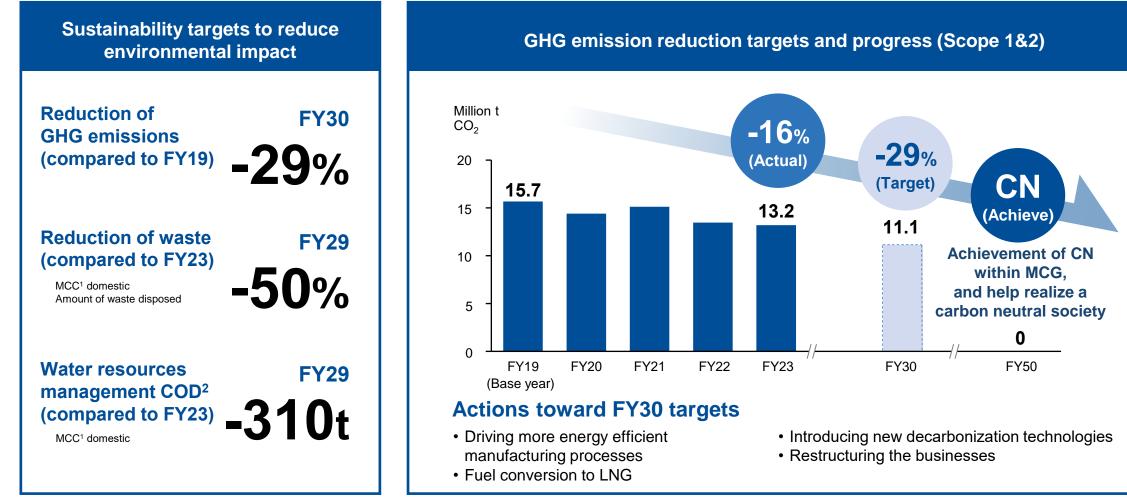
- ✓ Special functions
- ✓ Environmental design
- ✓ Business model (sharing, etc.)



# **CN Initiatives, GHG Emissions**

### Social value | Sustainability

On the right track to achieve the target for 2030



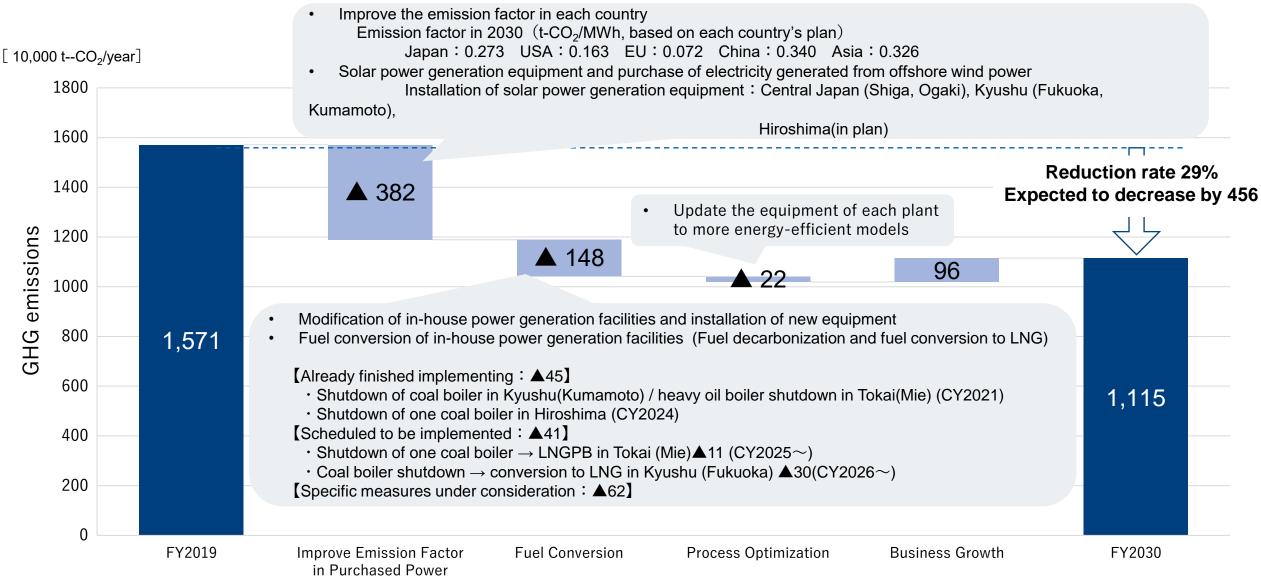
MITSUBISHI

CHEMICAL

1. Mitsubishi Chemical Corporation and its subsidiaries and affiliates

2. Chemical Oxygen Demand (COD) | An indicator of the level of water pollution caused by organic matter, etc. (The amount of oxidizing agent consumed when oxidizing agent reacts (oxidizes) with organic matter in water is expressed as a value corresponding to the concentration of oxygen).

### GHG Reduction Plan for 2030 (New Medium-term Management Plan)

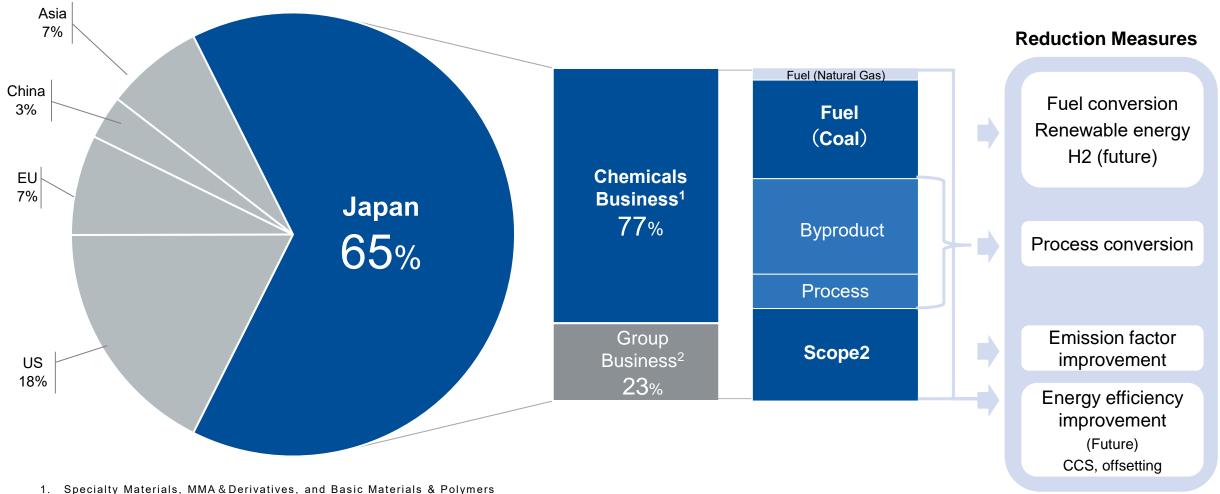


MITSUBISHI

### GHG Emissions (Scope 1, 2) Base Year 2019 and Reduction Measures



- Most Scope 1 and 2 emissions are in Japan (chemicals business)
- Pursuing fuel conversion, improving Scope 2 emission factors, etc., to achieve carbon neutrality in FY2050



2. Pharma and Industrial Gases

### **GHG Reduction Process**



#### For 2030

- Scope1 Fuel conversion (coal to LNG, electricity, renewables), process streamlining
- Scope2 Emission factor improvement, energy efficiency improvement
- Scope3 Strengthening sustainable supply chain management / procurement
- Carbon Pricing
  - ✓ Japan: Fossil fuel levy ('28~), mandatory participation to GX-ETS 2nd phase ('26~)
  - ✓ EU: Billing of CBAM ('26∼), phase out of free allowance for CBAM sector

#### Beyond 2030

Scope1, 2, 3 Continue implementing the measures for 2030

#### • Fuel conversion (LNG to renewables, H2/NH4/e-methane)

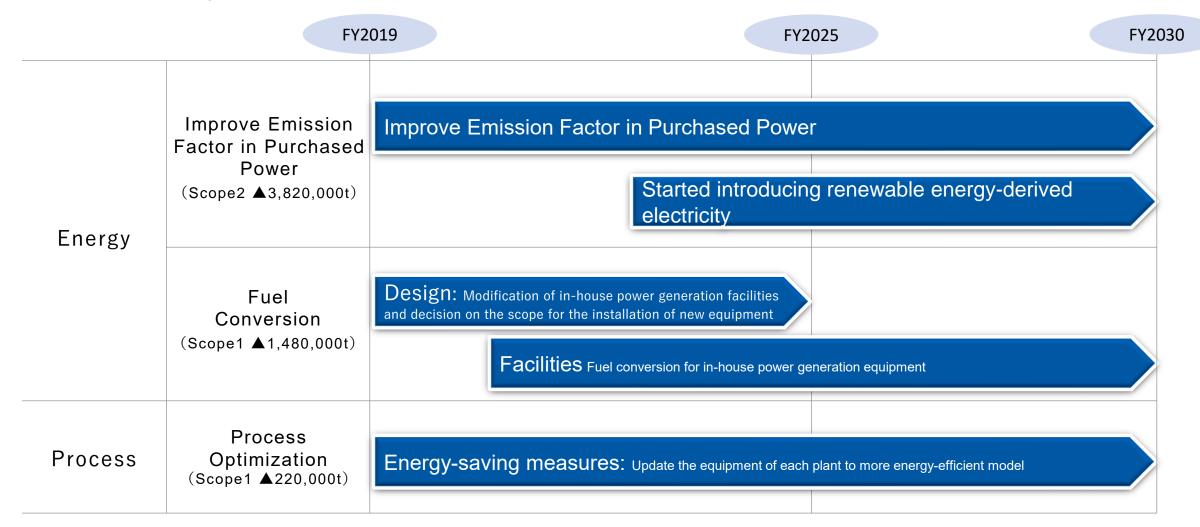
- Fundamental process conversion (feedstock transition)
- CCS, offset

Monitoring, data management

### **Reduction Plan for FY2030**

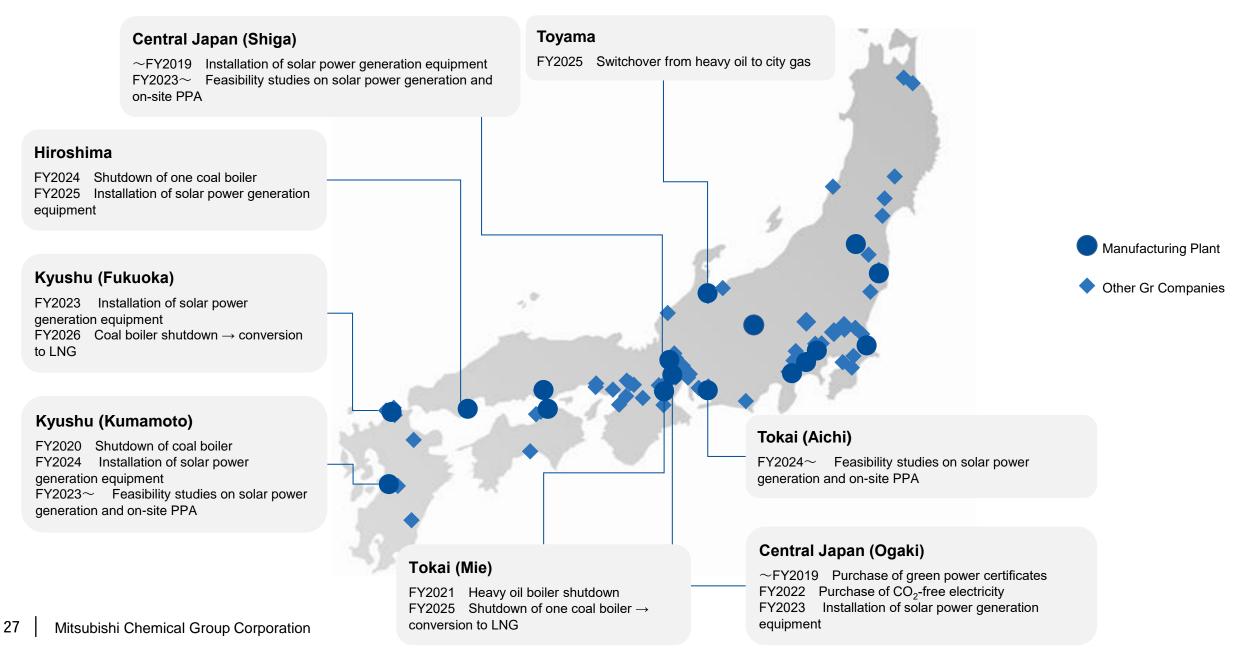


Proceed with the detailed design to convert fuel from coal to LNG by FY2025 and aim to complete decarbonization by FY2030.



### **Chemicals Business Site Initiatives for Fuel Conversion**





### **About Scope3**



- Scope3 supply chain emissions are divided into 15 "upstream" and "downstream" categories stipulated by the GHG Protocol
- Scope3 emissions accounted for 47,046,000 tCO2e. Categories 1, 11, and 12 accounted for 90% of total Scope3 emissions (FY2023 results)

Upstream	MCG	Downstream			
Scope3	Scope1 Scope2	Scope3			
<ul> <li>Raw materials</li> <li>Capital goods</li> <li>Fuel- and energy-related activities not included in Scope 1 or 2</li> <li>FY2023 results Scope3: 47,046,000 tC</li> </ul>	Direct emissions Indirect emissions	<ul> <li>Transportation and distribution</li> <li>Processing of products</li> <li>Use of products</li> <li>Investments</li> </ul>			

Category 1	Category 11	Category 12	Others	
38%	34%	16%	12%	
Purchased goods and services	Use of sold products	End-of-life treatment of sold products		

### Action Plan for Scope3 Category1 Reduction and Sustainable Procurement

- To reduce Category 1 emissions, supplier-calculated data rather than the current secondary data needs to be used when measuring emissions intensity.
- We aim to reduce GHG emissions throughout the supply chain by sharing and supporting suppliers' efforts to further reduce GHG emissions.



1. Mitsubishi Chemical Corporation

<sup>2.</sup> Corporate Sustainability Due Diligence Directive (EU)

### **Sustainability Procurement Activities**



We conducted a CSR questionnaire survey of our major business partners, analyzed the results, and classified the companies into four ranks (A to D) in accordance with their initiatives on ESG-related issues.



\*\*CSR questionnaire survey ranks and definitions

- A: Suppliers who have made sufficient efforts and are considered unlikely to commit acts adversely affecting human rights
- B: Suppliers who have made certain efforts but needs further continuous improvements
- C: Suppliers who have made effort, but are considered to have some concerns
- D: Suppliers considered whose efforts are not enough and whose status we would like to check



# **CE Initiatives**

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### **Plastics/CE Regulations**

- Regulation on plastic is developing from viewpoint of 1) preventing plastic pollution and 2) CE/resource efficiency, led by EU.
- Requirements include CE/eco design, use of recycled materials (recycling ratio), setting targets, production/use restriction on certain chemicals and plastics.

(Year)	~2020	2020	2022	2023	2024	2025	~	2030	~	2040	~	2050
Global					•	Agreement rea	ached under Pla	astic pollution C	onvention (INC	)		
Japan			<ul> <li>Plastic F</li> </ul>	Resources Circ			strengthening	regulations on	recycled materia	al use (recyclin	g ratios), etc.	
EU	<ul> <li>◆ 2019</li> <li>Single-use</li> <li>Plastics</li> <li>Directive</li> </ul>	<ul> <li>New CE Action Plan</li> <li>France &amp; Germany Circular Economy La</li> </ul>	_	g Waste Regul	gn for Sustaina ation (PPWR) ife Vehicle Reg	25% recycled o	content of bevera			s can be negotia	ble	
US			other states d content targe	ets, ban on pl	astic sold in b	ulk, etc.		50% recycling	rate for solid was	ste by 2030		
China	♦ Ban on	import of was	te materials in	ncluding plasti al Standard fo		of Waste Plas	tic Pollution					

### **Initiatives of Circular Economy (CE)**



CE is not only recycling. Comprehensive actions throughout the whole lifecycle—from design, manufacturing, and sales to use and recovery— is necessary.



Source: Strategy for a Growth-Oriented, Resource-Autonomous Economy (Reference Material)



# **Progress on Specific Projects**

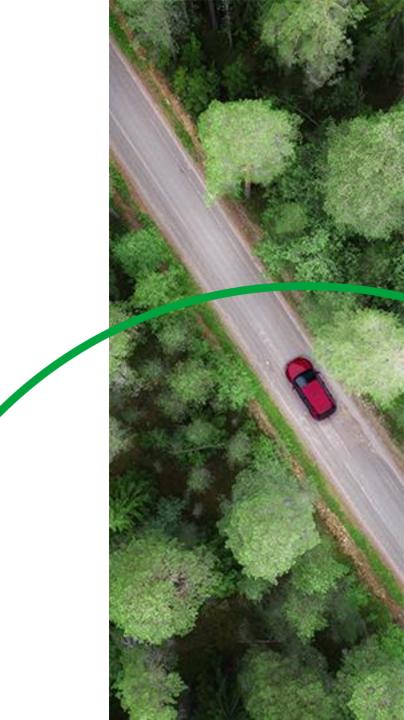


### Use of plastics as feedstock

# **Plastic chemical recycling**

In collaboration with ENEOS, we will industrialize Mura Technology's hydrothermal recycling technology at our Ibaraki plant

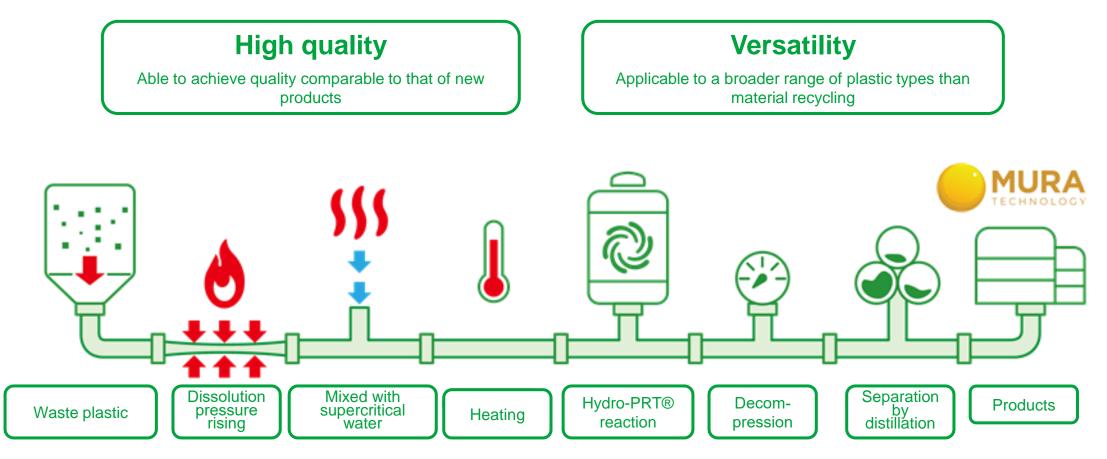




### Plastic chemical (hydrothermal) recycling technology



- In collaboration with ENEOS Corporation, built chemical recycling facility to convert used plastic into chemicals and oils.
- Formed a partnership with REFINVERSE Group, Inc., to ensure stable procurement of used plastic as a raw material.



# **Facility and technology**



# **Plastic Chemical Recycling Project**

Location: Ibaraki Plant

Raw plastic processing capacity: 20,000 tons per year

Technology introduced: Hydro-PRT® technology from Mura Technology (UK)

Start of operation: Commercial operation scheduled to begin in FY2025





Use of CO<sub>2</sub> as a raw material

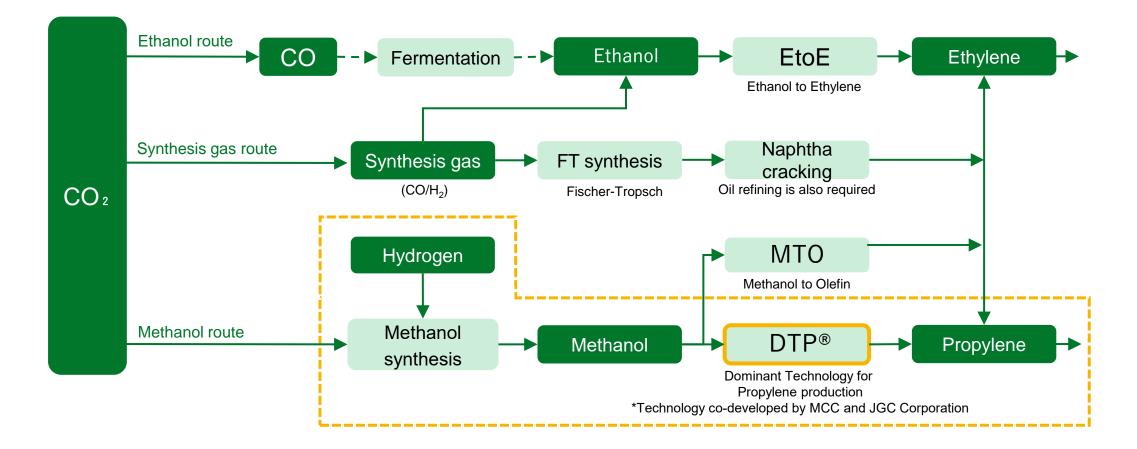
# Business development for polypropylene production from green hydrogen and CO<sub>2</sub>





# **Carbon utilization for basic chemicals**

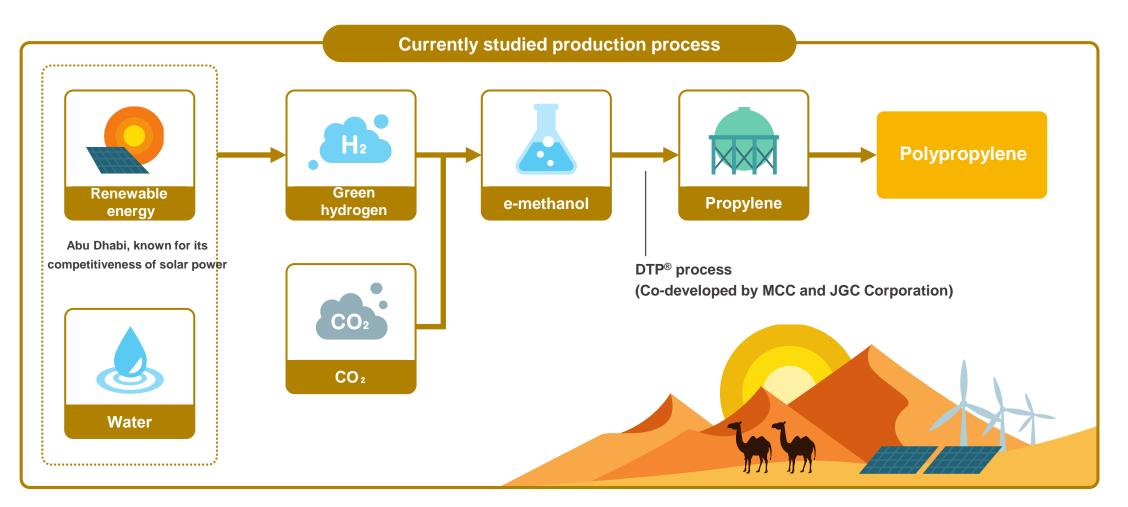
- We co-developed DTP® technology for producing propylene, a key raw material for various chemicals, from methanol.
- This technology enables efficient and selective production of propylene, which is difficult through other CO<sub>2</sub> utilization routes



# Conducting study on the commercial production of polypropylene from $CO_2$ and Green hydrogen



Abu Dhabi Future Energy Company PJSC (Masdar), INPEX, and MCC are jointly studying the commercialization of PP production in Abu Dhabi.



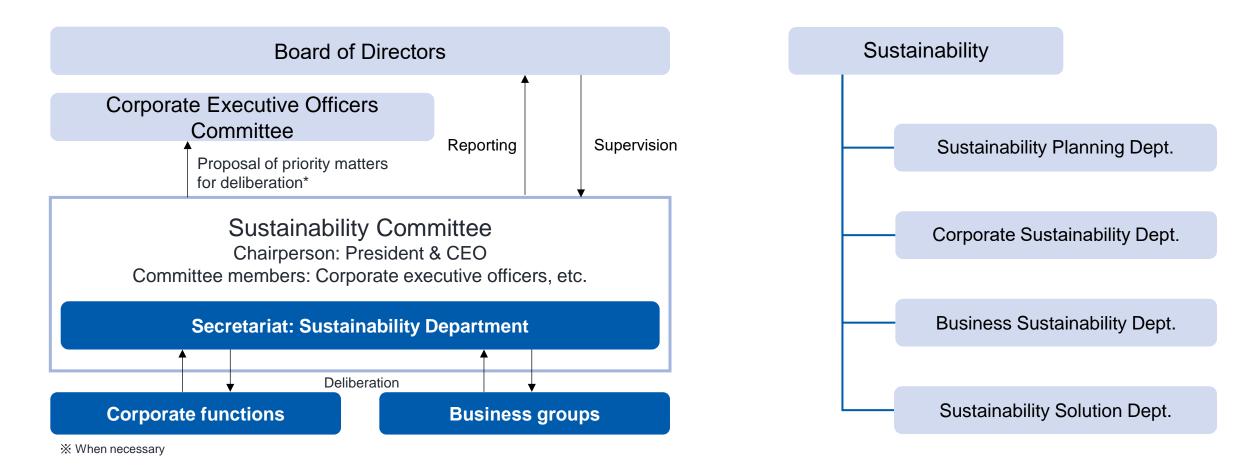


# **Sustainability Promotion Structure**

# **Structure for Implementing Sustainability**



- The Group has established the Sustainability Committee, which is chaired by the president & CEO
- Under the supervision of the Board of Directors, it acts as a forum for discussion of the Group's sustainability
  policies and related matters and to supervise and monitor progress in various activities.





# Contents

# **3 Human Capital**

Masahiko Tanaka Vice President Chief Human Resource Officer

# Human capital | Our people

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Assigning the right person for the right roles unleashing the potential of our human capital

We need people with	Action	Targets
<section-header><ul> <li>Ownership</li> <li>Takes pride and responsibility in one's work</li> <li>Distinctive skills and strengths</li> <li>Highly specialized and able to contribute to the team</li> <li>Ohallenge spirit, adding value towards realization of KAITEKI</li> <li>Mean diverse collaborations across the organization</li> </ul></section-header>	<ul> <li>Promote diversity         Develop a diverse pool of talent both             within and outside the company     </li> <li>Develop people capable of         global management         Training top talents and next-             generation top talents     </li> <li>Provide opportunities for challenges         through the delegation of authority</li> <li>Evaluate contribution to         "Connect" beyond organizations</li> <li>Encourage challenges</li> <li>Reward achievements based on         deliverables</li> </ul>	Employee engagement <sup>1</sup> $\begin{array}{c} 69pp \\ (FY23) \end{array} aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$

# **CHRO** Mission



Contribution to realize the KAITEKI Vision 35/New Medium-term Management Plan by maximizing the strengths of human resources within the Group

#### Vision for FY29

Synchronization of management and business strategies with HR strategies

Optimal global placement and promotion of human resources

Environments that maximize potential	Places for growth and challenge Leveraging of diverse values High psychological safety
Attractive corporate group	A place for top talent High engagement
Lean and productive organizations	Appropriate delegation of authority (ownership) Appropriate personnel management

# Today's briefing

- 1. Synchronization of management and business strategies with HR strategies
- 2. Selection, training and promotion of global management personnel
- 3. Revision of HR systems
- 4. Promotion of diversity



 $\rangle\rangle\rangle$ 

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5. Improved engagement



# Synchronization of management and business strategies with HR strategies

1) Synchronization of management & business strategies with HR strategies



# a) Establishment of HR Business Partner Department (as of July 1, 2024)

- Pursuit of closer relations between HR organizations and business group
- Planning and execution of HR strategies to realize business strategies



# b) "Linkage" of business and HR portfolios

- Clarification/visualization of skills required for specific positions and skills possessed by individuals @Workday
- Revision of HR systems for managerial employees

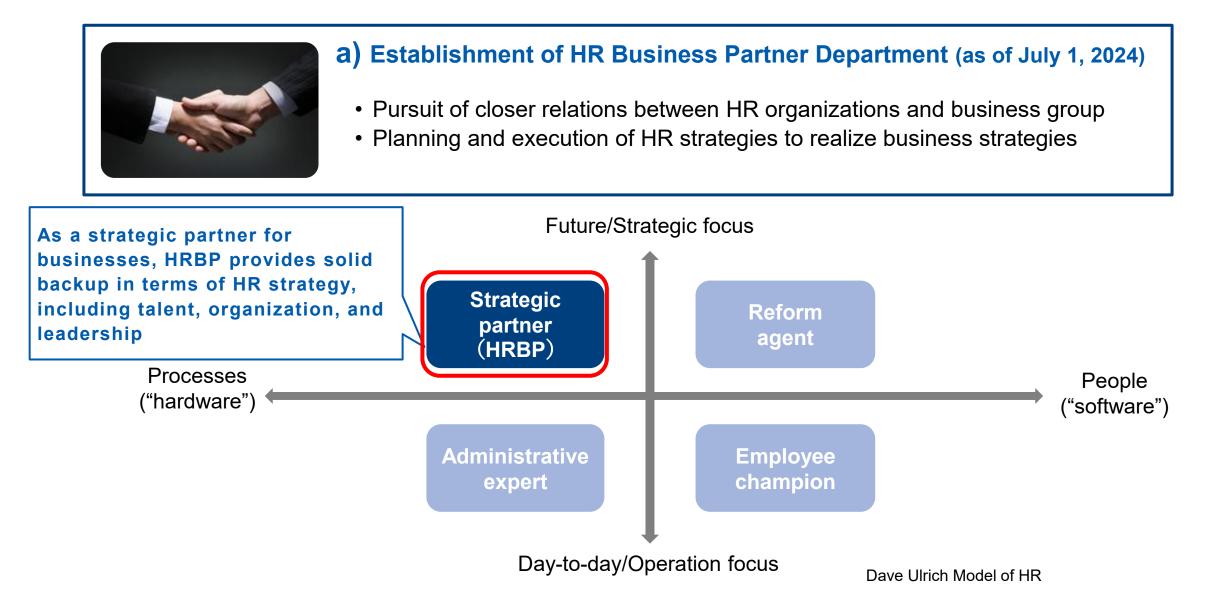


# c) Discussion of HR policies by all management executives

Thorough discussion of key measures by management executives

1) Synchronization of management & business strategies with HR strategies,





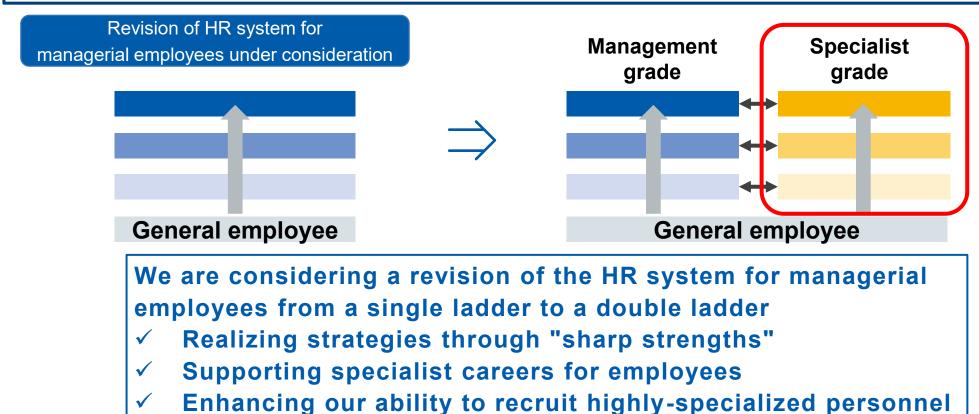
1) Synchronization of management & business strategies with HR strategies





# b) "Linkage" of business and HR portfolios

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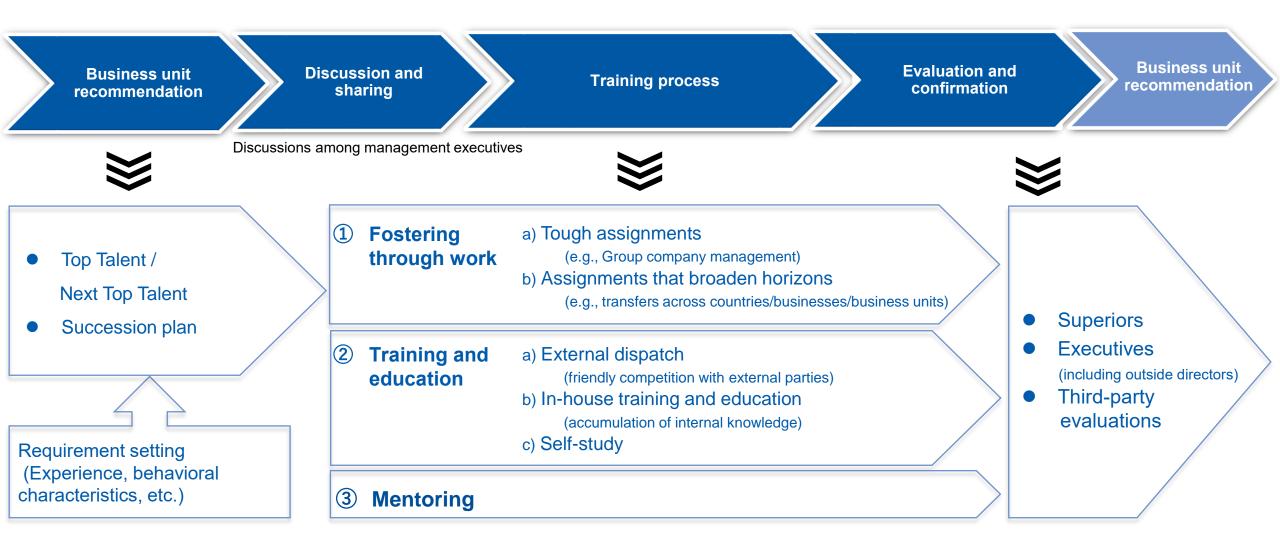




# Selection, training and promotion of global management personnel

# 2) Selection, training and promotion of global management personnel

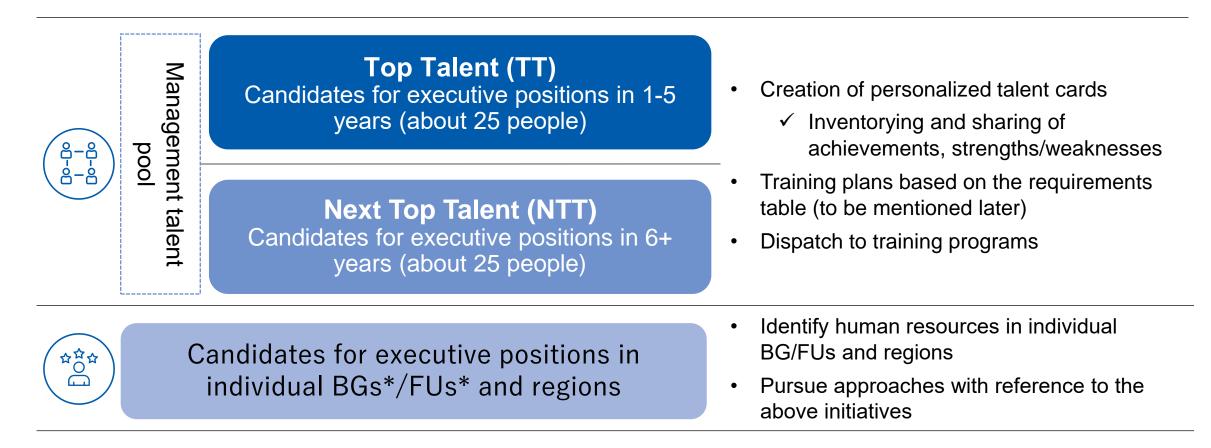




# 2) Selection, training and promotion of global management personnel



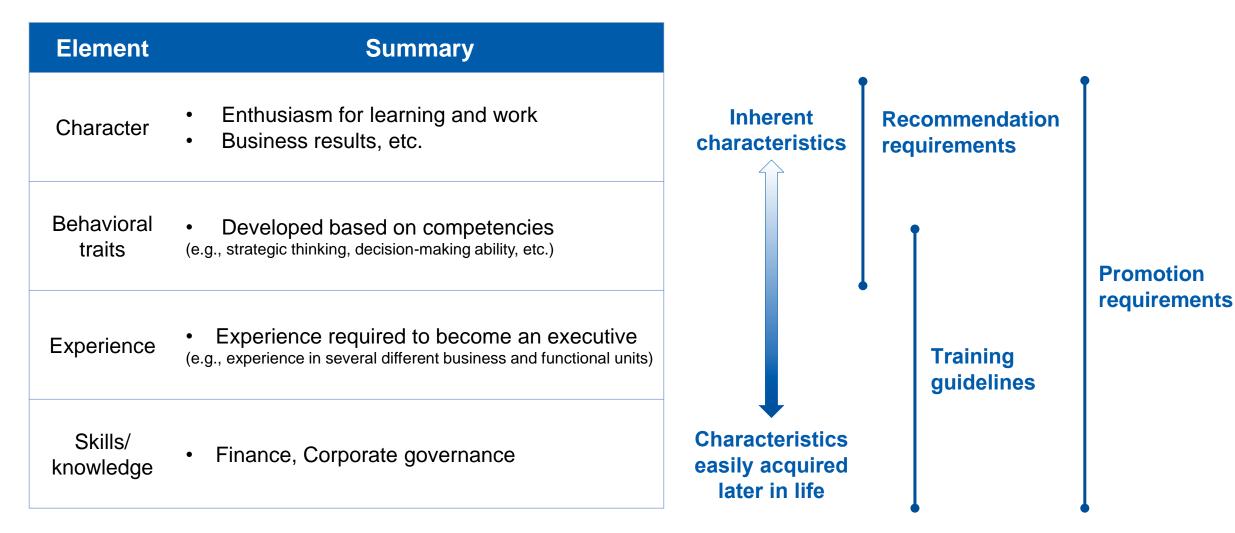
## **Overall talent pool**



\* BG: Business Group FU : Function

2) Selection, training and promotion of global management personnel

Select TT/NTT and plan training programs based on the definitions of management personnel requirements





# **Revision of HR systems**

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# 3) Revision of HR systems





# a) Fostering and evaluating "connecting" human resources and encourage challenges

- Revise evaluation system
- Penetrate new system and enhance operation
- Foundation-building for praise



# b) Role-based compensation system

• The roles expected of individuals with certain skills, experience and knowledge should be reflected in job grades and ranks so as to better evaluate their contribution to organizations and job responsibilities.

# Fostering and evaluating "connecting" human resources and encourage challenges

#### Objectives

Develop and evaluate human resources who "connect" beyond organizations, embed a culture that encourages challenges, and foster a suitable culture



#### • Revise evaluation system

- Incorporate evaluations of "connecting actions" and "challenges" into systems
- Rather than evaluating solely based on the achievement of initial goals, the system also considers actions taken and challenges undertaken for the benefit of the company and organization.(encourage challenges)
- Penetrate new system and enhance operation
  - Enhance awareness of systems and strengthen MBO\* training
- Foundation-building for praise
  - Restarting the CEO Award, establishing a "Praise Corner" on portal site, etc.



Example: Establishment of "Praise Corner" on portal site, CEO Award



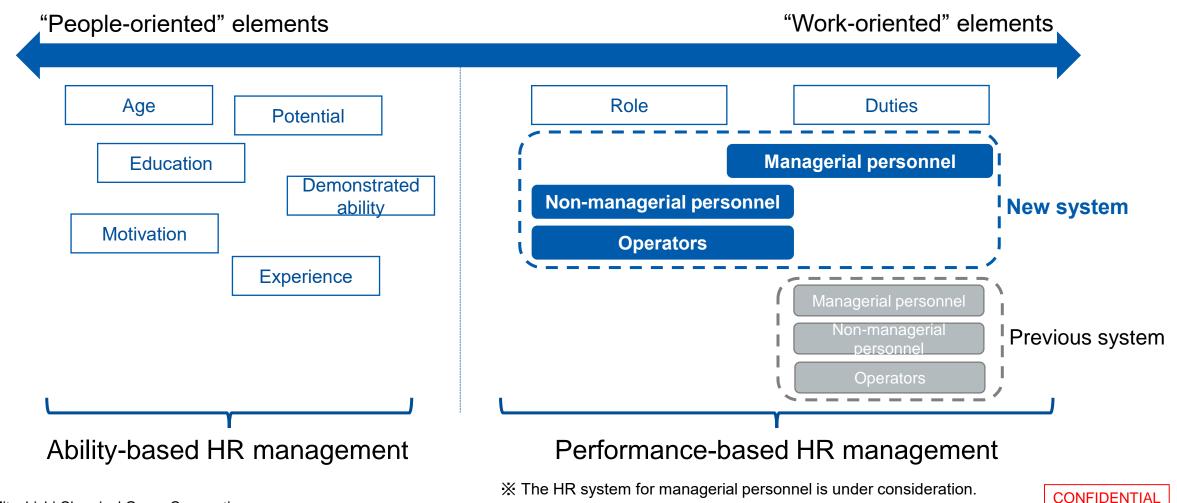




# **Role-based compensation system**



The roles expected of individuals with certain skills, experience and knowledge should be reflected in job grades and ranks so as to better evaluate their contribution to organizations and job responsibilities.





# **Promotion of diversity**

# 4) **Promotion of Diversity**





# a) Diversity at decision-making levels

Increase diversity among decision makers and leverage diverse perspective



# b) Promoting women's activities (increasing percentage of women in management positions)

• Promote female employees achieve greater success as part of efforts to maximize the capabilities of our people, while building a foundation where all employees can succeed in their own ways by raising awareness of flexible workstyles.

# **Diversity at decision-making levels**



In order to increase diversity among decision makers and leverage diverse perspectives

- Create personalized talent cards in line with the aforementioned TT/NTT training initiatives; conduct training based on requirement definitions
- Continuously recruit outside talent

	40%
29%	
FY2024	FY2030 target
Facus	Executives + employees engaged at the highest grade

(personnel participating in important

Female, foreign national, multi-career

40% or more by the end of FY30

management decisions)

Focus

**Diversity attributes** 

Target

Mitsubishi Chemical Corporation Promoting women's activities (increasing percentage of women in management positions)



#### **Current ratios**

The efforts of the past 10 years have only proven partially successful

(women account for 5.0% of section managers and above and 8.8% of assistant managers and above)



#### Actions

- Approach young people more frequently before they enter higher education and begin job hunting to increase the ratio of female employees
- Conduct unconscious bias training for all employees
- Continue to hold events to foster an organizational culture
- Re-identify impediments to success





# Improved engagement

# Understanding of the present situation





# **Employee engagement scores have stagnated**

- Percentage of favorable responses to set items in the employee awareness survey have stagnated
- Questions that received notably fewer favorable responses

   I believe the Mitsubishi Chemical Group is making steady progress toward realizing its management philosophy.

[I wholeheartedly support the Mitsubishi Chemical Group's management philosophy.]

Rate of res Mitsubishi personnel	Chemica	l Corpora			
	-				
FY18	FY19	FY20	FY21	FY22	FY23

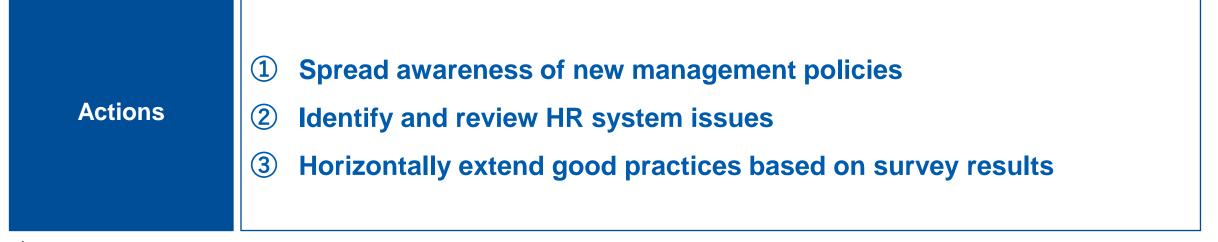
#### **Rising rate of voluntary resignations**

- Resignation rate increased significantly from FY2020 to FY2023
- ⇒ Loss of talented personnel, concerns about plant safety and stable operation
- Factors underlying this rise
  - Concerns about management policies, including carve-out of petrochemical and carbon businesses
  - Lack of acceptance and dissatisfaction with changes in HR system











#### (1) Spread awareness of new management policies

• Number of CEO town hall meetings, site visits, individual dialogue sessions, etc. (In and after April 2024)

Meetings	Area	Targets	Apr Jun.	Jul. – Sep.	Oct. – Dec.	Jan, 2025 -
Global THM	Global	For the entire company	1		2	
New Management Policy Dialogues	Global	For the entire company			1	
Individual dialogue sessions	Headquarter	By age groups	3	1	2	
Visits/THM	Domestic plants and subsidiaries	For employees at all levels	8	6	7	4
	Overseas region	RHQ members, BG/FU representatives, etc.	2	3	1	3
Total 44 times (Including events still scheduled)						

#### • Town hall meetings by Business Units and Common Divisions

Direct explanations of KAITEKI Vision35, Medium-Term Management Plan 2029, and the direction and goals of each business group and function unit to its employees by the executive in charge



# (1) Spread awareness of new management policies





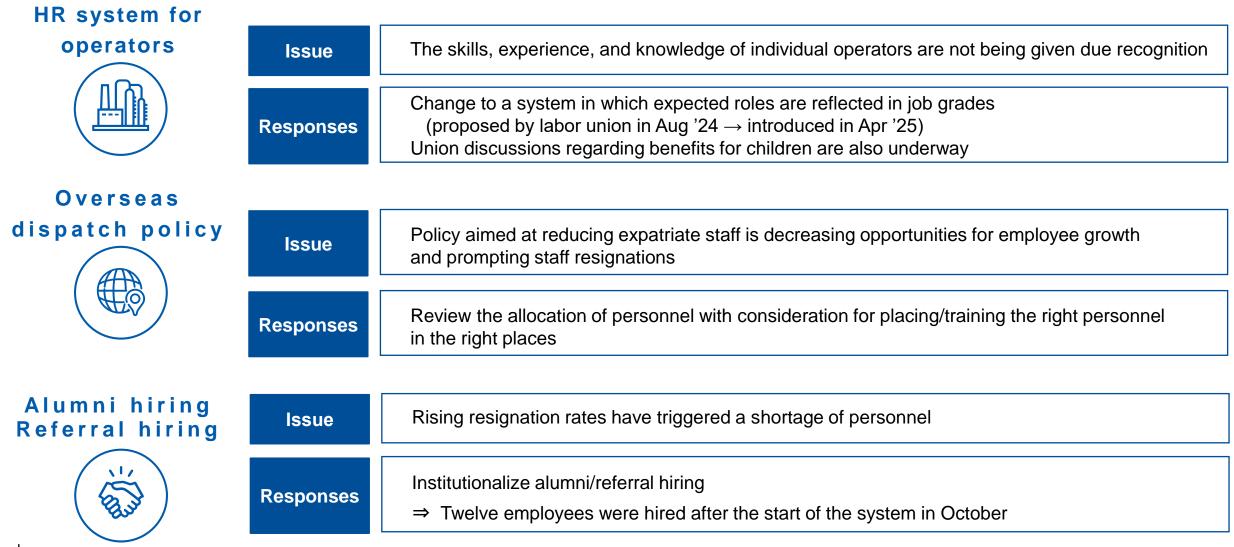
12/2開催 MCGグループ 新経営方針対話会





#### (2) Identify and review HR system issues

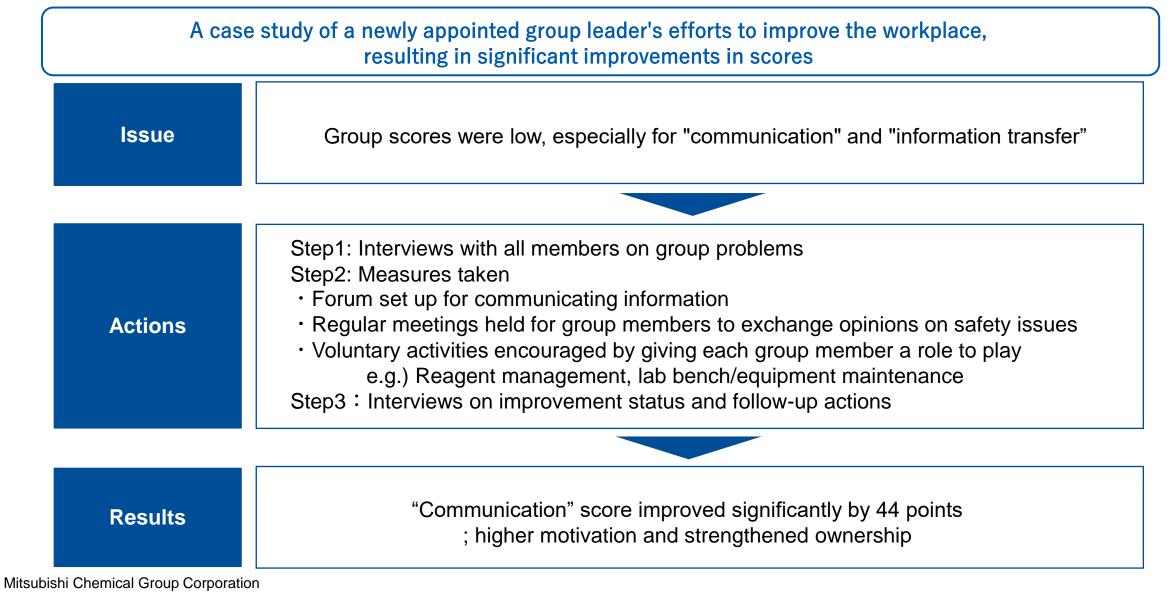
→It is helping secure human resources and prevent employee turnover.



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# (3) Horizontally extend good practices based on survey results





# By maximizing the strengths of the human resources

# within the Group, we will realize the

# KAITEKI Vision35/New Medium-term Management Plan

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# Contents

# **4** Governance

Ken Fujiwara Executive Vice President, General Counsel

# **Corporate Governance**



#### $\dot{M}$ ) Enhancing the Effectiveness of the Board of Directors

- ✓ Functions and roles of the Board of Directors in a company with a nominating committee.
  - > Monitoring and supervising executive officers' decisions, decision-making processes, and execution status from a stakeholder perspective.
  - > Supporting appropriate management decisions by the executive team.
- Ensuring the independence of the Board of Directors (with a majority of outside directors) while further driving diversity to tulfill its functions and roles.

Current Situation	<ul> <li>By providing advance briefings of important matters for outside directors, discussions and Q&amp;A at board meetings are steadily deepening.</li> </ul>
&	✓ As discussions on portfolio management, progress of the mid-term management plan, and key matters increase, the challenge is how outside directors with diverse skills can take the lead in engaging in constructive dialogue with the
Challenges	executive team.

#### Enhancing the Effectiveness of the Board of Directors: "Connecting"

	Directors "connecting" with each other: Constructive discussions based on mutual trust among the Board members.
Three Ways	The Board of Directors and the statutory three committees "Connecting": Efficient operation based on the functions and
, ,	roles of each meeting body.
to Connect	> The Board of Directors and executive team "Connecting": Collaborating with the executive team to set agenda and engage
	in focused, targeted discussions.

# $\downarrow$

Connecting for	Not just a monitoring board, but building a Board of Directors that engages in constructive and concrete discussions
Enhanced	aligned with the current business strategy of the MCG Group, and "connecting" these discussions to the executive team's
Corporate Value	actions, thereby contributing to the enhancement of the Group's corporate value and shareholder value.

