# **Management Strategy Section**

- 23 Overview of Management Strategy
- 29 Objective 1: Strengthen the Resiliency of Our Business Portfolio
- 31 Objective 2: Promote Sustainability Management
- 33 Materiality
- 35 Financial Strategy
- 39 Risk Management
- 43 Research and Development Strategy
- 45 DX Promotion
- 47 Promoting Human Capital Management
- 53 Business Operations and Main Products
- 55 Specialty Chemicals Business Strategy
- 59 Green Energy & Chemicals Business Strategy

# **Overview of Management Strategy**



# Message from the Executive Officer in Charge

We make our business portfolio more resilient by concentrating our management resources on sustainable businesses with both competitive edge and growth potential

# Motoyasu Kitagawa

Director, Managing Executive Officer In charge of Compliance, responsible for Corporate Planning, in charge of Internal Audit Division and CSR & IR Division

# Priority on selection and concentration with management resources focused on U&P businesses

Our previous Medium-Term Management Plan was started in April 2021 to evolve the MGC Group's earnings structure for greater resilience amid environmental change as we secure sustainable growth, working to achieve our objective of balancing social and economic values. Those three years brought a series of serious, difficult events, including a pandemic, the Russia-Ukraine War, and the energy crisis that followed. Demand for our products stalled in the slowing world economy, and we were unable to achieve our targeted operating profit, ROE, and other profit targets and percentage indices. I'm completely confident that we set our general direction correctly three years ago, but the period brought to light underlying challenges in our earnings structure and environmental resilience.

Understanding these challenges, our current Medium-Term Management Plan puts priority on selection and concentration. Rising prices and the labor shortage are growing concerns, so we are working to raise the efficiency of our businesses overall by concentrating our limited resources on U&P businesses. To operate smoothly and cleverly in an economic environment that's difficult to predict, we have set two objectives: strengthen the resiliency of our business portfolio and promote sustainability management. Progress in these areas will build strong corporate health with enhanced resilience.

 $\overleftrightarrow$  Please see P27-28 for details of how we define and assess U&P businesses.

# Business-specific portfolio reform for profit growth above capital cost

To shift toward growth far ahead of capital cost in the three years of the current Medium-Term Management Plan, we must make our strong businesses even stronger. To this end, we must first ensure that we reap the results of the large investments we've undertaken. To win new markets and customer groups, it's important to shuffle the portfolios of businesses with competitive advantage, constantly exploring new applications for each product. In addition to companywide portfolio reform, we are making businessspecific portfolio improvements to build the resilience of the entire Group portfolio.

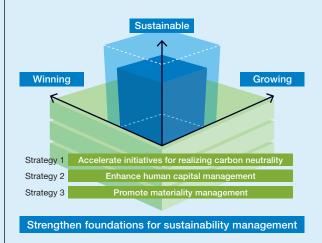
Considering it a must for building capital efficiency, we are simultaneously reorganizing unprofitable businesses with a sense of urgency. We must also tighten up our balance sheet. In 2021, the MGC Group introduced return on invested capital (ROIC) as a new management index. Since then, each business segment has written an action plan using the ROIC tree and, through discussions in investment and loan screening meetings and other initiatives, it appears a stronger awareness of profitability and investment efficiency has developed throughout the Company. To make the plan-do-check-act cycle more effective, the Corporate Planning Division is leading on reinforcing our support structures.

The current Medium-Term Management Plan is a result of active discussion among various councils. Our Management Council, for example, redefined the criteria for differentiating businesses that enjoy strong market reputations, designating them as U&P businesses. Specifically, we adjusted the classification standards for these businesses and introduced a sustainability criterion for assessing them on top of market advantage and growth potential. We put a lot of time into discussions regarding creating new businesses. As a result, our management team shares a refreshed sense of challenge, leading to our latest R&D strategies to make core technologies more visible and focus our target applications.

# Evolving sustainability management by refreshing KPIs and materiality identification processes

Following up on the previous three-year plan, we have been consistently advocating for balance between economic and social values. Talking about achieving a goal is easy, but action to make it happen is not. That said, today I'm feeling the wind at our back. The entire industry is now taking specific action, vectoring toward the values represented by carbon neutrality. The shipping industry, for example, is accelerating its shift to cleaner fuels, particularly circular carbon methanol. The world trend is about to begin syncing with the MGC Mission, "creating value to share with society," and we will work to wisely take up business opportunities in terms of chemical ingredients and raw materials.

To make that happen, it's important that corporate customers prefer us as a collaborator with shared values. In starting the current three-year plan, our Board of Directors reviewed our materiality and KPIs. I feel the recent atmosphere within the Company lifting employee morale as they create solutions to issues related to climate change and make our products more environmentfriendly. With these factors as background, we gave our environment-friendly products a new name, "Sharebeing," for stronger branding during the current Medium-Term Management Plan. We set their sales as a new KPl in the CSV field, and reorganized our internal third-party assessment and certification processes so we can better work to build environmental value.



# Screening Committee and Investment Budgeting System

The MGC Group has a screening committee to raise our effectiveness in choosing investment and loan targets, with a pre-board function. Under the Corporate Planning Division working as secretariat, representatives of the Environment Safety & Quality Assurance Division, Production Technology Division, Finance & Accounting Division, CSR & IR Division and the like meet to screen investment and loan prospects identified by each business segment. Division representatives furnish specialized opinions and advice to promote collaborative examination of proposals before making them official investment and loan targets, precisely define what they entail, and assess risks. We also capped annual investment and loan amounts for each business segment under the investment budgeting system. As a general rule, we have each segment invest or lend within the operating cash flow it has earned. At the same time, we've built a system to identify financial leverage and allow for investment or lending of amounts beyond the segment's operating cash flow where the investment or loan prospect is related to strategy for the entire company, ESG, or the creation of new/next-generation businesses. While maintaining our financial discipline, we will be bold and courageous in allocating our resources for growth.

		Green Energy & Chemicals Business Sector		
Investment budget	Budget for each segment	Specialty Chemicals Business Sector	We set operating cash flow less dividends as the investment budget for each segment.	
		Corporate Sectors (research labs, etc.)		
	Management budget	Following individual screenings, we allocate invest segment's investment budget (above the cap) to the entire company, ESG, or the creation of new/	projects related to strategy for	

#### **Investment Budgeting System**

# Progress with the Previous Medium-Term Management Plan

# Previous Medium-Term Management Plan FY2021-FY2023

**Review of the Previous Medium-Term Management Plan** 

Although net sales increased and exceeded the target amount for fiscal 2023, the final year of the previous Medium-Term Management Plan, operating profit, ordinary profit, ROIC, and ROE did not meet their targets. Meanwhile, the plan to increase the percentage of sales of differentiating businesses to over 40% was achieved, partly because the methanol and energy resources and environmental businesses were shifted to differentiating businesses.

During the past three years, we have made major investments in differentiating businesses, including the expansion of production facilities for electronic chemicals in Japan and overseas. However, profitability and capital efficiency declined due to factors such as the sluggish semiconductor market and various costs rising. We have also actively injected management resources into research and development activities, but at present there are delays in the creation of new businesses. We have achieved certain results reevaluating and rebuilding unprofitable businesses, such as the concentration of formalin production sites and the decision to withdraw from the ortho-xylene chain, but there are still some businesses with profitability issues.

As described above, we are on the way to achieving the key goal of the previous medium-term plan, which was to "shift to a profit structure resilient to changes in the business environment." Measures to achieve our other important goal, "balance social and economic value," progressed generally as planned.

### Numerical Targets and Results of the Previous Medium-Term Management Plan

	FY2020 (result)	FY2023 (result)	FY2023 (target)
Net sales	¥595.7 billion	¥813.4 billion	¥730.0 billion
Operating profit	¥44.5 billion	¥47.3 billion	¥70.0 billion
Operating profit margin	7.5%	5.8%	-
Ordinary profit	¥50.2 billion	¥46.0 billion	¥80.0 billion
ROIC*1	7.7%	5.4%	10% or higher
ROE*2	7.1%	6.1%	9% or higher

< FY2023 Assumptions >

Exchange rate: ¥105/US\$; Crude oil price (Dubai): US\$60/bbl \*1 ROIC = ordinary profit/invested capital

#### \*2 ROE = net profit/equity

## Measures taken and results

Shift to a profit structure resilient to Objective 1 changes in the business environment

Strategy 1-1

#### Further strengthen competitively advantageous businesses

• Focused investment on differentiating businesses with a view to market expansion (EL chemicals plant expansion in Japan and overseas, BT materials plant expansion in Thailand, MXDA plant newly built in Europe, etc.)

• Decreased profitability and capital efficiency due to general sales volume decrease following semiconductor market slump and China slowdown, cost increases, balance sheet expansion, etc.

Accelerate creation and development Strategy 1-2 of new businesses

- New business creation delayed despite aggressive investment of **R&D** resources
- Solid electrolytes: Adoption stage was not reached during the previous Medium-Term Management Plan despite research system expansion and technology seed development
- OXYCAPT™: Promoted development of the multilayer plastic vial market for biopharmaceuticals and regenerative medicine. Advanced steadily, despite considerable time spent on customer evaluation

#### Reevaluate and rebuild Strategy 1-3 unprofitable businesses

- Stopped production of unprofitable products and withdrew from businesses (concentration of formalin production sites, withdrawal from ortho-xylene/phthalic-acid/plasticizer chain, etc.)
- PC-related and PIA, etc. have low capital efficiency and profitability, requiring intensive management

Objective Balance social and economic value

#### Strategy 2-1 Solve social issues through business

- Progressed as planned on circular carbon methanol development and CO2-derived PC development, etc.
- Achieved net sales targets for applications that contribute to development of ICT/mobility society or solving medical and food problems

#### Harmonize value creation with Strategy 2-2 environmental protection

- Achieved GHG emissions reduction target and renewable energy introduction rate target
- Achieved zero waste emission rate target towards reducing waste

#### Strengthen discipline and foundation Strategy 2-3 supporting business activities

- · Promoted united MGC Group safety activities
- Promoted development of human resources, the most important management resource (opened the MGC Commons as an institution aiming to develop human resources who will create innovation)

# Current Medium-Term Management Plan FY2024-FY2026

# New initiatives



Strengthen the resiliency of our business portfolio

#### Strategy 1-1 Focus on U&P

- Further concentration and focus of management resources in U&P businesses (= differentiating businesses)
- Reap the benefits of large-scale investments (electronic chemicals, BT materials, MXDA, etc.) conducted under the previous Medium-Term Management Plan
- Continue aggressive investment focused on U&P businesses under the current Medium-Term Management Plan, staying mindful of capital efficiency

#### Strategy 1-2 Build new value through innovation

- Establishment of MGC strategic research areas (mobility, ICT, medical/food)
- Zero in on priority focus themes, concentrate investment of R&D resources (new BT laminate materials, new semiconductor cleaning solutions, OXYCAPT<sup>™</sup>, solid electrolytes, continuous carbon fiber composite materials, etc.)
- Initiatives targeting life science-related themes (antibody drugs, etc.) and businesses from a companywide perspective (including examination of organizational structure review)
- Promotion of themes for resolving problems related to climate change (circular carbon methanol, PC from CO<sub>2</sub>, CCS, etc.)

# Strategy 1-3 Restructure businesses requiring intensive management

 Position PC-related products and xylene separators/derivatives as "businesses requiring intensive management" since they have low profitability and capital efficiency. Promote cost reduction and balance sheet streamlining, etc.

#### Objective 2

# Promote sustainability management

Strategy 2-1 Accelerate initiatives for realizing carbon neutrality

- Development of businesses and technologies contributing to GHG emissions reduction
- Achievement of GHG emissions reduction targets
- Expansion of MGC Group "Sharebeing" eco-friendly products (achievement of net sales targets)

## Strategy 2-2 Enhance human capital management

- Promote management focused on human resources as the most important capital for value creation
- Promote human resources strategy to continuously develop key personnel who are able to cope with change and grow over the long term

#### Strategy 2-3 Promote materiality management

- Promote enhancement of non-financial value by setting and managing KPIs tied to materiality
- Ensure execution of sustainability management

# Medium-Term Management Plan and Vision for MGC in 2030

The current Medium-Term Management Plan is positioned as the successor to the previous Medium-Term Management Plan and our guide for realizing the vision for MGC in 2030. First, we have set "strengthening the resiliency of our business portfolio" and "promote sustainability management" as new goals, and will promote measures consisting of three items each to achieve these goals. We have redefined the differentiating businesses of the previous Medium-Term Management Plan as U&P businesses, which have the ability to grow continuously by achieving a balance between social and economic value, in order to strengthen the resiliency of our business portfolio. By concentrating management resources on U&P businesses, we will raise the capital efficiency of the MGC Group as a whole. In parallel, we will promote "sustainability management" that enables us to flexibly adapt to various changes in the social environment and demonstrate resilience.

# Numerical Targets for the Current Medium-Term Management Plan

	FY2023 (result)	FY2024 (forecast)	FY2026 (target)
Net sales	¥813.4 billion	¥780.0 billion	¥850.0 billion
Operating profit	¥47.3 billion	¥52.0 billion	¥85.0 billion
Operating profit margin	5.8%	6.7%	10% or higher
Ordinary profit	¥46.0 billion	¥59.0 billion	¥95.0 billion
EBITDA*3	¥84.9 billion	¥97.0 billion	¥150.0 billion
ROE	6.1%	6.9%	9% or higher
ROIC*4	3.3%	6.4%	8% or higher

< FY2024 Assumptions >

Exchange rate: ¥145/US\$; Crude oil price (Dubai): US\$80/bbl < FY2026 Assumptions >

Exchange rate: ¥135/US\$; Crude oil price (Dubai): US\$80/bbl

\*3 EBITDA = ordinary profit + interest paid + depreciation and amortization \*4 ROIC = (operating profit - income taxes + equity in earnings of affiliates) / invested capital (definitions have been revised for the current Medium-Term Management Plan)

#### Vision for MGC in 2030

#### Financial targets

Net sales	¥1.2 trillion
Operating profit	¥120.0 billion
Operating profit margin	10% or higher
ROE	12% or higher
ROIC	10% or higher

#### Non-financial targets

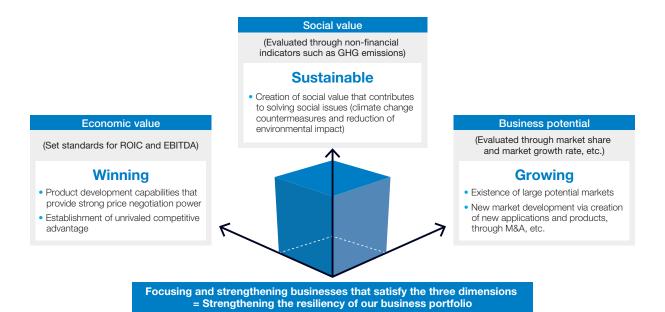
GHG emissions	Reduction of 39% or higher (compared to FY2013)
"Sharebeing" sales (eco-friendly products)	¥500.0 billion or more

# **Renaming Differentiating Businesses and Defining U&P Businesses**

Under the current Medium-Term Management Plan, we have renamed our existing differentiating businesses to U&P businesses and redefined business segments from the perspective of "Growing," "Winning," and "Sustainable."

"Growing" refers to the market having potential and being expected to create new demand through the creation of new applications and products, or in other words, "business potential." "Winning" means having a competitive advantage in quality, functionality, technology, etc. that other companies cannot easily emulate, and being able to maintain high profit margins over the medium to long term, or in other words, "economic value." "Sustainable" refers to a high level of "social value" such as low GHG emissions in the production process, or a business model that incorporates mechanisms directly connected to climate change countermeasures and reduction of environmental impact.

We will focus our management resources on businesses that satisfy the above three axes to realize the key goal of the current Medium-Term Management Plan, which is to strengthen the resiliency of our business portfolio.



## COLUMN Strategic Focus on U&P Businesses

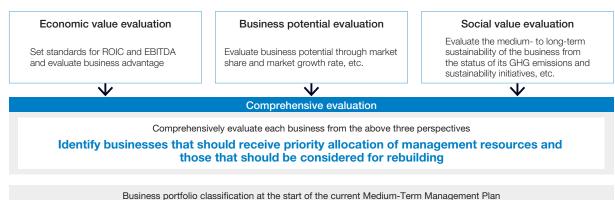
We will focus on allocating management resources to U&P businesses, while striving for early recovery of large investments and maintaining added value by passing on various cost increases to prices, and strengthening management based on capital efficiency using the ROIC tree. Through these efforts, we aim to increase operating profit to a level of over ¥70 billion in fiscal 2026 (more than 1.7 times the level of fiscal 2023). We plan to expand sales of the three ICT businesses (electronics materials, electronic chemicals, and optical materials), which will serve as growth drivers, to 1.5 times the level of fiscal 2023. In electronics materials, we will expand our Thailand Plant in autumn of 2025 with a view to growth in demand in the semiconductor market. In electronic chemicals, we plan to expand production capacity in 2026 to 1.7 times the level of 2020 in order to accommodate new construction and expansion by semiconductor manufacturers. In optical materials, the markets for both optical polymer and lens monomers are expected to expand steadily.



# **Business Segments and Evaluation Processes**

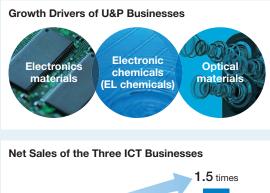
Business portfolio classification under the current Medium-Term Management Plan is divided into the four categories of "U&P businesses," "foundation businesses," "new/ next-generation businesses," and "businesses requiring intensive management," based on the three perspectives of "economic value," "business potential," and "social value," to identify businesses that should receive priority allocation of management resources and those that should be considered for rebuilding. which indicates business efficiency, and EBITDA, which indicates real profitability, and evaluated the advantages of each BMU<sup>\*5</sup>. For "business potential," we evaluate the market share and market growth rate of major products from a medium- to long-term perspective. For "social value," we evaluate GHG emissions, progress in promoting sustainability-related measures, and the sustainability of the business. \*5 Business management unit

For "economic value," we set the criteria of ROIC,



Uniqueness & Presend	ce = differentiating	Foundation	New/next-generation	Requiring intensiv management
Three ICT businesses = Growth drivers • Electronics materials • Electronic chemicals (EL chemicals)	<ul> <li>Methanol</li> <li>Energy resources and environment</li> <li>POM</li> <li>MXDA/Aromatic</li> </ul>	<ul> <li>Methylamine and ammonia-related</li> <li>MMA-related</li> <li>Formalin and polyol-related</li> </ul>	<ul> <li>Life science-related</li> <li>New/next-generation</li> </ul>	<ul> <li>PC-related</li> <li>Xylene separators and derivatives</li> </ul>

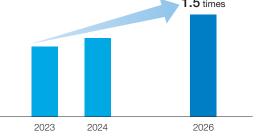
Oxygen absorbers



aldehydes

Polymer materials

Optical materials



#### **Electronics materials**

**BT materials:** Currently expanding our Thailand plant in preparation for growth in demand in the semiconductor market. Contribution to sales increase during the current Medium-Term Management Plan

**OPE:** Demand is growing for use as a substrate material for generative Al servers. Sales expansion forecast during the current Medium-Term Management Plan

#### Electronic chemicals (EL chemicals)

- Supply high-quality products to global semiconductor manufacturers
- Increase in usage of MGC's chemicals due to increase in the number of process steps with semiconductor miniaturization and increased complexity of wiring processes
- Production capacity increasing worldwide as semiconductor manufacturers build and augment production sites

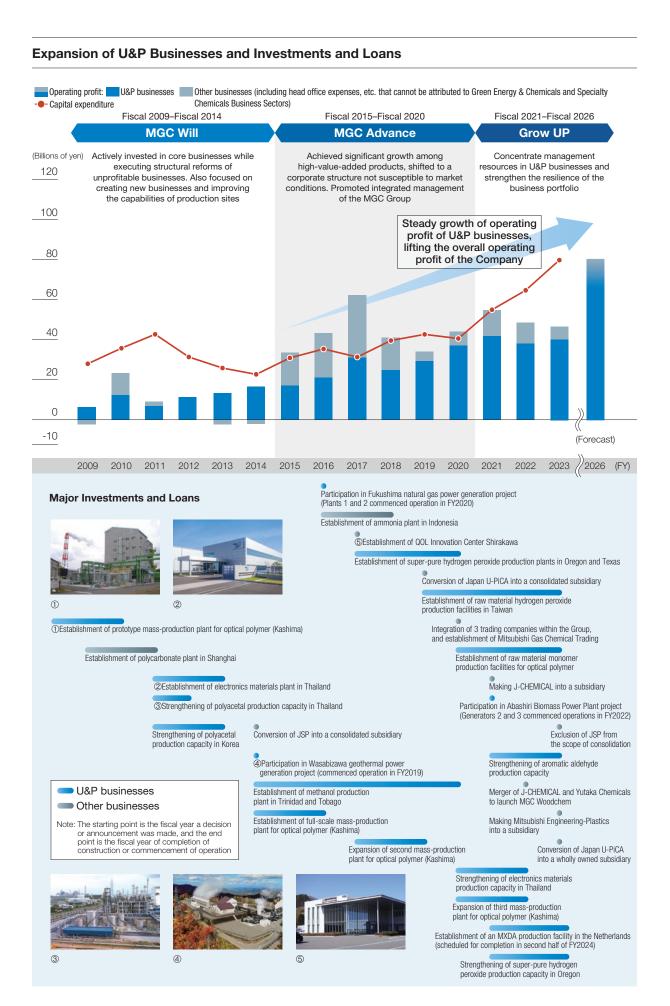
#### Optical materials Optical polymer:

- Increase in camera resolution through increase in AI smartphones and periscope lenses, etc.
- Demand for use in automotive cameras and AR/VR headsets, etc. also expected to grow

#### Lens monomers:

- Plan for new lens monomer production facility in 2026
- Development of Episleaf™ biomass lens monomer. Sales planned to start in 2024

# **Objective 1: Strengthen the Resiliency of Our Business Portfolio**



# Strategies for Strengthening the Resiliency of Our Business Portfolio

The MGC Group has stated the Medium-Term Management Plan objective of "strengthen the resiliency of our business portfolio" to build a business portfolio that is more resilient to the environment. We are promoting three strategies to achieve this objective: focus on U&P, build new value through innovation, and restructure businesses requiring intensive management.

With regard to the strategy of focusing on U&P in

particular, we will promote further concentration and selection of management resources in U&P businesses, while steadily reaping the benefits of major investments carried out under the previous Medium-Term Management Plan.

Our investment plan is to invest a total of around ¥300.0 billion over the three-year period, with a focus on U&P businesses, centered on the three ICT businesses.

#### Major investments in U&P businesses Three ICT businesses Previous Medium-Term Management Plan **Current Medium-Term Management Plan** Fiscal 2021 Fiscal 2022 Fiscal 2023 Fiscal 2024 onward IC plastic packaging BT materials: Boosting production capacity (Thailand) Optical polymer plant expansion (Kashima) EL: Establishing new raw material hydrogen peroxide plant (China) EL: Establishing new super-pure hydrogen peroxide plant (China) Aromatic aldehyde plant expansion (Mizushima) Super-pure hydrogen peroxide: Boosting production capacity (Cheonan, South Korea) New development of water-dissolved natural gas and iodine (Nishikanbara, Niigata) Super-pure hydrogen peroxide: Boosting production capacity (Oregon, U.S.A.) Super-pure ammonium hydroxide: Boosting production capacity (Singapore) \* Other businesses Establishing new raw material monomer plant for optical polymer (Niigata) \* ¥50.0 billion EL: Establishing new raw material hydrogen peroxide plant (Taiwan) + MXDA: Establishing new production facility (Netherlands) Current Super-pure hydrogen peroxide: Boosting production capacity (Texas, U.S.A.) \* Medium-Term Super-pure ammonium hydroxide: Boosting production capacity (Texas, U.S.A.) Management Plan IC plastic packaging BT materials: Boosting production capacity (Thailand) Investment Amount Total Establishing new lens monomer manufacturing plant (Yokkaichi) ¥300.0 billion New development of water-dissolved natural gas and iodine (Higashi-Niigata, Niigata) U&P businesses Super-pure hydrogen peroxide: Boosting production capacity (Arizona, U.S.A.) ¥**250.0** billion Establishing new production facility for Circular Carbon Methanol (Japan) Super-pure ammonium hydroxide: Boosting production capacity (Niigata) ★ Super-pure hydrogen peroxide: Boosting production capacity (Saga) ★

### Main New Product Developments



#### New BT laminate materials

Application of BT resin modification and blending technology to realize ultra-thin insulation properties and microcircuit formation ability for built-up materials

## New semiconductor cleaning solutions

Proposal of new semiconductor cleaning agents to respond to the evolution of semiconductors by increasing processing speed, reducing power consumption, etc.

#### Recycled EP

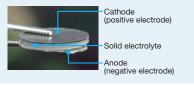
Promotion of further demonstration studies for commercialization of pre-consumer recycling of lupizeta<sup>®</sup> EP optical polymer offcuts\*

# Continuous carbon fiber composite materials

With distinctive resin and intermediate manufacturing technologies, we are developing composite intermediates with characteristics such as room-temperature storage, autoclavefree, and gas barrier properties, and proposing various applications for them

#### Solid electrolyte

Development of carborane-based solid electrolytes and promotion of characteristic evaluation and application development, while advancing process development with an eye to mass production



Contract manufacturing of antibody drugs Using 2,000-liter, single-use cultivation tanks, we are undertaking contracted manufacturing of biopharmaceuticals, in particular antibody drugs, at Cultivecs Inc.

#### OXYCAPT™

Currently, engaged in developing the multilayer resin vial market for biopharmaceuticals and regenerative medicine, using plastic syringes to replace glass syringes for injection drugs

#### Allergy test chips

We are currently developing allergy test chips capable of predicting the severity of food allergies

\* This project was selected in FY2023 by the Ministry of the Environment as a program to promote establishment of a decarbonized and circular economy and shall receive a grant for operating expenses related to measures to curb carbon dioxide emissions, including a demonstration project aimed at creating a recycling system for resources such as plastic.

Iministry of the Environment website: https://www.env.go.jp/press/press\_01945.html

# **Promoting Sustainability Management**

The MGC Group promotes management that responds flexibly and swiftly to changes in society's structure and values as "sustainability management," based on its Mission of "creating value to share with society." We aim to grow sustainably while adapting to changes in the external environment that could potentially have an impact on the Group.

The MGC Group identified priority issues (materiality) to be addressed by management in April 2020 with the aim of conducting sustainability management. Under the Medium-Term Management Plan that started in April 2021, we aimed to balance our social and economic value, setting key performance indicators (KPIs) for each materiality issue and applying a plan-do-check-act (PDCA) cycle to strategically increase our non-financial value, aiming to achieve targets set for fiscal 2030.

As trends related to sustainability accelerated worldwide, we conducted a revision of our materiality in May 2023 as a preparatory step to formulating our current Medium-Term Management Plan. The revision resulted in the addition of respect for human rights as a new materiality issue.

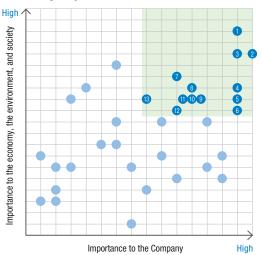
Under the current Medium-Term Management Plan, we have provided a second objective of "promote sustainability management," with a view to making our business portfolio more environmentally robust and more resilient, and we will work to strengthen the MGC Group's foundation for sustainable growth. In particular, we adopted sales of the MGC Group's eco-friendly "Sharebeing" products as a KPI for the creating shared value (CSV) domain to present to the public a more quantitative indicator of the Group's contribution to the environment.

Moreover, we are working to expand the reporting boundary for our materiality KPIs from a non-consolidated basis to a consolidated basis. Our KPIs for human capital remain on a non-consolidated basis in order to prioritize human resource strategies aligned to the individual business models of each individual Group company, since our approach to human resource management emphasizes their individual autonomy.

## Materiality Determination Process

Step 1 Identify "importance to the Company"	To implement management strategies with a grasp of our corporate philosophy, company policies, and long-term changes in the business environment, we identified 36 issues that need to be examined by making reference to the requirements of standards, such as the GRI Content Index, ISO 26000 and SASB, the Sustainable Development Goals (SDGs), survey items from international SRI/ESG institutions, and trends among other companies.
$\checkmark$	
Step 2 Survey "importance to the economy, the environment, and society"	We conducted a survey among institutional investors, customers, business partners, employees, and general monitors regarding the Group's business activities and their impact on the economy, the environment, and society. We confirmed the importance of the 36 issues identified in Step 1 from the perspectives of stakeholders. (Items with the highest response rates) Institutional investors: protection of water resources; customers: prevention of pollution; business partners: process safety and disaster prevention; employees: occupational safety and health; general monitors: product safety
$\checkmark$	
Step 3 Evaluate importance	We evaluated the survey results in Step 2, created a materiality map using the two axes of "importance to the Company" and "importance to the economy, the environment, and society," and determined the materiality that management should address.
$\checkmark$	
Step 4 Confirm appropriateness by management	Materiality identified in Step 3 was deliberated by the Sustainability Promotion Council (composition: directors, outside directors, Audit & Supervisory Board members, outside Audit & Supervisory Board members) to confirm its appropriateness. Finally, the materiality obtained approval through resolution of the Board of Directors.

### **Materiality Map**



# 13 Issues

- 1 Reduction in GHG emissions
- Occupational safety and health
- Improving energy efficiency and reducing energy usage
- Process safety and disaster prevention
- **6** Development of environmentally friendly
- products and technologies
- 6 Development and retention of human resources
- Product safety and quality
- 8 Respect for human rights
- Promotion of diversity and inclusion
- Increased efficiency in resource usage
- Reduction of industrial waste
- Overnance and internal control/risk management/compliance
- Building sustainable supply chains

# 11 Materiality Issues

- Contribution to solving social issues
   through business
- Promotion of innovative R&D
- Proactive response to environmental problems
- Highly energy- and resource-efficient production
- Cultivating a corporate culture of job satisfaction
- Promotion of diversity and inclusion
- Respect for human rights
- Ensuring occupational safety and health/ process safety and disaster prevention
- Chemical/product quality and safety
   assurance
- Promotion of socially responsible sourcing
- Strengthening governance and internal control/risk management/compliance

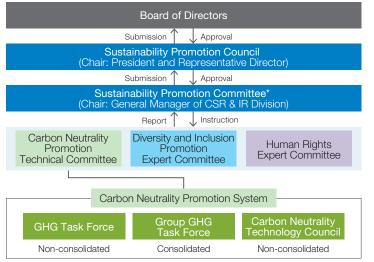
# Sustainability Promotion System

The Group has established the Sustainability Promotion Council as a body to deliberate and determine policies and measures that form the basis for sustainability management, such as identification and management of materiality, and receive reports on their implementation. The council is chaired by the President and primarily made up of all directors, including outside directors, as well as Audit & Supervisory Board members. Decisions on particularly important matters in council meetings are decided by the Board of Directors.

The Sustainability Promotion Committee is convened by the General Manager of the CSR & IR Division to serve as an advisory body to the Sustainability Promotion Council. Corporate sector heads sit on the committee to confirm the status of implementation of measures in each division and conduct periodic reviews. It also establishes various expert committees as needed to consider specialized and important matters. The Sustainability Promotion Department within the CSR & IR Division has been established to serve as the secretariat for the council and the committee. The Sustainability Promotion Department is responsible for administrative tasks such as considering and implementing policies and strategies on sustainability management, overseeing non-financial information within the Company, and handling engagement within and outside the Company.

We aim to obtain the trust and support of a variety of stakeholders and achieve ever greater corporate value by contributing to the resolution of issues for the realization of a sustainable society through our business more than ever before.

#### Sustainability Management System



\*Advisory body to the Sustainability Promotion Council

## Main Discussion Topics of the Sustainability Promotion Council (Fiscal 2023)

- Status report on achievement and progress of materiality KPIs in the previous Medium-Term Management Plan
- Setting of new materiality KPIs and targets for the current Medium-Term Management Plan
- Annual report on sustainability promotion, report on plan for next fiscal year
- External ESG evaluation report
- Sustainability engagement report
- MGC's roadmap for GHG emissions reduction toward carbon neutrality
- Formulation of human rights due diligence promotion system and human rights guidelines
- Annual report on diversity and inclusion (D&I) promotion, report on plan for next fiscal year

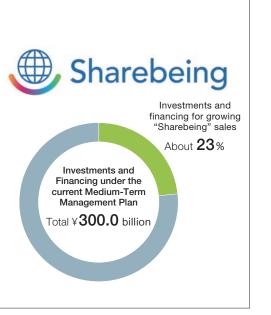
# Promoting Investment for Creation of "Sharebeing"

We have designated products that help to reduce the environmental impact of society toward achieving carbon neutrality as "Sharebeing" (eco-friendly products), and we are working to further expand our businesses and products that contribute to the environment.

Under the current Medium-Term Management Plan, the MGC Group is planning investments and financing totaling approximately ¥300.0 billion over three years. Approximately 23% of this amount is for growing our sales of "Sharebeing." This will lead to the creation of products and businesses that are eco-friendly while also having competitive advantages in the market.

Main "Sharebeing" eco-friendly products related to investments and financing

Hydrogen peroxide • OPE • POM • PC • Reny<sup>™</sup>
AGELESS<sup>™</sup> • Methanol • MXDA • MX-Nylon



# Materiality

Cate	gory	Materiality	Why it is material	Risks	Opportunities	
		Contribution to solving social issues through business	Through business and products that balance economic and social value, we will realize our aim of "creating value to share with society."	<ul> <li>Fall in share price due to decrease in future value</li> <li>Decrease in demand for products due to changes in market needs</li> <li>Shift in share of low-cost alternative materials</li> <li>Existing product obsolescence</li> </ul>	<ul> <li>Creation of new markets through diversification of market needs</li> <li>Customer credibility backed by multiple industry standards</li> <li>Expansion of portfolio of distinctive, differentiated products</li> </ul>	
CSV	Promotion of     Create new businesses for achieving carbon     create new businesses for achieving carbon     portrolity		<ul> <li>Delay in achievement of a more resilient business portfolio</li> <li>Failure to achieve carbon neutrality due to delay in business creation</li> <li>Delay in creation of new products and businesses due to reduced competitiveness in R&amp;D</li> </ul>	<ul> <li>Promotion of a more resilient business portfolio</li> <li>Creation of new markets through establishment of environmental solution businesses</li> <li>Creation of new products and businesses through use of DX technology</li> </ul>		
E	Proactive response to environmental problems		Addressing environmental problems is imperative for all of humanity. Companies must proactively do so as a prerequisite for their existence and activities.	<ul> <li>Increase in risk of abnormal weather and natural disasters due to climate change</li> <li>Reputational risks regarding environmental protection</li> </ul>	<ul> <li>Development of CCUS (particularly CCS) and CO<sub>2</sub>-based methanol and polycarbonate businesses and development of chemicals that use CO<sub>2</sub></li> <li>Commercial development of ammonia as a hydrogen carrier and CO<sub>2</sub>-free fuel</li> </ul>	
		resource-efficient and must engage proactively in such activities i		Decline in competitive advantage due to delays in technological response to resource and energy conservation needs	<ul> <li>Acquisition and cross-company deployment of energy-saving technologies</li> <li>Advancement in utilization of digital technologies</li> </ul>	
		Cultivating a corporate culture of job satisfaction	An organizational culture that enables all employees to confidently give full play to their abilities over the long term while finding individualized meaning in their jobs is the foundation of corporate value creation.	Declines in labor productivity and corporate value (economic and social value) due to outflow of personnel	<ul> <li>Strengthened foundation for creating innovation</li> <li>Improved employee engagement</li> </ul>	
		Promotion of diversity and inclusion	Establishing a corporate culture through collaboration incorporating diverse values fosters a foundation for generating new ideas and technological innovation and creating corporate value.	Uniform thinking and loss of new business opportunities due to imbalance in personnel attributes and skills	Nurturing of a culture of collaboration incorporating diverse values that is conducive to new ideas and technological innovation	
		Respect for human rights	As entities conducting business activities, companies have a responsibility to avoid infringing on the human rights of others and rectifying any negative impact they have on human rights.	<ul> <li>Boycotts on purchasing products and services due to human rights infringement</li> <li>Decline in evaluation as a recipient of investment</li> <li>Potential for elimination as an investment candidate or withdrawal of investment</li> </ul>	<ul> <li>Contribution to realization of a sustainable economy and society</li> <li>Maintenance and securing of trust from society</li> <li>Maintenance and increase in corporate value</li> <li>Recruitment and retention of talented human resources</li> </ul>	
S	S	Ensuring occupational safety and health/ process safety and disaster prevention	Safety is the foundation of business activities. Companies have a societal duty to ensure safety.	<ul> <li>Recurrence of similar disasters and problems</li> <li>Loss of societal trust due to accidents or scandals</li> </ul>	<ul> <li>Nurturing of a culture of safety</li> <li>Accumulation of expertise in preventive maintenance</li> </ul>	
		Chemical/product quality and safety assurance	Chemical/product quality and safety assurance is required by stakeholders, and the Company is responsible for providing products and services with a high degree of safety and reliability.	<ul> <li>Loss of business opportunities due to non- compliance with chemical regulations in each country</li> <li>Loss of societal trust due to inaccurate data handling and shipping of inappropriate products</li> </ul>	<ul> <li>Enhancement of business profitability through proper compliance with laws and regulations</li> <li>Enhancement of customer satisfaction and societal trust in the entire Company and Group companies</li> </ul>	
		Promotion of socially responsible sourcing	Companies have a societal responsibility to upgrade CSR compliance throughout their supply chains with respect to the environment, working conditions, human rights, etc.	Negative impacts on business activity due to illegal actions and compliance violations by suppliers	Improved sustainability of society and long-term competitiveness	
0	9	Strengthening governance and internal control/ risk management/ compliance	It is a system for developing disciplined ways to steadily execute strategies in order to bring business models to fruition and sustainably grow corporate value.	Slumping business activity, loss of societal trust and damage to corporate value	<ul> <li>Establishment of a stable management foundation by improving decision-making transparency and responding appropriately to change</li> <li>Gaining of stakeholder trust</li> </ul>	

\*1 Percentage of total value of R&D expenditure in the U&P businesses and new/next-generation businesses categories
 \*2 Amount of final disposal/total amount of waste generated
 \*3 Reduction in energy usage resulting from energy-saving improvements (based on 100% capacity utilization)/average annual energy usage for fiscal 2021 to fiscal 2023

	Action plan	Current Medium-Term Management Plan KPIs	Repo Non- consolidated	rting bou Domestic consolidated	ndary Overseas consolidated	Fiscal 2023 results	Fiscal 2026 targets	Fiscal 2030 targets	Relevant SDGs targets
	<ul> <li>Transform business portfolio</li> <li>Commercialize products that balance social and economic value</li> <li>Create new businesses that contribute to solving social issues</li> </ul>	Sales of MGC Group eco-friendly products	•	•	•	¥204.3 billion	¥270.0 billion	¥500.0 billion	3.9, 8.2, 9.4, 9.5, 12.3
	Allocate management resources to U&P     businesses and new/next-generation	Percentage of R&D cost contributing to increased resilience of business portfolio*1	•	•	•	67%	60% or higher	60% or higher	
	businesses businesses Set solving climate change issues as a strategic research area	Percentage of research personnel contributing to solving climate change issues	•	•	•	31%	25% or higher	25% or higher	8.2, 9.4, 9.5
	Develop DX human resources into MGC Group research personnel	Percentage of DX human resources among research personnel (those who have taken DX fundamentals courses)	•	•	•	66%	75%	80%	
	Reduce GHG emissions in the manufacturing process	Reduction in GHG emissions (compared to fiscal 2013)	•	•	•	33% reduction (forecast)	33% reduction	39% reduction	3.9, 6.3,
	<ul> <li>Develop and introduce new technologies to help reduce GHG emissions</li> <li>Reduce supply chain GHG emissions</li> </ul>	Zero waste emission rate*2	•	•		0.8%	1.2%	1.0%	7.2, 11.6, 12.5, 13.3, 14.1, 14.3
	<ul> <li>Stabilize equipment through improvement of control</li> <li>Prevent accidents and issues</li> </ul>	Energy usage reduction rate*3 (compared to fiscal 2023)	•	•	•	_	-3.0%	-7.0%	7.3, 12.2
	<ul> <li>Cultivate and visualize a culture in which the Company values the human resources that it has developed</li> <li>Examine various personnel systems (including welfare) and design systems suitable for an era of contributing to increased engagement</li> </ul>	Percentage of employees that feel satisfied at work	•			_	70%	75%	4.4, 5.4, 8.5
	<ul> <li>Diversify hiring formats (methods, human resources)</li> <li>Conduct awareness-raising activities in group training</li> <li>Create opportunities for interaction between different departments and offices through internal events, training, etc. (including use of the MGC Commons)</li> </ul>	Number of female managerial personnel	•			40	60	90	4.4, 5.1, 5.5, 8.5
	<ul> <li>Formulate human rights policy and fully accept responsibility for respecting human rights</li> <li>Establish a human rights consultation desk to conduct appropriate remedial measures</li> </ul>	Respect for human rights	•	•	•	_	Human rights due diligence conducted 100%	Establish human rights management and ensure support for human rights policy by all stakeholders	4.7, 8.7, 10.2, 10.3, 16.3, 16.10
	<ul> <li>Share examples of accidents and disasters, and utilize this information for process risk assessment</li> <li>Eliminate dangers and hazards by conducting occupational health and safety risk assessments and build comfortable workplaces</li> </ul>	Serious occupational accidents,* <sup>4</sup> serious accidents* <sup>5</sup>	•	•	•	5,* <sup>6</sup> 0	0	0	3.9, 8.5, 11.6, 12.4, 13.3
	<ul> <li>Share information through the activities of the Environment and Safety Council and provide education and support to associates from our company</li> <li>Promote Q-MGC conducted companywide and throughout the Group</li> </ul>	Product liability incidents, serious*7 legal and regulatory violations, serious*7 quality issues	•	•	•	0	0 (Non-consolidated + Domestic consolidated companies)	0 (Non-consolidated + Domestic and overseas consolidated companies)	3.9, 12.4
_	<ul> <li>Inform suppliers of the Company's basic approach to raw material procurement activities and its CSR procurement guidelines,</li> </ul>	Percentage of suppliers in agreement with Company's basic approach to raw material procurement activities and its CSR procurement guidelines	•			—	80%	100%	
	<ul> <li>Conduct regular questionnaires</li> <li>Conduct evaluations based on questionnaires and multiple dialogues</li> </ul>	Percentage of consolidated subsidiaries required to conduct CSR procurement activities	•	•	•	_	60% (Domestic consolidated companies)	100% (Domestic and overseas consolidated companies)	12.2, 16.2
	<ul> <li>Conduct compliance education and awareness-raising activities</li> <li>Identify risk of compliance infringement and conduct risk assessment</li> <li>Improve awareness compliance throughout the entire MGC Group</li> </ul>	Number of serious compliance violations	•	•	•	0	0	0	8.7, 10.2, 10.3, 16.2, 16.3, 16.5, 16.10

\*4 Accidents resulting in lost work days eligible for disability compensation, including death and permanent disability, or potential disability, and those with four or more lost work days \*5 Accidents that threaten third parties, including those resulting in environmental pollution involving the community or that cause damage to local residents, and other accidents involving serious damage \*6 Five incidents occurred within the domestic consolidated subsidiaries \*7 Losses of ¥1.0 billion or more

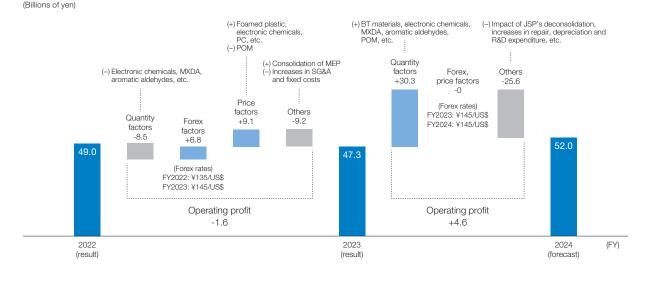
# FY2023 Operating Results

In fiscal 2023, the MGC Group's overall business environment remained adverse, mainly reflecting a significant impact from the lingering stagnation of the Chinese economy, economic deceleration in Europe, and sluggish demand for basic chemicals. On the other hand, the Group's operating results were positively affected by factors including the depreciation of the yen and an ongoing recovery in sales of semiconductor-related products.

Against this backdrop, the Group's net sales increased as the inclusion of Mitsubishi Engineering-Plastics into the scope of consolidation and the depreciation of the

Increase and Decrease Factors of Operating Profit

yen outweighed negative factors such as the exclusion of JSP from the scope of consolidation and downturns in the market prices of methanol and ammonia. On the other hand, operating profit decreased, mainly reflecting stagnant polyacetal market prices in contrast with robust market prices seen in the previous fiscal year, as well as lower sales volumes of meta-xylenediamine and aromatic aldehydes, despite positive factors including the depreciation of the yen, improvement in the profitability of polycarbonates, and recovery in demand for electronics materials.



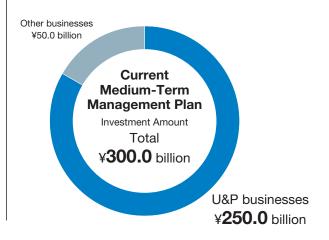
# **Investment for Sustainable Growth**

In the previous Medium-Term Management Plan, the Group set a target of "shift to a profit structure resilient to changes in the business environment," and executed investments of approximately ¥210.0 billion over the three-year period to achieve this. Approximately half of this amount was allocated to differentiating businesses,\*<sup>1</sup> where the Group has strong competitive advantages and abundant growth potential.

Under the current Medium-Term Management Plan, we will first steadily reap the benefits of large-scale investments under the previous plan. In parallel, we plan to make investments totaling approximately ¥300.0 billion over three years, centered on strategic investment for the Group's growth (including R&D and ESG-related investments). A little over 80% of this amount will be used for investments focused on U&P businesses that meet the criteria of being "Growing," "Winning," and "Sustainable."

To maintain this high level of investment, we will consciously utilize financial leverage through debt financing in order to capture growth opportunities. Accordingly, our policy is to set an upper limit (for safety) and a lower limit (for efficiency) for the D/E ratio, which is one of our KPIs, and to control the balance between debt and equity within this range. By executing these investment strategies, we are continuously expanding our ROIC spread (ROIC-WACC).

\*1 From fiscal 2024, the name of these businesses in the current Medium-Term Management Plan has been changed to U&P businesses.

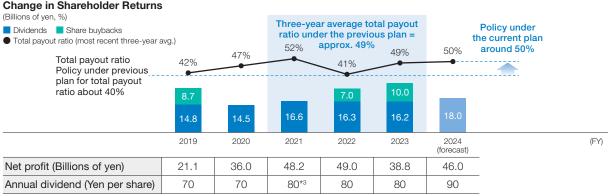


# Shareholder Return Policy

Under the current Medium-Term Management Plan, we have raised the total payout ratio from about 40% under the previous Medium-Term Management Plan to roughly 50%. We considered that a total payout ratio of 50% is an appropriate level for maintaining a certain degree of financial discipline while enabling us to proceed with growth investments in a timely manner. In addition, we have adopted a new progressive dividend policy, which is dedicated to building up the dividend while avoiding any decrease, assuming financial soundness is not compromised.\*<sup>2</sup> We will determine the level of dividends while being mindful of shareholder's dividend on equity (DOE).

Keeping the levels of internal reserves and shareholder returns in mind as before, our basic policy is to continue to flexibly buy back our own shares for higher capital efficiency and better shareholder returns. When we deem the level of internal earnings to be high, due to higher earnings or lower investments than planned, we will strengthen shareholder returns through measures such as agile and flexible purchases of treasury stock, without being bound by the total return ratio of 50%.

\*2 Covers the three-year period of the current Medium-Term Management Plan

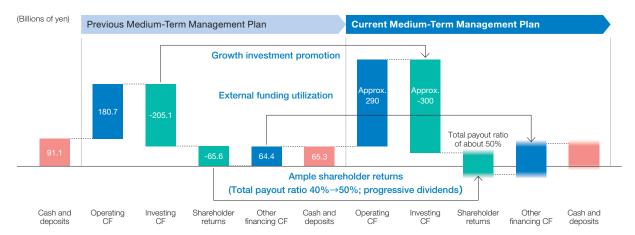


\*3 Interim dividend of ¥45 (incl. ¥10 commemorative dividend); term-end dividend of ¥35

# **Capital Allocation**

Capital allocation will place highest priority on investments to encourage organic growth of the U&P businesses, with a view to ensuring that ROIC is higher than the cost of capital. By prioritizing allocation of management resources to U&P businesses that can deliver both economic and social value, we intend to strengthen our corporate constitution.

As explained above, our basic approach to capital allocation is to realize a good balance between the three elements of growth investment, shareholder returns, and financial soundness, and to maintain an optimal capital structure. During the period of the current Medium-Term Management Plan, we have planned investments totaling approximately ¥300.0 billion, and we will accelerate growth by making proactive use of external funds. Furthermore, by continuously paying progressive dividends, we aim to achieve stable dividend increases while conducting treasury share purchases in an agile way as appropriate to contribute to increasing capital efficiency.



# Action to Implement Management that is Conscious of Cost of Capital

The MGC Group introduced ROIC as a KPI in fiscal 2021, the first year of the previous Medium-Term Management Plan, in order to promote management that is conscious of the cost of capital. We calculate ROIC for each business management unit (BMU) for use in evaluating the business. By visualizing businesses that are not creating an adequate return on invested capital, we can make a decision on either restructuring or withdrawing from the business, which promotes optimal allocation of management resources.

Under the current Medium-Term Management Plan, we will continue to rigorously manage businesses using

ROIC. Currently, we have formulated an improved action plan for each BMU, using a tree that breaks down ROIC into operating profit margin and invested capital turnover rate. Over these three years, we will hold study sessions on the ROIC tree concept throughout the Company to enable individual employees to be aware of capital efficiency in their work. Moreover, for the Group overall, we will prioritize management resource allocation to U&P businesses, which have high profitability and capital efficiency, thereby further advancing management that is conscious of capital profitability and cost of capital.

# Analysis of Current Status for Improving Corporate Value

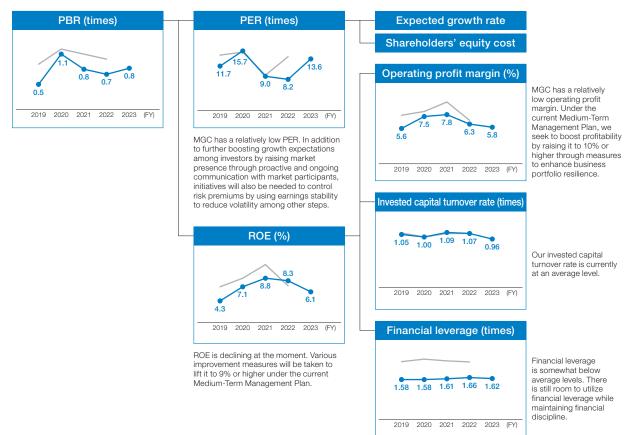
An important issue left unresolved under the previous Medium-Term Management Plan is how to strengthen waning earning capability and use this to increase corporate value. The Company's price-to-book ratio (PBR) started to climb toward the end of FY2023, mainly due to a series of business portfolio reforms and more robust shareholder returns. However, it currently\*4 remains below 1.0, and we recognize this as a relatively soft level in terms of share price indicators. Meanwhile, our price-to-earnings ratio (PER) is at

a relatively low level compared with our industry peers, and we aim to lift this by promoting our medium- to long-term growth strategy and measures to increase corporate value, as well as engaging in proactive investor relations activities. Furthermore, at the current time, our ROE is also at a low level, and we plan to address this through measures including increasing our operating profit margin and further use of financial leverage.

\*4 As of July 31, 2024

# Breakdown and Analysis of PBR and ROE Components





# Improvement of Capital Profitability

The Group envisages the shareholders' equity cost at around 6.5% to 7.5%\*5 and the cost of capital at around 5.0% to 6.0%\*5, and is striving to maximize ROIC with the target of exceeding these. Moreover, the Group has promoted financial strategies and capital policy with ROE and ROIC as management indicators since the previous Medium-Term Management Plan. In fiscal 2023, capital profitability declined, mainly due to soft sales across all products. We recognize that as a result of this ROIC was temporarily below capital cost, while ROE was below shareholders' equity cost. In fiscal 2024, we expect ROE and ROIC to remain at low levels as we continue to invest aggressively in U&P businesses. We believe there is a divergence from expected market returns in both ROE and ROIC. We therefore intend to increase both ROE and ROIC by strengthening the resiliency of our business portfolio and undertaking the following initiatives to reduce the cost of capital. Regarding capital cost, we also recognize the importance of striving to control risk premiums through means such as using earnings stability to reduce volatility and raising market presence through proactive dialogue with market participants. \*5 CAPM basis

# Reduction of Strategic Shareholdings

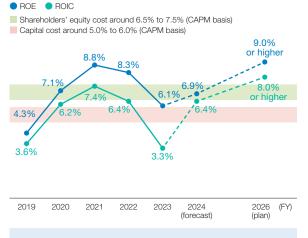
MGC has been working to reduce its strategic shareholdings for many years, aiming to increase capital efficiency. Recently, the market price of listed shares has risen, increasing the proportion of strategic shareholdings in consolidated net assets. However, this remains at a level below the voting rights exercise standard of major proxy advisory firms overseas.

The purpose and meaning of strategic shareholdings will be regularly examined by the Board of Directors for each individual stock going forward. Our policy is to promote the appropriate sale of shares deemed to exceed reasonable levels of shareholding.

# **Continued Proactive Dialogue with Investors**

MGC has made a focused effort to provide accurate and timely disclosure to shareholders and investors in Japan and overseas, and to engage more proactively and deeply in dialogue with them. Under the current Medium-Term Management Plan, we will enhance and increase the level of content in our quarterly financial results presentations, increase the frequency of IR events, such as business briefings, and aim to promote better understanding of the Company's businesses. In addition, to further promote dialogue between management and shareholders and investors, we intend to increase various opportunities for them to meet in person. We will make a sincere effort to strengthen feedback of investors' opinions and requests inside the Company, including to management, and to contribute to the evolution and advancement of the Group's management and operations. We will continue to respond strongly to ESG and stewardship interviews, and create a structure that can meet the demand for new interviews, such as interviews with outside directors and institutional investors.

# **ROE and ROIC Trends**

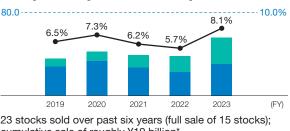


#### Initiatives to Reduce the Cost of Capital

- Shift to U&P businesses, use growing earnings stability to reduce volatility
- Strengthening of balance sheet control (financial leverage utilization, etc.)
- Enhance cash-generating capabilities (CCC improvement, review and sale of redundant or low-performing assets, etc.)
- Promote sustainability management (shift to carbon-neutral businesses, improve ESG evaluation, etc.)
- Enhance appeals to individual investors, etc.

#### Proportion of Strategic Shareholdings in Consolidated Net Assets (Billions of ven. %)

Strategic shareholdings Deemed shareholdings

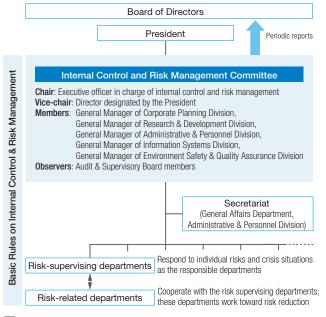


cumulative sale of roughly ¥19 billion\* \*Based on actual results. Includes partial sale of some shareholdings and sale of deemed shareholdings

# **Risk Management System**

At MGC, all business divisions actively assess and prioritize risk situations and devise risk reduction measures. The Internal Control and Risk Management Committee, chaired by the executive officer in charge of internal control and risk management, provides direction and supervision for each department and deliberates on problems that require a companywide response. It periodically reports to the Board of Directors on the state of risk management. While MGC's

### **Risk Management Promotion System**



Delease refer to the Corporate website for details on business and other risks. https://www.mgc.co.jp/eng/ir/policy/risk.html

# Strengthening Response to Sustainability and Risk

The MGC Group manages risk by identifying materiality issues that should be addressed by management to achieve both social and economic value, and by identifying the risks and opportunities associated with these materiality issues.

The division supervising materiality identifies risks and opportunities. We set KPIs that are suitable for reducing risks, maximizing opportunities, and measuring

### Main Meeting Bodies Related to Sustainability and Risk

business primarily centers on manufacturing, we identify and evaluate risks associated with business execution beyond just manufacturing inherent in our operations and internal control systems. We then take appropriate measures. In the event that a serious risk is identified, we set up a special group (Crisis Response Headquarters) to address it according to internal rules.

#### **Business and Other Risks**

- 1. Endogenous business risk
- 2. Overseas business risk
- 3. Joint venture risk
- 4. Product quality risk
- 5. Natural disaster and

accident risks

- 10. Investment risk
   11. Currency risk
- Financing and interest rate risks
   Litigation risk

8. Human rights risk

9. Climate change risk

6. Information security risk
 7. Compliance risk

#### Specific Activities of the Internal Control and Risk Management Committee (Fiscal 2023)

#### Matters discussed

- Review of internal control and risk management activities in each department
- Details of disclosure related to business and other risks
- Response to proposals from the Internal Audit Division
- Overview of annual activities

# Policy of next fiscal year

- Matters reported
- Final report on response to spread of COVID-19
- MGC Group Guidelines for Emergency Situations

achievement of our vision. Since materiality is promoted in conjunction with the Medium-Term Management Plan, the Sustainability Promotion Committee and the Sustainability Promotion Council confirm the progress of materiality management.

➢ Please refer to "Materiality" on page 33 for details on materiality, risks and opportunities.

Meeting body	Participating members	Main risks handled	Particularly relevant materiality	Meetings held in fiscal 2023
Environment and Safety Meeting	Chair: President Directors, Audit & Supervisory Board members, business site managers, other	<ul> <li>Environmental and safety risks</li> <li>Process safety and disaster prevention/ occupational safety and health risks</li> <li>Chemical and product safety risks</li> </ul>	<ul> <li>Proactive response to environmental problems</li> <li>Ensuring occupational safety and health/ process safety and disaster prevention</li> </ul>	1
Quality Assurance Meeting	Chair: President Directors, Audit & Supervisory Board members, business site managers, other	Quality risks	Chemical/product quality and safety assurance	1
Human Rights Expert Committee	Chair: General Manager of Administrative & Personnel Division General Manager of Purchasing & Logistics Division, General Manager of Environment Safety & Quality Assurance Division, other	Human rights risks	Respect for human rights	2
Carbon Neutrality Promotion Technical Committee	Chair: General Manager of Production Technology Division General Manager of Corporate Planning Division, General Managers of business divisions, General Managers of business administrative divisions, other		Proactive response to environmental problems	2

# **Risk Assessment in the Supply Chain**

MGC has positioned improvement of the CSR level in areas such as the environment, labor conditions, and human rights throughout the entire supply chain, from raw material procurement to manufacturing and sales, as one of our management materiality priorities.

With the understanding and cooperation of our business partners, MGC shares its requirements through the Basic Concepts Related to Raw Material Procurement Activities and Mitsubishi Gas Chemical CSR Procurement Guidelines to promote CSR procurement.

In order to build a supply chain that complies with laws and regulations while taking environmental and safety concerns into account, with regard to important raw materials, we conduct surveys of our suppliers using the CSR Procurement Self-Assessment Tool (SAQ) created by the Supply Chain Working Group of the Global Compact Network Japan. The survey began in fiscal 2020, and we have received responses from 191 companies as of fiscal 2022. We have started asking our suppliers to respond to the SAQ when beginning new transactions, and we will continue to further promote CSR activities in the supply chain in the future.

### **Respect for Human Rights**

At the MGC Group, we adhere to strict MGC Corporate Behavior Principles and the MGC Group Code of Conduct, which call for us to respect individual personality and human rights, while not discriminating on the basis of race, gender, nationality, age, religion, or place of origin, as well as not harming the dignity of others. Our Code of Conduct also stipulates that sexual harassment and power harassment are prohibited. These guidelines and codes – along with the five fundamental principles<sup>\*1</sup> of the International Labor Organization (ILO) – have also been communicated to our Group companies overseas. With the signing of the United Nations Global Compact (UNGC), we indicated our will to promote responsible business practices by ensuring our strategy and execution conform with the 10 UNGC principles on "protection of human rights," "elimination of unjust labor," "support for the environment" and "anticorruption."

We strive to reinforce these principles on a day-to-day basis through training sessions, internal communications, and Human Rights Week. Furthermore, we are engaged in the improvement of knowledge and the collection of information through membership in the Mitsubishi Human Rights Enlightenment Council and through participating in a variety of training and information exchange meetings on human rights. Furthermore, in fiscal 2023, we established the Mitsubishi Gas Chemical Group Human Rights Principle with the approval of our Board of Directors. In order to address respect for human rights throughout the Group, we have organized a companywide Human Rights Expert Committee as an advisory body to the Sustainability Promotion Committee. We have also established a Human Rights Hotline for all stakeholders, including Group officers, employees, temporary employees, and others. Starting in fiscal 2024, we have identified respect for human rights as a materiality issue and established promotion of human rights due diligence as a KPI to be systematically addressed.

\*1 (i) Freedom of association and the right to collective bargaining, (ii) elimination of forced labor, (iii) effective abolition of child labor, (iv) elimination of discrimination in respect of employment and occupation, and (v) safe and healthy working environment

# **Environment, Safety and Quality Risk Management**

The MGC Group uses responsible care (RC) for environment and safety and the Q-MGC<sup>\*2</sup> system for quality assurance to support all its production activities. In RC, we address individual issues by identifying business risks through audits, cross-site activities, and process risk assessments, and quantifying them by linking them to safety and disaster prevention assessment tools. We also utilize RC audits of each plant along with environment and safety audits of Group companies to assess the gap between the ideal level and the current state, leading to the resolution of issues in an effort to create a positive spiral in the safety management system.

Meanwhile, in quality assurance, we are implementing activities to ensure quality governance that does not harm corporate value, while covering any risks caused by deficiencies in contracts and communication with business partners. In order to quantitatively assess the state of governance and to ensure continuous improvements based on Q-MGC, checkpoints are codified and also applied to Group companies. Going forward, we will actively proceed with the implementation of IT and automation in operations through the introduction of previously implemented LIMS\*<sup>3</sup>, the use of a product specification database and an automated SDS creation system, in addition to performing continuous risk evaluation and management of MGC products through support for domestic and overseas chemical management laws and the use of a regional information-gathering system.

In response to the strong social demand for carbon neutrality, we are encouraging the steady implementation of long-term targets based on realistic reduction measures from the perspective of confirming the state of responses to climate change issues.

- \*2 A system for positioning quality assurance as an activity for all MGC Group companies and sectors and working toward continuous improvement
- \*3 An acronym for Laboratory Information Management System, referring to the quality control system used throughout the plant

# Response to Climate-Related Risks (Disclosure Based on TCFD Recommendations)

Tackling climate change is a major challenge that calls for initiatives on a global scale if we are to achieve a sustainable society. MGC recognizes that solving energy and climate change problems is an important challenge, and is working to solve these issues from the perspective of both climate change mitigation and adaptation.

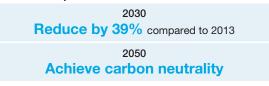
Specifically, MGC has formulated targets for reducing Scope 1 and 2<sup>\*4</sup> GHG emissions and is working toward their steady reduction. At the same time, MGC is proactively disclosing information on Scope 3<sup>\*5</sup> GHG emissions and is taking action to reduce them in collaboration with its suppliers. MGC is also working to improve energy efficiency and the carbon cycle of raw materials, and to promote energy transition toward the goal of achieving a zero-carbon society by 2050. MGC will also contribute to solving energy and climate change challenges through business operations by deploying innovative process technologies and factoring whole-life-cycle GHG emissions into its design and development processes.

In May 2019, MGC also declared its support for the Task Force on Climate-related Financial Disclosures (TCFD). MGC has assessed the risks and opportunities climate change represents for the Group, and is now endeavoring to strengthen resilience through scenario analysis while also engaging in sound dialogue with stakeholders. In fiscal 2023, we implemented new scenario analysis on the electronic chemicals and electronics materials businesses.

In March 2021, MGC announced a new objective for achieving carbon neutrality by 2050 with the goal of limiting the increase in average temperature to below 2°C, and expanded the scope to the entire Group in March 2022. MGC encourages the development of energy systems to achieve carbon neutrality, while aiming to expand the range of products conducive to carbon neutrality.

- \*4 Scope 1 emissions are GHG emissions directly generated by MGC; Scope 2 emissions are indirect GHG emissions associated with use of energy (mainly electric power) purchased from external suppliers
- \*5 Scope 3 emissions are indirect GHG emissions generated in supply chains through organizational activities such as raw material sourcing, manufacturing, distribution, sales, and waste disposal

# Long-Term GHG Emissions Reduction Objectives of the MGC Group

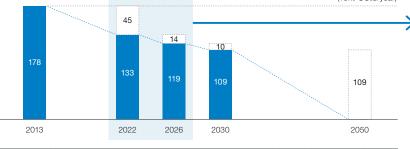


Please refer to the Sustainability Data Book for environmental data. https://www.mgc.co.jp/eng/sustainability/esg.html

(10kt-CO/e/vear)

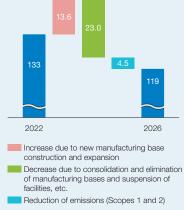
## MGC's Roadmap to Carbon Neutrality

GHG emissions and factors behind increases and decreases



Period	2013- 2022	2023- 2026	2027- 2030	2031- 2050	
Increase due	to new manufacturing base construction and expansion		-13.6		
	Decrease due to consolidation and elimination of manufacturing bases and suspension of facilities, etc.			2.6	46.9
Reduction in e	Reduction in emissions due to R&D collaboration*6				
Reduction	Upgrade to highly efficient facilities, energy savings	45.0	1.9	2.6	10.0
of emissions (Scope 1)	Fuel change			0.2	
Reduction	Introduction of renewables and use of transitional energy	]	1.5	2.3	30.5
of emissions (Scope 2)	Collaboration with energy supply companies			2.4	21.6

Changes in emissions due to business portfolio reforms from 2022 to 2026



\*6 Deploy new energy systems/CCUS, etc.

## Physical Risks: Impact on Business Sites Due to Increased Severity of Climate Damage (Flooding, Storm Surge, Drought)

Assumptions behind Scenario Analysis

• Evaluation points: Mid-century and end of century

- Scenario: Temperature rise (4°C: Continuation of current oil and coal-dependent economic activity; 2°C: Advance climate change countermeasures)
- Analysis subjects: 11 MGC sites; 34 domestic Group company sites; 20 overseas Group company sites
- Assessed flood, storm surge and drought hazards on five levels against current level (baseline), and confirmed number of sites where hazard level is highest at middle and end of century when applying 2°C and 4°C scenarios
- External reference information: Flood Hazard Map, WRI Aqueduct Floods, JRC Flood Hazard Map for World, WRI Water Risk Atlas, IPCC AR5, etc.

#### Evaluation Results (Scope: 65 Locations in Japan and Overseas)

		Number of sites evaluated as highly hazardous					
	Baseline	2°C sc	cenario	4°C scenario			
	Daseinie	Mid-century	End of century	Mid-century	End of century		
Flood risk	2	2	2	2	3		
Storm surge risk	0	<b>1</b> * <sup>7</sup>	<b>1</b> *7	1	1		
Drought risk	0	1	1	1	2		

\*7 Substituted with forecasts based on RCP 4.5 due to constraints on external information

#### Policies and Initiatives Going Forward

Based on these results, we will conduct a more detailed analysis on the sites evaluated as highly hazardous, and also strengthen BCP, while proceeding with measures such as developing multiple manufacturing sites, buildup of inventory, and reduction of equipment stoppage risk.

#### Newly Implemented Scenario Analysis (Fiscal 2023)

# **Transition Risks and Opportunities**

#### Assumptions behind Scenario Analysis

- Evaluation points: 2030, 2050

- Evaluation points. 2000, 2000 Scenario: Increased temperature Main external information referred to in decarbonization scenario (below 2°C) —IEA WEO 2022 SDS (World gradually reducing emissions to keep global increase in average temperature to less than 2°C) —SSP1 (Rapid development progressing in low-income countries, global economic inequality being resolved, and technological development advancing rapidly)
- Main external information referred to in baseline scenario (4°C)
- IEA WEO 2022 STEPS (World in which average temperature increases by approximately 2.5°C in around 2100 due to course of emissions according to plans announced by each country at present)
   SSP2 (Growth anticipated to between that of SSP3 with little international cooperation, little investment in technological development, and slow economic growth and that of SSP1 scenario of decarbonization)
- Analysis subjects: Electronic chemicals and electronics materials businesses
   Conduct quantitative assessment of financial impact of risks and opportunities in existing business portfolio and draft response strategy

#### **Evaluation Results**

	Risks and opportunities (Risks Opportunities)	Main initiatives
Risks and opportunities in decarbonization scenario	<ul> <li>Increased demand for high-value-added products due to high economic growth compared to the baseline scenario</li> <li>Technological innovations in response to requests to improve power consumption efficiency</li> <li>Increase in semiconductor installation volume due to expansion of battery electric vehicles</li> <li>Expansion of semiconductor market due to enhancement of power transmission infrastructure facilities</li> <li>Strict regulations such as carbon tax</li> </ul>	<ul> <li>Expansion of product grades supporting high-value-added products</li> <li>Development of unique grades</li> <li>Expansion of product grades leading to low power consumption</li> <li>Development of grades that can be used in the high-frequency range</li> <li>Increase in production capacity</li> <li>Weight reduction</li> <li>Promotion of reduction of GHG emissions in production processes (including logistics)</li> </ul>
Risks and opportunities in baseline scenario	<ul> <li>Significant increase in population compared to the decarbonization scenario</li> <li>Low economic growth compared to the decarbonization scenario due to lack of international cooperation and inhibition of technological development</li> <li>Increased fossil fuel prices</li> </ul>	<ul> <li>Promotion of activities in emerging countries</li> <li>Expansion of research and development, and implementation of cross-value innovation</li> <li>Further strengthening of internal and group collaboration across organizational boundaries</li> <li>Development of product grades for killer apps</li> <li>Expansion of product grades supporting high-value-added products</li> <li>Reduction of size and weight of products, adoption of environmentally friendly materials</li> </ul>

Report 2022 for details on scenario analysis of the polycarbonate and MXDA businesses implemented in fiscal 2021, and MGC Report 2023 for details on scenario analysis for the optical materials and oxygen absorbers businesses implemented in fiscal 2022. Corporate Report 2021 https://www.mgc.co.jp/eng/ir/files/MGC\_eCorporateReport2021.pdf MGC Report 2022 https://www.mgc.co.jp/eng/ir/files/MGC\_Report2022e.pdf

MGC Report 2023 https://www.mgc.co.jp/eng/ir/eng/corporate/pdf/cr\_2023/MGC\_Report-2023E-A3.pdf

# Climate Change Risk Governance and Risk Management

MGC deliberates and makes decisions on addressing climate change risk and other sustainability key issues in the Sustainability Promotion Council, chaired by the President and primarily made up of all directors, including outside directors, with Audit & Supervisory Board members also attending. Important matters deliberated upon in the Sustainability Promotion Council are decided by the Board of Directors. The participation of corporate sector heads in the Sustainability Promotion Committee, an advisory body to the Sustainability Promotion Council, ensures key sustainability issues are adequately considered.

Furthermore, to develop a response to climate change, MGC has established the Carbon Neutrality Promotion Technical Committee as one of the sustainability promotion expert committees to serve as an advisory body to the

Sustainability Promotion Committee.

Long-term objectives for reducing GHG emissions have been incorporated into the Medium-Term Management Plan and materiality, with management taking a leading role in their implementation.

To gain a quantitative understanding of climate change risks, in April 2021 MGC introduced an internal carbon pricing system. In capital investment plans involving an increase or decrease in CO2 emissions, the cost or effect of applying and converting the internal carbon price (10,000 yen/Mt-CO2 equivalent) will be used to help make investment decisions, and encourage the creation of technologies and products that promote CO2 emissions reductions and contribute to building a low-carbon society.