

# Business Operations and Main Products

## Specialty Chemicals

<p><b>Inorganic Chemicals</b></p> <p>Primarily focused on cleaning agents for semiconductors</p> 	<div style="text-align: center;"> <p>Electronic Chemicals (EL Chemicals)</p> <p>Hydrogen peroxide — Super-pure hydrogen peroxide — Hybrid chemicals</p> </div> <p>Global market share</p> <p><b>#1 Super-pure hydrogen peroxide</b></p> <p>Secures supply capacity matching the growth of customers in response to robust demand from overseas semiconductor manufacturers. Also globally builds development facilities adjacent to customers and continuously provides products contributing to the speedy resolution of problems.</p>
<p><b>Electronics Materials</b></p> <p>Top manufacturer of substrate materials for IC plastic packaging</p> 	<div style="text-align: center;"> <p>BT Products</p> <p>Cyanate monomers — BT resin — Copper-clad laminates (CCL) — Prepreg</p> <p>OPE derivatives</p> </div> <p>Global market share</p> <p><b>#1 BT products</b></p> <p>Steadily responds to robust demand in the semiconductor industry. Establishes and strengthens a marketing system conscious of end customers, and offers a wide range of high-performance products, primarily targeting the mid-range and high end of the market.</p>
	<p>Global market share<sup>*1</sup></p> <p><b>#1 OPE derivatives</b></p> <p>Contributes to technology advancement and meets market needs for inter-wire embedding ability and high thermal resistance and reliability while suppressing electrical signal loss for multi-layered motherboards with advanced semiconductor package substrates and chips.</p>
<p><sup>*1</sup> As CCL material for AI servers</p>	
<p><b>Optical Materials</b></p> <p>Contributes to higher performance of smartphones with world-leading refractive index</p> 	<div style="text-align: center;"> <p>Raw material monomer (In-house manufacture/external procurement) — Optical polymer</p> </div> <p>Global market share<sup>*2</sup></p> <p><b>#1 Optical polymer</b></p> <p>Continues timely development and market launch of new grades with the aim of further expanding share in the smartphone area, and also focuses on development of materials aimed at applications other than smartphones, such as IoT and sensing applications.</p>
<p><sup>*2</sup> As a highly refractive resin (concave lens)</p>	
<p><b>Engineering Plastics</b></p> <p>Develops engineering plastics</p> 	<div style="text-align: center;"> <p>Methanol — Formalin — Iupital™ (Polyacetal resin) (POM)</p> <p>MX-Nylon (MXD6) — Reny™ (High-performance polyamide resin)</p> <p>Bisphenol A (External procurement) — Polycarbonate resin (PC) — PC sheet — PC film</p> </div>
	<p>Global market share</p> <p><b>#3 Polyacetal resin (POM)</b></p> <p>Promotes efficient base operations and strengthening of sales capabilities through a globally integrated management system for production, sales, and development.</p>
	<p>Supply capacity</p> <p><b>#3 Polycarbonate resin (PC)</b></p> <p>Increases the percentage of high-value-added products such as highly transparent grades, and promotes shifting toward a structure less susceptible to market conditions. Promotes research of PC mass-production technology using CO<sub>2</sub> as a raw material.</p>
<p><b>Oxygen Absorbers</b></p> <p>Wide range of solutions in daily food, electronic component and pharmaceutical markets</p> 	<div style="text-align: center;"> <p>AGELESS™ — RP System™ PharmaKeep™ Anaero Pack™</p> </div> <p>Global market share</p> <p><b>#1 AGELESS™</b></p> <p>Aims to expand market share in the food area and also focus on the expansion of sales overseas. Also, provides total solutions for maintaining quality for non-food areas such as pharmaceuticals, medical parts, electronic components, and cultural property protection.</p>

# Green Energy & Chemicals

### Energy Resources and Environment

Applies domestic natural gas exploration and development technology, and develops it for other energy businesses

Chemical company  
**Only 1**

### Geothermal power generation

Utilizing more than four decades of experience and accomplishments that distinguish us as a unique chemical company, contributes to the reduction of GHGs through the supply of clean energy.

\*3 Only the Niigata Plant's methanol pilot is currently operational \*4 Joint venture

### C1 Chemicals, Life Science

First in Japan to produce methanol using natural gas as raw material

Production capacity\*5  
**#3**

### Methanol

Establishes a competitive position through active overseas expansion and a total business model encompassing the manufacturing process, catalyst technology, a global sales network and the manufacture of derivatives. Focuses on commercialization of circular carbon methanol as Carbopath™ using accumulated technologies and sales networks.

\*5 Total for all affiliates using MGC technology

### High-Performance Products

Manufactures competitive products and derivatives using proprietary technology

Global market share  
**#1**

### Meta-xylenediamine (MXDA)

By building a new plant in Europe, where demand is greatest, establishes a more stable and competitive supply chain. In addition to stable growth of conventional infrastructure applications, accelerating expansion into environmentally friendly applications such as wind power blades.

Global market share  
**#1**

### MX-Nylon (MXD6)

As momentum for extension of quality assurance and food waste reduction increases in the food packaging material field, aims to establish a position by providing recyclable barrier material friendly to the global environment. Also strengthens downstream deployment such as weight reduction of vehicles by replacing metal parts with resin.

Global market share  
**#1**

### Aromatic aldehydes

Conducts continuous product development that reflects customer needs, aiming to diversify applications, add value, and further strengthen relationships with customers.



Message from the  
Executive Officer in Charge

**To meet the range of customer needs and win their trust, we refine our technologies and hone our skills to read ahead of change**

**Ryozo Yamaguchi**

Director, Managing Executive Officer  
In charge of Specialty Chemicals Business Sector

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## Direction of portfolio improvement: Reinforce cutting-edge ICT and expand medical/food

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As a result of expected conditions changing extensively from when the plan was written and despite necessary course corrections, we didn't achieve the numeric goals set for the Specialty Chemicals Business during the three-year term of the previous Medium-Term Management Plan. For example, semiconductor demand slowed, mainly due to reduced demand for smartphones and other products that use semiconductors, to a greater degree than the effect of supply chain confusion. We were also affected by the conflict between the US and China, which opened a rift in the world economy.

Learning from this experience, the new Medium-Term Management Plan recognizes that our businesses must be resilient enough to quickly respond to change. Therefore, we formulated an image of the vision for MGC in 2030, and decided to continue reinforcing our capabilities in

cutting-edge fields with strong growth potential, including semiconductors and telecom devices, where we can draw maximum value from our accumulated technologies and customer base. We also decided to expand into daily life fields such as pharmaceuticals and foods, where we project stable demand, as a way to reform our portfolio. In particular, the semiconductor market is the most important field for the Specialty Chemicals Business Sector. Over the coming three years, we will produce results from capacity expansion efforts we've made, including increasing production of BT materials in Thailand and building new plants or expanding existing ones in the US, Taiwan and elsewhere for EL chemical production. We firmly believe that we can fulfill societal needs by accurately reading world trends and deepening dialogue with our customers.

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## Building a more collaborative environment across the organization to refine unique MGC Group technologies

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It goes without saying that the markets for our final products are shaped not by us, but by our customers. So to make us their first choice, it's important that MGC Group products provide value that meets customer expectations. The knowledge and experience we've built over the years through customer contact and resulting basic technologies are assets that won't appear as line items in our financial statements, but because of them, we take pride in our Group's ability to remain current with the high pace of technological innovation and adapt to new markets.

Customer needs vary, so we have to secure the seeds to satisfy them. MGC Group employees have diverse personalities and advantages. The accumulation of their individual differences and experience, knowledge and expertise, in other words forming a whole greater than the sum of its parts, leading to the development of unique products informed by outside ideas and stimuli will most definitely become a driving force in our ability to read

ahead of future market changes.

Applying these ideas, we partially reorganized in April 2024. For example, the Engineering Plastics Division, along with Mitsubishi Engineering-Plastics, has unified its production, sales and technological operations into the Business Optimization Task Force, clarifying issues in the PC business and the like. We set up the Technology & Innovation Group to promote R&D across Group firms in a collaborative environment. In the Inorganic Chemicals Business, we gathered process technologies and quality- and safety-related information controlled by each Group company within the Technology Management Department, substantially increasing both the technical and safety powers of the entire Group and raising the level of quality control. By accelerating groupwide action to refine unique Group technologies, we are working for sustainable growth to achieve our Medium-Term Management Plan targets.

## Basic Information

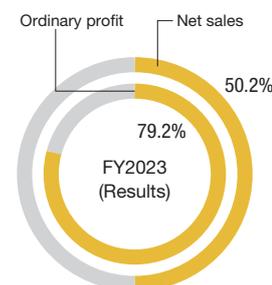
**Business lines:** Inorganic chemicals, engineering plastics, optical materials, electronics materials, oxygen absorbers

### Major Group companies:

TAIXING MGC LINGSU CO., LTD., SAMYOUNG PURE CHEMICALS CO., LTD., MGC PURE CHEMICALS AMERICA, INC., MGC PURE CHEMICALS SINGAPORE PTE. LTD., MGC PURE CHEMICALS TAIWAN, INC., MGC Filsheet Co., Ltd., Global Polyacetal Co., Ltd., THAI POLYACETAL CO., LTD., KOREA POLYACETAL CO., LTD., MITSUBISHI GAS CHEMICAL ENGINEERING-PLASTICS (SHANGHAI) CO., LTD., Mitsubishi Gas Chemical Trading, Inc., MITSUBISHI GAS CHEMICAL SINGAPORE PTE. LTD., MITSUBISHI GAS CHEMICAL AMERICA, INC., MGC Electrotechno Co., Ltd., MGC ELECTROTECHNO (THAILAND) CO., LTD., EIWA CHEMICAL IND. CO., LTD., Mitsubishi Engineering-Plastics Corporation, THAI POLYCARBONATE CO., LTD., KOREA ENGINEERING PLASTICS CO., LTD., Otsuka-MGC Chemical Company, Inc., RYODEN KASEI CO., LTD., TAI HONG CIRCUIT INDUSTRIAL CO., LTD., GRANOPT CO., LTD., Samyang Kasei Co., Ltd., MGC AGELESS Co., Ltd., AGELESS (THAILAND) CO., LTD.

**Number of employees:** 4,849

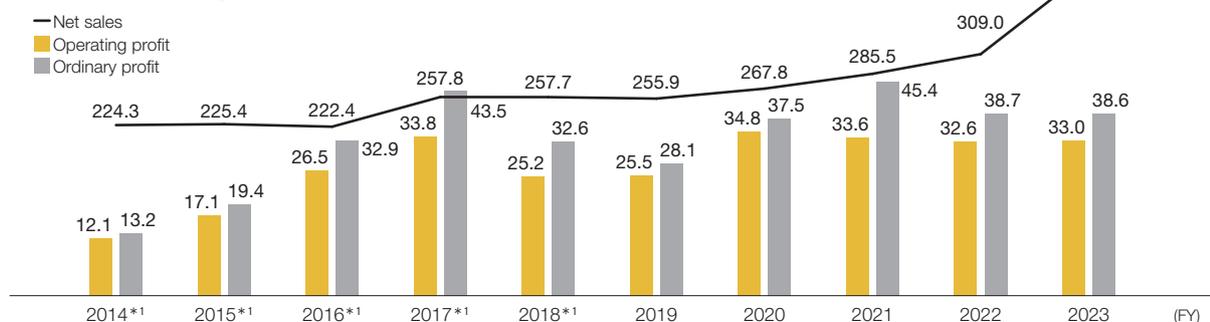
### Ratio of Net Sales and Ordinary Profit



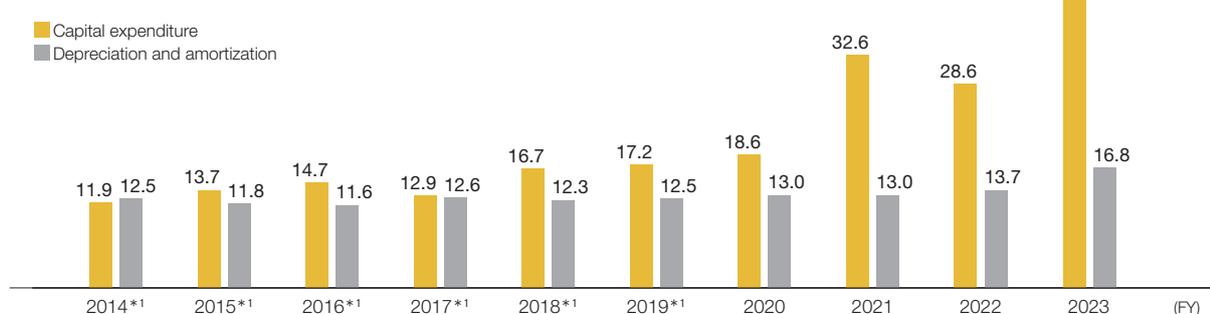
Note: The compositional ratios are calculated excluding "Other and Adjustment"

## Specialty Chemicals Business Performance

### Net Sales / Operating Profit / Ordinary Profit (Billions of yen)



### Capital Expenditure / Depreciation and Amortization (Billions of yen)



\*1 Aggregate of former segments (Specialty Chemicals/Information and Advanced Materials)

## Review of the Previous Medium-Term Management Plan

Differentiating businesses	Electronics materials	BT materials recovered after hitting bottom in FY2022 Q4 and returned to a growth trend. OPE also grew, meeting the target.
	Electronic chemicals (EL chemicals)	Maintained top share*2 of the global market despite the impact of semiconductor market slowdown. Currently strengthening production structure in Japan and overseas.
	Optical materials	Sales volume target missed, but maintained competitive advantage based on increased product performance and customer attraction capability, etc. Grew into a core business earning stable revenue.
	Polyacetal (POM)	Achieved the target due to increase in market prices, etc. Established GPAC*3, creating a structure for integrating production, sales, and development operations.
Foundation businesses	PC-related	Profits are improving at production sites in China, but adverse market environment with excess supply continued. Effect of MEP*4 conversion to a consolidated subsidiary still not fully manifested. Sheet film business in a downturn. Positioned as a business requiring intensive management under the new Medium-Term Management Plan with a view to rebuilding.

\*2 As super-pure hydrogen peroxide

\*3 Global Polyacetal Co., Ltd.

\*4 Mitsubishi Engineering-Plastics Corporation

### Specialty Chemicals Business—Overall Strategy

**Value Increase Scenario Looking ahead to 2030**

- Continue to strengthen our business in high-growth, cutting-edge fields (semiconductors, communication devices, etc.) while expanding our business in the highly stable lifestyle-related areas (medical/food, etc.).
- Increase the economic value of the PC-related business, which requires intensive management, aiming to transition it to a U&P business.
- Promote increase in business competitiveness by making eco-friendly businesses profitable.

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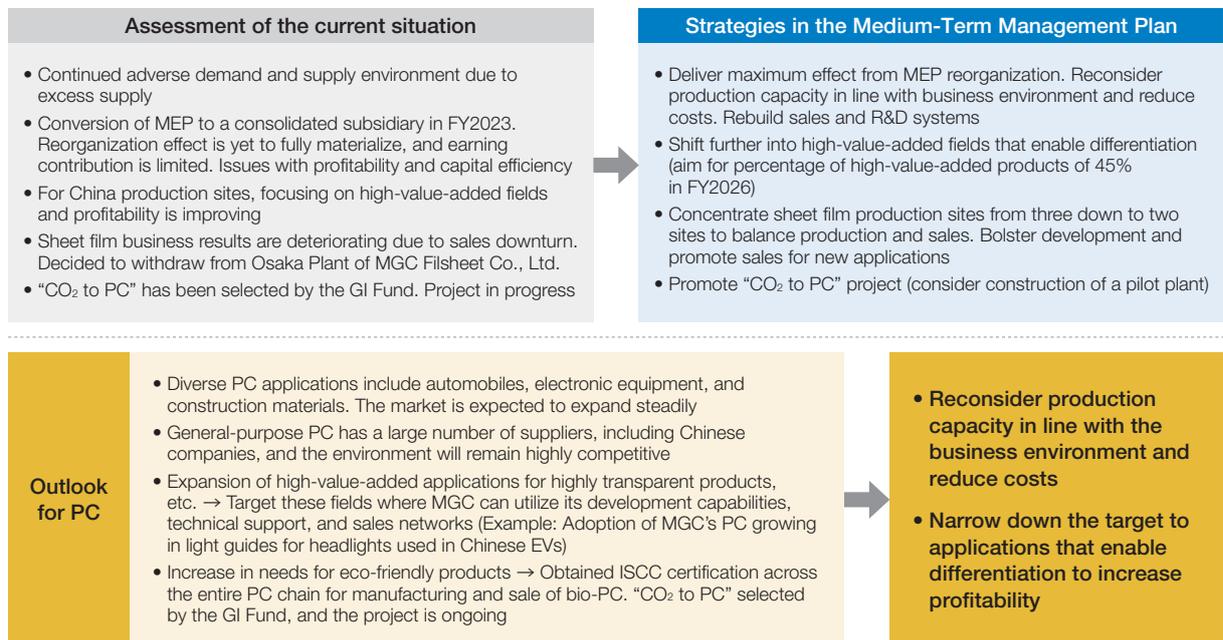
**Current Medium-Term Management Plan Numerical Targets (FY2026)**

Net sales	Operating profit	Ordinary profit	EBITDA
¥490.0 billion	¥65.0 billion	¥65.0 billion	¥100.0 billion

### Classification of Product Lines and Action Plan under the Medium-Term Management Plan

Business segment	Classification of product lines	Main action plan
U&P businesses	Inorganic chemicals	Increase production capacity worldwide as semiconductor manufacturers build and augment production sites, and supply high-quality products.
	Optical polymer	Aim for further expansion of applications beyond smartphones.
	BT materials for IC plastic package	Aim to expand share further by entering new fields.
	Polyacetal	Pursue global expansion through a double-brand strategy (Iupital™ and Kepital™).
	Ultra-high refractive lens monomers	Meet expanding demand by constructing new manufacturing facilities and develop biomass products.
Foundation businesses	Oxygen absorbers	Aim to increase profitability through a change in business structure, such as expanding sales into fields beyond food.
New/next-generation businesses (main development products)	Recycled EP	Reduce environmental impact while also securing profitability.
	New BT laminate materials	Lead the semiconductor substrate materials market by meeting customers' increasingly sophisticated demands.
	New semiconductor cleaning solutions	Contribute to the evolution of semiconductors through the development of products that respond to new materials and structures.
Businesses requiring intensive management	Polycarbonate/sheet film	Aim to improve profitability through thorough implementation of a high-value-added strategy and rationalization of production, sales, and R&D systems.

### Strategy for Businesses Requiring Intensive Management



## U&P Business Topics

### Electronic Chemicals

#### We will design even more highly productive plants while taking countermeasures for raw material procurement risk

**Satoshi Okabe** — General Manager, Technology Management Department, Inorganic Chemicals Division



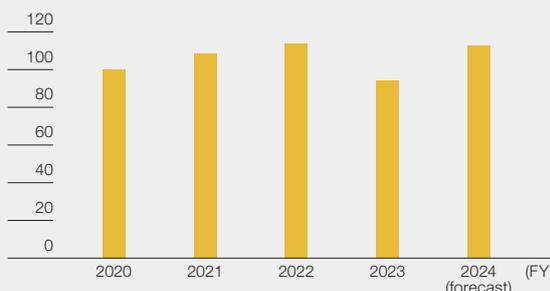
Among MGC's electronic chemicals, we have the top share in the global market for super-pure hydrogen peroxide, which is used in the cleaning and etching processes for semiconductor manufacturing. Collaborating with production sites in Japan and overseas, we provide a stable supply of high-quality products that meet the quality standards for advanced nodes required by customers. For hybrid chemicals, which are custom products, our strength is in our research and development capabilities, working closely with customer needs.

As demand continues to expand for super-pure hydrogen peroxide, our strategy for procuring raw materials will be important. Accordingly, we have proposed a strategy that enables stable procurement, such as by learning to use various raw materials and strengthening relationships with suppliers. In the area of hybrid chemicals, there is a risk of a slow-down in development opportunities in the wiring process as it is becoming difficult to miniaturize semiconductors further. On the other hand, we see a good opportunity for new development in advanced IC package applications that aim to improve performance through means other than miniaturization.

During the three years of the Medium-Term Management Plan, we will execute the abovementioned raw materials procurement strategy, while responding to persistently high costs for construction, transport, raw materials, and fuels by establishing a plant design that will achieve high productivity for super-pure hydrogen peroxide, and using it to create an optimal production system, including expansion of each production site. We will bring together the technologies for hybrid chemicals accumulated by our research groups in each country and tackle new fields, such as advanced IC package applications.

#### Net Sales of EL Chemicals

(FY2020 = 100)



### Optical Materials

#### We will expand our product portfolio by developing and diversifying new lens applications

**Noriyuki Kato** — General Manager, Business Development Department, Optical Materials Division



MGC's optical polymer has been widely used as a material for camera lenses in smartphones, VR devices, drones, and other devices. In addition to delivering performance that contributes to thinner lenses and clearer images, we aim to maximize customer satisfaction by providing detailed customer support. We continuously share the improved technologies and materials demanded by customers with our team members in research departments, as well as manufacturing, sales, and quality assurance, so that they can act quickly.

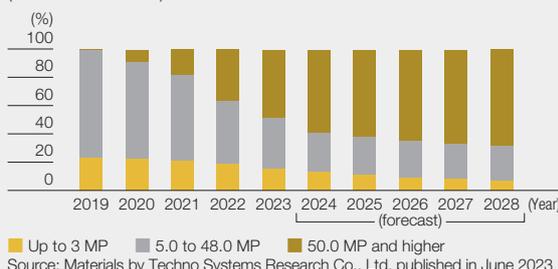
In recent years, our optical polymer has been used in increasingly diverse fields. The continued advance of technologies in fields where high-performance cameras play a critical role, such as automated driving and cross reality (XR), is also a tailwind for our company's growth.

Looking ahead, we aim to increase our ability to respond to customer demands and strengthen our ability to propose products that elicit latent needs. Under the Medium-Term Management Plan, we have established not only financial targets, but also targets for enhancing

our product portfolio through the development and diversification of applications. We are in an era of future uncertainty, but fields that require high-resolution image data captured with camera lenses will continue to expand. Over the next three years, we will support the information society and contribute to improved quality of life for people by developing and supplying high-performance materials.

#### Trend in Increasing Resolution of Smartphones

(Rear main camera)





Message from the  
Executive Officer in Charge

**To establish businesses that help us achieve carbon neutrality, we will boldly rise to the challenge of taking entirely new approaches and realize the resolution expressed in our new division name**

## Hideaki Akase

Director, Managing Executive Officer  
In charge of Green Energy & Chemicals Business Sector

### Three years to pave the road to growth; progress in rebuilding low-margin businesses

During the previous Medium-Term Management Plan, we focused on the changes in our earnings structure with long-term growth in mind. For differentiating businesses, we actively invested in enhancing the production capabilities of our aromatic aldehyde products and construction of a new plant for meta-xylenediamine (MXDA) in the Netherlands. Regarding our foundation business of methanol, we struggled, but the start up of a new production facility in Trinidad and Tobago to reinforce our reliable supply position, at four sites worldwide now, is an important achievement. We are seeing steady progress in the first phase of our Carbopath™, for commercialization in which public interest is growing as a new circular carbon platform.

We've made progress in restructuring unprofitable businesses or those needing rebuilding. In the formalin and polyol business, we suspended operation of two domestic formalin plants and production of paraformaldehyde and other co-products as well, while making the most of M&A

to build an integrated business structure from formalin to downstream adhesive products to raise profitability. In the xylene separation and derivatives business, we will suspend production of orthoxylene and its co-product phthalic anhydride by January 2025. Phthalic anhydride production generates reaction heat, which we have been collecting for reuse in the Mizushima Plant. We will instead work to adjust the plant's energy balance as an alternative solution. As shown by this example, partial suspension of the chemical production chain can affect the balance of our entire operation, requiring transition periods. We understand the need for smooth completion of the shift, with business reorganization always top of mind. The future of the unprofitable purified isophthalic acid (PIA) business will depend on growth in the MXDA business, which also uses meta-xylene as a raw material. As we become less dependent on PIA, I'm confident we can substantially raise the profitability of the entire xylene business.

### Reinforce production with DX and focus on commercialization of life science products

The current Medium-Term Management Plan focuses on ensuring we recoup investments made over the past three years and reinforcing production with DX. If we succeed in making production more flexible, we should be able to substantially improve our business portfolio, for instance by separating co-products. In the life science business, where we have been doing research and development, we are exploring new applications. Since our antibody drug CDMO business has been accumulating manufacturing experience, we'd like to schedule full-scale business entry within the next few years.

As of April 2024, we renamed the Basic Chemicals Business Sector, making it the Green Energy & Chemicals Business Sector. This change is designed to show people within and outside MGC the sector's new direction and commitment to green operations, and make us more attractive as a prospective collaborator.

For a chemical manufacturer, carbon neutrality is a challenging goal. Fortunately, the MGC Group, grown from natural gas development as its founding business, has tangible and intangible resources built up over many years, and is in a position to offer solid solutions related to CO<sub>2</sub> capture-and-storage (CCS) and carbon capture and utilization (CCU). However, businesses contributing to carbon neutrality need approaches that are different from those of the traditional businesses of production and marketing. Without slowing our progress, we have to create business plans that transcend industry boundaries and work with national and local governments. The process of drawing up a business plan as we address complex issues can feel like solving a puzzle. I'm working to build an organization in which employees approach that task with shared knowledge and a sense of adventure, promising greater business feasibility ahead.

## Basic Information

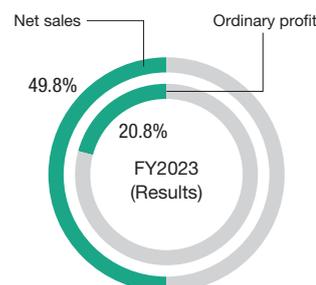
**Business lines:** Natural gas chemicals, xylene chemicals, energy resources and environment, life science

### Major Group companies:

MGC Specialty Chemicals Netherlands B.V., Mitsubishi Gas Chemical Trading, Inc., MITSUBISHI GAS CHEMICAL SINGAPORE PTE. LTD., MITSUBISHI GAS CHEMICAL AMERICA, INC., MGC ENERGY Company Limited, MGC Woodchem Corporation, KOKUKA SANGYO CO., LTD., Japan Saudi Arabia Methanol Company, Inc., METANOL DE ORIENTE, METOR, S.A., BRUNEI METHANOL COMPANY SDN. BHD., Japan Trinidad Methanol Company, Inc., Yuzawa Geothermal Power Corporation, JSP Corporation

**Number of employees:** 2,592

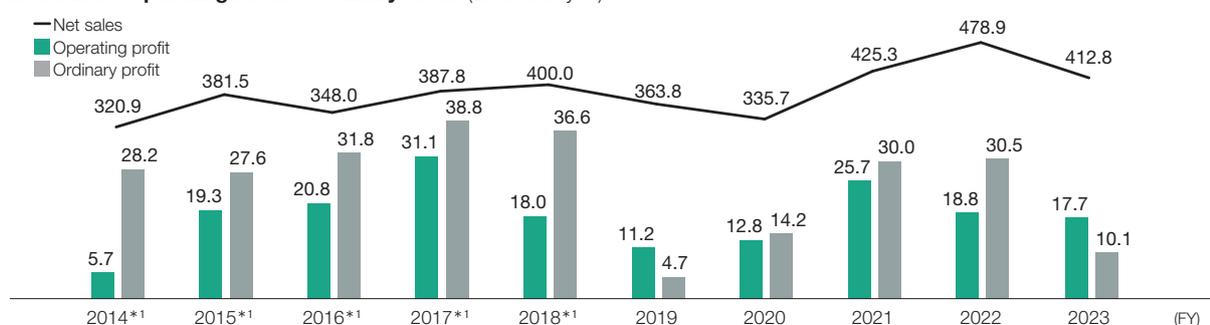
### Ratio of Net Sales and Ordinary Profit



Note: The compositional ratios are calculated excluding "Other and Adjustment"

## Green Energy & Chemicals Business Performance

### Net Sales / Operating Profit / Ordinary Profit (Billions of yen)



### Capital Expenditure / Depreciation and Amortization (Billions of yen)



\*1 Aggregate of former segments (Natural Gas Chemicals/Aromatic Chemicals)

## Review of the Previous Medium-Term Management Plan

<b>Differentiating businesses</b>	MXDA/aromatic aldehydes	The final fiscal year saw demand slump due to a delayed economic recovery in Europe and the U.S. Promoted the MXDA Europe project and increased production capacity for aromatic aldehydes in preparation for demand recovery.
<b>Foundation businesses</b>	Energy resources and environment	Examined commercialization of CCS and renewable energy. Achieved target, mainly due to increase in market prices for iodine and high energy prices, shifted to differentiating businesses.
	Methanol	Promoted CarboPath™ as the circular carbon platform. The capability of earning profit increased mainly due to supply chain streamlining, and shifted to differentiating businesses.
<b>Unprofitable businesses or those needing rebuilding</b>	Formalin and polyol-related	Structural reforms such as concentration of production sites proved successful, shifted to foundation businesses.
	Xylene separators and derivatives	Decided to withdraw from the ortho-xylene chain. PIA*2 continued to be unprofitable due to an adverse market environment. Positioned as a business requiring intensive management under the new Medium-Term Management Plan.

\*2 Purified isophthalic acid

### Green Energy & Chemicals Business—Overall Strategy

**Value Increase Scenario Looking ahead to 2030**

- In the U&P businesses, expand sales of the MXDA and aromatic aldehydes businesses, where we have made large investments, and steadily recover the investments to maximize profits.
- In businesses requiring intensive management, promote measures such as various cost reductions and streamlining of the balance sheet to strengthen their resilience to changes in the business environment.
- Reduce carbon intensity in major raw materials such as methanol as a new initiative to realize carbon neutrality, and develop the businesses in a revalued form.

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**Current Medium-Term Management Plan Numerical Targets (FY2026)**

Net sales	Operating profit	Ordinary profit	EBITDA
¥350.0 billion	¥22.0 billion	¥32.0 billion	¥52.0 billion

### Classification of Product Lines and Action Plan under the Medium-Term Management Plan

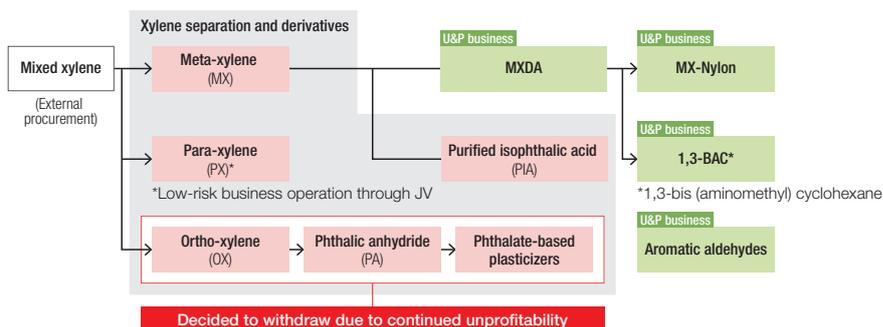
Business segment	Classification of product lines	Main action plan
U&P businesses	MXDA	Reap benefits of investment through steady start of new plant in Europe.
	Aromatic aldehydes	Aim for growth with expansion into new applications.
	MX-Nylon	Expand sales for food packaging material applications and promote response to environmental issues through business activities.
	Methanol	Start production and sales of blue/biomethanol and create a market for circular carbon methanol Carbopath™.
	Energy resources and environmental businesses	Promote creation of CCS business, increase in production of water-dissolved natural gas and iodine within the Group, and expansion of renewable energy.
Foundation businesses	Ammonia and methylamines	Expand the clean ammonia business.
	MMA products	Aim to maximize profit across the MMA chain, including downstream products.
	Formalin and polyol products	Examine appropriate business management methods and aim to increase profitability.
New/next-generation businesses (main development products)	Carbon fiber composite materials	Develop composite intermediates with characteristics such as gas barrier properties, and propose various applications.
	CDMO of antibody drugs	Obtain a license for manufacture of drugs and accumulate manufacturing experience under the GMP system.*3
Businesses requiring intensive management	Xylene separators and derivatives	Promote further cost reductions and form an infrastructure to support U&P businesses downstream.

\*3 Good manufacturing practice (GMP) is a system for ensuring the quality of pharmaceuticals by setting requirements that manufacturers and marketing authorization holders must meet.

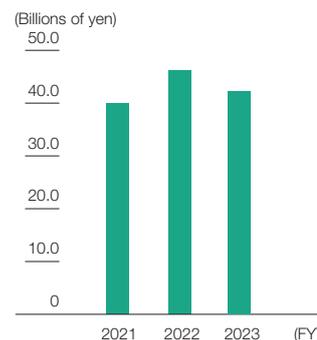
### Strategy for Businesses Requiring Intensive Management

Assessment of the current situation	Strategies in the Medium-Term Management Plan
<ul style="list-style-type: none"> <li>• PIA business environment remains challenging due to excess supply</li> <li>• Decision to withdraw from unprofitable OX-related chain (OX-PA-plasticizer)</li> </ul>	<ul style="list-style-type: none"> <li>• MX-PIA: Positioned as infrastructure to support downstream MXDA, etc.</li> <li>• Continue further cost reduction</li> <li>• Continued production to be determined in line with growth of downstream products</li> </ul>

### Product Chain for Xylene Separation and Derivatives



### Net Sales of U&P Businesses\*



**MXDA**

**The new plant in Europe is scheduled to begin operations in the second half of fiscal 2024. We will also focus on developing human resources to work in production and sales**



**Masatoshi Sato** — Managing Director, MGC Specialty Chemicals Netherlands B.V.

The new MXDA plant in Rotterdam, the Netherlands, is scheduled to start operations from the second half of fiscal 2024. There is great significance in operating in Europe, the biggest market of demand for MXDA. The construction period for this new plant has coincided with a period of rapid recovery of the European economy after COVID-19 and unprecedented price increases due to Russia's invasion of Ukraine. The project has faced numerous difficulties, such as shortages of human resources and construction materials, and the resulting bankruptcy of a construction-related firm. With the cooperation of local general contractors, however, the start of operations is now in sight.

The European market is forecast to provide stable orders from existing large customers, but we do not intend to become complacent with our advantageous position. Currently, we are actively pursuing applied research on chemical products that can make a positive impact on environmental sustainability, such as construction materials for wind power generators and

CO<sub>2</sub> absorbents. Constantly developing new applications and meeting customer needs are the conditions for our sustainable growth.

We will deepen technology cooperation with the main plant at Mizushima and the Niigata Plant regarding the new plant, while aiming first to establish stable operation. Going forward, we will focus on the education of human resources involved in the production and sales of MXDA. I believe it is one of my responsibilities to hand over to the next generation the knowledge and experience-based operations skills of MXDA that have been accumulated by our MGC Group.



**Aromatic Aldehydes**

**We will capture expanding demand while increasing the operation rate of our new manufacturing facility in order to achieve our quantitative targets**



**Haruya Kubo** — General Manager, HP Chemical Department, High-performance Products Division

The Company's involvement in aromatic aldehydes was triggered by its construction of a pilot plant for para-tolualdehyde at the Mizushima Plant to manufacture raw material for polyester in 1981. In 1985, the Company constructed a large-scale mass-production facility to manufacture raw materials for its in-house products. Over the years between 2000 and 2010, the business continued to grow, mainly in products for resin additives. In 1991, the Company established a second mass-production facility and added new types of products for use in fragrances and pharmaceuticals. In 2023, we started operation of a third mass-production facility to bolster our production capacity.

Demand for resin additives are finally showing signs of a recovery in demand, which had been in a slump due to high inflation over the past two years. On the other hand, demand for fragrance applications has been expanding due to heightened awareness of hygiene in the wake of the COVID-19 pandemic. During the

three years of the next Medium-Term Management Plan, we will increase the capacity utilization rate of the new manufacturing facility by promoting sales expansion based on quantitative targets, prioritizing the achievement of our targets.

Aromatic aldehyde products are currently mainly exported to areas such as Europe and the United States. To strengthen our business foundation in the future, we consider it essential to build partnerships with overseas companies. I consider it my role to build those relationships.

**Primary Applications and Use Cases**

Application	Use case
Fragrances	Perfumes, soaps, detergents, air fresheners, etc.
Resin additives	Agent to prevent clouding of polypropylene (PP)
Pharmaceuticals and agrochemicals	Herbicides, therapeutic drugs for diabetes, etc.
Pigments	Automotive paint, etc.