

mitsui chemicals  
MITSUI CHEMICALS REPORT

2024

*Accelerating our progress toward  
a sustainable society with the spirit of change  
and innovation woven into our very DNA*



About This Report

Aiming to further enhance corporate value through dialogue with our stakeholders

The Mitsui Chemicals Group has change and innovation woven into its very DNA, which has been shaped by more than a century of history. Starting with our venture into the coal chemical industry as the first Japanese company in 1912, we have continued to make an endeavor to solve social challenges.

In this Mitsui Chemicals Report 2024, the cover feature summarizes technologies cultivated over our history of making an endeavor to solve social challenges through our Group’s technology innovation as well as value created by our value chain. Also, throughout this report, we reflect on our Long-Term Business Plan VISION 2030 over the past three years since its start. Along with our policy of placing emphasis on dialogue with our stakeholders, this report features dialogues between our executive members and outside stakeholders in order to reflect broad opinions and perspectives in our management.

We hope this report gives our stakeholders a clear idea of where our Group has been, where it is now, and where it is going.

In creating and editing this report, we have drawn on the International Integrated Reporting Framework issued by the International Financial Reporting Standards (IFRS) Foundation and the Guidance for Collaborative Value Creation provided by the Ministry of Economy, Trade and Industry. The process involved cooperation among the Corporate Communications Division and other divisions across our Group. I have confirmed that the process of creating the report was appropriate and that the content is valid.

We will continue to use this report and other tools to enhance our disclosure efforts, and enrich dialogues with our stakeholders, thereby reflecting the insights we gain through that engagement in our strategies.

I hope that you will provide us with your continued support and feedback.

HASHIMOTO Osamu  
Representative Director, President & CEO



What We Hope to Convey through This Report

Top 3 Takeaways from Mitsui Chemicals Report 2024

1 Sharing our journey to solve social challenges through technology innovation and to take on challenges for the future

The report features the trajectory of transformation and challenges through the technology innovation made by our Group, which is now entering the age of green chemicals—another period of great change following the first generation of coal chemicals and the second generation of petrochemicals—along with changes in the situation and environment at home and abroad.

▶▶ Feature: Solving Social Challenges through Technology Innovation, p. 11  
Trajectory of transformation and challenges

We represent technologies cultivated through more than 100 years of history, which give origin to our current main products, in the three categories: 0→1: technology to give “shape” to function; 1→100: technology to mass-produce designed substances and materials; and 100→100: technology to recycle resources.

▶▶ Feature: Solving Social Challenges through Technology Innovation, p. 13  
Results of transformation and challenges

We visualize value created by our value chain that starts with naphtha crackers by using a product tree.

▶▶ Feature: Solving Social Challenges through Technology Innovation, p. 14  
Value created by our value chain

We feature initiatives taken to address challenges for the future, comprising our strategy for providing not only materials but also solutions for solving problems and enhanced disclosure of our R&D and intellectual property strategy, for which we received many requests from outside stakeholders.

▶▶ Solutions-based business models, p. 50  
▶▶ R&D and Intellectual Property Strategy for Accelerating Portfolio Transformation, p. 71

2 Reflecting on Long-Term Business Plan VISION 2030 over the past three years since its start

Throughout this report, we reflect on three years of progress toward VISION 2030 since its start by including initiatives taken and accomplishments made over the period, challenges identified, and strategies to be taken in light of the reflections, through which we showcase our strategies for strengthening earning power so as to make more profit.

3 Pursuing deeper dialogue between our executive members and stakeholders

We aim to further improve engagement with our stakeholders by having dialogues between our executive members and stakeholders, while reflecting their broad opinions and perspectives in our management.

▶▶ Dialogue: CEO x Expert, p. 15  
▶▶ Dialogue: Former and New Chief Strategy Officers (CSOs) x Analyst, p. 30  
▶▶ Dialogue: CTO x Investor, p. 77  
▶▶ Dialogue: Outside Directors x Investor, p. 90

Scope and Principles

- Period: April 1, 2023 to March 31, 2024 (fiscal 2023). Please note some data may postdate April 2024.
- Scope: Mitsui Chemicals, Inc. and the Mitsui Chemicals Group (Other entities, if included, are identified in the text.)
- Accounting principles: International Financial Reporting Standards (IFRS)

Editorial Policy

In compiling this Mitsui Chemicals Report 2024, we sought to present a comprehensive overview of our various strategies and performance from both the financial and non-financial perspectives with the ultimate goal of creating a platform for meaningful dialogue with all stakeholders. While we have drawn on the International Integrated Reporting Framework issued by the International Financial Report Standards (IFRS) Foundation and the Ministry of Economy, Trade and Industry’s Guidance for Collaborative Value Creation, we have tried to avoid a rigid format. Our goal has been to provide a useful document that allows readers to gain a deeper understanding of our efforts toward the creation of value through innovation over the medium to long term.

Forward-Looking Statements

This report contains forward-looking statements about future plans and strategies as well as forecasts and expectations regarding the performance of the Mitsui Chemicals Group. Actual results may differ materially from those projected due to a variety of factors, and the Mitsui Chemicals Group cannot guarantee that any forward-looking statements herein are accurate or that targets will be achieved. The outlook for fiscal 2024 contained in this report is as of May 15, 2024.

How to View Mitsui Chemicals Report 2024

This report has a variety of navigation options to improve the viewability of this report for our stakeholders.

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▶▶ XXXXXX, p. 00

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MITSUI CHEMICALS REPORT

2024

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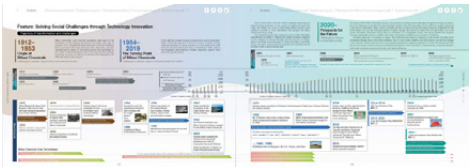
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Cover Design

Three years have passed since the start of our Long-Term Business Plan VISION 2030. In this ever-changing business environment, the path we are pursuing remains unchanged. Looking back on the achievements and challenges of the past three years, the cover design depicts the Mitsui Chemicals Group as a first mover in the chemical industry, further accelerating our progress toward a sustainable society.



Inclusion in ESG investment indices (as of September 2024)

External Assessments: <https://jp.mitsuichemicals.com/en/sustainability/others/evaluation/index.htm>



2024 CONSTITUENT MSCI NIHONKABU ESG SELECT LEADERS INDEX

2024 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)



FTSE4Good



FTSE Blossom Japan Index



FTSE Blossom Japan Sector Relative Index



Sompo Sustainability Index



FTSE4Good Index  
<https://www.lseg.com/en/ftse-russell/indices/ftse4good>

FTSE Blossom Japan Index  
<https://www.ftserussell.com/products/indices/blossom-japan>

FTSE Blossom Japan Sector Relative Index  
<https://www.ftserussell.com/products/indices/blossom-japan>

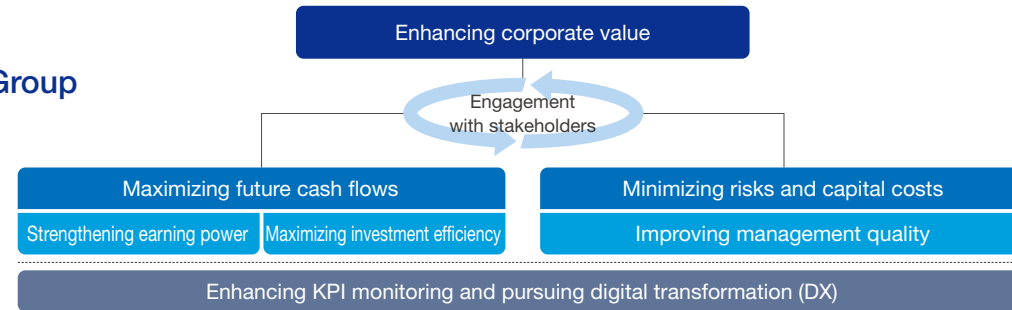
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## The Mitsui Chemicals Group's Management Driven by Integrated Thinking

### Enhancing the corporate value of the Mitsui Chemicals Group

This chart shows how our Group's corporate strategy and initiatives integrating financial and non-financial perspectives contribute to enhancing corporate value. This page explains the logic behind our Group's efforts to enhance corporate value.



Based on our Group's Corporate Vision (Corporate Mission and Corporate Target) set in 1997, we have defined our ideal vision for 2030 that accurately reflects changes in the environment inside and outside our Group. Under our Long-Term Business Plan VISION 2030, which incorporates our Corporate Vision and material topics to realize our ideal vision, we are promoting initiatives based on the five-prong Basic Strategy.

In order to successfully “pursue business portfolio transformation,” which is the first and most important pillar of the Basic Strategy, we “build solutions-based business models” and “bolster circular economy initiatives.” In addition, we “achieve corporate transformation through digital transformation (DX)” and “accelerate management and business transformation,” both of which are the drivers for implementing the second and third prongs of the Basic Strategy and the foundations supporting our continuous growth. By ensuring to implement these five prongs of the Basic Strategy, we aim to enhance our corporate value.

The chart above shows how the five-prong Basic Strategy of VISION 2030, which is a corporate strategy integrating financial and non-financial perspectives, contributes to enhancing our Group's corporate value.

In enhancing corporate value, we aim to achieve the sustainable development of our Group by steadily implementing a management system that integrates both financial and non-financial metrics and is aimed at ensuring non-financial initiatives contribute to the achievement of financial targets. The non-financial initiatives are designed to seek business opportunities in response to global corporate sustainability issues indicated by SDGs and other initiatives and strive to solve the challenges through our business activities. They are also designed to recognize future risks for our Group and uphold our corporate social responsibility.

▶▶ Our Values, p. 19    ▶▶ Material Topics, p. 21    ▶▶ Long-Term Business Plan VISION 2030, p. 26

### Aiming for “integration of financial and non-financial performance”

- Non-financial performance is the foundation of financial performance: Addressing the “prerequisites for business continuity”
- Non-financial performance is the financial performance of the future: Improving our “abilities essential to business continuity”
- Non-financial and financial performance mutually affect each other: “Contributing to a sustainable society” enables us to

fosters trust

accelerates growth

maximize profits



## CEO Message

# With transformation in our DNA, we will spearhead the transition to green chemicals and achieve sustainable growth

—Reflections on the fiscal 2023 business environment and three years of progress toward VISION 2030—

**Even in the most challenging business conditions, we remain committed to our targets and determined to accelerate growth.**

Three years have passed since we launched VISION 2030. At this point, we are unfortunately falling behind the projected pace for achieving our target of operating income before special items of 200 billion yen by 2025, a key milestone toward VISION 2030. Having acknowledged this reality head-on, I would like to analyze the business environment of fiscal 2023, the results achieved over the past three years, and the challenges that have emerged.

In fiscal 2023, our business environment was significantly impacted by uncertainties surrounding China's economic outlook, shifts in market dynamics due to oversupply, and intensifying competition from the rising technological capabilities of emerging enterprises in the rest of Asian countries. The chemical industry in Japan is increasingly facing challenges to its traditional technological supremacy.

Despite these circumstances, the Mitsui Chemicals Group's growth domains have continued to show steady progress, as reflected in our average growth rates for the past five years. However, we must acknowledge that the overall pace is somewhat behind our initial plans. The Life & Healthcare Solutions business, in particular, has encountered challenges such as delays in expanding the oral care business and increased competition in the non-wovens business for hygiene materials, making the return to a growth trajectory an urgent priority. On the other hand, the Mobility Solutions business is expected to achieve its 2025 target ahead of schedule, driven by favorable factors such as the recovery in automobile production and growth in high-value-added areas. The ICT Solutions business, although currently facing a temporary downturn due primarily to the decline in semiconductor demand, is showing signs of recovery, and it is crucial that we capture the growing demand to regain our intended pace. In addition, the Basic & Green Materials business, which is undergoing restructuring, is falling further behind our initial expectations. We had anticipated securing a certain level of profitability once the first phase of restructuring, which involved reviewing and reorganizing



**HASHIMOTO Osamu**

Representative Director  
President & CEO



## CEO Message

large-scale commodity products, was almost completed. However, external factors such as the slowdown in China's economic growth and changes in domestic market dynamics due to oversupply have so far prevented us from reaching the desired level. Moving forward, we recognize the need to accelerate the second phase of restructuring to swiftly enhance and stabilize profitability.

In this challenging business environment, we expect some of these difficulties to persist long-term. However, we are making steady progress in new business development and corporate transformation, which is bringing us closer to our ideal vision. With a strong commitment to accelerating this momentum and putting our business back on a growth trajectory, we remain determined to achieve our target of operating income before special items of 200 billion yen, a key milestone toward our fiscal 2030 goal.

—Direction of VISION 2030 Basic Strategy—

### Paving the way to becoming a global specialty company through proactive resource allocation and multi-company collaborations.

We will drive our business portfolio transformation through two strategic pillars: the pursuit of high-growth, high-profitability global specialty chemicals businesses in the growth domains, and the pursuit of a green chemicals business centered on competitive derivatives in the Basic & Green Materials business.

To further accelerate growth in the growth domains, we

#### Accelerating the transformation of our business portfolio with two key strategies



## CEO Message

actively investing in the semiconductor field, where demand is expected to continue growing. In the area of the front-end process of semiconductor manufacturing, we are leveraging our Group's pellicle technology and collaborating with ASML and imec to commercialize next-generation EUV pellicles, specifically CNT pellicles. Additionally, in the back-end processes where materials such as adhesive and coating materials can maximize their potential, we have decided to invest in Shinko Electric Industries. By leveraging such synergies with other companies in the high-barrier-to-entry semiconductor field, we aim to accelerate material development for next-generation semiconductors and expand our business. Furthermore, in the optical field, including displays, we see opportunities to effectively utilize our Group's existing materials and technologies in next-generation areas such as AR and VR (collectively referred to as XR). We are actively investing resources to expand the deployment of these products across multiple applications.

In the Basic & Green Materials business, as mentioned earlier, we are accelerating the second phase of restructuring to reduce volatility and strengthen our business foundation. In the derivatives field, we will classify products based on three key perspectives. The first is product competitiveness. The second perspective involves essential demand, taking economic security into consideration as well. This includes so-called commodity products, but we will ensure profitability by pursuing an optimal operating structure in line with demand such as through regional and multi-company collaborations. The third is a focus on capital efficiency. By optimizing our portfolio according to these perspectives, we aim to transform into a leaner,

more resilient business structure.

In building solutions-based business models, we have appointed Mr. OMOTE Toshihiko, who has extensive expertise in downstream areas, as Executive Advisor responsible for the New Business Incubation Center. By combining his expertise with our strong upstream B2B perspective, we are creating a process that will generate various new businesses, products, and business models. Additionally, through collaborations with startups via the launch of a CVC fund, we are exploring unmet societal needs. At the same time, by integrating technologies and know-how across different fields within and outside the Group, we are advancing the development of various next-generation businesses. Among others, we have identified three key target areas as candidates for next-generation businesses, where we can fully leverage the Mitsui Chemicals Group's assets and expertise: robot solutions, data solutions, and medical solutions. This approach goes beyond simply combining two materials or technologies to create new products, such as lens materials and coating technologies. It involves comprehensive system and business design, utilizing our Group's data and algorithms throughout the entire process, from extensive material selection to design and mass production. As these initiatives bear fruit, we aim to create a unique business model that cannot be easily replicated by others, thereby growing our new businesses to a level where they can stand alongside our four current business domains.

I believe that digital transformation (DX) will be a powerful driver in accelerating these initiatives. We will push forward with technology and R&D to create highly efficient and safe manufacturing environments through the incorporation

of advanced technologies such as IoT and AI, promote green chemicals through the development of a resource circulation platform, and utilize materials informatics through leveraging vast amounts of research data. In parallel, our Digital Transformation Sector will lead efforts to improve the digital literacy of our Group's employees. By accelerating the pace of innovation across the Group and enabling our employees to build up successes, we aim to realize corporate transformation (CX).

—Transforming our corporate culture to realize our ideal vision—

### Transforming mindsets to encourage the pursuit of challenges and fostering new ideas to achieve our ideal vision.

I have repeatedly emphasized that the key players in executing these strategies are our employees. No matter how excellent the strategies may be, they cannot be realized without the commitment of the employees who carry them out. Particularly in building a solutions-based business model, it is crucial to shift the mindset of our employees from the traditional B2B approach to a multifaceted perspective that drives the creation of new businesses. Through daily communication with our employees, I sense that an awareness of the need to take on new challenges is gradually taking shape, but the concrete steps to translate this awareness into action are still ahead of us. We as a company must continue to provide clear direction in this regard. Another important point is to expand this mindset globally. To support this effort, we are holding business contests within the Group to



## CEO Message



solicit proposals for new businesses and products. The first contest, held in fiscal 2023, focused primarily on our Asian affiliates. Starting in fiscal 2024, we are inviting ideas from all our overseas affiliates, with the final selection process involving voting by executives and global employees acting as judges. The winning ideas will receive support for commercialization under the sponsoring business division. I believe this initiative will not only provide an opportunity for each individual to meet the spirit of challenge and experience success, but also foster global connections among our employees.

In addition, we have strengthened our human resources strategy by introducing Workday—a Group-wide integrated human resources platform—that enables us to manage the data of approximately 20,000 global employees. I believe this has laid the groundwork for fully leveraging our Group’s resources to execute our strategies of accelerating business

portfolio transformation and building solutions-based business models.

In addition to the initiatives already mentioned, we will continue to invest in measures to create a comfortable environment for and enhance the skills of our workforce, including measures for work style reform and reskilling. As I explained in my message in the Mitsui Chemicals Report 2022, these measures are designed with the intention of incorporating “the principle of fair equality of opportunity” and “the right to equal liberty,” two important social principles advocated by the political philosopher John Rawls, into our organization. If we are to translate these social principles into corporate principles, it means ensuring that all employees globally are given equal opportunities to excel and the liberty to think freely through the establishment of an optimal work environment and the implementation of policies that recognize and encourage taking on challenges. Of course, equality does not mean uniformity. Our employees have diverse personalities and abilities, so our evaluation systems must not be one-size-fits-all. I believe that by developing systems and environments where employees from diverse backgrounds can leverage their unique strengths, we will move closer to realizing our Group’s ideal vision.

—Achieving both social value and financial value through the realization of green chemicals—

### Becoming a first mover in truly helping solve social challenges amid major changes in the chemical industry.

In the rapidly changing world of the chemical industry, the Mitsui Chemicals Group has always been at the forefront of the times—from the first generation of coal chemistry to the second generation of petrochemicals. It is this sense of pride and our transformational DNA that gives me confidence that we can also play a pioneering role in realizing the third generation of green chemicals.

The restructuring of the petrochemical sector is currently a major topic in the chemical industry, but it is important to note that the foundations of next-generation fields, such as semiconductors and electric vehicles (EVs), also rely on basic materials and related technologies upstream in the production chain. The challenge is how to enhance value added and achieve sustainable growth while being mindful of these essential elements, which are also tied to economic security. For our Group, a major challenge is to further develop the lineage of petrochemical-related technologies we have cultivated over our long history and to succeed in the transformation toward green chemicals. While this is undoubtedly a difficult undertaking, we also see it as an opportunity. If we can achieve a shift to green basic materials upstream in the production chain for a wide range of chemical materials, it will serve as a significant point of differentiation for us. Given our journey alongside Japan’s petrochemical industry, from the period after the Second

## CEO Message

World War through the era of rapid economic growth, we feel it is our responsibility to make this transformation a reality.

To achieve this, we are currently pursuing three major initiatives. The first is promoting the shift to green chemicals in chemical complexes and designing ecosystems for the use of bio-based raw materials and clean ammonia, through collaboration with industry peers, academia, and startups. The second initiative involves promoting competitive and monetizable derivatives in collaboration with national and local governments, as well as customers. The third focuses on the transition to green energy, including electricity, gas, and other essential social infrastructure needed for production. All of these elements are indispensable for the realization of green chemicals.

As we advance these initiatives, it is important to ensure that our contributions to solving social challenges are properly reflected in our profits. If a business is not profitable, it is a sign that society does not fully recognize its value. A business that truly contributes to society is one where our end-users and customers recognize the value added of its products—and that recognition also translates into profitability. A key barometer for measuring whether we are on the right track is the sales revenue ratio of our Blue Value™ and Rose Value™ products, which we have established as non-financial KPIs. I believe that by steadily increasing these figures, we can pursue both social value and financial value at the same time.

—Enhancing capital efficiency and maximizing opportunities—

### Steadily progressing toward the realization of VISION 2030 through the solid implementation of our strategy.

In addition to the solid implementation of the strategies described so far, we are actively working to reduce our bloated inventories and pursue an asset-light strategy for the Basic & Green Materials business and the Group as a whole. We are also divesting cross-shareholdings that are not directly aligned with our strategy. By reinvesting the cash generated from these efforts and returning it to our shareholders, we aim to improve capital efficiency and are considering raising our ROE target from the originally planned 10% for 2030. To achieve this, we will continue to place an even greater emphasis on capital efficiency in our actions moving forward. Additionally, in July 2023, we announced a revamp of our risk management system. We established a new Risk Management Committee, with responsible officers for each division serving as risk owners, creating a structure where the risks in their respective areas are discussed within the committee. This approach allows management to have a comprehensive overview of risks, identify and prioritize key Group-wide risks, visualize response measures, and integrate them into management planning systems. Incorporating ESG issues into our strategy is also part of our risk management efforts. We adopt a comprehensive risk management approach that addresses the negative aspects of risk to fulfill our corporate social responsibility and simultaneously seeks

to seize business opportunities through problem-solving, aiming to minimize threats and maximize opportunities.

Four years have passed since I took up the role of President & CEO in April 2020. I see it as my responsibility to take a sincere look back at our progress, including a review of VISION 2030, to ensure sustainable growth and enhance corporate value as we move toward our 2030 goals. Since the COVID-19 pandemic eased, I have participated in many international conferences on behalf of the Mitsui Chemicals Group, including the World Economic Forum in Davos. Engaging in discussions with some of the world’s leading companies has been a valuable opportunity, highlighting just how much work remains to be done. Running a company is, of course, not something that can be done by one person alone; rather, it is akin to *Ekiden*, or a long-distance relay race. To that end, we are making steady progress in key talent management, including succession planning. I believe that when the time comes to pass the baton, it should be done with the company already in a state of strong momentum.

The transformation toward VISION 2030 is still a work in progress. While the business environment has changed since the Vision was formulated, our overall direction remains the same. I believe that addressing challenges while staying true to our core focus of becoming a global specialty company is the key to meeting the expectations of our stakeholders.



## Feature: Solving Social Challenges through Technology Innovation

### Trajectory of transformation and challenges

1912–  
1953

#### Origin of Mitsui Chemicals

Challenge to develop Japan's first coal chemical industry

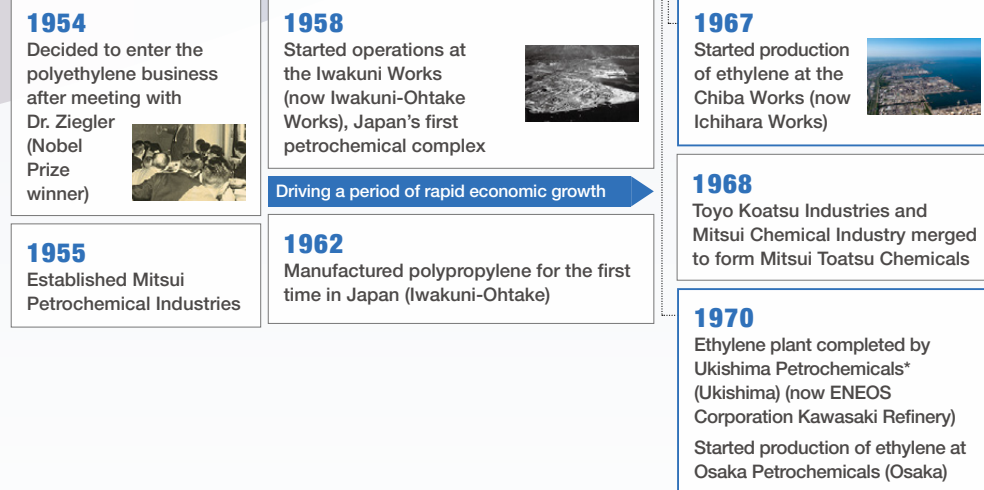
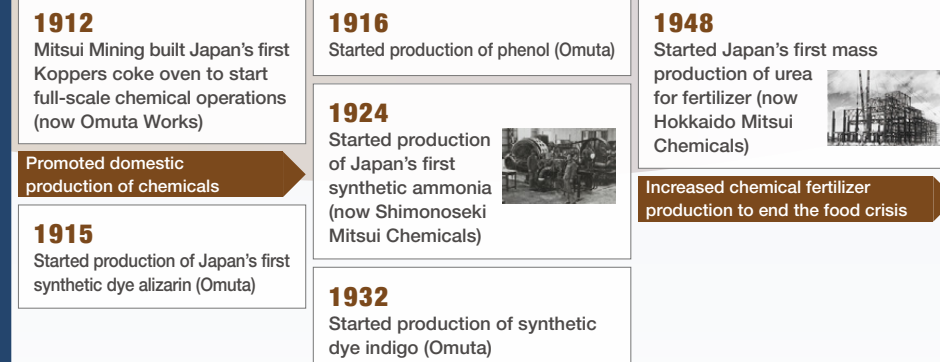
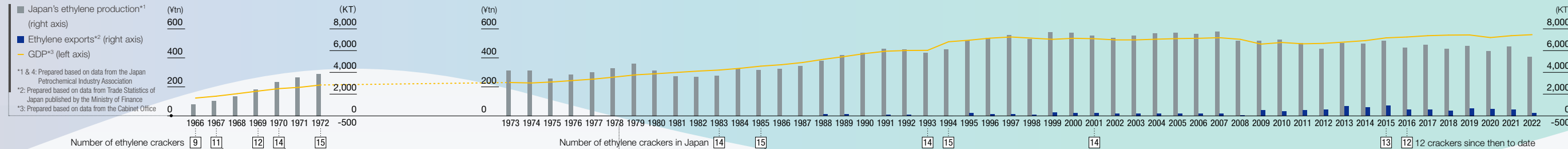
Mitsui Chemicals' coal chemical operations date back to the completion of the Koppers (by-product recovery) coke oven in Omuta in 1912. Starting with the production of chemical fertilizers from by-products that had previously been discarded, we have manufactured a variety of chemical products and responded to the cutoff of chemical imports due to the war and the postwar food crisis. As such, our history of solving social challenges is the DNA that leads to the present.

1954–  
2019

#### The Turning Point of Mitsui Chemicals

Challenge to develop Japan's first petrochemical industry

In line with the postwar energy revolution from coal to petroleum, Mitsui Chemicals was one of the first movers to adopt cutting-edge technologies in Europe and the U.S. and made a full-scale entry into the petrochemical industry. Completed in 1958, Japan's first integrated petrochemical complex supported Japan's rapid economic growth period.



#### Mitsui Chemicals Core Technologies

Precision synthesis technology derived from coal chemicals

Manufacturing process technology, the bedrock of our strong competitive advantage

Polymer material design technology and molecular design technology to meet various customer needs

## 2020– Prospects for the Future

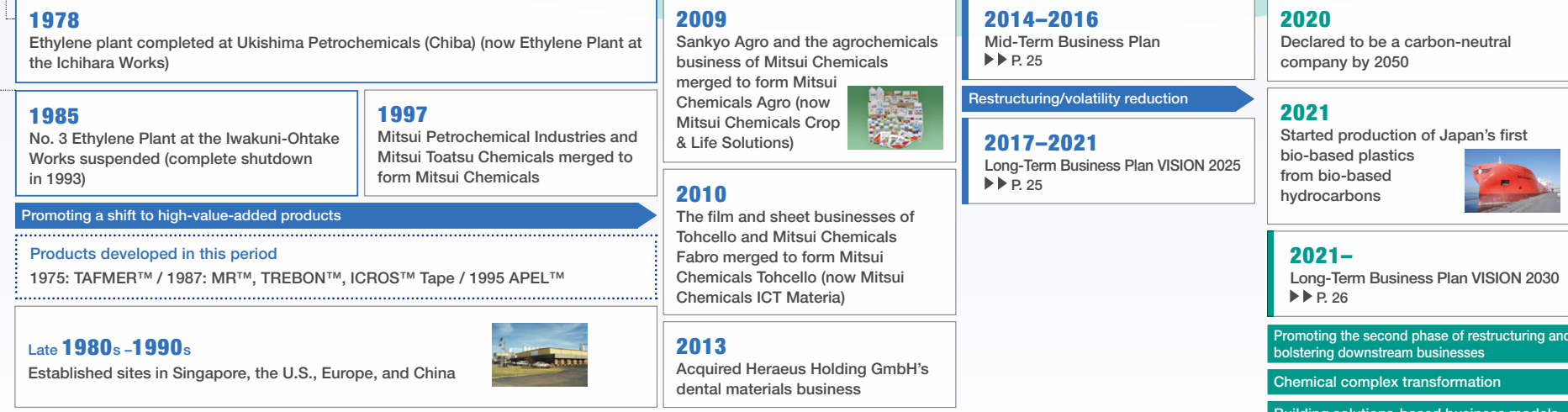
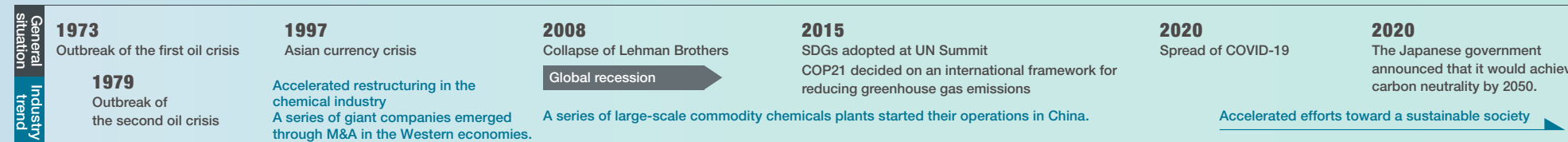
Challenges to achieve a sustainable society

The oil crisis broke out as we were steadily expanding our petrochemical business. In the course of getting through this crisis, we shifted our focus to high-value-added products and created a number of core businesses that support the Mitsui Chemicals Group today.

The chemical industry then entered an era of further intensified international competition. Following the global recession triggered by the collapse of Lehman Brothers and the launch of large-scale commodity products plants in China, the Mitsui Chemicals Group has been restructuring its business and transforming its portfolio under a new business plan.

The history of the Mitsui Chemicals Group is truly a history of solving social challenges through technology innovation, from the challenge to develop the coal chemical industry in the first generation to the shift from coal to petroleum in the second generation. Now, carbon neutrality and the circular economy are being touted as challenges for the entire planet, and we are entering a period of great change that should be called the third generation. As a first mover, the Mitsui Chemicals Group aims to contribute to a sustainable society. We will accelerate the progress through collaboration and co-creation with other companies in addition to our power of chemistry.

Currently, there are 12 crackers in Japan. The external environment is changing by the minute, including environmental changes due to the friction between the U.S. and China, inflation, and other factors, as well as changes in the domestic market structure due to oversupply resulting from capacity expansion in China. We will proceed with the second phase of restructuring by identifying derivatives in view of product competitiveness, essential demand, which also considers economic security, and capital efficiency.



Precision synthesis technology

Polymer material design technology and molecular design technology

Manufacturing process technology



## Feature: Solving Social Challenges through Technology Innovation

### Results of transformation and challenges

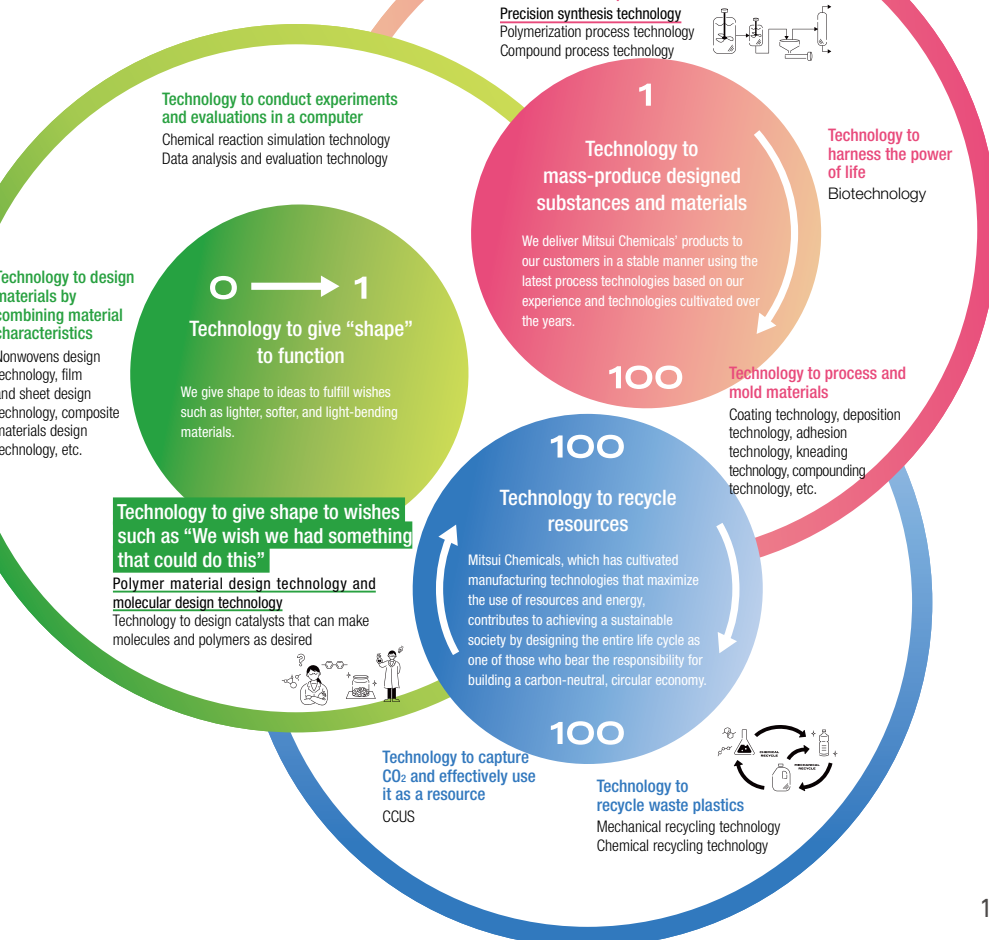
Looking back at our technology cultivated through more than 100 years of history, we have always started its development, driven by wishes, such as “We wish we had something that could do this.” We create “one” from “zero” by leveraging polymer material design technology, molecular design technology, etc., which are the strengths of the Mitsui Chemicals Group. It is an act of giving

“shape” to function that addresses the challenges faced by customers and society. We then use state-of-the-art technologies based on our accumulated experience and technologies, such as precision synthesis, processing, and molding technologies, to make it mass-produced and deliver products to society by turning “one” into “a hundred.” The highly competitive and value-added

products of the Mitsui Chemicals Group, created in this way, are highly regarded by leading companies in a range of industries and are solving social challenges in various fields.

Going forward, we will contribute to achieving a sustainable society not only by making products but also actively developing and introducing technologies to recycle them as resources.

### Technologies developed throughout our history



### Diverse products that link technology to solutions for social challenges

Main products	Main applications	Contribution to solving social challenges	Market share
MR™ (ophthalmic lens materials)	Plastic ophthalmic lens materials	Eye health management and disease prevention through improved quality of vision (QOV)	No. 1 in the world (Share: 45%)
TREBON™ (etofenprox)	Insecticides	Stable supply of safe and secure food	No. 1 in Japan
STARKLE™ (dinotefuran)			No. 2 in Japan
TAFMER™ (alpha-olefin copolymer)	Auto bumper and instrument panel materials Solar cell encapsulants	Automobile lightweighting Spread of renewable energy	No. 2 in the world No. 1 in Asia
Polypropylene compounds	Auto bumper and instrument panel materials	Automobile lightweighting	No. 2 in the world No. 2 in Asia
ICROS™ Tape	Semiconductor manufacturing process tapes	Increased functionality and efficiency of electronic equipment	No. 1 in the world
APEL™ (cyclic olefin copolymer)	Smartphone camera lens materials	Contributes to digitalization as a lens material for various IT devices	No. 1 in the world (Share: 50%+)
Pellicles	Dust covers for photomasks	Improves semiconductor productivity	No. 1 in the world

## Feature: Solving Social Challenges through Technology Innovation

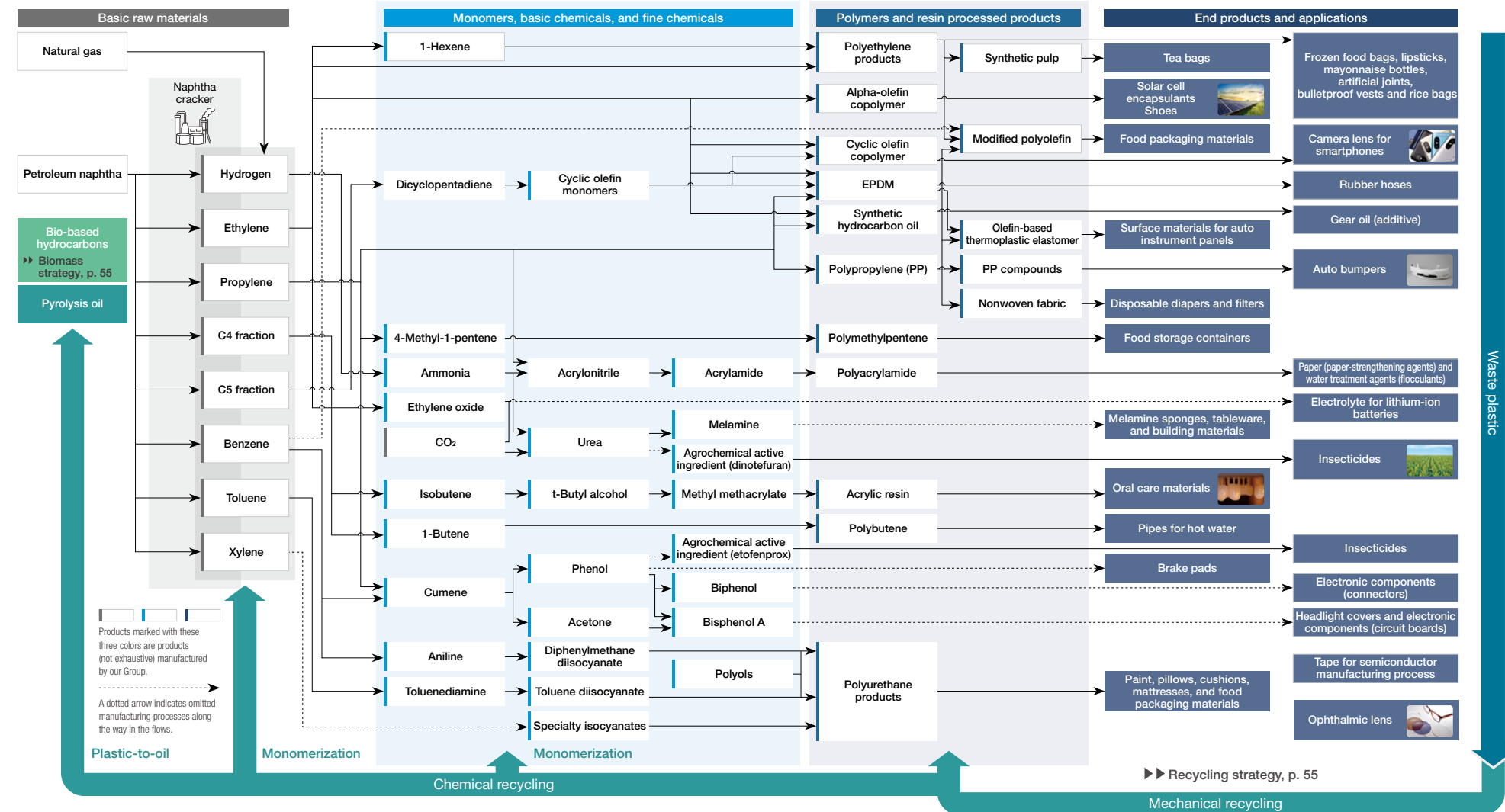
### Value created by our value chain

The Mitsui Chemicals Group currently produces various products that enrich people's lives through a product chain that starts with naphtha crackers. We are also working with our customers to solve social challenges by leveraging the extensive value chain generated from our products.

In recent years, for example, we have been working on the transformation to green chemicals, such as increasing the bio-based content and recycling rate of not only finished products but also the entire value chain, by reviewing the starting material from bio-based hydrocarbon and recycled hydrocarbon instead of

conventional petroleum naphtha.

\* This diagram illustrates partial flows from raw materials to end products as an example showing how products are derived from a cracker. It does not represent our Group's commercial flows.





## Feature: Solving Social Challenges through Technology Innovation

### Dialogue CEO x Expert

## To aim for a global specialty chemicals company with new ideas for creating new businesses in the era of great transformation

### Differentiating yourself with your own unique advantages, a broad perspective, and curiosity

**Iijima:** It took me nearly 20 years of dedicated research before I discovered carbon nanotubes. When I was doing research at university, the electron microscope technology was advancing phenomenally. It was during my tenure as a researcher at Arizona State University in 1970 that, with an electron microscope, we became able to observe atoms, which was not possible with traditional microscopes. Back then, I was observing a variety of materials out of curiosity while doing my research. From then on, the performance of electron microscopes continued to improve, finally enabling us to observe even the world of nanoparticles and eventually leading to my discovery of carbon nanotubes in 1991. Looking back, I feel that what I accumulated through my research for 20 years I had spent until the discovery was quite important.

To differentiate yourself from others in your research, it is of course important to have access to unparalleled facilities, such as ultra-high-performance electron microscopes, but what is even more important is to have a different perspective from others while maintaining your core expertise. As a specialist in electron microscopy, I had the opportunity to work with various companies and people, observing a wide variety of materials that were not necessarily my main research subjects at that time, or that others might not pay particular attention to. Each of these experiences gave me great insights into my research.

The Mitsui Chemicals Group has been striving to build a solutions-based business model and develop new businesses through efforts, such as the establishment of the New Business Incubation Center and the collaboration with various external partners including startups. This time, with Dr. Kawashima Nobuyuki, an advisor to the Corporate Sustainability Division, as an interviewer, we invited Professor Iijima Sumio, who has made various achievements in both physics and science, especially the discovery of carbon nanotubes in 1991, to discuss with CEO Hashimoto. A round-table talk themed on the creation of innovation, R&D, and new challenges was also held with the participation of young employees involved in research and development.



**Dr. IIJIMA Sumio**

University Professor, Meijo University  
Senior Research Fellow, NEC Corporation

**HASHIMOTO Osamu**

Representative Director, President & CEO

## Feature: Solving Social Challenges through Technology Innovation—CEO x Expert

Of course, you should not neglect the work and research at hand, but at the same time, I believe that gathering a wide range of information and sometimes following our curiosity may lead to what is called “serendipity” in discovery.

**Hashimoto:** You mentioned “differentiate” as a key word. Differentiation is quite an important concept in corporate activities such as ours, where business is conducted in a fiercely competitive environment. Dr. Iijima, in your case, you have differentiated yourself by observing a variety of objects outside the scope of your research while taking advantage of electron microscopy.

Currently, we have continued efforts to launch a diverse range of new businesses. As part of these efforts, we are incorporating new perspectives into our materials business, which constitute our established strength, by hiring highly specialized experts from outside our Group and collaborating with other businesses including startups. By doing so, we find out, from time to time, that we can provide solutions to new needs even with the same materials and technologies or develop new products. For instance, at the New Business Incubation Center (NBIC), we have appointed a talented individual experienced in new business development, particularly downstream in the value chain, as an executive responsible for NBIC. By combining their experience with our upstream way of thinking, which we are specialized in, and broadening our perspective, we have made progress in building new businesses.

### Data and human resources as key to unleashing creativity in an increasingly competitive environment

**Hashimoto:** Currently in the chemical industry, players in Asian countries have been advancing remarkably, causing us to gradually lose our competitive edge in materials for which our technological superiority is not fully established. Every time I travel overseas on business and see their technologies, I feel a sense of urgency. To regain our competitiveness in this

environment, it is essential to create an environment that drives creativity so we can develop new products. To create such an environment, it is important that we break down unnecessary barriers within the Group and build diverse networks, including industry-academia collaboration, rather than just maintaining the traditional division of labor that emphasizes productivity and efficiency.

**Iijima:** Looking at this from a somewhat different perspective, past data can be very useful in creating something new. As I mentioned earlier, electron microscopes have advanced remarkably over the past decades. As a result, we can now observe detailed structures that were previously invisible, even when observing the same materials. For instance, composite oxides, which are currently used in lithium batteries, were frequently the subject of my own research in the 1970s, but with the technology back then, we were unable to see the crystal structure of these materials. However, I reexamined my past observations using recent technologies. As a result, I made a new discovery and published a paper on this subject several years ago. As this is often the case, I still keep my research materials from 50 years ago. The point is technologies and materials that may not be useful right now could bring about innovation in a few decades’ time. And of course, what matters more than data is how we can make proper use of people with expertise, including their past research results.

**Hashimoto:** In the past, throughout its history, there were many cases where the Mitsui Chemicals Group discontinued research for a variety of reasons. In many of these cases, both the personnel and research data involved were scattered and lost. However, in recent years, we have been restructuring our data storage structure to preserve the data from discontinued research as an asset so that we can retrieve the data promptly whenever we need it. In fact, there have been cases where products whose development was previously suspended have captured renewed attention and are now in the pipeline for mass production or commercialization.

With regard to human resources, we have implemented Workday, a system that globally helps visualize and manage information throughout the organizations, positions, and human resources of our Group. We expect that by assigning the right human resources to the right positions and making full use of their knowledge and networks, we can create new ideas.



**Upper** IIJIMA Sumio, Ph.D.

University Professor, Meijo University; Senior Research Fellow, NEC Corporation

Dr. Iijima began his research in 1970 at Arizona State University in the United States, where he worked for 12 years, and discovered carbon nanotubes in 1991. He has been a professor at Meijo University since 1998. For his outstanding research achievements, he has received numerous national and international awards, including the Order of Culture in 2009.

**Lower left** HASHIMOTO Osamu

Representative Director, President & CEO

**Lower right** KAWASHIMA Nobuyuki, Ph.D. (Interviewer)

Advisor to the Corporate Sustainability Division  
Dr. Kawashima was engaged in the development of new businesses and products, such as bioplastics and the polylactic acid LACEA™. He subsequently served as Executive Director and Secretary General of the Chemical Society of Japan and Chairman of the Energy and Climate Change Leadership Group, the International Council of Chemical Associations. Currently, from the standpoint of an advisor to our Corporate Sustainability Division, he supports young generations who are taking on new challenges and corporate executives.



Feature: Solving Social Challenges through Technology Innovation—CEO x Expert

Round-table talk with young employees involved in research and development

Creating a better society with a mindset of enjoying science by observing closely

**Employee:** Listening to your story, I have recognized that taking on various challenges outside the box of our daily work and research activities to satisfy our curiosity, among others, will ultimately result in creative accomplishments. I also felt that it is important to have a broad perspective to identify the true needs of customers and to understand the future needs of society without being myopic about short-term results. For this purpose, I thought it was important to engage with people who have diverse interests.

**Employee:** The story about the 20 years of your research leading up to the discovery of carbon nanotubes and that your previous research decades ago can end up useful has been very inspiring. I was motivated to maintain enthusiasm and mindset to turn my daily work and research into assets. No matter how busy I am day-to-day, I would like to observe the results and data of my research from my own perspective, with as much emotional leeway as possible.



Young employees involved in research who participated in the round-table talk

**Employee:** I think you are correct in saying that even research that does not immediately lead to results may yield great outcomes in the future. We are currently in the process of further transforming and optimizing our portfolio. I feel that determining how to allocate our resources, from upstream basic research to areas close to products, will be a future issue that we should address through efforts including industry-academia collaborations. To tackle this issue, I believe it is necessary to proactively seize opportunities, such as this one to hear the ideas of academics, and to collaborate with other companies.

**Hashimoto:** It is important to constantly ask yourself questions based on curiosity and diverse experiences. For those of us who are in the field of chemistry, it is important to remain mindful that we need to address issues for future society and generations, while also meeting the current needs. Failing to do so may leave us vulnerable to environmental fluctuations.

Another important point to remember is that the experiences you have gained through all your work will never end up being useless. Just as the word “serendipity” implies, I hope that you continue to work earnestly, believing that your experiences will be useful someday somewhere.

**Iijima:** I often remind my college students that science starts with their own curiosity and by closely observing things that no one else has attempted to see. It’s important to observe things closely, not only in research, but also in life. The insights gained from such observation will eventually help solve your problem. Finally, I encourage you to enjoy science.

After the dialogue

“Don’t just look, but start with a close observation in both science and life.” These are the words that we can hear only from the person like Professor Iijima who discovered carbon nanotubes using an electron microscope as a tool by persistently observing linear materials attached to the tips of electrodes, which no one had ever paid attention to.

Through the open-minded exchange of opinions between Professor Iijima and CEO Hashimoto and the candid sharing of views by stimulated young researchers, the core message encouraging us to take on new challenges was well communicated. I have also realized that it is important to identify the real needs of society; hold our own ways of thinking and unique advantages rather than just keeping doing what you want to do out of curiosity; and make use of the experience of failure as an asset so you can encounter new themes rather than just discarding such an experience (Professor Iijima uses the data from as old as 50 years ago). Nevertheless, it is not easy to quickly take on new challenges in a rapidly evolving environment within an established framework. I hope to see organizational culture and people that embrace failure and support those who take on new challenges. I would be glad if I can see even only one or more of them will turn into reality.

Interviewer: Dr. KAWASHIMA Nobuyuki

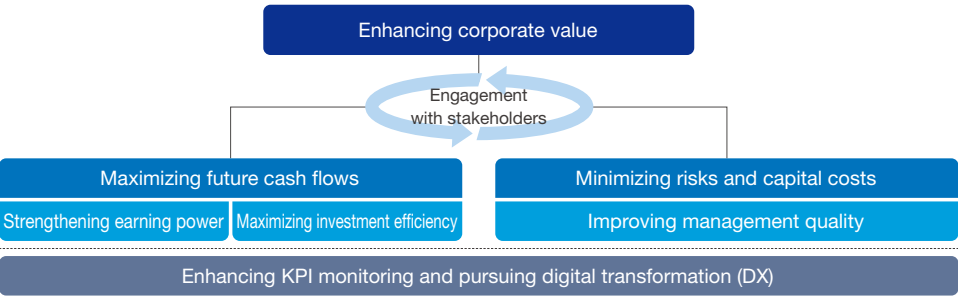
Toward enhancing corporate value

Through engagement with our stakeholders, we manage the Mitsui Chemicals Group in a way that integrates both financial and non-financial perspectives by working to enhance our corporate value based on two major axes: “maximizing future cash flows” and “minimizing risks and capital costs.”

In this section, we will introduce our value creation story that starts with our Group’s values and material topics, with a focus on VISION 2030 as a strategy for pursuing corporate value enhancement over the medium to long term.

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- 26 Long-Term Business Plan VISION 2030
- 30 **Dialogue Former and New Chief Strategy Officers (CSOs) x Analyst**
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CHAPTER — 02



\* For full diagram, see The Mitsui Chemicals Group’s Management Driven by Integrated Thinking on p. 5.



## Our Values

### Corporate Mission

Contribute broadly to society by providing high-quality products and services to customers through innovation and the creation of materials, while keeping in harmony with the global environment



### Corporate Target

To be a corporate group that continues to grow by solving social challenges and creating diverse value with the power of chemistry

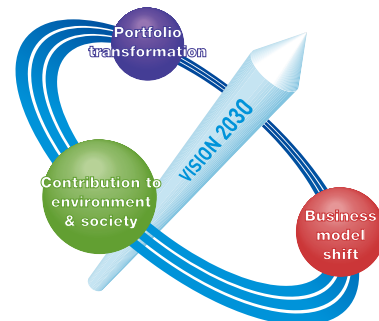
When establishing our new Long-Term Business Plan, VISION 2030, we revised our Corporate Target for the next 15 to 20 years. With this revision, we return once again to our purpose of solving challenges faced by society, and redefine our direction going forward.

Tackling a wide range of social challenges arising from accelerating environmental changes, we will continuously provide solutions making full use of the power of chemistry—the very thing that allows us to create diverse value.

### Our Ideal Vision for 2030

## Chemistry for a Sustainable World

A global solutions company that leads change and contributes to a sustainable future  
Mitsui Chemicals



Corporate Mission & Future Vision  
<https://jp.mitsuichemicals.com/en/corporate/management/index.htm>

## Our Values

### Action Guidelines and Core Values

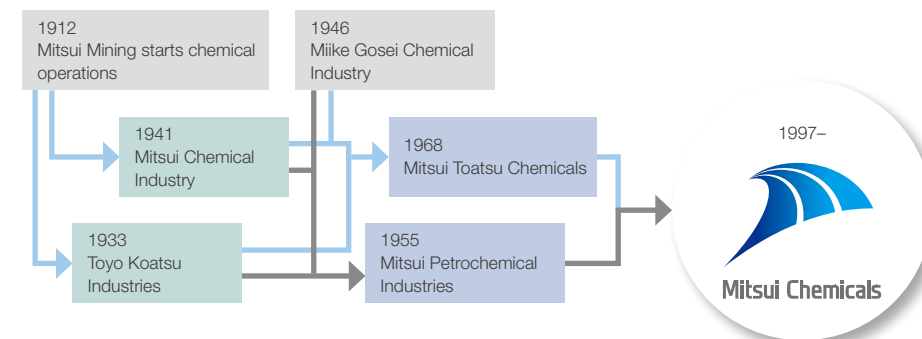
Action guidelines for realizing the sustainable development of society and the company through efforts to contribute to stakeholders

The three pillars of the Action Guidelines are: “Always in good faith,” “For people and society,” and “Dream-inspiring innovation.” “Always in good faith” forms the basic premise of our corporate existence. Meanwhile, “For people and society” represents our attitude of respecting all stakeholders. “Dream-inspiring innovation” was formulated based on the infinite possibilities of chemistry, which can create something out of nothing, and the voices of our employees who wish to make the Mitsui Chemicals Group a company with hopes and dreams, and one that they can be proud of.



### Mitsui Chemicals’ core values etched in history Challenge, Diversity, and One Team

The core values of the Mitsui Chemicals today were shaped by our history going back to the coal chemical business of Mitsui Mining in 1912, where multiple companies joined forces to pursue solutions to social challenges through various chemical businesses.



### Ideal Future Society

We have defined the ideal future society as “a circular society in harmony with the environment,” “a comfortable society in which people can enjoy healthy lives and well-being,” and “an inclusive society creating diverse value.”

In order to realize such a society, we have identified material topics that should be addressed, and incorporated them into the Basic Strategy of VISION 2030.



#### A circular society in harmony with the environment

Based on our Corporate Mission of keeping in “harmony with the global environment,” we aim to realize “a circular society in harmony with the environment” through the provision of products and services that contribute to reducing environmental impact and effectively utilizing resources.



#### A comfortable society in which people can enjoy healthy lives and well-being

Based on “Promoting human well-being,” one of the five social contribution areas of our Corporate Mission, we aim to realize a “a comfortable society in which people can enjoy healthy lives and well-being,” through the provision of products and services that contribute to improving the health, well-being, and comfort in the lives of the people from all walks of life, even in the face of various changes in the environment.

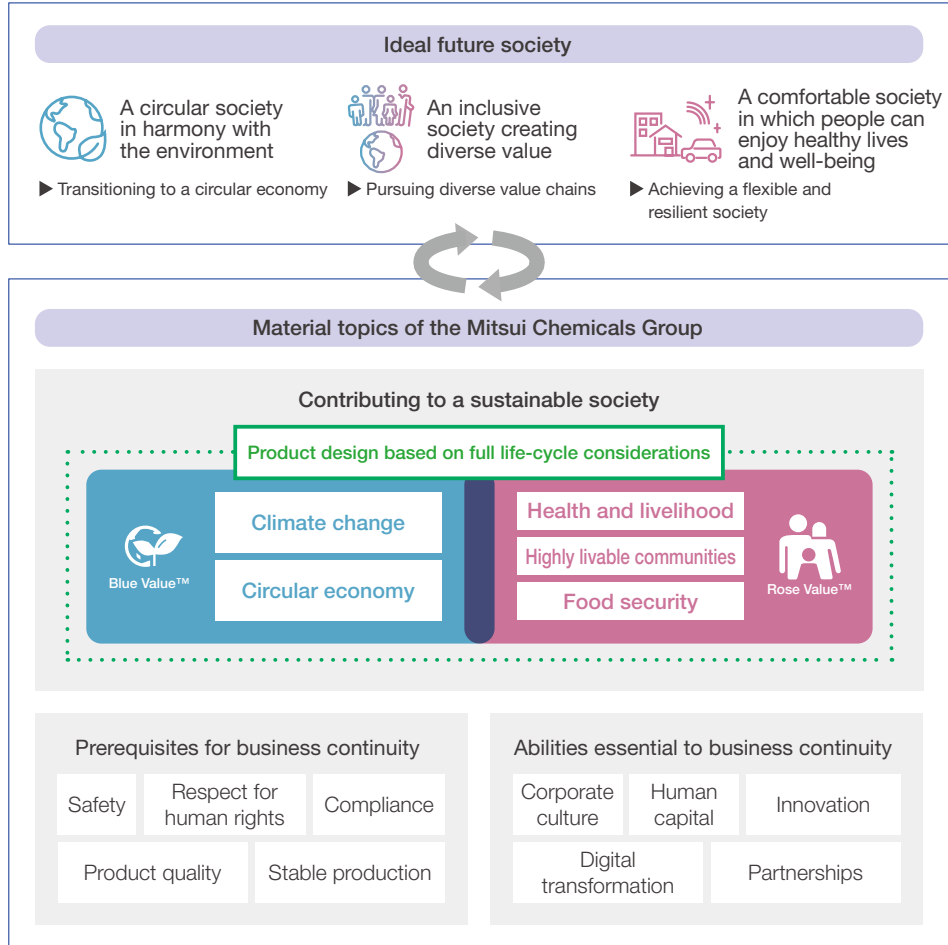


#### An inclusive society creating diverse value

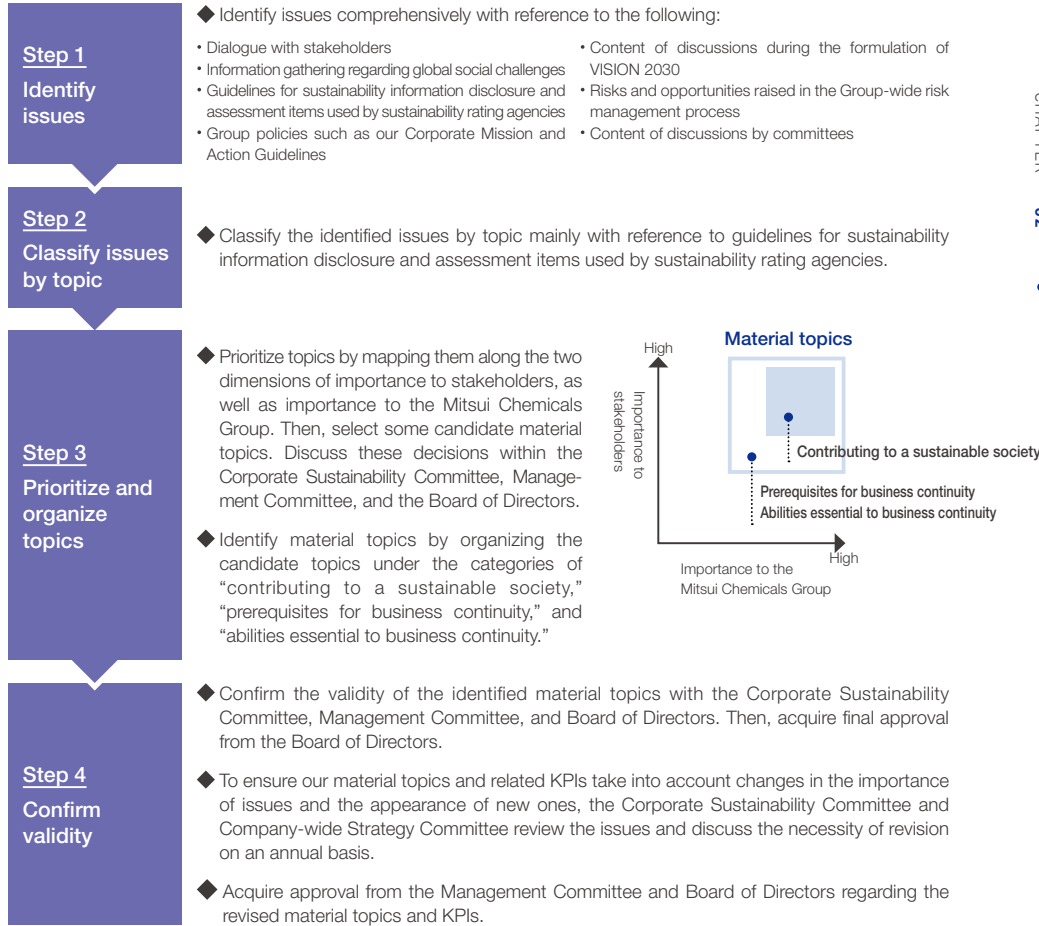
In order to fulfill our mission of “contributing to society through innovation and the creation of materials,” as set forth in our Corporate Mission, we will create new value by sparking chain reactions through recognizing and utilizing diversity, the source of innovation, thereby aiming to realize “an inclusive society creating diverse value.”

# Material Topics

In VISION 2030, the Mitsui Chemicals Group identified the topics material to our business in order to achieve its ideal future society redefined from the standpoints of transitioning to a circular economy, pursuing diverse value chains, and achieving a flexible and resilient society. These material topics are the premise of our Basic Strategy for VISION 2030. We will also monitor key performance indicators (KPIs) related to our material topics as non-financial metrics for VISION 2030, and will ensure that they translate into steady improvement of our corporate value. (For more information on non-financial metrics, ▶▶ P. 28)



## Our materiality process



# Material Topics

## Contributing to a sustainable society

	Issues	Challenges
Product design based on full life-cycle considerations	Due to the intricately intertwined nature of social challenges, we need to adopt a big-picture approach when tackling them. Therefore, our business activities need to take into account the environment and society throughout the entire product life cycle, from raw material procurement, processing, and usage, to disposal and recycling.	The Mitsui Chemicals Group aims to capture new business opportunities and help solve social challenges by cooperating with industry, government, and academia, and by designing businesses that recognize and consider the impact on the environment and society throughout the full product life cycle.
Climate change	<p><b>Issues</b></p> <p>In order to achieve the globally shared long-term goals set forth in the Paris Agreement, the realization of carbon neutrality throughout society is imperative, and efforts to achieve a decarbonized society (climate change mitigation) must be accelerated. There is also a need to adapt to environmental changes, such as the intensification of natural disasters caused by climate change.</p> <p><b>Challenges</b></p> <p>We aim to achieve carbon neutrality by 2050, by reducing greenhouse gas (GHG) emissions within our Group, and working to decarbonize the entire value chain, including all products and services. Furthermore, in order to respond to storms, flooding and droughts, which are expected to increase due to climate change, we will conduct water risk assessments, and strive to use water resources appropriately and preserve the water environment.</p>	<ul style="list-style-type: none"> <li>Shift to EVs, renewable energies becoming mainstream</li> <li>Transition to renewable raw materials</li> <li>Increased demand for low-carbon and decarbonized products and technologies</li> <li>Increased demand for products that support disaster prevention/mitigation, infection control, etc.</li> <li>Tightening of regulations such as restrictions on GHG emissions and carbon taxes</li> <li>Decreased demand for products with high environmental impact</li> <li>Shortage and depletion of water resources</li> <li>Damage to production sites from storms and flooding</li> <li>Supply chain interruptions</li> </ul>
Circular economy	<p><b>Issues</b></p> <p>As the world's population grows and global economic activity increases, conventional linear economic activities, based on the premise of mass consumption and disposal of resources, are placing a heavy burden on the global environment. In addition, the garbage problem caused by improper disposal of waste has led to the loss of natural capital. Cooperative and collaborative efforts are required across society as a whole, in order to facilitate the transition to and strengthen support for a “circular economy,” which enables greater environmental and social sustainability.</p> <p><b>Challenges</b></p> <p>We are working to enlarge and widen the circle of the circular economy through the development of new materials, recycling systems, and value chains, in order to expand our product lineup of bio-based chemicals and bio-based plastics, promote their usage across society, and accelerate the recycling of plastic resources.</p>	<ul style="list-style-type: none"> <li>Expansion of solutions business that take an ecosystem perspective</li> <li>Increased demand for resource conservation and recycling technologies</li> <li>Increased importance of traceability throughout the product life cycle</li> <li>Tightening of regulations on use of single-use plastics and decreased demand for plastics</li> <li>Tightening of regulations/international standards related to natural capital</li> <li>Increased litigation arising from extended producer responsibility, etc.</li> <li>Reputational damage due to shift in consumer sentiment</li> </ul>

🌐🌐 Opportunities ●● Risks (Examples)

Health and livelihood	<p><b>Issues</b></p> <p>Health is a fundamental human right, and good health forms the basis of social activities. Therefore, efforts are needed to create a society where each and every person can lead a fulfilling life.</p> <p><b>Challenges</b></p> <p>We aim to support the realization of well-being by providing products and services that contribute to universal health coverage*, including vision care, dental care, medical supplies, hygiene products, and universal design products.</p> <p>* Universal health coverage: All people can access appropriate health promotion, prevention, treatment, and rehabilitation services at an affordable cost.</p>	<ul style="list-style-type: none"> <li>Increased demand for products in mobility, medical equipment, pharmaceutical packaging materials, ICT fields, and residential construction materials in line with growing demand for healthier and more affluent lifestyles for all</li> <li>Increased demand for services/products that support participation in society by all people regardless of age, gender, race, disability, etc.</li> <li>Growing needs for comfortable and safe lifestyles and support for pre-symptomatic illness, in addition to measures concerning illness and health</li> <li>Increased demand for products that improve hygiene and prevent the occurrence and spread of infectious diseases</li> <li>Uncertainty in the VUCA era</li> <li>Increased litigation in the health care and medical sectors</li> </ul>
Highly livable communities	<p><b>Issues</b></p> <p>In order to continue providing a sense of safety and security in people's lives, there is a need to develop communities that are durable, adaptable, and able to respond to changes in the natural environment and the population structure.</p> <p><b>Challenges</b></p> <p>We aim to contribute to the building of resilient communities that can flexibly respond to any type of change, by expanding our lineup of products and services that contribute to disaster prevention and mitigation, the extension of infrastructure lifespan, and the strengthening of networks.</p>	<ul style="list-style-type: none"> <li>Increased demand for smart and resilient community development in accordance with population size (community ICT/infrastructure improvements)</li> <li>Increased demand for products that support disaster prevention/mitigation, etc.</li> <li>Recruitment and training of personnel for an advanced ICT society</li> </ul>
Food security	<p><b>Issues</b></p> <p>Food shortages due to poor harvests and supply chain disruptions, which are caused by climate change and international conflicts, have become a social issue. Furthermore, particularly in developed countries, there is a need to address food loss and food waste that occur in supply chains and households.</p> <p><b>Challenges</b></p> <p>We are working to innovate agrochemicals and agricultural technology, as well as to improve food packaging products. By improving food productivity and ensuring safety and stability in food distribution, we aim to contribute to the reduction of food loss and food waste, and to the assurance of food security*.</p> <p>* Food security: A state in which all people have physical and economic access to sufficient, safe, and nutritious food at all times</p>	<ul style="list-style-type: none"> <li>Response to improvement of food preservation/distribution technologies (cold supply chains, etc.)</li> <li>Increased demand for products and services that contribute to stable production and supply of food, as well as to reduced burden on workers</li> <li>Development of new technologies and expansion into new markets through collaboration with food and beverage manufacturers</li> <li>Increased demand for packaging containers that contribute to reduced food loss/food waste</li> <li>Tightening of regulations on agrochemicals and food packaging materials</li> </ul>



## History of Our Business Portfolio Transformation

### Concentrating on growth domains

The Mitsui Chemicals Group has formulated its mid-term\* and long-term business plans based on a clear understanding of changes in the internal and external environment and the social challenges it should help address through its business activities. We have steadily pursued strategies toward these goals and continued to grow our business.

Following a period that reported net loss in three consecutive years (fiscal 2011 through 2013), the Group developed strategies for each business so that it could

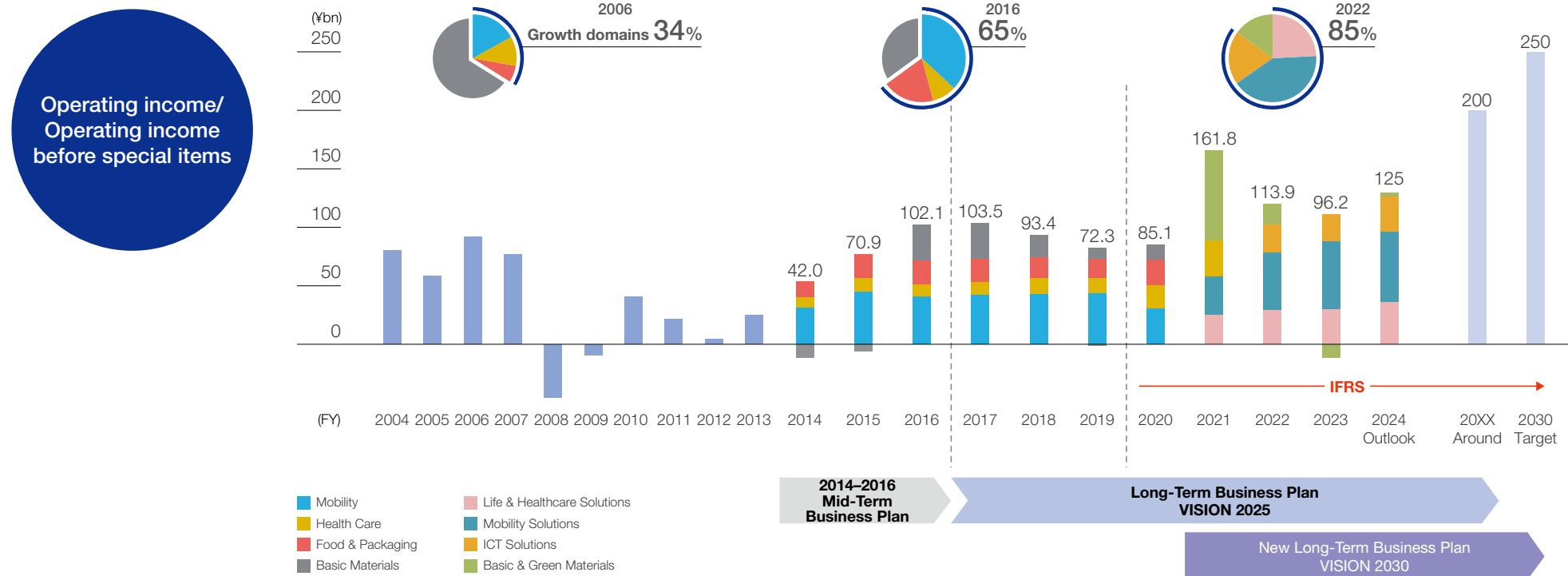
achieve growth in fiscal 2014 and onward in areas of higher specialization that would be less susceptible to market environments. Since then, the entire Group has made concerted efforts to propel restructuring in the commodities field and drive Group-wide portfolio transformations.

Conditions remained grueling in fiscal 2016 through 2020, but the Group pressed on with further measures. Working toward their targets, our businesses tirelessly drove expansion and strove for profit growth. Such efforts

paid off with the operating income before special items of growth domains increasing from 71.4 billion yen in fiscal 2016 to 110.1 billion yen in fiscal 2023.

Determined to maintain that momentum, we will continue to pursue the business portfolio transformations in hopes of rolling out a social issue perspective in all of our businesses and achieving growth by expanding and deep diving into our business domains.

\* Instead of formulating mid-term business plans, we now review strategies on an annual, rolling basis to revise our business plans for the next three years.



## History of Our Business Portfolio Transformation

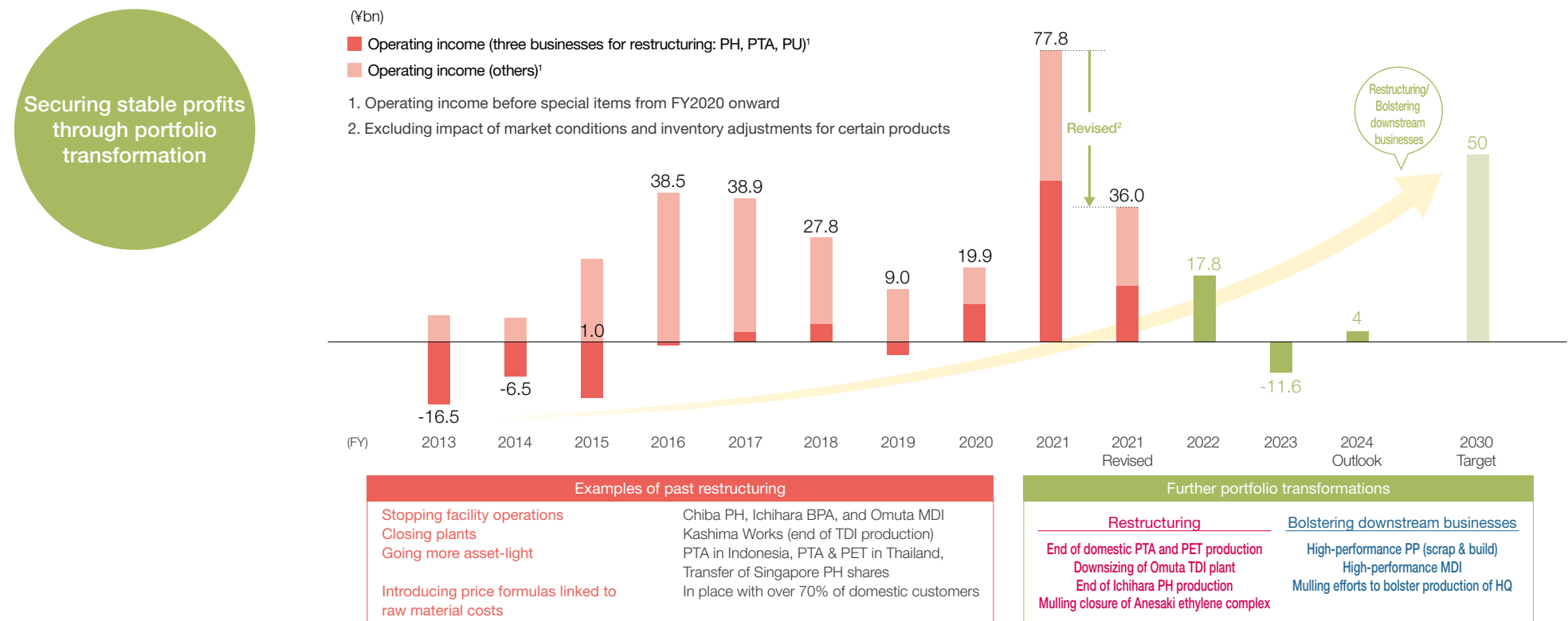
### Structural reforms in the Basic & Green Materials business

We have implemented bold business restructuring by closing and downsizing plants, or stopping facility operations, for commodity product businesses with high export ratios like phenols, purified terephthalic acid, and polyurethane materials through portfolio transformations, thereby securing stable profits.

In addition, we have introduced a formula method to

automatically link changes in raw material costs to product prices in an effort to improve our resilience against fluctuations in market prices. As a result, our performance volatility in the basic materials field has improved dramatically. Going forward, we will further strengthen our measures to restructure and downsize low-profitability businesses and optimize cracker capacity in line with demand so that we can

propel progress on further restructuring through enhancing our competitiveness at petrochemical complexes, thereby improving our capital efficiency. We will also continue to promote a shift toward green chemicals as we work to lead a Group-wide circular economy revolution.



## History of Business Plans

### 2014–2016 Mid-Term Business Plan

#### Basic Strategy

- Completing the restructuring of the bulk and commodity product businesses
- Expanding earnings by recouping growth investments
- Concentrating management resources in targeted business domains
- Accelerating the creation of new business and products
- Improving and strengthening the Group's financial structure

#### Review

- Operating income in three target domains: Increased 52% over the three-year period from FY2014 to FY2016
- Basic Materials segment: Implemented structural reform such as the withdrawal from Keiyo Ethylene

#### Main KPIs and achievement status

	Achievement status	2016	2016 Targets
Operating income	Achieved	¥102.1bn	¥60bn
Net income	Achieved	¥64.8bn	¥30bn
Net sales from new businesses/products*	Not achieved	¥75.0bn	¥100bn

\* Total net sales from new businesses/new products launched from 2012 to 2016

#### Issues identified

- Target for net sales from new businesses and products for the period not achieved due to delays in their development
- Further portfolio transformation and reduction in the volatility of the Basic Materials business

### Long-Term Business Plan VISION 2025

#### Basic Strategy

- Pursuing innovation (shift to a customer-driven business model)
- Accelerating global expansion
- Strengthening the competitiveness of existing business

#### Review

- Three target domains: Profit levels have remained largely unchanged at around 73 billion yen since FY2017.
- Promoting restructuring efforts made the Basic Materials business segment less volatile.

#### Main KPIs and achievement status

	2017	2020	2025 Targets
Operating income/Operating income before special items	¥103.5bn	¥85.1bn	¥200bn
Net sales	¥1,328.5bn	¥1,211.7bn	¥2,000bn
ROE	14.9%	10.2%	10% or more
Net D/E	0.75	0.60	0.8 or less
Blue Value™ products sales revenue ratio	17%	15%	30%
Rose Value™ products sales revenue ratio	14%	19%	30%

#### Issues identified

- Still only partway through our portfolio transformation, and need to further increase resilience against market fluctuations
- Need to further accelerate the implementation of our growth investments in line with changes in the business environment

### Long-Term Business Plan VISION 2030

#### Basic Strategy

- Pursuing business portfolio transformation
- Building solutions-based business models
- Bolstering circular economy initiatives
- Achieving corporate transformation through digital transformation
- Accelerating management and business transformation

#### Review of the past three years

- Growth domains: Despite a steady growth, the pace of growth slowed down under harsh business environments.
- Basic & Green Materials: Substantial progress was made with the first phase of business restructuring. However, demand was on the downturn over the medium to long term due to structural changes in the market.

#### Main KPIs and achievement status

	2021	2022	2023	2030 Targets
Operating income before special items	¥161.8bn	¥113.9bn	¥96.2bn	¥250bn
Net income attributable to owners of the parent	¥110.0bn	¥82.9bn	¥50.0bn	¥140bn
ROE	16.7%	11.1%	6.1%	10% or more
ROIC	8.7%	5.4%	4.1%	8.0% or more
Net D/E	0.75	0.77	0.69	0.8 or less
Total return ratio	30.3%	39.8%	53.2%	30.0% or more

#### Issues identified

- Growth domains: Need to further accelerate the pace of growth
- Basic & Green Materials: Need to further reduce volatility to stabilize and bolster profit, as well as improve capital efficiency

## Long-Term Business Plan VISION 2030

In 2021, we at the Mitsui Chemicals Group formulated a new Long-Term Business Plan VISION 2030, looking 10 years ahead to 2030 in light of the significant changes that were occurring in the external environment and the limitations of the growth strategy that became apparent in the internal environment. Returning once again to our purpose of solving challenges faced by society, the Mitsui Chemicals Group will make full use of the power of chemistry—the very thing that allows us to create diverse value—to tackle a wide range of social challenges that arise in the face of accelerating environmental change. Aiming to become a corporate group that continuously provides solutions to these challenges, we will endeavor to make Group-wide efforts.

### Business targets

Financial metrics	Operating income before special items ¥250 <sub>bn</sub>		Net income attributable to owners of the parent ¥140 <sub>bn</sub>	
	ROIC 8.0% or more	Net D/E 0.8 or less		ROE 10% or more
Non-financial metrics*	Blue Value™ products sales revenue ratio 40% or more	Rose Value™ products sales revenue ratio 40% or more		GHG emissions reduction rate (Scopes 1 and 2) 40% *compared to FY2013
Shareholder returns	DOE: 3.0% or more; Total return ratio: 30% or more			
Allocation of investment resources	Growth investments: ¥1,800 <sub>bn</sub> (10-year period)			
	Strategic investments: ¥900 <sub>bn</sub>		Internal growth investments: ¥900 <sub>bn</sub>	

\* For the entire list of the non-financial metrics, ▶▶ **Numeric targets for VISION 2030 and the status of their progress, p. 28**

### Corporate Vision

Corporate Mission
Contribute broadly to society by providing high-quality products and services to customers through innovation and the creation of materials, while keeping in harmony with the global environment
Corporate Target
To be a corporate group that continues to grow by solving social challenges and creating diverse value with the power of chemistry

### Material topics

In light of megatrends as well as the internal and external environments we face, we have defined our ideal future society—a vision of society the Mitsui Chemicals Group aims to realize by contributing to solving potential environmental and social challenges—as a circular society in harmony with the environment, an inclusive society creating diverse value, and a comfortable society in which people can enjoy healthy lives and well-being.

To bring about the sort of future society mentioned above, we have identified a number of areas in which the Mitsui Chemicals Group should contribute, as well as pre-requisites and essential abilities needed to make these contributions, as our revised material topics. These material topics will be embedded in our Long-Term Business Plan, including in the plan's Basic Strategy, as we endeavor to achieve our goals.

▶▶ **Material Topics, p. 21**



Long-Term Business Plan VISION 2030

Our ideal vision for 2030

As we head toward 2030—a checkpoint for our Corporate Target—we are looking to confront the rapidly changing social environment and social challenges before us in a head-on manner. To this end, we have created a vision for realizing our new growth strategies based on the transformation we are pursuing as a company, with the ideal vision we have for the Mitsui Chemicals Group in 2030 defined as shown below.



STRATEGY Initiatives for fiscal 2024

- **Revise the strategy and timing for meeting the target of reaching 200 billion yen in operating income before special items, which is a checkpoint for achieving our 2030 goals**
- **Implement strategies based on the basic policies laid out below in a speedy fashion to return to a growth path without delay**
- Based on the awareness that our business portfolio transformation is still a work in progress, we will revise our strategy to accelerate the slowing pace of growth in our growth domains, and will also aim to further reduce volatility by accelerating the second phase of Basic & Green Materials business restructuring. This will include establishing an optimized production setup at our crackers, among other efforts.
- We will implement thorough cash flow management to prepare for growing uncertainty posed by geopolitical risk and sudden changes in the business environment.
- We will press on with effective KPI management based on both financial and non-financial perspectives, using these metrics to drive increases in corporate value.
- To swiftly implement our carbon neutrality initiatives in society, we will expand and speed up regional and multi-company collaborations as a first mover.
- We will strengthen our business foundations by pursuing digital transformation and work style reform.
- We will further boost shareholder returns in line with the rise in profit levels and also raise the level of ROE. In addition, we will move toward an asset-light structure not only in Basic & Green Materials, but also throughout the Group, and will aim for additional improvements in capital efficiency.

Basic Strategy

STRATEGY 01		Pursuing business portfolio transformation	<ul style="list-style-type: none"><li>• Rolling out a social issue perspective in all of our businesses</li><li>• Achieving growth by expanding and fleshing out our business domains</li><li>• Accelerating structural reform of our existing businesses and transforming businesses with a focus on green materials</li></ul>
STRATEGY 02		Building solutions-based business models	<ul style="list-style-type: none"><li>• Creating new businesses by bolstering our business design capabilities</li><li>• Pursuing cross-organizational ties and strengthening cross-company partnerships</li></ul>
STRATEGY 03		Bolstering circular economy initiatives	<ul style="list-style-type: none"><li>• Building circular economy-based business models for all of our businesses</li><li>• Rolling out circular economy-compatible products by transitioning to alternative raw materials and fuels</li><li>• Developing and acquiring foundational technologies able to contribute to carbon neutrality</li></ul>
STRATEGY 04		Achieving corporate transformation through digital transformation	<ul style="list-style-type: none"><li>• Applying digital transformation throughout our entire Group and all business domains</li><li>• Creating value by way of business-wide transformation spanning research, production, sales and supply chains</li></ul>
STRATEGY 05		Accelerating management and business transformation	<ul style="list-style-type: none"><li>• Popularizing a committed, eager attitude</li><li>• Improving engagement to bolster our organizational strength and transform our corporate culture</li><li>• Combining safe, secure operations with improved competitiveness at all our bases around the world</li><li>• Building sustainable supply chains</li></ul>

Long-Term Business Plan VISION 2030

Numeric targets for VISION 2030 and the status of their progress

	FY2023 Results	2024 Outlook	20XX Around	2030 Targets
Operating income before special items	¥96.2bn	¥125bn	¥200bn	¥250bn
Net income attributable to owners of the parent	¥50.0bn	¥73bn	¥110bn	¥140bn
ROE	6.1%	8.3%	10% or more	10% or more
ROIC	4.1%	4.9%	7.0% or more	8.0% or more
Net D/E	0.69	0.73	0.8 or less	0.8 or less
Total return ratio	53.2%	30.0% or more	30.0% or more	30.0% or more

Material topics		Non-financial KPIs		FY2023 Results	2024 Outlook	2030 Targets	Responsible executive officer
• Climate change • Circular economy • Health and livelihood • Highly livable communities • Food security • Product design based on full life-cycle considerations	Blue Value™ products sales revenue ratio			24%	26%	40%	ICHIMURA Satoshi Responsible officer for Corporate Sustainability Division
	Rose Value™ products sales revenue ratio			24%	26%	40%	
	GHG emissions reduction rate (Scopes 1 and 2) *compared to FY2013			25%	27%	40%	YOSHINO Tadashi Responsible officer for Carbon Neutral Strategy
• Safety	Incidence of major accidents & serious occupational injuries			Zero	Zero	Zero (over the course of VISION 2030)	OKADA Kazunari Center Executive, Production & Technology Center
• Respect for human rights	Response to human rights risks			· Implemented human rights due diligence (on-site assessments overseas) · Established in-house working group	Implementation of human rights due diligence (reorganization of the risk assessment process)	Identification & correction of risks by setting up a human rights due diligence system for all of our bases, both domestic and abroad	ICHIMURA Satoshi Responsible officer for Corporate Sustainability Division
• Compliance	Incidence of major legal and regulatory violations			2 cases	Zero	Zero (over the course of VISION 2030)	NAKAJIMA Hajime Responsible officer for Corporate Administration & Legal Division
• Product quality	Incidence of PL accidents & serious product quality incidents			Zero	Zero	Zero (over the course of VISION 2030)	YOSHINO Tadashi Responsible officer for RC & Quality Assurance Division
• Stable production	Production and equipment reliability			Advanced production technologies implemented: 14 instances	No. of problems involving high-value losses: 8 or less	No. of problems involving high-value losses: Zero	OKADA Kazunari Center Executive, Production & Technology Center
• Corporate culture	Improvement of employee engagement Engagement score			36%	38% or more	50%	ANDOU Yoshinori Chief Human Resources Officer
• Human capital	Key talent management Successor coverage rate for critical positions			220%	235% or more	250%	
	Diversity • Number of executive officers with diverse backgrounds (women, non-Japanese, mid-career hires) * Mitsui Chemicals, Inc. • Ratio of women in management positions (manager-level or above) * Mitsui Chemicals, Inc.			· Diversity rate of future executives: 18.5%  · 6%	· Diversity rate of future executives: 20% or more  · 7% or more	· 10 or more (including at least 3 women)  · 15%	
	Health-focused management • Average rate of lifestyle-related disease * Mitsui Chemicals, Inc. • Frequency of absences from work due to mental health disorders * Mitsui Chemicals, Inc.			· 9.96% · 0.69	· Less than 9.50% · Less than 0.55	· 8.0% or less · 0.25	
• Digital transformation	Training of DX specialists Number of data scientists			72	120 or more	165 (by FY2025)	SAMBE Masao Chief Digital Officer
• Innovation	Pipeline expansion Number of development themes in the latter half of our Stage Gate System			Stage 1 themes registered: 48	Percentage advanced to preliminary market development stage: 20% or more	Double or more (vs. FY2020)	SHIBATA Shingo Center Executive, R&D Center
	Value creation for beyond 2030 Number of new areas of development at our Frontier Technology Center			3 candidates	R&D themes: 5 or more	3 or more areas	
• Partnerships	Sustainable procurement ratio			Promotion of sustainable procurement Opinion exchange held with partners to build shared vision: 16 companies	Dissemination to partners Briefings to explain procurement guidelines to key partners in each domain: 8 or more companies	80%	SAMBE Masao Chief Digital Officer

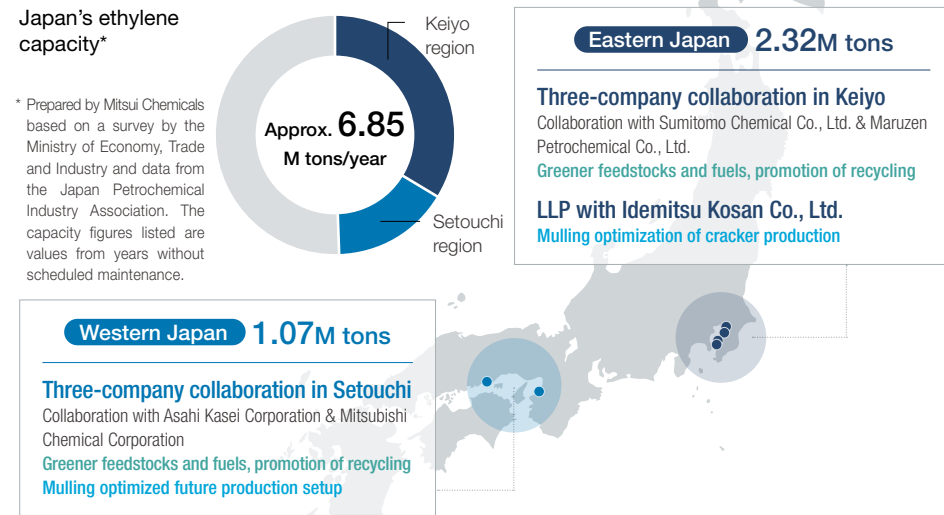
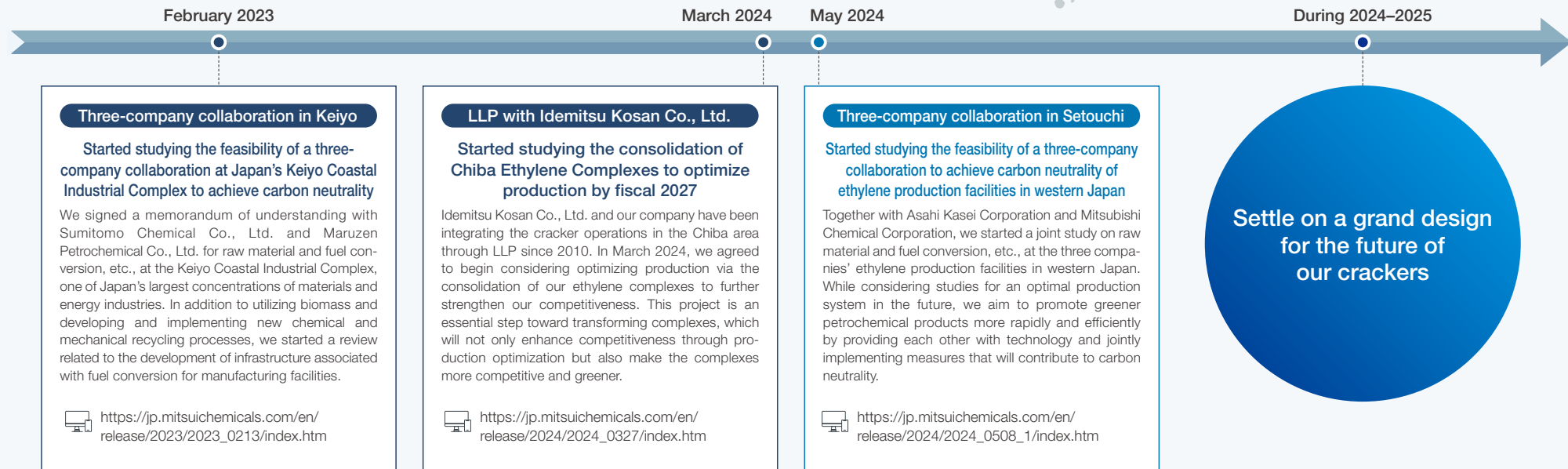
## Long-Term Business Plan VISION 2030

### Strategic focus: Chemical complex transformation

Japan has 12 ethylene production facilities (“crackers”) with an ethylene capacity of approximately 6.85 million tons per year. The Japanese cracker industry continues to operate at a low rate due to the opening of large new additional petrochemical complexes, mainly in China, and the diminishing domestic ethylene demand. The Mitsui Chemicals Group owns two crackers, one in eastern Japan (Chiba Prefecture) and one in western Japan (Osaka Prefecture).

We aim to get ahead of the rest of the world by building new carbon-neutral crackers through regional and multi-company collaborations while also speeding up the shift to the green chemicals business. By building carbon-neutral crackers, we aim to (i) ensure the fulfillment of our carbon neutrality declaration, (ii) pursue green chemicals right from crackers at the upstream of the chain, and (iii) optimize facilities and production to build competitive crackers, and will steadily promote these efforts. Through these efforts, we look to settle on a grand design for the future of our crackers during 2024–2025.

### Progress in regional and multi-company collaborations



## Long-Term Business Plan VISION 2030

### Dialogue Former and New Chief Strategy Officers (CSOs) x Analyst

### Enhancing corporate value by realizing transformation and translating our strengths into profits

On the occasion of the third anniversary of the launch of VISION 2030, we invited Mr. YAMADA Mikiya, an analyst at Mizuho Securities Co., Ltd., and held a candid discussion with the current and former CSOs about the results we have made so far and challenges that have emerged as we have worked to implement initiatives in line with the five-pronged Basic Strategy in the face of various changes in the internal and external environment.



### What it takes to ensure the achievement of VISION 2030

**Yamada:** First of all, I would like to ask you about the progress of the Long-Term Business Plan VISION 2030. Looking back over the past three years, how have you been propelling your efforts to solve social challenges and create diverse value with the power of chemistry, as stated in the Corporate Target?

**Izawa:** Although we are currently behind our desired pace in terms of the earnings target, we believe that we have made significant progress over the past three years in our Basic Strategy, which includes transforming our business portfolio and building

solutions-based business models. All of our growth domains have been consistently growing, and new business development, which is led by the solution teams at each sector and the New Business Incubation Center (NBIC), has also been going strong. In particular, I feel that awareness of the need to transition from our conventional materials supply business to a solutions business is steadily spreading throughout the company.

**Ichimura:** The Mitsui Chemicals Group had been solving customers' problems even before we began to pursue a solutions-based business model. In many cases, the materials we offer are absolutely essential for our customers' products. In the past, however,

we were not fully aware of our customers' issues or the problem-solving capabilities of our products. As a result, we were only providing materials with physical properties that our customers requested, and we were unable to develop into a solutions-based business. Currently, we are in the process of deepening our understanding of our products and customers more than ever before and changing our sales approach to propose our own solutions. In other words, we are shifting from being a material provider to a solution provider. To this end, we are accelerating collaboration with startups and other initiatives, which I believe are necessary to deepen our knowledge and expertise in areas further downstream.



## Long-Term Business Plan VISION 2030—Former and New Chief Strategy Officers (CSOs) x Analyst



Mr. YAMADA Mikiya

At Dow Chemical Japan, worked in research and development and also served in posts including general manager of financial affairs and financial planning manager for Dow's Pacific region. Held positions at Goldman Sachs Japan Co., JPMorgan Securities Japan Co., Ltd., Lehman Brothers Japan Inc., Barclays Securities Japan Limited, and other firms before joining Mizuho Securities in 2016. Currently covers a wide range of analysis activities in the chemicals, fiber, and textiles areas. Ranked first in the Nikkei Veritas Analyst Rankings in the chemicals/textiles category for five straight years (from 2019 to 2023).

**Yamada:** In order to propose such solutions, I think it is necessary to identify not only apparent issues but also the latent issues of your customers. For example, the Mitsui Chemicals Group has standardized materials such as ADMER™ and TAFMER™, which can be used as raw materials in resin compounds to provide a variety of solutions. I believe that such a wide range of solutions will create high value added. Providing such diverse solutions requires a deep understanding of your own products, customer needs, and social challenges. Digital transformation (DX), which is part of the Basic Strategy, also seems to be a major tool to this end. How will you accelerate your efforts for issue identification going forward?

**Ichimura:** Since we are a chemical materials manufacturer, there is no other way but to start with materials to identify our customers' issues. So we should be able to find a way to solve issues through conversation with the customers while actually showing them our materials. For this to happen, it is important to thoroughly share information throughout the company. Even if we as the Group have a product that can solve a customer's problem, we will not be able to effectively propose it to the customer if the employee who makes the proposal only understands the products he or she is responsible for. Therefore, our next step is to break down

the barriers between the sectors in order to make proposals that appropriately showcase all of our Group's products and technologies at the right place and time.

One of the initiatives to accelerate this shift is our plan to open a co-creation space called "Creation Palette YAE™" in October 2024. We will explain the Group's history and set up a display of all kinds of products in this space where our employees and R&D staff members communicate directly with customers to explain our products. This will strengthen not only our employees' understanding of the products but also their ability to listen to customers' issues and make proposals.

In addition, we have been holding a business contest since fiscal 2023, in which our Group's affiliates participate. This is an opportunity to explore needs and issues on a global scale while leveraging regional-specific knowledge from our affiliates as well as feedback from our customers. It also serves as a platform to improve the sense of unity within the Group while generating many business ideas.



### Developing a thorough mindset for making profits by spreading ROIC management

**Yamada:** I have high expectations for your various ongoing initiatives to build solutions-based business models. The next challenge will be to consistently generate reasonable profits from these efforts. Just because you have many ideas does not mean that you have gained trust from society, unless you are able to generate appropriate profits. When a business does not have a sufficient level of ROIC, it means that it has invested in excessive management resources. In other words, I believe that as long as you have a business that has gained trust from society, you will naturally be

able to achieve a sound ROIC. How will the Mitsui Chemicals Group work on developing a "profit-making mechanics" going forward?

**Izawa:** As the Business Sector President of the Basic & Green Materials Business Sector, I often feel very concerned about the topic you have brought up. Our key initiative going forward will be in green

chemicals. The number of both projects and products have been growing steadily, including the introduction of bio-based hydrocarbons. However, it will take some time before green chemicals become profitable. It can be said that we are currently in a transitional phase, so from a long-term perspective, it is more important to take on challenges in various directions and have customers recognize our achievements. To this end, we will continue to make investments where necessary.

**Ichimura:** I agree with Mr. Yamada that the value of social contribution of our products can be measured by profits they generate. If our product's value is recognized by customers, it will naturally make profits. In existing businesses, it is essential to set appropriate prices that are commensurate with the value perceived by customers. However, we have not yet fully achieved this. In terms of new businesses, we are currently introducing a system to map the market size and profit ratios and evaluate the business feasibility of ideas generated at NBIC. Moving forward, we believe that this system can be expanded to apply to development undertaken by each business sector.

In terms of management systems, the business sectors perform valuation of each of their businesses annually to promote thorough ROIC management.



## Long-Term Business Plan VISION 2030—Former and New Chief Strategy Officers (CSOs) x Analyst

**Yamada:** It is wonderful that you have adopted ROIC as a performance indicator because return on sales (ROS) alone is not a perfect measure in that it does not reflect the total asset turnover ratio. In order to improve ROIC, it is important to know how to best use the two polar-opposite methods: either increasing the value added of products and raising prices to a level that exceeds total costs including the cost of capital, or decreasing total costs through a mass production approach.

As for contributing to solving social challenges, I believe that ROIC will naturally exceed WACC if your solutions are truly sustainable. Otherwise, it means that the solution is not suitable for commercialization, or perhaps the solution will not develop into a business because its value is not yet recognized by society. From this standpoint, how do you sort out businesses and allocate management resources to those with higher viability?

**Ichimura:** What is important in classifying businesses based on ROIC is to spread such ideas not only among the management but also among each and every employee. By breaking down the ROIC tree to understand how day-to-day operations are ultimately linked to our corporate value, we can make more accurate evaluations and judgments. Going forward, we will be taking two



approaches to ROIC analysis: one from a management perspective and the other from a more grassroots perspective.

By adopting such a grassroots approach in collaboration with the Human Resources Division, we expect that highly engaged employees will positively impact those around them, which will help achieve the ideal expanded reproduction of education.

**Yamada:** I see you are also catalyzing change in your human resource strategy—how fitting for Mitsui Chemicals, a company known for its excellence in catalysts!

### Understanding our position and strengths to allocate management resources appropriately

**Yamada:** The chemical market has been experiencing high growth globally. In order to gain a competitive edge in such a market, how does the Mitsui Chemicals Group make decisions on the investment and procurement of management resources and the possible divestiture of businesses?

**Izawa:** While we proceed with the overall long-term business plan on a three-year rolling basis, each business sector develops its own three-year budget plan and holds individual discussions within the plan. We have adopted this business planning system as our basic approach. In addition, there is a Company-wide Strategy Committee which holds meeting for the president and officers to discuss a wide range of topics. During the meetings, for example, proposed M&A deals can be freely discussed without being necessarily bound by a given budget plan. This system has been put in place to allow for more flexible and speedy decision-making.

**Yamada:** Take, for example, a large market for materials such as lithium-ion batteries and LCD panels today. Chinese and other Asian companies are greatly increasing their competitiveness in

these fields. Accordingly, the management resources required for such materials are expected to increase astronomically. What are your thoughts on these fields?

**Izawa:** One approach would be to collaborate with our industry peers rather than operating in such a large-scale market all on our own. However, this would delay our decision-making speed. In fact, our strength lies in the smaller markets such as ophthalmic lens material and other niche fields that require high technological capabilities. Therefore, we need to increase our competitiveness in these areas. Another of our strengths is the green chemical field. Our strategy is to leverage DX and blockchain technologies and enhance traceability in order to visualize our contribution to the environment and provide new value added.

**Ichimura:** Europe has already taken the lead in this regard, and the traceability of environmental impacts will be increasingly important in the manufacturing industry. If we thoroughly disclose information including transportation and manufacturing costs, and our value added gains recognition, we can take advantage of this for our branding and other purposes. In that sense, this field has the potential to contribute not only to the environment but also to our profits.

**Izawa:** Our discussions on management resource allocation will ultimately lead us to the question of what our strengths are. Of course there is a limit to management resources, so while keeping an eye on global trends, we must carefully analyze our technological and corporate strengths to consider where to invest them.

### Evaluation of the Basic & Green Materials business and future initiatives

**Yamada:** As Mr. Izawa mentioned, it is very important to formulate strategies based on your strengths and areas of expertise. With

Long-Term Business Plan VISION 2030—Former and New Chief Strategy Officers (CSOs) x Analyst



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this in mind, I would like to ask frankly: Is the Basic & Green Materials business really a strength of the Mitsui Chemicals Group, and is it worth pursuing?

**Izawa:** The Basic & Green Materials business has two fields: basic materials produced by crackers, and derivatives. The reorganization of the basic materials field is currently a topic of discussion within the industry. In our Group, we are narrowing down necessary basic materials by working backwards from derivatives, while also collaborating with other companies to reduce costs.

For derivatives, we are currently restructuring the business by addressing economic security issues while using the equity spread as an indicator and focusing on product lines that surely exceed this benchmark.

**Ichimura:** Crackers are mainly used to produce basic materials, which are commodity chemicals, but for their derivatives, in some cases, certain brands are essential products for customers that cannot be substituted. Going forward, while keeping a close eye on such products, the industry will create collaborative communities to operate crackers, whereas each company will continue to supply derivatives by leveraging their own strengths. Our crackers are the culmination of technological advancement thanks to our

company's significant history, so we must be careful not to disrupt this chain of technology, which includes our human resources.

**Izawa:** As we go more asset-light, we are often made aware of new value in our products through dialogue with our customers. When new value is recognized by them, it is necessary to reflect it in our pricing. Going forward, we will need to be bolder in our decision-making in order to optimize the entire business. This will involve classification of businesses based on ROIC and the implementation of appropriate pricing policies.

**Yamada:** To facilitate such decision-making, I think you need to further refine the risk management system. What is your opinion on that?

**Ichimura:** You are right, Mr. Yamada. That is why we strengthened our risk management system in 2023 in order to exhaustively identify risks in terms of both threats and opportunities on a Group-wide basis. Specifically, we established the Risk Management Committee and appointed each officer in charge as a risk owner, thereby creating a bottom-up structure to identify risks. Until recently, risks had been viewed as the responsibility of management and ESG-related divisions, and considered tacit knowledge among business sectors, but going forward, it will be necessary for the whole Group, including frontline staff, to take ownership of risks, list them out, and manage them as explicit knowledge. As the new CSO, I take it as my responsibility to involve the entire Group in this initiative.

Integrating the financial and non-financial drivers and leveraging strengths to increase our competitiveness

**Yamada:** So far, I have mainly asked you about businesses and financial aspects, but could you also tell me about your thoughts on non-financial aspects?

**Ichimura:** Of course. Our group emphasizes the integration of financial and non-financial elements. This is reflected in the fact that the Corporate Sustainability Division is not part of the IR Department but works independently alongside the Corporate Planning Division.

One specific initiative is the creation of a KPI tree linking financial and non-financial KPIs. Creating this tree in cooperation with each division makes them aware that non-financial activities are not merely corporate support functions but are closely connected to financial outcomes. Based on this understanding, KPIs are reviewed and reestablished from a frontline perspective.

**Izawa:** We are confident that we have created KPIs with attention to detail, always keeping our ultimate goals in mind so that KPIs are not used in a perfunctory fashion. Therefore, moving forward, we intend to disclose them properly to close the information gap with our stakeholders.

**Yamada:** I also like the fact that each KPI is managed by an officer in charge, with its linkage to material topics in mind. By properly communicating these points to stakeholders, you can expect to see a positive impact on financial metrics such as lower debt financing costs and WACC. For my last question, I would like to ask: What are the strengths of the Mitsui Chemicals Group that you want the stakeholders to know more about?

**Izawa:** We have various strengths, including technological capabilities, but if I were to single out one, I would say it is the power of people. I feel that, in addition to the strengths of individual employees, the organization as a whole possesses a strong collective capability to work together as a team. This DNA runs in the Mitsui Chemicals Group, and it is an asset that we have cultivated.

**Ichimura:** As Mr. Izawa mentioned, I also believe that our strength lies in our people, and I feel that our Group is particularly unique

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in its bottom-up approach. A flexible bottom-up culture is a major foundation for navigating times of rapid changes in the business environment. On the other hand, ensuring our growth globally also requires a top-down system to allow quick decision-making. Therefore, I believe that we can become an even stronger corporate Group by integrating these two approaches in the future.

**Yamada:** Since I am from outside the company, I would also like to touch upon its technological capabilities. Your polymer science and precision synthesis technologies, in particular, are among the most advanced in the world and are a strong differentiating factor from other competitors. Only a diversified chemicals company like the Mitsui Chemicals Group can bring together solutions backed by such advanced and broad knowledge and experience to deliver Chemistry as a Service, so to speak. Therefore, I urge you to make full use of your existing strengths and new ideas.

Last but not least, I thought the phrase “with the power of chemistry” in the Corporate Target of VISION 2030 was excellent. In this day and age, natural materials tend to be valued more than chemical industrial products, but in reality, natural materials are often costly and difficult to standardize. It is the mission of the chemical industry to industrialize and standardize materials and provide them as value to eight billion people around the world.

**Ichimura:** I would like to thank you for the many thought-provoking comments you made today. As the new CSO, I will communicate “the power of chemistry” internally and externally as we work to achieve VISION 2030.

Establishing Creation Palette YAE™, a co-creation space

Under VISION 2030, our Group is moving forward with efforts to shift from the traditional materials business to a business based on a social issue perspective. To this end, we will establish\* Creation Palette YAE™ at the Yaesu Head Office as a co-creation space equipped with facilities and programs that provide one-stop introduction to and experience of various assets of the Group. This initiative aims to strengthen our ability to propose solutions through co-creation with customers. Its convenient location directly connected to Tokyo Station, one of the gateways to Japan, provides a space where people with various backgrounds from inside and outside the company can generate new ideas together by forming connections and interacting with each other. At the same time, we aim to make it a powerful channel to connect our Group with society.

Creation Palette YAE™ is not only a place for interaction with people outside the company but also a place for our

employees to deepen their understanding of our Group and to proactively promote cross-organizational communication. Through the diverse communication at Creation Palette YAE™, our Group aims to work together as one, grasp the needs of society, and create solutions in order to become a truly global specialty chemicals company.

In addition to Creation Palette YAE™, R&D sites such as VISION HUB™ SODEGAURA, Creative Integration Lab.™ in Nagoya, and Mobility Development Center in Niigata will be positioned as co-creation sites, in which we will open co-creation spaces under the name of Creation Palette™. By expanding these points of contact inside and outside the company, we aim for co-creation activities that swiftly link the dialogue and empathy that they generate to the development of businesses.

\* To be opened in October 2024



A collection of our Group's products used in daily life have been gathered in one place to showcase the various places in which Mitsui Chemicals' products are used



A variety of our Group's fascinating products and technologies can be visually experienced through demonstrations and other activities

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## Making Effective Use of Management Resources to Enhance Corporate Value

The Mitsui Chemicals Group aims to realize its ideal future society by consistently improving its six capitals through the implementation of VISION 2030 strategies, drawing upon the Group's four strengths: 100 years of technological prowess, a global platform & diverse human resources, a diverse range of products & services, and a robust customer base.



### Financial capital

Consolidated total assets: **¥2,215.8bn**  
Invested capital: **¥1,737.2bn**

#### Focusing on disciplined financial profile and profitability

In addition to strengthening our cash flow management and maintaining a sound financial profile, we will conduct appropriate resource investments mindful of capital efficiency through ROIC management and other frameworks, thereby implementing our VISION 2030 strategies. We will pursue a financial strategy that combines discipline with flexibility and integrate both financial and non-financial perspectives to our management approach in order to maximize our corporate value.

#### • Strengthening our cash flow management

We will strengthen our cash flow management so that we can implement proactive and appropriate investment activities, including M&A in growth domains.

▶▶ Financial Strategy, p. 39

#### • Taking ROIC management to a deeper level

We will set short-term targets for the cash conversion cycle (CCC) and other ROIC components alongside our medium- to long-term ROIC targets, and use these targets to effectively utilize our assets and transform our business portfolio through accelerated business restructuring efforts. We will also take other steps to enhance our ROIC in both the financial and non-financial dimensions. In addition, we are considering further boosting shareholder returns in line with the rise in profit levels, as well as raising the level of ROE.

▶▶ Financial Strategy, p. 39



### Manufactured capital

Capital expenditure: **¥185.7bn**  
Manufacturing sites: **7** sites in Japan **8** sites\* globally  
\* Manufacturing sites for PP compounds

#### Implementing safe, stable, and advanced production technology throughout the Group and across the globe

Over the course of our more than 100 years of history, the Group has nurtured precision synthesis technology and polymer science as our own strengths. Moreover, we have continued to evolve our manufacturing process technology, the pillar underpinning our competitive advantage, with the times in order to efficiently provide high quality products. These production technologies have been highly evaluated by leading companies in various industries as the Group has inherited the history, nurtured people, and constantly provided a diverse range of competitive, high-value-added products and services that meet the needs of the times.

#### • Continuing to achieve zero major accidents and serious occupational injuries by strengthening and improving our voluntary safety management

Guided by our management policy of "Safety is our top priority," we have been working to strengthen our voluntary safety management through the introduction of advanced technologies to production sites, risk assessments, and the promotion and improvement of employee education and training initiatives. Thanks to these efforts, the Osaka Works, the Ichihara Works, and the Iwakuni-Ohtake Works were certified as Super Accredited Businesses by the Ministry of Economy, Trade and Industry in 2021, 2022, and 2024, respectively.

#### • Realizing efficient, safe, and stable plant operations

At production sites, ethylene crackers, boilers, and other equipment are aging, and maintaining the health of facilities is becoming increasingly important. In response, we are actively investing management resources in facility deterioration diagnosis and repair, and introducing advanced technologies that contribute to facility maintenance planning and enhanced condition monitoring. We are striving to eliminate dependence on the skills of particular individual employees in anticipation of a decrease in the number of skilled engineers, and to efficiently and comprehensively maintain and manage our facilities by using linguistic AI to support the creation of maintenance plans, sensors to monitor the deterioration of equipment, and an abnormality detection system.

▶▶ Responsible Care safety initiatives, p. 108



### Intellectual capital

R&D sites: **7** sites (**3** laboratories and **4** centers)  
R&D expenses: **¥44.7bn**

#### Using technologies derived from our core technologies to create products that help address social challenges

Drawing on our core technologies of precision synthesis technology, polymer science, and manufacturing process technology, we will execute R&D measures by hiring external professionals with high-level expertise while implementing a cycle of functions, organization, and technology. We will stay constantly alert to ever-changing needs and trends and use that awareness to create new innovation in materials that leads to solving social challenges, while rolling out an intellectual property strategy that takes full advantage of digital transformation. In these ways, we will continue to build a portfolio of technologies and intellectual property that gives us a competitive edge.

#### • R&D strategy

Based on our core technologies, which are our strengths, we have developed new applications for our existing products and created new products and businesses. We will further accelerate our R&D to achieve VISION 2030.

▶▶ R&D strategy, p. 71

#### • Intellectual property strategy

We aim to further strengthen our intellectual property management from both the offensive and defensive perspectives. For defensive intellectual property management, we have pushed forward with transformation and development of intellectual property portfolios to respond to our business portfolio transformation. Meanwhile, for offensive management, we have promoted IP landscaping activities across the Group.

▶▶ Intellectual property strategy, p. 74

#### • Research and development for venturing into new fields, beyond conventional business domains

We will work on collaboration beyond the boundaries of business sectors, from a technology-management standpoint, under the coordination of the CTO Office. We will also drive collaboration both inside and outside the Group by coordinating such collaboration with outside parties, including the startups that our CVC fund has invested in and academia to ultimately promote Group-wide projects and other initiatives.

▶▶ Dialogue: CTO x Investor, p. 77

## Making Effective Use of Management Resources to Enhance Corporate Value



### Human capital

Global human resources: **19,861**  
Engagement score: **36%**  
Successor coverage rate for critical positions: **220%**

#### Creating value through "self-initiative, autonomy, and collaboration" among a diverse mix of human resources

To create corporate value on a continuing basis on the path toward VISION 2030, we will need to build a diverse human resources portfolio and ensure that every individual employee can unleash their full potential. The innovation that emerges out of interaction among diverse human resources across the globe is one of the sources of the Group's competitiveness. As we work to bolster the links between our business plans and human resources strategy from a medium- to long-term perspective, we will promote the embodiment of the concept of "self-initiative, autonomy, and collaboration" in order to enhance the capabilities of our human resources and organizations and create an organizational culture that maximizes the potential of each and every employee.

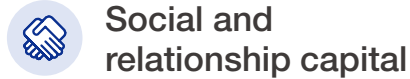
#### • Creating a diverse human resources portfolio to help realize VISION 2030

Toward the transformation of our business portfolio, we have implemented measures to further evolve our human resources initiatives alongside other new measures. We will work to build a human resources portfolio to achieve VISION 2030. To this end, we grasp the information across the global organizations of the Group by making use of the Group-wide integrated human resources platform Workday; and secure successor candidates for critical positions, which is important in executing Group-wide strategies, through key talent management.

#### • Improving employee engagement

We will conduct ongoing engagement surveys on a global scale and implement appropriate improvement measures across the Group to foster an organization that maximizes both the potential and output of every employee. In addition, since fiscal 2023, we have incorporated the engagement scores into the KPIs used to determine executive compensation (bonus formula/non-financial metrics) in a bid to drive transformations aimed at enhancing corporate value.

▶▶ Human Resources Strategy, p. 58



### Social and relationship capital

Local production for local consumption at global sites  
Consolidated companies: **163**

#### Leveraging our customer base to co-create value with a diverse range of stakeholders

Our products are rated highly by industry leading companies, and we have a strong customer base in the global market through local production for local consumption. We will co-create with our customers and partners, respect the human rights of our diverse stakeholders, and strengthen our relationships through constant dialogue that ensures transparency and fairness, in order to create and provide value together with society in a sustainable manner.

#### • Promoting open innovation

Through collaborative research with various companies including startups, and other organizations including universities, and research institutions both at home and abroad, we are sowing the seeds of completely new businesses by leveraging and fusing each other's technologies and knowledge to the fullest extent. In addition, to this end, we are also promoting collaboration with all kinds of stakeholders via a co-creation space Creation Palette YAE™, which is to be opened in October 2024.

▶▶ Dialogue: Former and New Chief Strategy Officers (CSOs) x Analyst, p. 30

▶▶ Dialogue: CTO x Investor, p. 77

#### • Respect for human rights throughout the entire supply chain

In accordance with the Mitsui Chemicals Group Human Rights Policy, we pursue just business throughout the supply chain based on the belief "having a high regard for people" is important. In terms of material topics, the Group lists "respect for human rights" as one of the prerequisites for business continuity, and incorporates its status of response to human rights risks into its business targets as non-financial indicators.

▶▶ Respect for human rights, p. 109



### Natural capital

Energy consumption: **77.8 PJ**

#### Building circular economy-based business models

VISION 2030 positions *bolstering circular economy initiatives* as part of its Basic Strategy. We are looking to encourage resource recycling and help bring about a circular economy through strategies, such as our carbon neutral strategy, which aims to reduce the Group's GHG emissions and maximize the avoided emissions of the products we provide throughout their life cycle, and the biomass and recycling strategies, which promote the use of renewable resources along with resource collection and reuse.

#### • Reducing the Group's GHG emissions and maximizing avoided emissions through provision of our products

In our manufacturing processes, we will promote the transition to low-carbon raw materials and fuels, efforts to conserve energy, and the adoption of renewable energy. We will also pursue the development and implementation of carbon-negative technologies, such as carbon capture, utilization, and storage (CCUS). By providing Blue Value™ products, we aim to maximize avoided emissions over the entire product life cycle.

▶▶ Increasing Sales of Blue Value™ and Rose Value™ Products and Services, p. 44

▶▶ Bolstering circular economy initiatives, p. 53

#### • Expanding lineup of bio-based derivatives and recycling plastic resources

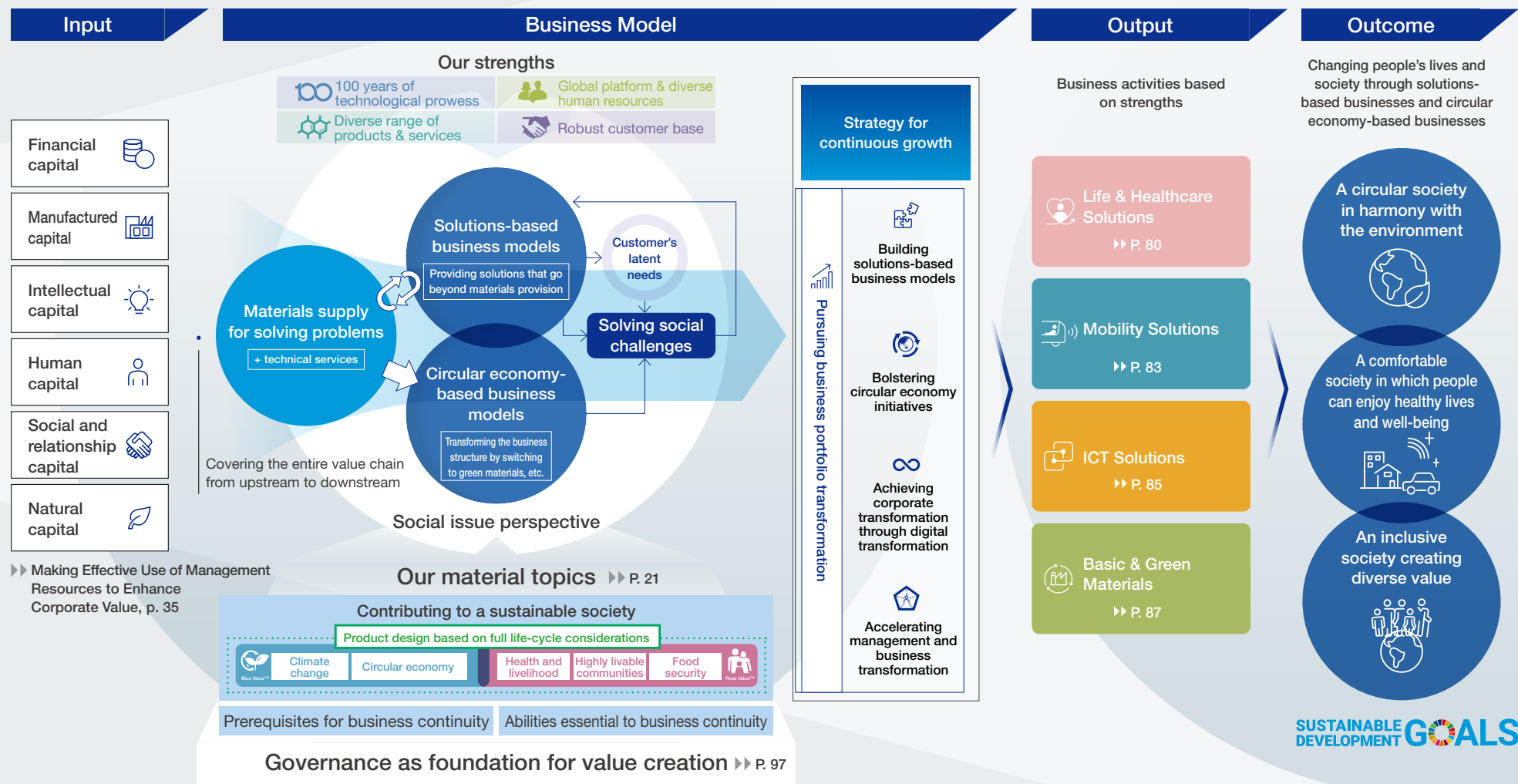
We will work to curb the further use of fossil resources by manufacturing and marketing bio-based chemicals and plastics. We will engage in a variety of activities, including chemical recycling and mechanical recycling of waste plastic, to make effective use of waste plastic and other materials as viable resources.

▶▶ Bolstering circular economy initiatives, p. 53

\* The values for each capital represent FY2023 results.

# Value Creation Process

In light of changes in the internal and external environments and demands from our stakeholders, the Mitsui Chemicals Group aims to realize a circular society in harmony with the environment, a comfortable society in which people can enjoy healthy lives and well-being, and an inclusive society creating diverse value as our ideal future society. We draw on six capitals, the strengths arising from our 100-year history, and other foundations to engage in business activities and create new customer value. Through the materials, services, and solutions created in our various business activities, we will continue to help solve social challenges and build a sustainable future society.

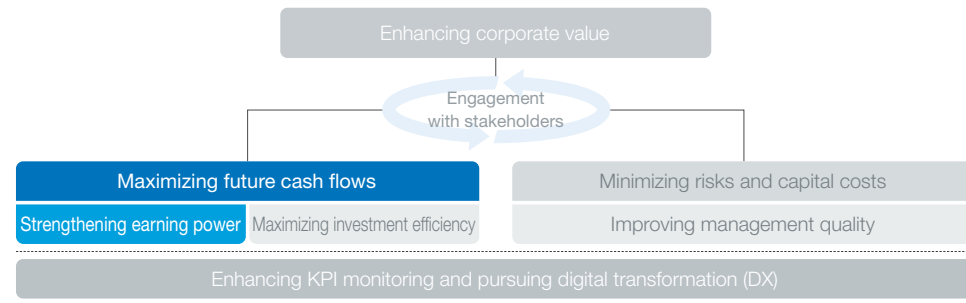


# Strengthening earning power

The Mitsui Chemicals Group is working to maximize future cash flows based on two major axes: "strengthening earning power" and "maximizing investment efficiency." In this section, we will introduce our financial strategy aimed at strengthening our earning power and product strategy that seeks to improve our profitability. At the same time, we will also outline our strategies for transforming our business models from a social issue perspective and human resources strategies that support our earning power.

39	Financial Strategy
44	Increasing Sales of Blue Value™ and Rose Value™ Products and Services
48	Feature: <b>Customer engagement</b>
50	Strategies for Transforming Our Business Model
50	Solutions-based business models
53	Bolstering circular economy initiatives
58	Human Resources Strategy

## CHAPTER — 03



\* For full diagram, see The Mitsui Chemicals Group's Management Driven by Integrated Thinking on p. 5.  
■ colored item is mentioned in this chapter.



## Financial Strategy

### Review of the first three-year performance of VISION 2030

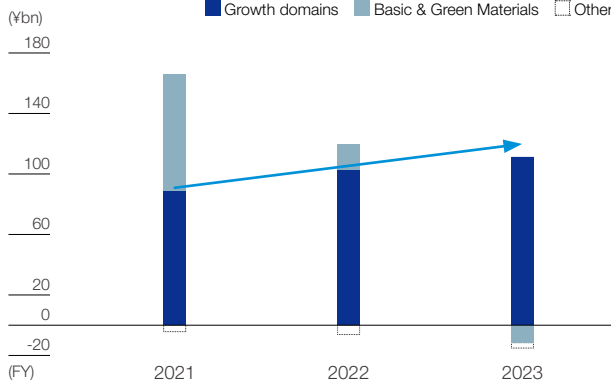
#### Operating income before special items

The growth domains have steadily expanded to support the performance of the Mitsui Chemicals Group, reflecting the effects of our efforts to promote the business portfolio transformation to date. The Basic & Green Materials business has also reduced volatility in its performance due to progress in restructuring and strengthened its resilience to slumping market conditions and inventory valuation losses. However, we still need to implement new initiatives as we have been affected by the current oversupply due to significant capacity expansion, particularly in China, and shrinking domestic demand.

#### Cash flows (CF)

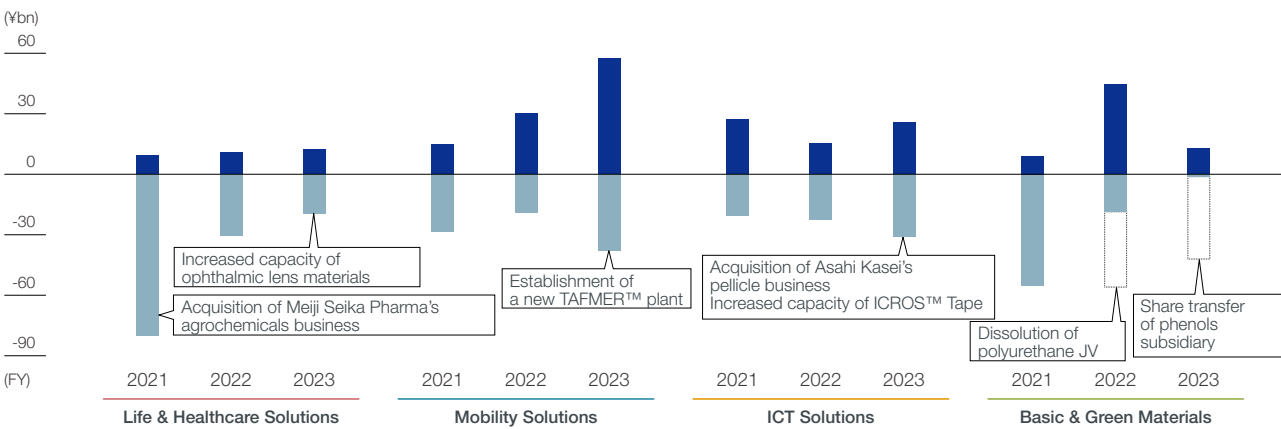
Cash inflows from operating activities have been increasing significantly in the growth domains, reflecting the recovery of funds invested so far, as we have continued to make

Three-year operating income before special items



aggressive investments for the business portfolio transformation and growth. Cash inflows from operating activities have been increasing in the Mobility Solutions business, one of the growth domains, reflecting the recovery of the investments made in the past. Aggressive investments in the Life & Healthcare Solutions and ICT Solutions businesses have contributed to significant cash outflows from investing activities. Going forward, as cash inflows from operating activities increase, the recovery of investments made will progress. The Basic & Green Materials business has not been able to generate stable cash inflows from operating activities, despite its structural improvement efforts including the dissolution of the polyurethane raw materials joint venture (JV) and the transfer of shares in a Singapore-based phenols subsidiary. This was due to the impact of the recent major changes in the business environment. Excluding cash inflows from investing activities due to the structural improvement efforts, cash outflows from investing activities are still significant due to investment of resources in large-scale inspection costs and renewal of

Major investment projects by business segment



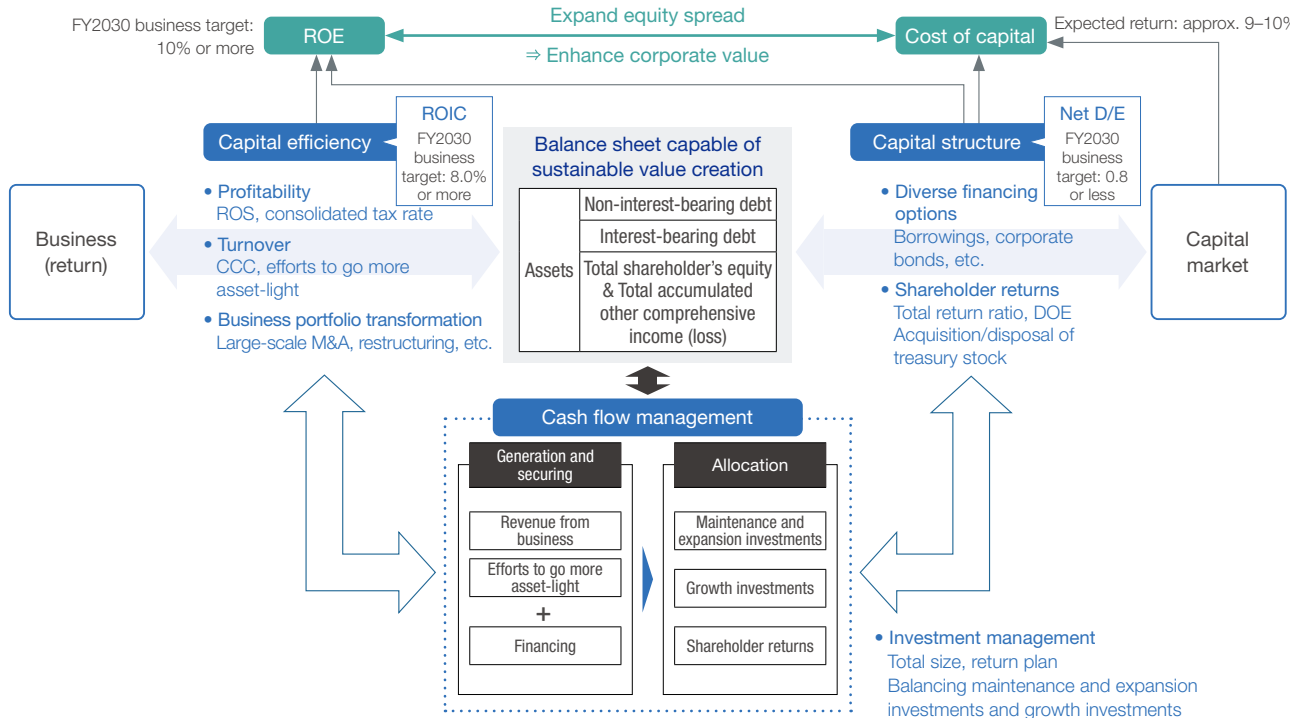
aging facilities. We will therefore need to reduce resource investment including restructuring, in addition to securing cash inflows from operating activities. In light of this situation, we will accelerate our efforts in transitioning to a sustainable business structure to achieve VISION 2030. Specifically, we will promote the review of strategies to further increase the speed of growth in the growth domains, and in the Basic & Green Materials business, we will promote the second phase of restructuring aimed at achieving a quick return to profitability and further reducing volatility.

### Financial strategy

#### Capital efficiency

Our Group has set the targets of return on invested capital (ROIC) of 8.0% or more and return on equity (ROE) of 10% or more in 2030 to improve our capital efficiency. In this context, we have sought to reduce the cost of capital through promoting a better understanding of our Group's strategy by having as many opportunities as possible for

## Financial Strategy



dialogue with investors, such as by enhancing information disclosure and briefing sessions. Based on our dialogue with investors, we perceive our cost of capital to be around 9–10%. We aim to raise the level of our ROE target, which is currently set at 10% or more, through implementing the VISION 2030 Strategy while keeping the equity spread in mind. To promote the transformation of our business portfolio, we have incorporated ROIC into our business management with the aim of improving capital efficiency. Since our current ROIC is below the target due to an increase in invested capital as we invested resources for growth and deterioration

in the Basic & Green Materials business environment, we are accelerating our efforts to achieve the target.

Specifically, in addition to conducting reviews through monitoring ROIC on a business division basis for every accounting period, we are also exploring ways to accelerate business growth and structural improvement through strategy discussions based on a classification of businesses according to ROIC and profit growth. To promote ROIC management by business division, we need to connect the formulation and execution of business strategies that are conscious of the cost of capital with the actions of

each employee. For this reason, we are advancing initiatives to promote this awareness among employees and developing an ROIC tree.

Improving capital efficiency requires the transfer of existing businesses to best owners or withdrawal from existing businesses by ourselves, among others. For example, in the growth domains, we split the former Mitsui Chemicals Tohcello, Inc., whose packaging film business had low capital efficiency, and transferred a portion of its shares to forge a business alliance arrangement with other companies, thereby better operating the packaging film business. In addition, in the Basic & Green Materials business, we have decided to transfer the shares of our Singapore phenols subsidiary, downsize the TDI plant at Omuta Works, and shut down the PTA and PET plants at Iwakuni-Ohtake Works and the phenol plant at Ichihara Works.

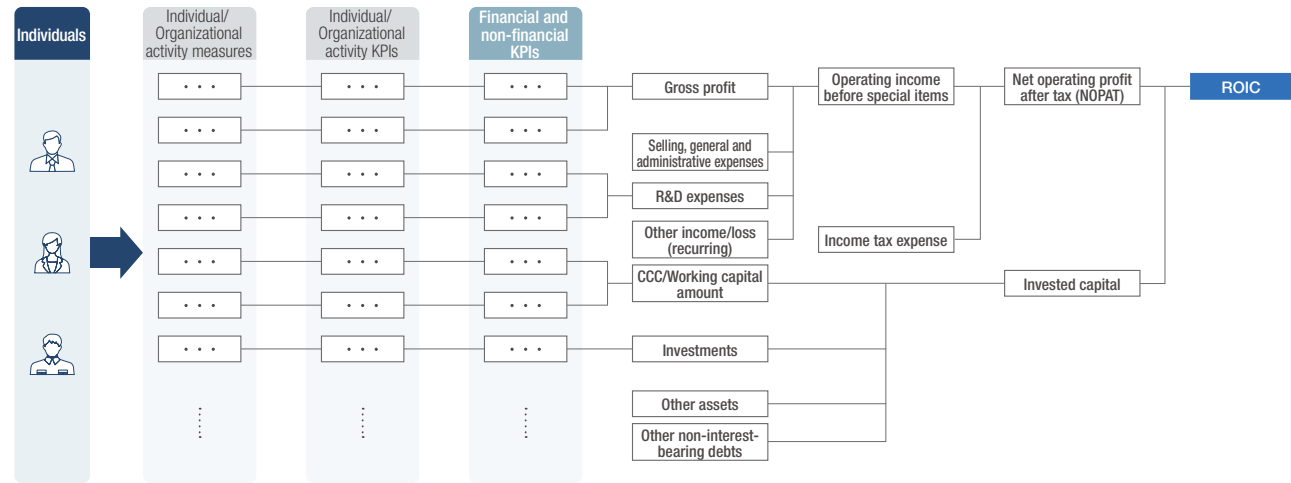
We expect these continuous business portfolio transformation efforts to change our Group's overall business structure and consequently affect our cost of capital. For this reason, we will continue to pursue various initiatives to further improve capital efficiency.

#### Capital structure

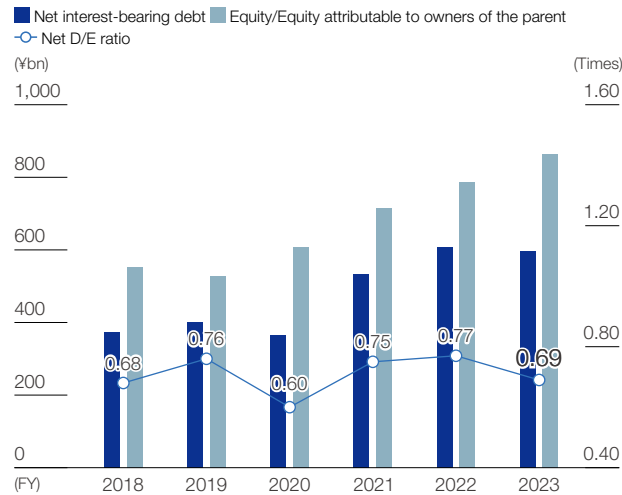
We need to maintain an appropriate credit rating to secure cash for allocating resources to aggressive growth investments, and as one of the management metrics for this purpose, our Group has set a net D/E target of 0.8 or less. We have managed to meet this target so far, but will need to make large growth investments including M&A to achieve VISION 2030. We will therefore aggressively pursue investment projects if they can be expected to contribute to growth and provide a reliable return on funds even if it means temporarily exceeding 0.8 for net D/E, because we will be able to improve net D/E to 0.8 or less

## Financial Strategy

Breakdown of the Mitsui Chemicals Group's KPI tree



Net interest-bearing debt/Net D/E ratio



again through investment recovery and to maintain our financial discipline.

On the other hand, with interest rates expected to rise, it will be important not only to rely on external financing necessary for making growth investments, but also to generate cash within our Group by disposing of investments with low capital efficiency (making efforts to go more asset-light), improving the efficiency of working capital (improving the cash conversion cycle (CCC)), and making effective use of our entire Group's cash. Until now, we have placed a certain degree of priority on securing cash on hand because of the uncertain business environment due to COVID-19, friction between the U.S. and China, and conflicts in Ukraine and the Middle East. Going forward, we will manage our Group financing more efficiently so that we can further utilize our Group's cash globally, while taking into account changes in the business environment and regulations in each country and region.

### Cash flow management

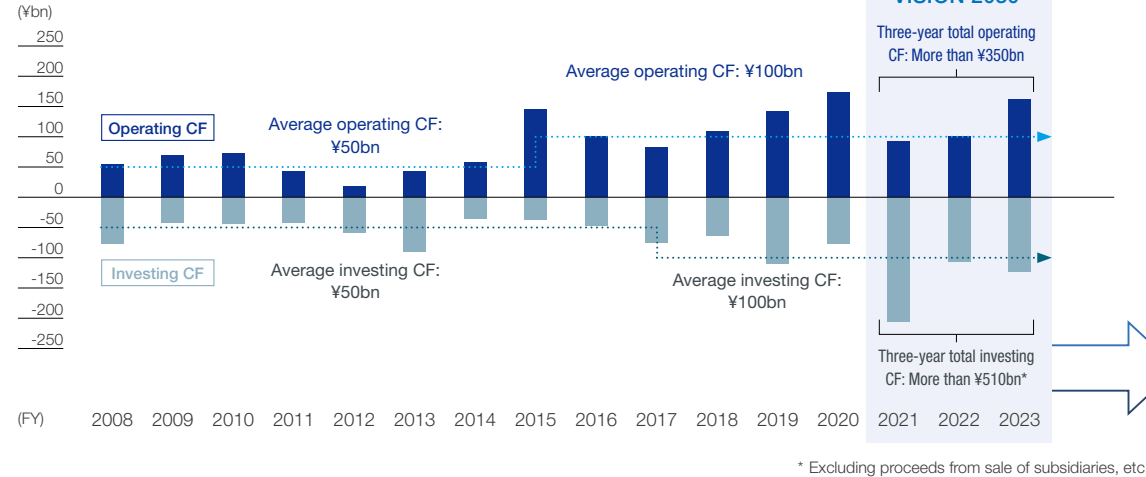
#### • Generation and securing

Among our peers, our Group was the most affected by the global financial crisis in 2008, posting a significant loss. However, this was an opportunity for us to begin restructuring in the current Basic & Green Materials business and transform our business portfolio with the aim of expanding growth domains. These efforts have led to increases in operating income before special items and cash inflows from operating activities, mainly in the growth domains, since fiscal 2015. Cash inflows from operating activities have increased from the 50 billion yen level after the global financial crisis to over the 100 billion yen level at present. Over the past three years, we have secured cash inflows from operating activities of more than 350 billion yen.

On the other hand, we have been very conscious of improving the CCC from the perspective of securing the cash necessary for growth investments. If we want to invest for growth, we must foster a Group-wide awareness that cash generation mainly through inventory reduction is essential. To this end, we have been asking ourselves whether we should use cash for inventory investment or capital investment. In addition, we have secured more than 80 billion yen in cash over the past three years through efforts to go more asset-light, such as the transfer of shares in our phenols subsidiary as part of restructuring. We have also been making efforts to go more asset-light and generate cash under the policy of reducing cross-held shares, which are currently worth approximately 70 billion yen, to ultimately zero in principle.

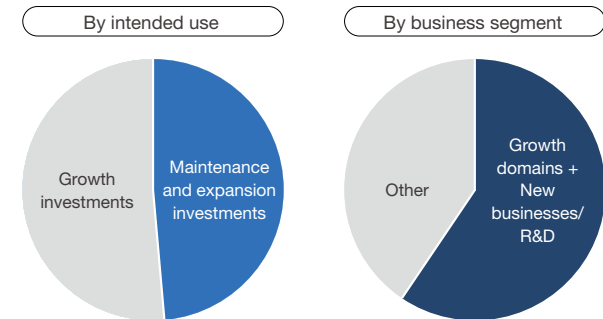
## Financial Strategy

Cash flows

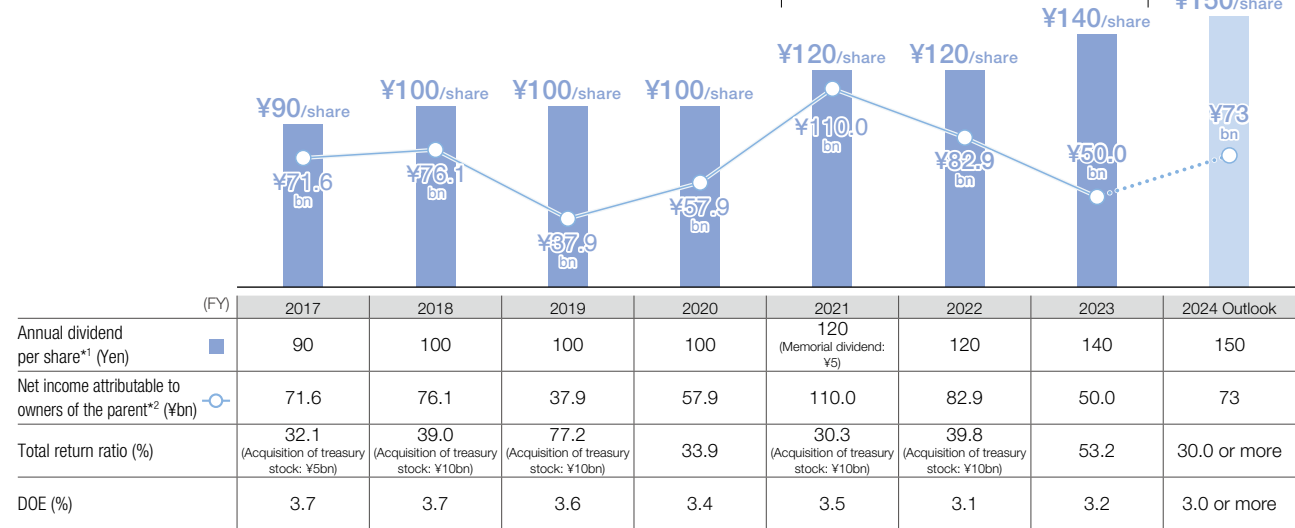


\* Excluding proceeds from sale of subsidiaries, etc.

Breakdown of three-year total investing CF



Shareholder returns



\*1 Mitsui Chemicals conducted a 5-to-1 share consolidation on October 1, 2017. Annual dividends per share have been adjusted retrospectively to reflect the share consolidation for all periods presented.

\*2 Mitsui Chemicals has voluntarily adopted International Financial Reporting Standards (IFRS) from fiscal 2020. Figures for fiscal 2019 and before are profit attributable to owners of parent under Japanese Generally Accepted Accounting Principles (J-GAAP).



## Financial Strategy

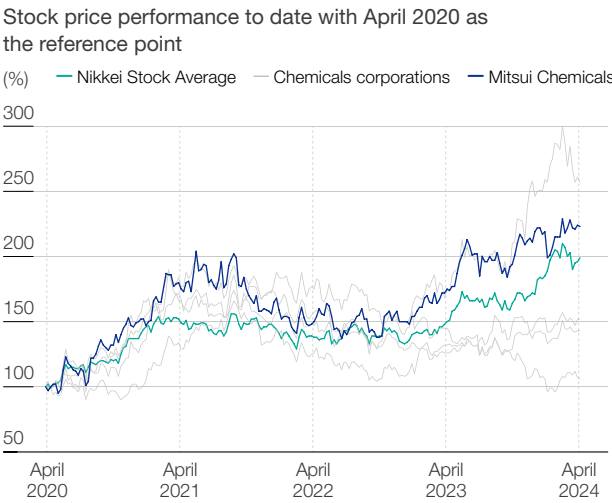
For the second priority of investing resources for growth, we have been allocating resources to investments for organic growth, M&A, and other activities, focusing on the growth domains. As we continue our business portfolio transformation, the resources invested in the growth domains, new businesses, and R&D, including their maintenance and expansion, have accounted for approximately 60% of our total investments over the past three years. (See page 69 for major investment projects by business segment.)

For the third priority of providing returns to our shareholders, we have achieved a total return ratio of at least 30% and a dividend on equity (DOE) ratio of at least 3.0%,

and we plan to increase dividends in fiscal 2024, as we did in fiscal 2023. In addition, we have been flexibly acquiring treasury stock, and over the past three years, we have acquired 20 billion yen worth of treasury stock, resulting in a total return to shareholders of approximately 90 billion yen over the three-year period. In line with the society-wide trend of reducing cross-held shares, we will also consider repurchasing our shares released to the market. Specifically, we are considering using the funds obtained from the sale of cross-held shares to buy back our shares and using the shares acquired for specific purposes. They include investing for growth including M&A and using for executive compensation

as well as allocating to employee stock ownership plans and using as compensation for management-level and other employees so that each employee can be more aware that their actions help increase our stock price.

In this way, our Group will generate and secure cash for growth while preparing for increasingly uncertain geopolitical risks and sudden changes in the business environment. Our Group will also implement thorough cash flow management to further improve capital efficiency and capital structure while appropriately allocating cash.



## Message to shareholders



**NAKAJIMA Hajime**  
Representative Director, Senior Managing Executive Officer & CFO

The fact that our stock price has consistently outperformed the Nikkei Stock Average over the past three years reflects a certain level of the positive evaluation of the portfolio transformation efforts we have been pursuing. The number of opportunities for us to engage in dialogue with investors has been increasing year by year. In fiscal 2023, we engaged

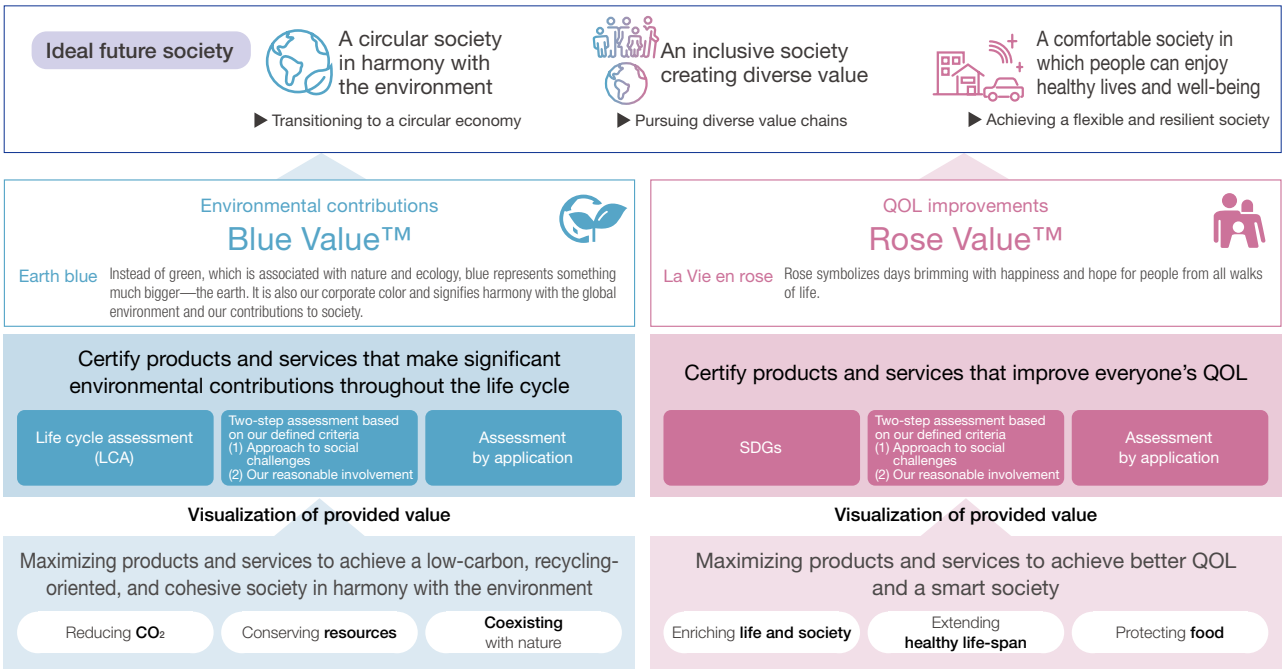
in dialogue with investors through over 400 conferences and individual meetings in addition to various briefings such as a CEO presentation, business strategy presentation, and ESG presentation. We have proactively shared internally the valuable opinions obtained through such dialogue with investors, and I believe that this effort has also helped improve the quality of management and reduce the cost of capital.

Our Group is a company that is constantly working on business restructuring and the expansion of the growth domains and that continues to realize business portfolio transformation. We will continue to promote VISION 2030 to steadily enhance our corporate value. To this end, while promoting management mindful of the cost of capital and stock price, we will seek to improve capital efficiency and ROE by thoroughly managing our business portfolio through the review of further profit growth potential and ROIC of each business. We will then provide returns to shareholders in line with our business growth.

## Increasing Sales of Blue Value™ and Rose Value™ Products and Services

The Mitsui Chemicals Group's Blue Value™ and Rose Value™ help visualize the contributions our products and services make to the environment and society and enable us to share those values with stakeholders. We express environmental contributions as Blue Value™ and quality-of-life (QOL) improvements as Rose Value™. We certify Blue Value™ and Rose Value™ products by assessing and reviewing candidates based on our defined criteria set for each of them.

We also believe Blue Value™ and Rose Value™ inform our efforts to address the following material topics of our Group, which were set in order to realize our ideal future society: climate change, a circular economy, health and livelihood, highly livable communities, food security, and product design based on full life-cycle considerations. By maximizing our contributions throughout the entire product life cycle through expanding and providing Blue Value™ and Rose Value™ products and services, we hope to achieve corporate growth for the Group and realize our ideal future society.



### Examples of Blue Value™ and Rose Value™ products



\* AdBlue™ is a registered trademark of the VDA (Verband der Automobilindustrie).

## Increasing Sales of Blue Value™ and Rose Value™ Products and Services

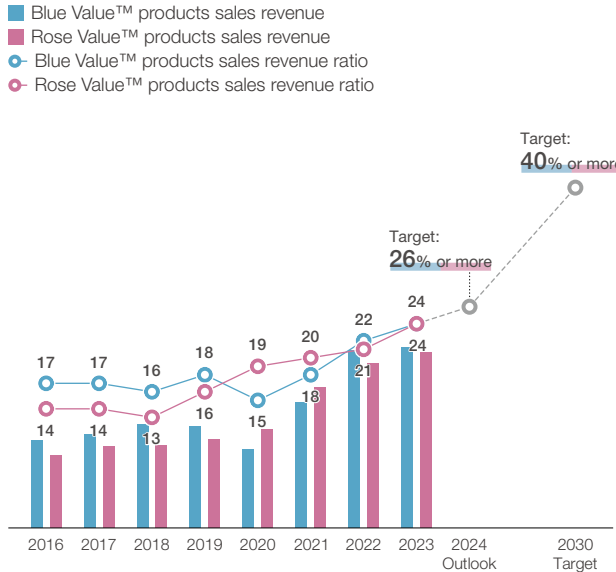
### Incorporating into management policy

In VISION 2030, we set the ratios of sales revenue from Blue Value™ and Rose Value™ products and services to consolidated sales revenue as non-financial metrics, with their targets both set at 40% or more. Since fiscal 2019, to encourage proactive investment that will lead to the growth of sales of products and services contributing to the provision of such value, we have mandated that the application format for large-scale investments include description of opportunities and risks the proposed project entails from social issue perspectives by, for example, indicating the project's Blue Value™ and Rose Value™ contribution categories, thereby making ESG elements a factor for investment decisions. Furthermore, since fiscal 2020, we have set annual targets for sales revenue and expansion measures of Blue Value™ and Rose Value™ products and services in each business division and worked to incorporate them into their business strategies.

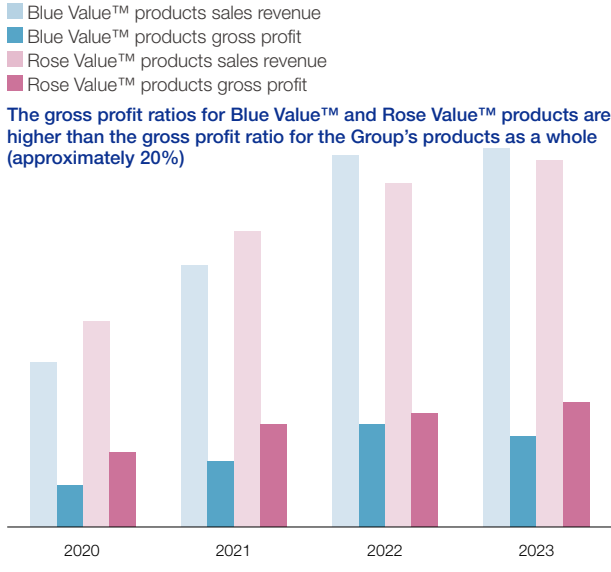
### Processes for system design, review and certification, and KPI management

We have set up processes, involving management and the review board, for system design, review and certification, and KPI management to align the Blue Value™ and Rose Value™ system with our management policy and to visualize the contributions our products and services make.

Blue Value™ and Rose Value™ products sales revenue ratios

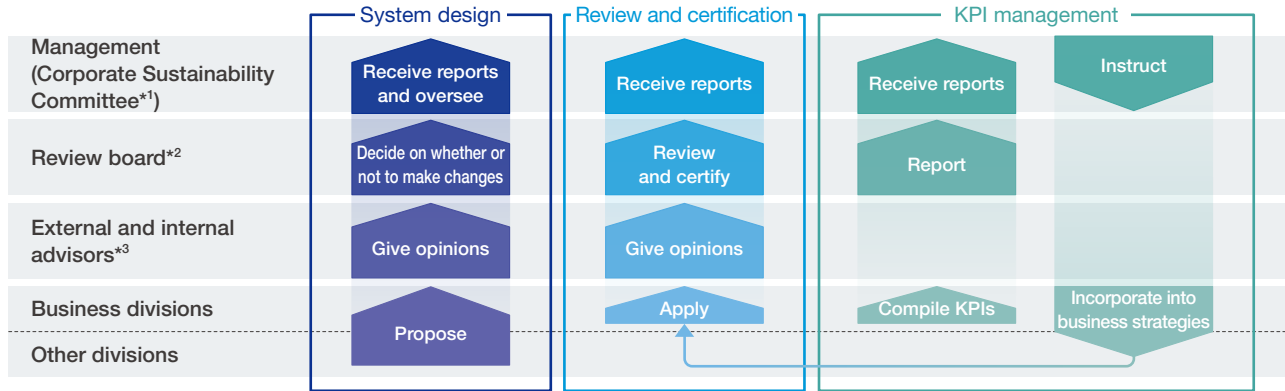


Blue Value™ and Rose Value™ products gross profit



The gross profit ratios for Blue Value™ and Rose Value™ products are higher than the gross profit ratio for the Group's products as a whole (approximately 20%)

Roles of bodies and individuals involved in each process



\*1 The Corporate Sustainability Committee is comprised of president (chair), responsible officer for the Corporate Sustainability Committee, executive officers with specific titles, business sector presidents, and relevant general managers  
\*2 The review board is comprised of general manager of the RC & Quality Assurance Division (chair), general managers of business divisions, and general managers of the New Business Incubation Center, Corporate Planning Division, R&D Planning & Coordination Division, and Corporate Sustainability Division  
\*3 Internal advisors are director of the Chemicals Safety Department, general manager of the Intellectual Property Division, and director of the Co-Creation Promotion Department

## Increasing Sales of Blue Value™ and Rose Value™ Products and Services

### System design

All divisions, including business divisions, can propose changes to the system to align their respective policies and strategies with the certification criteria. Once a proposal is made, the review board decides on whether or not to change the system, based on the opinions given by external and internal advisors from the perspective of consistency with social demands. Management oversees the system from the perspective of consistency with our management policy at the Corporate Sustainability Committee.

### Review and certification

Business divisions assess the contributions their own products and services make to the environment and improved QOL based on the Blue Value™ and Rose Value™ criteria, and submit an application to the review board. When submitting an application, applicants also provide evidence of the product or service's contribution impact and whether there are any negative impacts or other factors throughout the entire life cycle. The review board decides on whether or not to certify the product or service under application, taking into account the opinions of external and internal advisors, in order to objectively verify consistency with social demands, etc. The review board uses a two-step review process to confirm factors such as the rationale behind the assessment of the contributions and whether the concept and selling points of the product or service under application meet the Blue Value™ or Rose Value™ criteria.

### Step 1: Approach to social challenges

In assessing our Group's products and services to confirm whether they meet the Blue Value™ and Rose Value™

criteria, we set contribution categories (certification item) that indicate in what areas our Group's products and services contribute to solving social challenges based on our material topics, and actions aimed at helping solve social challenges (decision item). The review board assesses our Group's products and services from such viewpoints as where in the supply chain they work in line with these items and whether they are expected to have a positive impact on solving social challenges.

### Step 2: Our reasonable involvement

The review board assesses how the value provided by our Group's products and services contributes to the approach to social challenges assessed in the first step. Since our Group is located upstream in the supply chain and offers a wide range of products and services to various industries, the review board assesses the value of our products and services over their entire life cycle;

the review board not only assesses our own direct contributions, but also visualizes and assesses a wide range of contributions along the supply chain, including product processing at our customers' sites and end product use situations.

### KPI management

The Blue Value™ and Rose Value™ products sales revenue ratios, which were set as non-financial metrics in VISION 2030, are subject to regular reporting to the Corporate Sustainability Committee. This allows management to instruct business divisions, for example, to reconsider their strategies according to the progress of KPIs. Each business division then works to incorporate measures into their business strategies, such as promoting business development and reviewing sales strategies to increase sales revenue of certified products. Through this cycle of KPI management, we aim to both achieve our corporate growth and realize our ideal future society through the system.

### External experts (Blue Value™ and Rose Value™ advisors)

In the Blue Value™ and Rose Value™ product certification process, we design assessment methods and criteria for review based on advice from the external experts shown on the right. We also ask these experts to present their opinions on the level of contribution made by the product in question prior to the review board's examination.

Messages from external experts  
[https://jp.mitsuichemicals.com/en/sustainability/mci\\_sustainability/contribution\\_value/blue\\_value/index.htm](https://jp.mitsuichemicals.com/en/sustainability/mci_sustainability/contribution_value/blue_value/index.htm)  
[https://jp.mitsuichemicals.com/en/sustainability/mci\\_sustainability/contribution\\_value/rose\\_value/index.htm](https://jp.mitsuichemicals.com/en/sustainability/mci_sustainability/contribution_value/rose_value/index.htm)



Dr. ITSUBO Norihiro  
Professor, School of Creative Science and Engineering, Waseda University



Mr. ADACHI Eiichiro  
Senior Counselor, Japan Research Institute, Limited




















## Increasing Sales of Blue Value™ and Rose Value™ Products and Services

### Blue Value™ assessment method

















- We set three contribution categories (certification item): (1) reducing CO<sub>2</sub>, (2) conserving resources, and (3) coexisting with nature, based on impact areas identified by using LIME2\*, as well as actions aimed at helping solve social challenges (decision item).
- We seek data and a trade-off analysis to assert that the product's environmental contributions are in line with actions aimed at helping solve social challenges, and assess the environmental impact of the product throughout the entire life cycle comparatively against general products on the market and our own existing products.
- Certification criteria are that the product's environmental contributions must be recognized as being of a sufficient level in one or more of the three contribution categories, and that no negative impacts are found in the assessment of any of the three contribution categories.

\* LIME2 (Life-cycle Impact assessment Method based on Endpoint modeling): Damage assessment-type life cycle environmental impact assessment method based on environmental conditions in Japan

Contribution categories (certification item)	Impact areas (LIME2)	Actions aimed at helping solve social challenges (decision item)
<b>Reducing CO<sub>2</sub></b>    	Global warming Ozone layer depletion	<ul style="list-style-type: none"><li>• Change to materials with lower greenhouse gas (GHG) emissions intensity</li><li>• Reduce use of raw materials</li><li>• Change to renewable raw materials</li><li>• Improve energy efficiency of equipment and machinery</li><li>• Change to energy sources with lower GHG emissions among other actions</li></ul>
<b>Conserving resources</b>       	Resource consumption Land use Waste	<ul style="list-style-type: none"><li>• Reduce use of chemical raw materials (fossil resources), mineral resources, etc.</li><li>• Change to chemicals derived from renewable resources among other actions</li></ul>
<b>Coexisting with nature</b>      	Acidification Urban air pollution / indoor air pollution Photochemical oxidants Toxic chemical substances Ecotoxicity Eutrophication	<ul style="list-style-type: none"><li>• Avoid use of toxic materials</li><li>• Reduce emissions of hazardous waste among other actions</li></ul>

### Rose Value™ assessment method

- We set three contribution categories (certification item): (1) enriching life and society, (2) extending healthy life-span, and (3) protecting food, which are among our reorganized material topics, as well as actions aimed at helping solve social challenges (decision item) based on needs for solving social challenges. We revise these items as necessary to reflect changes in the environment both within and outside our Group.
- We assess our products and services in terms of their consistency with actions aimed at helping solve social challenges, whether they are expected to have a positive impact on solving them, etc.
- Certification criteria are that the product's QOL improvements must be recognized as being of a sufficient level in any of the three contribution categories, and that the expected positive impact must outweigh a possible negative impact on society at large.

Contribution categories (certification item)	Actions aimed at helping solve social challenges (decision item)	
<b>Enriching life and society</b>        	Disasters	Reduce the occurrence of disasters or the impact of disasters on human lives and daily life
<b>Extending healthy life-span</b>    	Products and services that form the basis of daily life	Ensure a stable and permanent supply of products and services that serve as essential infrastructure for social life
	Livelihood activities (1) (improvement of safety)	Reduce the risk of injury and other risks associated with unavoidable activities in daily life
	Livelihood activities (2) (inclusive society)	Improve disadvantages for certain vulnerable groups that are associated with unavoidable activities in daily life
<b>Protecting food</b>  	Living environment	Enable the social and economic sustenance of water and sanitary living conditions for all people to maintain their health
	Personal health	Ensure that all people have access to the products and services they need to maintain and improve their health
	Medical and social services	Ensure that all people have access to medical and social services when they need them
<b>Protecting food</b>  	Food	Ensure that all people have access socially and economically to safe food in the quantities and at the times they need it

Increasing Sales of Blue Value™ and Rose Value™ Products and Services

### Feature

## Customer engagement

The Mitsui Chemicals Group has certified Prasuk™, a bio-polypropylene (“bio-PP”) manufactured under the mass balance method as well as sold by Prime Polymer Co., Ltd. —a Mitsui Chemicals Group company— as a Blue Value™ product. Today, we interview Mr. SHITARA Yoshimasa from the Japanese Consumers’ Co-operative Union (JCCU), who is responsible for sustainability strategy, to ask him how the union has come to adopt Prasuk™ as packaging materials and the vision of an ideal future.



- Middle:** Mr. SHITARA Yoshimasa, Sustainability Strategy Manager, Sustainability Strategy Department, Brand Strategy Division, Japanese Consumers’ Co-operative Union (JCCU)
- Left:** Mr. HAKUMOTO Yasutaka, Head of Circular Economy Business Development Department, Planning & Administrative Division, Prime Polymer Co., Ltd.
- Right:** Ms. SHEN Jie, Bio Team Leader, Circular Economy Business Development Department, Planning & Administrative Division, Prime Polymer Co., Ltd.

**SHITARA:** We started discussing the possibility of using Prasuk™ for the packaging of our products around June 2022 when Prime Polymer approached us.

**SHEN:** I used to work at a base in China, and when I returned to Japan in January 2021 during the COVID-19 pandemic, I had a very difficult time obtaining food as I had to live in isolation. Back then, I used a co-op to secure food. Because of my profession, I was curious about the packaging of products I received from the co-op, and as I looked at the packages, I noticed that many of them were made from bio-based or recycled materials. That’s why I decided to tell you about Prasuk™.

**SHITARA:** CO-OP brand products are there to fulfill the wishes of our members’ lives. JCCU began introducing recycled and bio-based plastic packaging around 2016. In 2018, there was a strong social interest in environmental issues caused by plastics, and in response to the many voices of our members, we have been working to strengthen the sustainability of our CO-OP brand product packaging. The 2030 Goals for CO-OP Brand Products aim to reduce the amount of disposable plastic containers and packaging used by 25% compared to the fiscal 2016 level, and to promote the total use rate of recycled plastic and bio-based plastic to 50% or more by 2030.

**SHEN:** It has been nearly 10 years since you started to make your packaging environmentally friendly, and now you have adopted Prasuk™, a bio-PP. You have told us that this is the first time for JCCU to adopt a bio-PP. What makes it different from conventional bio-based plastics?

**SHITARA:** Previously we had used bio-based plastics produced under the segregation method, so this is the first time we have adopted the bio-attributed plastics produced under the mass balance method.

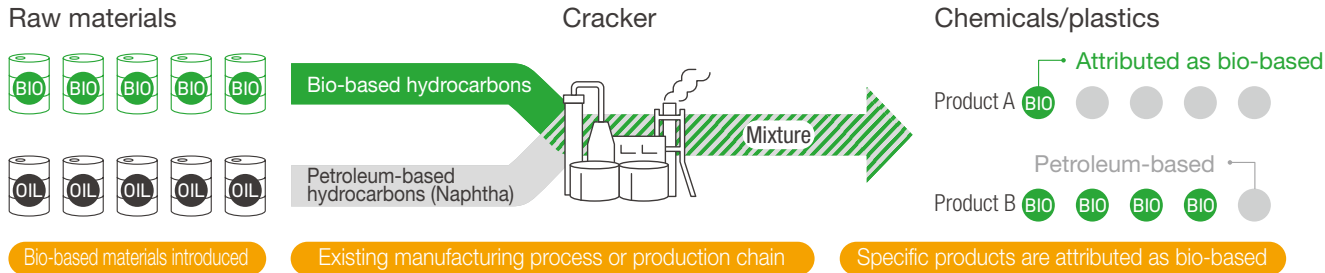
**SHEN:** In March 2022, we started commercial production and shipment of bio-PP under the mass balance method for the first time in Japan.

Increasing Sales of Blue Value™ and Rose Value™ Products and Services

Feature **Customer engagement**

### Mass balance method (material balance method)

The mass balance method is an approach of attributing a measure of sustainability to a product when it has been manufactured using both sustainable raw materials (e.g., bio-based raw materials) and non-sustainable raw materials (e.g., petroleum-based raw materials). The measure is attributed according to the amount of sustainable raw material input.



### Segregation method (physical separation method)

Under the segregation method, certified bio-based products are kept physically separate from non-certified products, starting right from material procurement and going all the way through to production and shipment.



How have you decided to adopt the mass balance method so soon?

**SHITARA:** The packaging films of our products come in a variety of types, from PET, polyethylene (PE) to polypropylene (PP). In the segregation method, producing bio-based PP was quite challenging. However, the introduction of the mass balance method by the Mitsui Chemicals Group made it possible for us to shift to bio-based PP. As

I mentioned, to achieve our environmental goal of raising the percentage of recycled plastics and bio-based plastics used in our packaging to 50% or higher, we need to introduce more plastics derived from bio-based raw materials under the mass balance method.

**SHEN:** You mean bio-PP produced under the mass balance method is essential to making PP packages more environmentally friendly.

**SHITARA:** The mass balance method is beneficial to both producers and users, because, for manufacturers, existing production equipment and manufacturing process can be used without modification; and for consumers, the same functions and quality as conventional products are guaranteed. The problem is that, even with the mass balance method, the price difference between bio-based plastics and petroleum-derived plastics is inevitably large.

**HAKUMOTO:** Cost increase due to a shift to bio-based plastics is a major problem. Could you share your thoughts on the decision to adopt this method despite the accompanying cost increase?

**SHITARA:** From the perspective of protecting people's lives, it is important to keep product prices low. However, we believe that what they hope for in life is not just products prices being low. In fact, the value of products lies with their taste and how the raw materials and packaging used are environmentally or socially friendly, for instance. We believe that the important thing is to strike a balance between these factors.

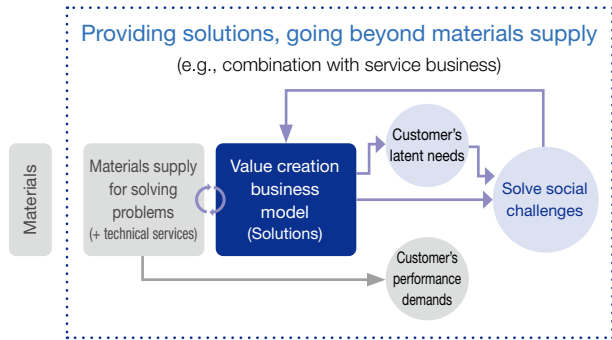
We will continue to cater to the needs of our members in their lives by utilizing environmentally friendly materials.

 Mitsui Chemicals Biomass & Recycling Solutions  
<https://jp.mitsuichemicals.com/en/sustainability/beplayer-replayer/>

## Strategies for Transforming Our Business Model

### Solutions-based business models

The business environment surrounding the Mitsui Chemicals Group is changing much faster than expected. To meet the needs and challenges of an increasingly diverse and complex society, customers, and end consumers, we are making an endeavor to create solutions to social challenges by digging deeper into our traditional business model of providing “materials.” In doing so, we will break away from a “make and sell” mentality and introduce an approach of “creating new solutions through designing businesses that make full use of our materials (as tangible and intangible assets) and external assets in collaboration with external parties.” By this way, we will build value-creating business models, with an eye toward collaboration with all types of businesses.



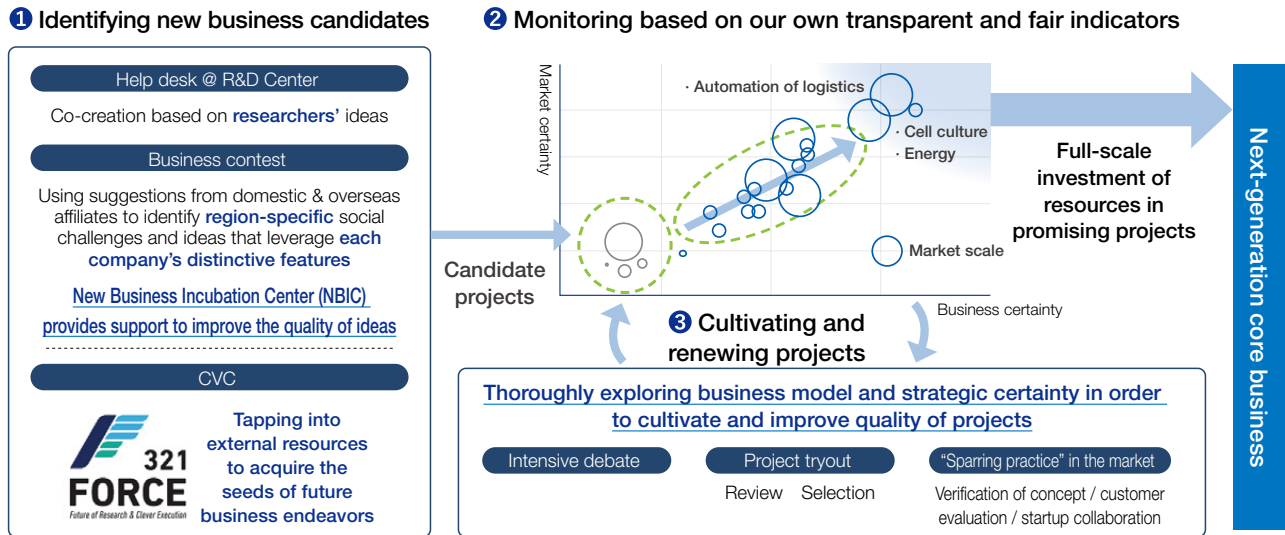
### The New Business Incubation Center promoting solutions-based business models

The New Business Incubation Center (NBIC) is the driving force for the initiatives towards the Basic Strategy of VISION 2030, “Building solutions-based business models.” NBIC,

with an independent officer assigned to speed up management decisions, helps deepen cross-organizational collaborations and cross-company partnerships, strengthen our business design capabilities, and promote the creation of new businesses that provide new value based on social challenges. On top of exploring new business topics and developing new early-stage businesses in all domains, including the four business domains of the Group, it will develop on its own new businesses that do not belong to any of the four business domains.

### Enhancing systems for identifying and cultivating new businesses

We increase the quantity and quality of new business candidates and make full-scale investment of resources in promising projects, thereby creating the next generation core businesses.



#### Specific internal and external collaborations

1. Leverage corporate venture capital (CVC)\* to develop contacts with domestic and overseas startups across the Group and promote business co-creation along with intelligence sharing.  
\* CVC “321FORCE™” established with Global Brain Corporation in July 2022: [https://jp.mitsuichemicals.com/en/special/cvc\\_general/](https://jp.mitsuichemicals.com/en/special/cvc_general/)
2. Collaborate with the Group's manufacturing divisions or with suitable external partners to build an optimal supply system for the provision of goods and services.
3. Collaborate with the four business sectors to promote market development and the construction and expansion of sales networks globally.



## Strategies for Transforming Our Business Model

### Solutions-based business models

We identify new business candidates and monitor them based on our own transparent and fair indicators through internal co-creation based on researchers’ ideas, business contests organized by domestic and overseas affiliates, and contacts with startups acquired through CVC. We then thoroughly explore business model and strategic certainty through intensive debates and project tryouts in order to cultivate and renew projects.

#### CASE STUDY

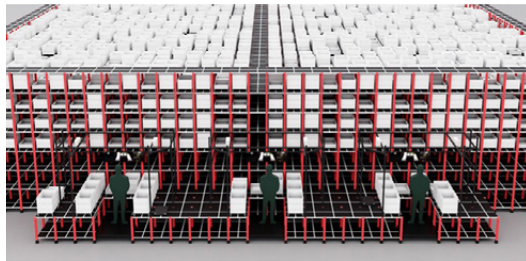
##### Examples of business co-creation using contacts with startups

We are promoting new business development in the cell culture sector by deploying our unique materials for scaffolding for stem cell culture used in the Achieva-CS, a high-density, large-scale stem cell culture device developed by FullStem Co. Ltd., and for components to be applied to real-world use of this device in wide-ranging applications.

Through contacts with Zafrens Inc., a startup developing an ultrahigh-throughput single cell platform that can isolate, image, run assays on and sequence cells in one experiment, we are also exploring business opportunities in the cell culture sector and expanding our new business portfolio in this area.

##### Example of new business promotion: Logistics automation solutions business

In July 2022, we started the development of the Rapyuta ASRS automated warehouse jointly with Rapyuta Robotics Co. Ltd. (“Rapyuta”), which was subsequently launched in the market by Rapyuta in August 2023. By providing a total solution from plastic selection and structural component design to supply of components, we have made possible the early commercialization of the product with the concept of being adaptable to the shape and size of any warehouse by the block construction method, which requires no special

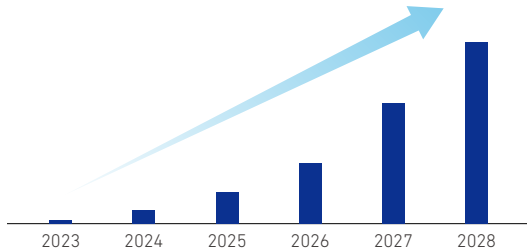


© Rapyuta Robotics

tools and screws.

The Rapyuta ASRS automated warehouses have already been installed in several logistics hubs, contributing to solving the social challenges of increasing logistics volumes. We will establish the mass production setup for components and bolster efforts to promote the business through integrated operation of the business by consolidating manufacturing, technology, sales and management into a single manufacturing site.

Sales revenue plan for the logistics automation solutions business



## Strategies for Transforming Our Business Model

### Materials supply for solving problems

The Mitsui Chemicals Group aims to contribute to solving social challenges and achieve sustainable growth driven by these initiatives. To this end, we are shifting from the traditional business of providing materials from customer perspective to a business of creating value from a social issue perspective by asking ourselves “what challenges society and customers are facing.” By actively investing resources in differentiated areas of the market that are growing against the backdrop of social challenges, we are accelerating the development and supply of materials for solving problems.

#### New composite materials derived from seawater minerals, NAGORI™

In recent years, desalination of seawater to secure water for domestic use has been taking place in many parts of the world. During desalination, water with a high mineral content in thick salt water called “brine” is produced. The disposal of this brine increases the salinity of seawater, leading to environmental problems such as fish and coral mortality.

To solve these social challenges, our new composite material NAGORI™ was created from mineral components extracted from seawater from the perspective of promoting the future utilization of discarded brine. This material was developed through our open laboratory project MOLp™\*1. Utilizing our renowned compounding technology, the material contains up to 75% seawater-derived mineral components. It can be molded in the same way as thermoplastic resins, combining the texture and thermal conductivity of ceramics and natural stone.

We won the Good Design Award 2018 for NAGORI™, earning selection into the Good Design Best 100 as one of the top 100 winners of the 2018 award. The material has also acquired the Society of International sustaining growth for Antimicrobial Articles (SIAA)\*2 mark as a compounding material with antibacterial and antiviral properties.

\*1 <https://jp.mitsuichemicals.com/en/molp/index.htm>

\*2 SIAA registration number: JP0121068A0001U, JP0611068X0002F

#### CASE STUDY for customer adoption

##### 01. NAGORI™ adopted for the housing of LAMDASH PALM IN, ES-PV6A, a new shaver launched by Panasonic Corporation in fiscal 2023

LAMDASH PALM IN was born from the idea that a shaver should be more than just a tool for shaving, but also a tool for enriching daily life, and from the pursuit of a shaver that blends in better with the space and is a part of our daily life. It won the Gold Prize in the Good Design Awards 2023 and was selected as a finalist for the Grand Award. The use of NAGORI™ for the body gives it the appearance of a natural object.



© Panasonic Corporation

##### 02. NAGORI™ adopted by the tableware brand ARAS for its Sustainable Collection Vol. 2 “Seawater”

NAGORI™ has been adopted for ARAS, a brand of tableware for everyday use by people with a particular taste. ARAS’ unique, sustainable philosophy, which places importance on the longevity of a single object, is not just about repainting the image of resin but also about influencing people’s lifestyles and values and changing the world for the better as the philosophy is integrated into people’s lives. ARAS tableware is supplied to many well-known hotels.



© Ishikawa Jushi Kogyo KK

##### 03. NAGORI™ adopted for the JOICFP “White Ribbon Boutonniere”

JOICFP is an international cooperation NGO that protects women’s lives and health and promotes sexual and reproductive health and rights (SRHR) for everyone. JOICFP is expanding its activities in Japan and overseas with the White Ribbon, a symbol of people in about 160 countries shaking their hands to realize the world where all women can live a healthy life in their own way. NAGORI™ has been selected for the White Ribbon Boutonniere, a pin badge of the White Ribbon, in recognition of its ceramic-like texture of natural objects.



## Strategies for Transforming Our Business Model

### Bolstering circular economy initiatives

The Mitsui Chemicals Group has contributed to improving convenience in people's lives and helped solve challenges in society through the supply of chemical products and high-performance plastic products. At the same time, our business activities require the substantial use of fossil resources and energy, which emits large volumes of greenhouse gases (GHGs). Also, there are concerns over environmental pollution caused

by plastic waste flowing into the oceans and other areas.

In view of these circumstances, we have positioned climate change coupled with plastic waste problems as especially important social challenges, and moved ahead with our carbon neutral strategy, biomass strategy, recycling strategy, and our initiatives to address the plastic waste problem. These strategies and initiatives help drive the recycling of resources, which

we believe are aimed at realizing a transition from conventional linear economic activities, based on the premise of mass consumption and disposal of resources, to a circular economy, which allows for greater environmental and social sustainability. The Mitsui Chemicals Group contributes to solving social challenges by bolstering circular economy initiatives.

Carbon neutral strategy

Biomass strategy

Recycling strategy

Carbon neutral strategy

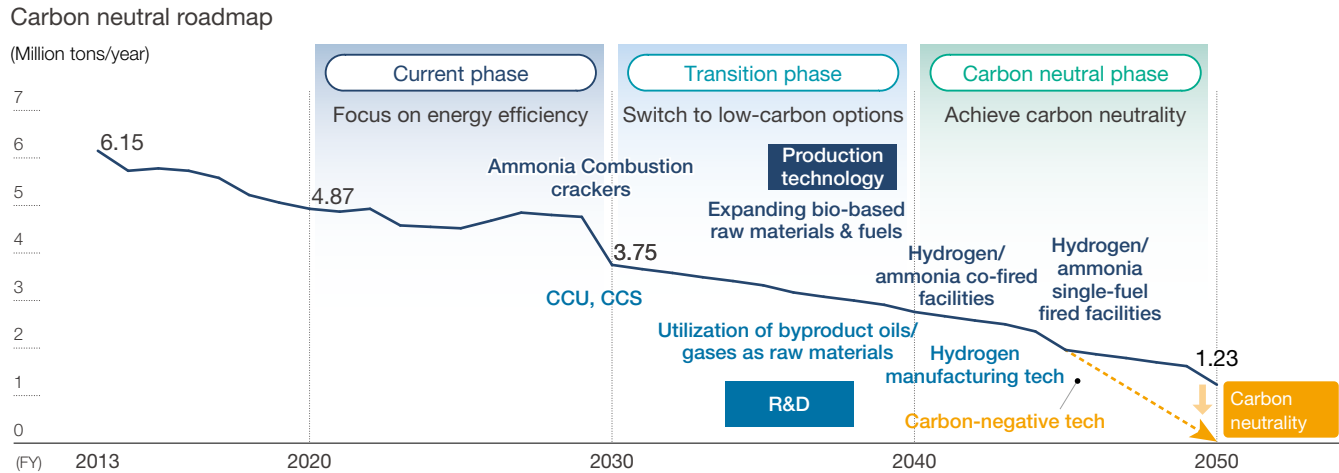
TCFD

The Mitsui Chemicals Group believes that, as a chemicals company, we have an important role to play in helping to build a sustainable society that can limit the average global temperature rise to 1.5 degrees Celsius. Therefore, in November 2020, we declared our commitment to become carbon neutral by 2050. We developed a carbon neutral strategy which is centered around the two pillars of (1) reducing our own GHG emissions (Scopes 1 and 2), and (2) maximizing the avoided emissions of our products over their entire life cycle, and have implemented concrete measures that contribute to the transformation of society.

We are considering investing an amount to the scale of 140 billion yen in carbon neutrality by 2030, and we will flexibly invest funds across the entire Group.

Strategy (1) Reducing GHG emissions (Scopes 1 and 2) of the Mitsui Chemicals Group

The Mitsui Chemicals Group aims to reduce its GHG emissions by 40% by fiscal 2030 relative to fiscal 2013 levels to make important progress toward the goal of achieving carbon neutrality by 2050. This is one of our non-financial targets in VISION 2030. To facilitate progress, we have defined a clear roadmap toward carbon neutrality in full consideration of prospective plant construction (new plants and expansions) and other factors. Specifically, we plan to transition to low-carbon raw materials and fuels, conserve energy by installing highly



Measures by the Group			
Fuel	Use of fossil fuels Utilization of bio-based/ low-carbon fuels in some facilities	Switch to low-carbon fuels (bio-based, LNG) CCU, CCS Partial decarbonization (ammonia)	Expansion of low-carbon fuels Decarbonization (hydrogen/ammonia/bio-based)
Facilities	Rigorous energy conservation	Hydrogen/ammonia co-fired power generation Some ammonia-fueled naphtha crackers	Hydrogen/ammonia single-fuel power generation Expansion of ammonia-fueled naphtha crackers
Purchased power	Primarily power from fossil fuels	Expansion of power from renewable energy Utilization of credits	Carbon neutrality of purchased power (renewable energy, etc.)

## Strategies for Transforming Our Business Model

### Bolstering circular economy initiatives

energy-efficient equipment, and adopt renewable energy. By 2050, in addition to implementing the aforementioned measures, we intend to achieve 80% or more of these reductions mainly through the development of new technologies and the transition of our business portfolio—though this presupposes markets, customers, and other aspects of the external environment falling into place or changing. We also plan to move forward with the development and implementation of carbon-negative technologies, such as carbon capture, utilization, and storage (CCUS), to handle the remaining 20%.

In addition, since fiscal 2019, we have implemented an internal carbon pricing (ICP). By adding internal rate of return (IRR) that takes ICP into account (c-IRR) to our investment decision-making, we are discussing the necessity of investments from the perspective of not only economic opportunities but also a risk that environmental impact may increase in the future. As a measure to accelerate our strategy, we revised our ICP from 3,000 yen/tCO<sub>2</sub>e to 15,000 yen/tCO<sub>2</sub>e in fiscal 2022.

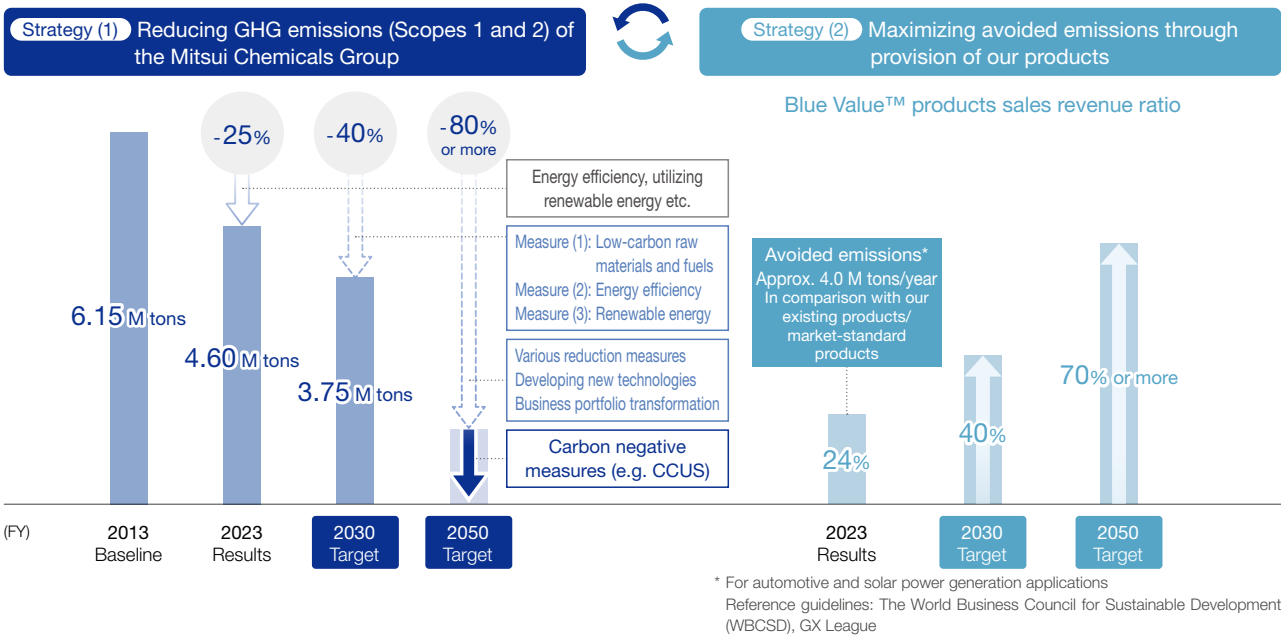
Strategy (2) Maximizing avoided emissions through provision of our products

Through our supply of Blue Value™ products that make significant environmental contributions, we aim to maximize GHG emissions avoided over the entire product life cycle. In this way, we intend to help all of society achieve carbon neutrality. We have set a 40% or greater Blue Value™ products sales revenue ratio as one of our non-financial targets in VISION 2030, and we have reflected this in the strategy of each business. In addition, for some of our Blue Value™ products, we calculate the contribution of avoided emissions under the review of outside experts. By sharing the results of the calculations with our stakeholders, we have continued efforts to make our contributions more visible.

Carbon neutral strategy

Biomass strategy

Recycling strategy



\* For automotive and solar power generation applications  
Reference guidelines: The World Business Council for Sustainable Development (WBCSD), GX League

Example

Transition to low-carbon raw materials and fuels

Switching to alternative fuels for naphtha crackers—ammonia utilization

While naphtha crackers are key for a chemicals company, they also are facilities that emit a large amount of GHGs. By switching from methane-based fuel to carbon-free ammonia in naphtha crackers, the Mitsui Chemicals Group aims to bring the amount of CO<sub>2</sub> generated in combustion as close to zero as possible and contribute to reduction of GHG emissions across the entire petrochemicals industry.

With Mitsui Chemicals, which has both naphtha cracker and ammonia businesses, acting as a lead company, we are proceeding with demonstration tests in collaboration with Maruzen Petrochemical Co., Ltd., Toyo Engineering Corporation, and Sojitz Machinery Corporation. The research and development period is envisaged to be the 10 years from fiscal 2021 to fiscal 2030, with a goal of completing the demonstration of entirely ammonia-fueled naphtha crackers by 2030. Currently, we have made progress as scheduled toward a goal of developing ammonia burners and test furnaces by 2026. The construction of test furnaces is scheduled to start in the latter half of fiscal 2024.

This project has been selected as a demonstration test for *development of advanced technologies for naphtha crackers* by the Green Innovation Fund program publicly solicited by the New Energy and Industrial Technology Development Organization (NEDO).

Example

Development and implementation of carbon-negative technologies

Progress by Mitsui Chemicals, Inc. - Carbon Neutral Research Center

▶▶ P. 72



## Strategies for Transforming Our Business Model

 Carbon neutral strategy  Biomass strategy  Recycling strategy

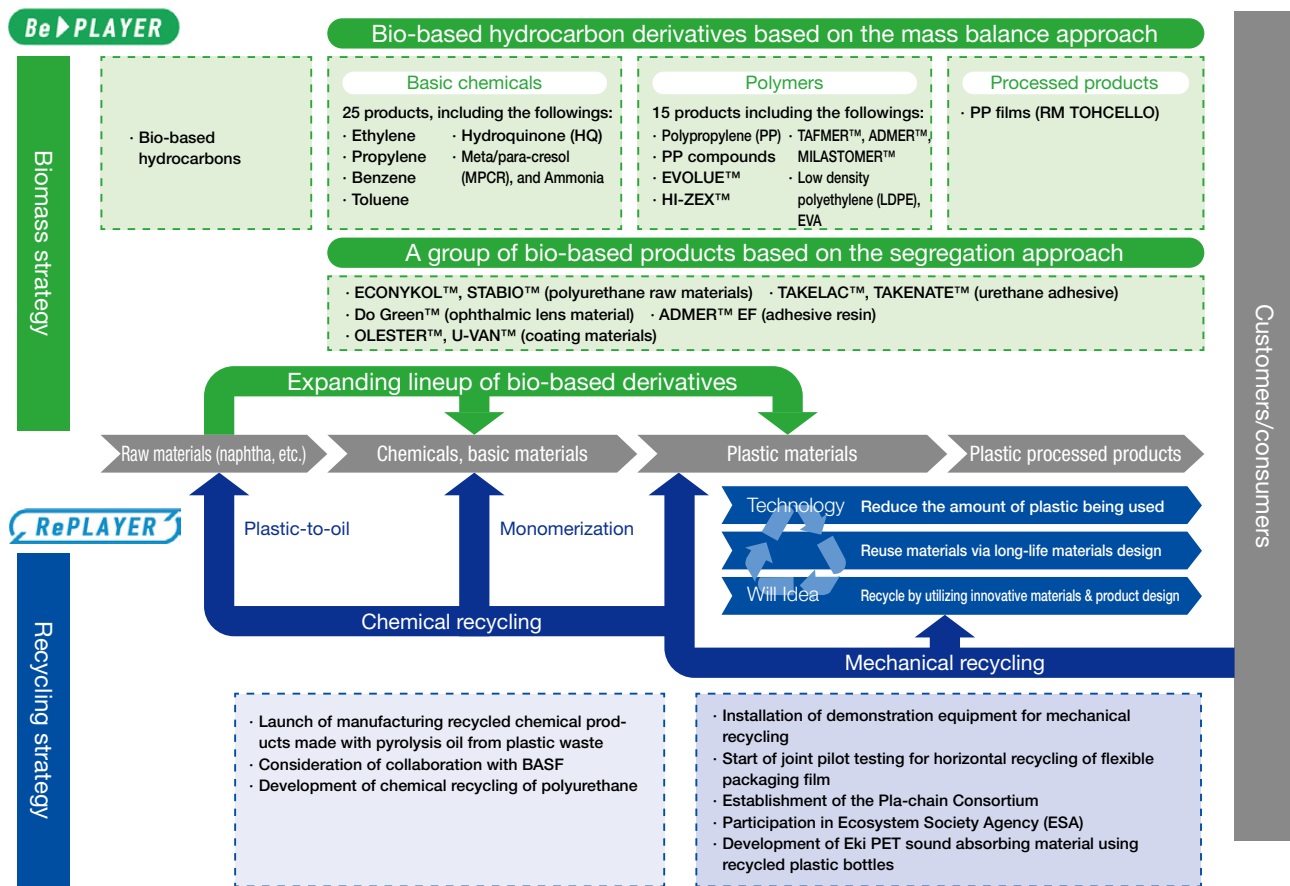
 **Example**

**Transition to low-carbon raw materials and fuels**  
Regional and multi-company collaborations toward building the hydrogen/ammonia supply chain

The Mitsui Chemicals Group has aimed to utilize ammonia as fuels for naphtha crackers. In fact, ammonia is expected to be used in a broad range of applications, including fuels in the field of power generation, for heat utilization in the industrial field, and hydrogen carrier. Jointly with Mitsui & Co., Ltd. and IHI Corporation, we have commenced studies to establish bases for receiving, storing, and supplying ammonia in the Osaka coastal industrial zone, as well as to expand the use of ammonia in the Kansai and Setonaikai regions (announced in August 2023). As part of these efforts, we have decided to start the feasibility study on establishment of ammonia supply bases in the Sakai-Senboku area of Osaka (capable of importing and receiving, storing, and shipping ammonia). We have organized and analyzed the information necessary to determine its feasibility, aiming to start supply by fiscal 2030. In May 2024, this feasibility study project was selected for fiscal 2024 Subsidy for Measures to Promote Introduction of Non-Fossil Energy (Hydrogen Supply Infrastructure Development Project).



Osaka Works, a candidate site for the ammonia supply base



### Biomass strategy

Bio-based plastics made from plants—which grow by absorbing CO<sub>2</sub>—and animals are attracting much attention as a possible substitute for conventional petroleum-derived plastics. As we believe that a shift to bio-based raw materials encourages resource recycling, curbs the further use of fossil resources, and therefore helps mitigate climate change, we aim to expand our lineup of bio-based plastic products.




### Recycling strategy

As social challenges related to waste management, such as resource depletion and the problem of plastic waste, become more serious, the Group considers waste plastics and other materials as resources and is promoting initiatives to effectively utilize them. We believe that, by promoting the recycling of resources, we can contribute not only to an effective use of resources, including the reduction in fossil raw materials and fuels we use, but also to the reduction of waste through the

recycling of waste plastic and the reduction of GHG emissions across the value chain. With the development of new materials, recycling systems, and value chains, we will make the circle of the circular economy bigger and broader, such as through chemical and mechanical recycling of waste plastic, development of mono-material packaging, and support for startup businesses.

## Strategies for Transforming Our Business Model

 Carbon neutral strategy  Biomass strategy  Recycling strategy

   **Example**

**Starting manufacturing and sales of chemically recycled products made with pyrolysis oil from plastic waste**  
Achieving Japan's first bio & circular cracker

The Mitsui Chemicals Group has begun Japan's first manufacturing and sales of chemically-recycled derivatives (chemicals and plastics) based on the mass balance approach, using pyrolysis oil produced from plastic waste and procured from CFP CORPORATION as a feedstock for the cracker at the Osaka Works since March 2024. This initiative will make it possible to adapt materials derived from recycling processes in applications where such materials could not conventionally be used due to quality or hygiene considerations. The move could potentially result in a substantial increase in the recycling rate of plastics, which has been low to date. In addition, with this technology, as plastic waste is pyrolyzed into hydrocarbon oil and fed into the cracker, the most upstream part of our operations, the physical properties of the derivatives (chemicals and polymers) are equivalent to those of more conventional products made from virgin materials.

Combined with our December 2021 introduction of bio-based hydrocarbons to a cracker, this latest initiative marks the achievement of Japan's first bio & circular cracker. The project is emblematic of our efforts to transition away from petroleum-based raw materials, and will help bring about a society that is not just sustainable but regenerative.

**Bio-based** (bio-based hydrocarbons) launched in December 2021

**Chemical recycling** (pyrolysis oil from plastic waste) launched in March 2024

**Waste plastics**

**Plastic products**

**Cracker**

**Plastics**

**Incineration/degradation**

**CO<sub>2</sub>**

**Be ▶ PLAYER**



**RePLAYER**

**Pyrolysis oil from plastic waste**

**Bio-based hydrocarbons (from waste cooking oil, etc.)**

**Cooking oil**

**Plants**

  **Example**

**Building a resource circulation platform that enables the traceability of plastic materials**  
Providing our RePLAYER™ Blockchain Platform

The Mitsui Chemicals Group has developed and provided the digital resource circulation platform RePLAYER™ Blockchain Platform as a solution to promote the recycling of plastic materials. This platform ensures the traceability of recycled plastics by linking and storing a range of information necessary for the recycling of plastics, such as the information on materials, the information on physical properties, information on quality, the ratio of recycled materials, and the number of times recycled, with manufacturing numbers or serial numbers in each phase of the supply chain. In addition, the platform has enabled us to provide recycled materials that are safe and secure in terms of protecting information and ensuring authenticity through an effective use of the blockchain technology.

Moreover, the Mitsui Chemicals Group, as the leading company, established the Pla-chain Consortium jointly with IBM Japan, Ltd. and Nomura Research Institute, Ltd. to realize a resource recycling-oriented society. The consortium has been striving to form a partnership beyond the boundaries of industries to promote the use of recycled plastics with a focus on traceability (51 companies have joined the partnership as of June 2024).

**RePLAYER™ Blockchain Platform**

**Petroleum** → **Naphtha** → **Monomers** → **Polymers** → **Compound** → **Parts makers** → **Manufacturers** → **Consumers** → **Collection vendors** → **Disassembly vendors** → **Grinding vendors** → **Recycling vendors**

**Biomass**

**Plastic part** → **Home appliances** → **Home appliances** → **Collection of used home appliances** → **Manual disassembly** → **Plastics and metal scraps** → **Recycled plastics**

**Trace key code**

**Manufacturing lot** → **Manufacturing lot** → **Serial no.** → **Serial no.** → **Collection cases** → **Collection vehicle no.** → **Disassembly lot** → **Manufacturing lot** → **Manufacturing lot**

## Strategies for Transforming Our Business Model

 Carbon neutral strategy  Biomass strategy  Recycling strategy



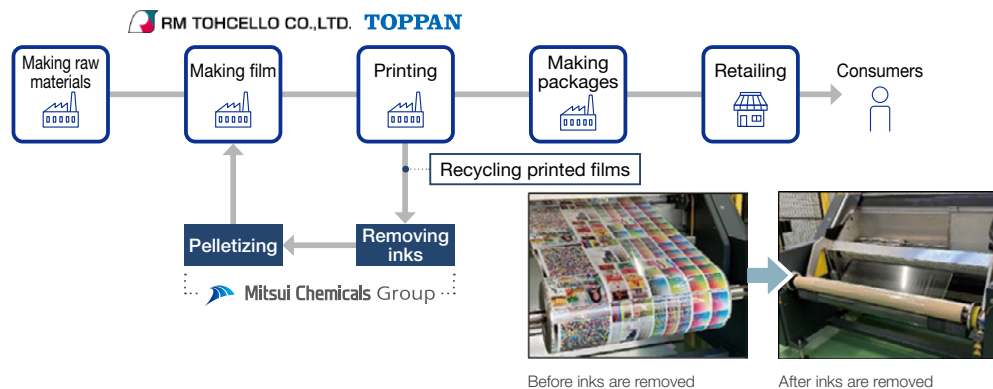
### Example

#### Flexible packaging films Launch of joint pilot testing for horizontal recycling

The Group has launched the RePLAYER™ initiative, which aims to contribute to a circular economy via recycling by using waste plastic and other waste as resources. As part of the effort to realize a circular economy, we are currently working on the RePLAYER™ Renewable Plastics Layer System to test the mechanical recycling of flexible packaging. The system serves to recover film waste after printing from converters, remove the ink, and then pelletize the waste before turning it back into flexible packaging film. Using facilities for the system at the Nagoya Works, we plan to accelerate development of recycled materials technologies suited to flexible packaging films, further expand our collection of film waste, and begin providing samples of recycled materials.

In December 2022, Toppan Inc., RM Tohcello Co., Ltd., and Mitsui Chemicals began discussing the basis of the joint pilot testing, and in August 2023, the three companies shifted to a full-fledged joint pilot testing, with BOPP film waste—generated by Toppan from processes such as printing adjustment—being recovered by Mitsui Chemicals, which also removes the film waste's printing and converts it into pellets that are in turn made into recycled BOPP film by RM Tohcello. Toppan is also evaluating the recycled BOPP film's quality, including its suitability for printing, lamination, and the creation and filling of flexible pouches. Through this initiative, the three companies aim to have this technology implemented in society by fiscal 2025 in line with the milestone laid out by the Ministry of the Environment's Resource Circulation Strategy for Plastics.

#### Scope of mechanical recycling demonstration test



CHAPTER — 03

## Problems with plastic waste

The problem with plastic waste stems from plastics that have escaped from the process for resource recycling and ended up in marine environments due to inappropriate waste management. Preventing plastic waste from leaking into rivers and the sea is of utmost importance and requires a united effort by companies in the entire plastics value chain. We have worked to manage plastic waste properly and promote its recycling by participating in global and Japanese alliances such as the Alliance to End Plastic Waste (AEPW) and Japan Clean Ocean Material Alliance (CLOMA).

**ALLIANCE  
TO END  
PLASTIC  
WASTE** 



Panel discussion at the AEPW Tokyo Summit  
(September 2023)

## Human Resources Strategy

### CHRO message

#### Reflecting on three years of progress from the start to further evolve our initiatives in pursuit of achieving VISION 2030



#### ANDOU Yoshinori

Member of the Board,  
Senior Managing Executive Officer & CHRO

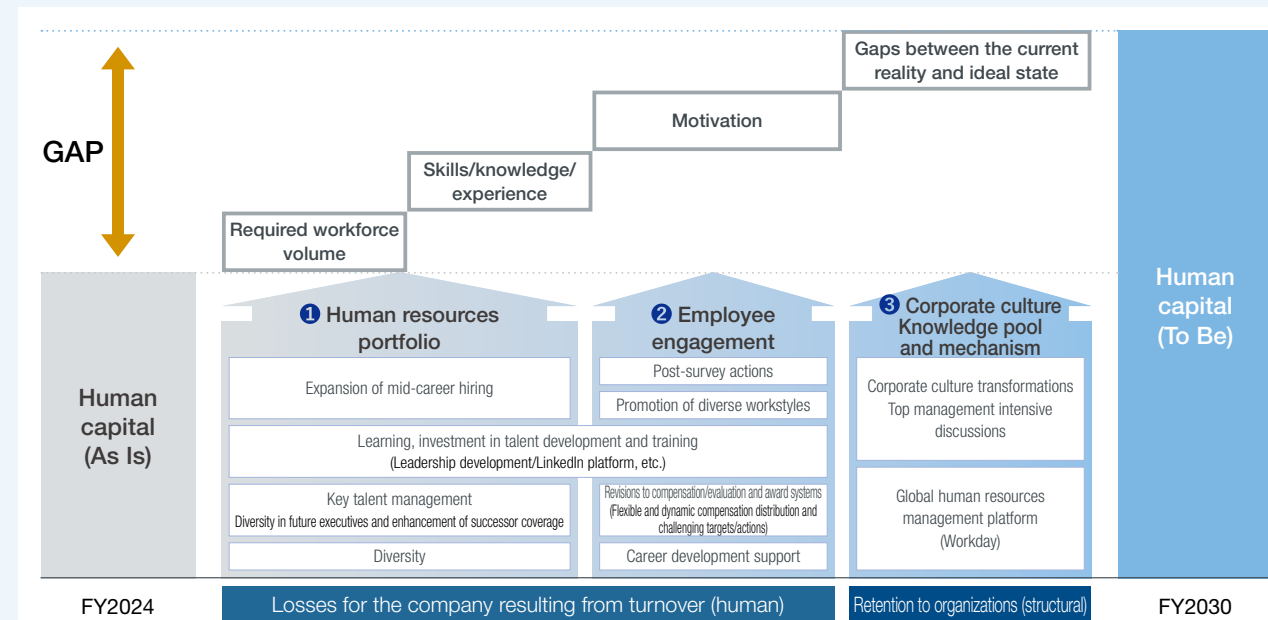
CHAPTER — 03

Three years have passed since we started VISION 2030, under which we formulated and implemented our human resources strategy—which was linked with our corporate strategy as was in the past. In fiscal 2022, we established the new position of chief human resources officer (CHRO) with the intent of reinforcing execution framework of human resources strategy on a Group and global level and forging stronger links with our corporate strategy. Since then, we have worked to further evolve our human resources measures and advance new initiatives to build solutions-based business models and pursue business portfolio transformations—two core points of the VISION 2030 Basic Strategy.

In preparing for our human resources strategy, we measure both the quantitative and qualitative gaps between the *as is* and

*to be* conditions pertaining to our human capital to identify issues to address on a priority basis, and then implement necessary measures derived from that process. We classify these gaps into three perspectives and implement a variety of measures. Specifically, they are classified into (1) quantitative and qualitative perspective pertaining to our “human resources portfolio”: knowledge, skills, experience, and abilities that human resources offer, which represent assets that the company loses with employee turnover; (2) perspective of employee motivation, which impacts our human resources’ output and outcomes as represented by “employee engagement”; and (3) perspective that focuses on structural elements, such as organizational norms and systems, centered on “corporate culture.”

Key perspectives in our human resource strategy and key initiatives to be taken over the course of VISION 2030



\* Created by Mitsui Chemicals based on the MERITUM Project Guidelines (2002)

CHAPTER — 03

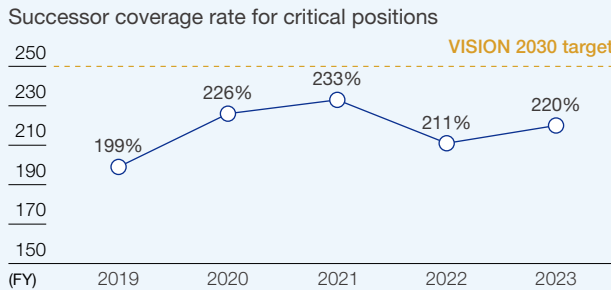


## Human Resources Strategy

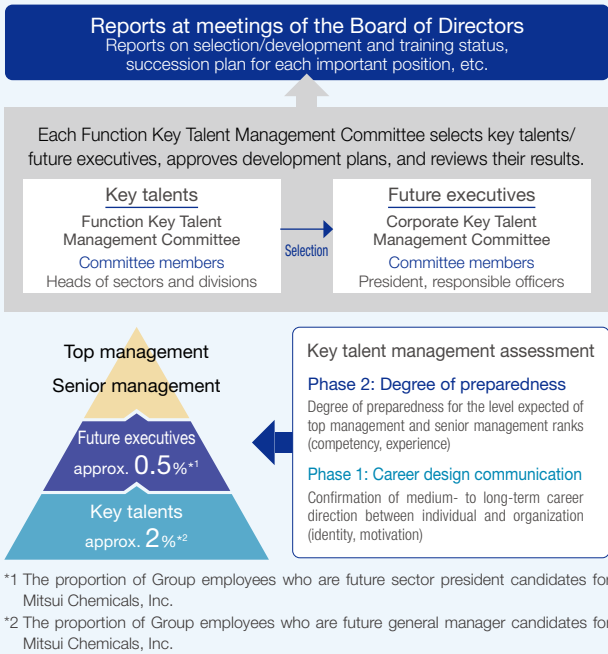
### CHRO message

#### ① Human resources portfolio

While our group's consolidated operating income before special items for fiscal 2023 came to 96.2 billion yen, we posted a 110.1 billion yen operating income before special items in growth domains only. As seen in such figures, we are currently working on transforming our business portfolio. Specifically, in the course of such process, we began working to hire more mid-career professionals in fiscal 2016, in addition to making active investments in development and training for human resources required to implement our business strategies. As a result of such efforts, we hired a cumulative total of 576 mid-career professions over the three years from fiscal 2021 to fiscal 2023. Of these, 118 were women, and 46 were appointed to manager- or higher-level positions, which require high levels of knowledge, experience, and management skills. Furthermore, we have also promoted active recruitment of human resources related to new business areas like the carbon-neutrality and digital fields. In addition, we have worked to enhance our key talent management to produce future management leaders who will drive our corporate strategy. The effectiveness of key talent management initiatives is ensured by introducing external assessment, as well as by holding in-depth top management discussions on individual development plans for future executives. By doing so, our successor coverage rate for 100 critical positions, which was established as a non-financial metric, has been kept at 200% or higher, representing at least two employees nominated as future executives for each critical position.



#### Key talent management process



#### ② Employee engagement

Based on our belief that improving the engagement of each individual employee is essential to achieve VISION 2030, we began conducting a survey of all Group and global employees in fiscal 2018. We have performed analyses of various factors affecting the Group as a whole, implementing improvement measures accordingly, and also had each department explore and implement approaches to their own specific issues. Meantime, despite facing challenging earnings conditions such as changes in the business environment, we have been working to improve our engagement score year by year. As a result of these efforts, the score for fiscal 2023 was improved to 36% from 31% when the survey began in fiscal 2018.

#### ③ Corporate culture

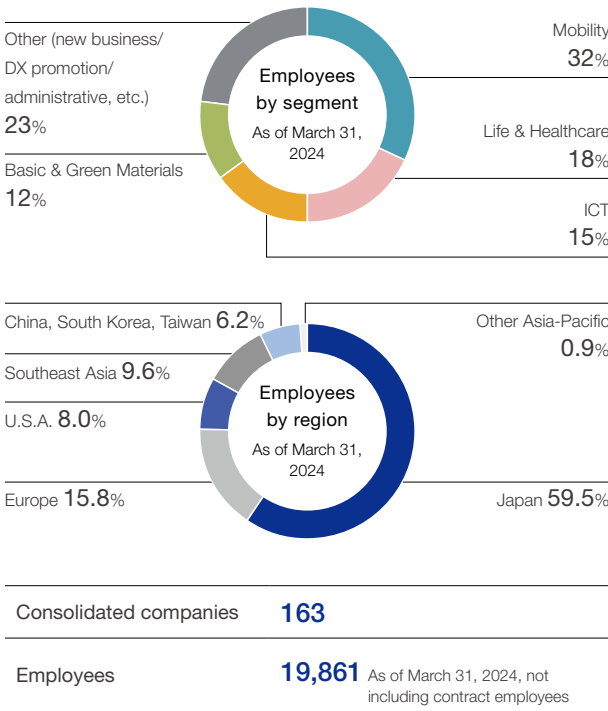
Our corporate culture, which is represented by “spirit of challenge” and “corporate climate that embraces diversity,” is one of the critically important elements that should be considered from the perspective of taking advantage of our uniqueness when executing our human resources strategy. The spirit of challenge has propelled bold endeavors to find solutions to social challenges, which stretch all the way back to our founding when we embarked on the production of raw materials for fertilizers from coal gas byproducts. Meanwhile, we have also cultivated a corporate climate that embraces diversity through numerous mergers and integrations involving other companies and businesses. To make VISION 2030 a reality, we have organized intensive workshop discussions between the president and officers with specific titles on various topics, such as “what elements of our Group's culture and behavior should stay the same and what should change” and “how should the top management team distribute their messages in the future,” to formulate action plans. We have been striving to update the action plans while respecting their key strengths as well as to reflect these plans in the execution of various strategies and disseminate the plans within each organization.

Looking back on the three years of practices we have conducted since the start of VISION 2030, while we have made a certain result, we have only reached half-way through achieving our business strategies and executing our human resources strategy toward 2030. Under these circumstances, employees are the ones who implement all sorts of strategies and measures, and we expect further contribution from them to achieve VISION 2030. From this point of view, we believe that the engagement score, which shows our employees' motivation, will be becoming increasingly important going forward. We have difficult challenges, such as bold business portfolio transformations, ahead of us. Nevertheless, employee engagement, for which our score has been improving year by year, can be said as one of our Group's strengths or uniqueness. In this fiscal 2024 report, we will introduce initiatives we have taken to improve employee engagement as well as employees who embody our unique corporate culture, thereby showing how and how likely these are to enhance our human capital value and contribute to our business strategies during the remaining period of VISION 2030.

## Human Resources Strategy

### The Mitsui Chemicals Group's human resources portfolio

The Mitsui Chemicals Group continued to pursue business portfolio transformations, including M&A activities, in fiscal 2023. One of the keys moving forward will be strategically pursuing shifts with a solid, up-to-the-minute grasp on our Group's human resources portfolio amid changes in organizational and positional frameworks. Thus, effective use of “Workday”—the Group-wide integrated human resources platform that we implemented in February 2023—is getting more crucial.



### Initiatives to improve employee engagement

#### Introduction

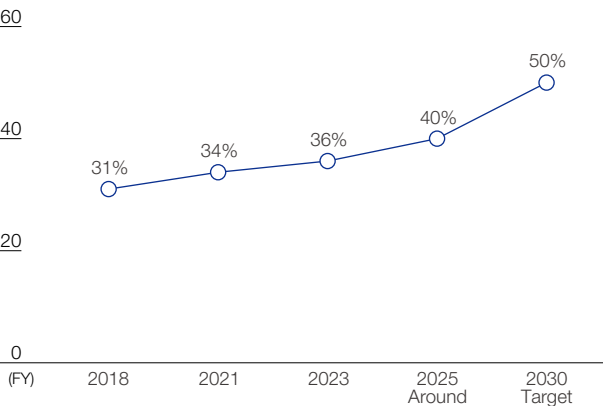
The Mitsui Chemicals Group measures its engagement score based on a set of six statements on employee engagement-related behaviors (SAY, STAY, and STRIVE) and has defined engaged employees as those with an average score of at least 4.5 out of 6 on the statements. In our efforts to bring VISION 2030 to fruition and tackle unprecedented difficult challenges, acquiring and retaining highly engaged employees whose sense of purpose aligns with our Group's Corporate Mission and Vision is an important initiative. Toward fiscal 2030, our goal is to achieve an engagement score of 50%, which would put us in the upper echelons of Japan-based global corporations. Starting in fiscal 2023, we have also figured the engagement score into performance evaluation metrics (bonus formula/non-financial metric) for determining executive compensation.

#### Areas for improvement identified through FY2023 survey

**Learning and self-development**  
25 pts in the previous survey → **33pts**

We have made active investments in the areas for improvement identified in the previous survey. As part of our unique initiatives, we respond to the needs of employees motivated to learn autonomously by introducing LinkedIn's learning platform across the Group and globally to 39 Group companies with 8,900 user accounts (providing approximately 18,000 learning courses in seven languages) to give employees access to learning opportunities anytime anywhere.

#### Engagement scores and targets



In addition to continuing and promoting leadership development on a global basis, we established a four-level scale of DX personnel requirements from level 0 to level 3 to implement the development plan tailored to each level. By the end of fiscal 2023, 2,043 employees completed the level 1 training program across the Group. As a result, the amount of investment in education made per employee in fiscal 2023 increased by approximately 34% on a Mitsui Chemicals non-consolidated basis and by approximately 54% on a Group basis, compared to fiscal 2021 levels.

## Human Resources Strategy

### Initiatives to improve employee engagement

VISION 2030

25 pts in the previous survey ⇒ 30 pts

Understanding and building awareness of VISION 2030 is an integral part of achieving our corporate strategy. As such, our management has been using multiple channels to directly convey their thoughts to employees on their own through two-way communication. For example, President Hashimoto held online talk sessions to communicate with employees all over the world. Hashimoto Radio, a radio program started in April 2023, is listened to by many employees across the globe, attracting audience with a wide range of topics covered by the program, regardless of whether they are related to our business or not. In terms of human resources system, we have revised the coefficient for operating income before special items used to determine the bonus payout that we have linked to VISION 2030 and set the challenging targets, thereby building a circulation cycle that leads to personal achievements, and eventually, to the achievement of VISION 2030 from these challenges.



Diversity

32 pts in the previous survey ⇒ 36 pts

Mitsui Chemicals is aiming to boost its ratio of women in management positions to 7% by the end of fiscal 2023, 10% by the end of fiscal 2025, and 15% by the end of fiscal 2030 as its non-financial metric. We also believe constructing a talent pipeline that puts a focus on appointing female employees as directors and Audit & Supervisory Board members will depend on helping employees at the general-manager level deal with issues in their organizations with a full understanding of unconscious bias. Based on this belief, we hold training sessions on unconscious bias for general managers on a

continuing basis. As part of our continuing efforts to cultivate an organizational climate that embraces diversity, we offer training programs with distinctive content. The content includes e-learning and feedback based on quantitative, comparative analysis of participants’ unconscious bias levels by organizational classification as well as online workshops, which give participants the chance to discuss the results of the bias analyses by organizational classification. We still have to further drive our efforts to achieve the target as the ratio of women in management positions came at 6% at the end of fiscal 2023. However, when it comes to diversity in top management, we have already appointed a woman and a non-Japanese as executive officers.

#### What are post-survey actions?

We compile approaches to be taken to address issues identified through the survey as “post-survey actions” and implement initiatives at division-level organizations of respective affiliates and Mitsui Chemicals, Inc., as well as at Group level. Leaders of each organization are taking initiatives to improve our engagement score not only by addressing issues faced by each organization in a timely manner but also by keeping an eye on fundamental problems like why the organization is facing such issues.

Representative examples of post-survey actions include (1) communication at workplaces (exchange events, study sessions, etc.); (2) utilization of the award system; and (3) one-on-one dialogues on career development and daily work. At respective workplaces, we explore and implement various actions, ranging from those for increasing a sense of unity among employees to those for motivating employees to carry out their work more actively by clarifying their visions.

These post-survey actions are formulated and implemented as Group-wide initiatives by a total of 182 organizations, including division-level organizations of Mitsui Chemicals, Inc.

and its affiliates. Their specific measures are shared through the internal portal site and are available for reference by other organizations. Some examples of initiatives taken by our domestic and overseas affiliates are available in the ESG Report linked below.

 Mitsui Chemicals Group ESG Report 2024  
<https://jp.mitsuichemicals.com/en/sustainability/society/employee/engagement/index.htm#post-survey-action>

### Challenges toward achieving VISION 2030

While our overall engagement score has been improving on an ongoing basis, “total compensation and recognition,” “teamwork,” and “utilization and placement of human resources” have been cited as areas for improvement as the absolute scores of these items were relatively low compared to others. Some of the challenges are peculiar to our Group. For example, the scores might have been affected by the business environment, and there are some cases where employees cannot really feel that they are working together as some business sectors offer a number of different products or services. However, these scores have been improved by implementing the aforementioned various initiatives—improved by 3 pts, 2 pts, and 3pts, respectively, in the survey conducted in fiscal 2023. The top-scoring engagement factors, such as “delegation of authority/autonomy,” are strengths of our corporate culture. While taking advantage of such strengths, we will work to increase employees’ motivation to contribute to their organizations and have a broader range of employees participate in cooperation activities like the ones mentioned as examples above. We will also optimize our workforce planning by utilizing “Workday” a global human resources platform that we implemented in fiscal 2023. By doing so, we will strive to further improve our employee engagement, thereby driving our endeavors to achieve VISION 2030 from the aspect of human resources strategy.

## Human Resources Strategy

Feature

### People and organization embodying the Mitsui Chemicals Group’s employee engagement and corporate culture

In addition to taking measures to address employee engagement challenges, we have employees who are putting them into practice in their day-to-day lives while utilizing our culture and strengths. From the first generation with coal chemicals, which tackled the challenge of overcoming food problems, to the second generation with petrochemicals, which significantly

contributed to industrial modernization, and now to the third generation, which aims to realize green chemicals in VISION 2030, the culture of accepting and supporting the challenge has been inherited. The culture of self-initiative and autonomy (“delegation of authority/autonomy” in the engagement survey), which can be seen from the characteristics of the engagement

score and the climate that encompasses diversity developed through the integration and merger of many companies and businesses together constitute the uniqueness of the Mitsui Chemicals Group.


### Engineer spirit for portfolio transformation—Drone development (R&D Center)

Mr. Mizumoto, leader of the Molding Technology section, Fiber-reinforced Composite Materials Group, Polymers & Composite

Materials Laboratory, is one of the members taking on the challenge of transforming the Group’s portfolio. The following

is an example of venturing into drone blade development, an area distinctly different from the traditional materials business.

VOICE



**MIZUMOTO Kazuya** (second from right)  
Leader of the Molding Technology section,  
Fiber-reinforced Composite Materials Group,  
Polymers & Composite Materials Laboratory

After joining Mitsui Chemicals, Inc. in 2018 through a mid-career recruitment process, I was mainly responsible for developing TAFNEX™ CF/PP, a unidirectional tape composed of mobility-related carbon fiber and polypropylene (thermoplastic resin). Since the beginning of my career, I have been involved in a series of challenging jobs in untapped areas, but I have taken up the challenge with a positive attitude.

Meanwhile, I was researching how further to use the features of TAFNEX™ CF/PP. In the process, I realized that using TAFNEX™ CF/PP for the skin of the sandwich-type structure was advantageous in terms of molding and rigidity and noticed that the structure was used for drone blades.

Our first step was to borrow a mold from a drone manufacturer, make a sample blade through trial and error in the press molding method, and then carry it into sales by myself. Initially, I could not get a budget for blades, and I was unsuccessful in two applications for

the corporate research theme. Still, I remember that it did not feel like a struggle because I was doing what I wanted to do as a researcher, and I enjoyed it. Without giving up, I continued the research, which led to the development of safe blades that do not quickly scatter when damaged by taking advantage of the features of TAFNEX™ CF/PP.

At that time, my boss asked me, “Who are the beneficiaries of the drones? The Mobility Solutions Business Sector?” I answered, “Our customers outside the company who need them.” I still feel the same way. I will tackle various social challenges in the logistics field, which is expected to grow in the future, in addition to the agricultural and entertainment fields (e.g., filming).

We now have an increasing number of young researchers who can act independently as project members. I believe there is a culture here that lets people who want to do something independently do it, even in unknown areas.



## Human Resources Strategy

**Feature** People and organization embodying the Mitsui Chemicals Group’s employee engagement and corporate culture

### Members embodying the Mitsui Chemicals way of thinking with the spirit of “Give it a try!”—Omuta Works Restoration Group

At the Omuta Works, which has its roots in Mitsui Mining, employees in their 30s came together from various departments for various reasons, such as invitations from the personnel department, superiors, or senior employees, or because they hit it off with colleagues. They said, “The COVID-19 pandemic has changed the form of communication, and there

are fewer opportunities to talk on a more honest basis with other departments. If we could talk more honestly without department relations, our work would be more enjoyable and rewarding than ever before.” While being aware of such challenges, they have started discussions mainly on the themes of “building relationships that transcend departmental

boundaries” and “further revitalizing the plant” and are promoting activities across the departments in the plant. This initiative was named “Omuta Works Restoration Group” and aimed to drastically change the current situation with young people taking the lead.

#### CASE STUDY

##### Establishing a plant grand design that envisions the future of the plant

The activities started with about ten members establishing a grand plant design for VISION 2030. After further discussions, three subcommittees were established: “Beloved Plant Subcommittee,” “DX Subcommittee,” and “Engagement Improvement Subcommittee” based on three themes. These subcommittees were set not by instructions from supervisors or the personnel department but rather by their desire to make the plant a better place, to make it a plant loved by employees and the community, and to increase the engagement of workers, above all, the desire shared by all members and the spirit of “Give it a try!” rooted in the plant.



##### Introducing a plant manager’s treat vending machine

To create communication opportunities, the plant has incorporated services developed by Suntory Beverage & Food Limited and installed a vending machine on the site, offering free drinks on the condition that more than one person uses it. There are many responses, such as “I talked with people I don’t usually have contact with, and the opportunities for communication increased,” creating opportunities for communication for many people.



##### Collaborating with local businesses and participating in local opinion-exchange meetings and events

This initiative aims to communicate the attractiveness of the plant where employees work to people inside and outside the company and encourage them to take pride in their company and plant. The plant employees exhibit at Omuta City events to communicate the appeal of chemicals, hold events for plant tours, and sell sweets from local stores in the plant’s cafeteria. They are working to make their plant loved by people outside the company, as well as by employees and their families.



**NISHIMURA Kenichi**  
Education Promotion  
section, Planning & Cost  
Management Department

I joined because I saw the noticeboard and felt that we could express our opinions and have the opportunity to change the plant. The spirit of “Give it a try!” permeates our daily work, and I feel a culture that encourages us if we desire to make things better. The activity also brings together a diverse and complementary group of members. For example, the combination of me, who moves aggressively, with Mr. Numata, who calmly and precisely follows the arrangements, worked well. There were also discoveries of special skills of the members that I could not normally notice.

We had to overcome many difficulties in obtaining permission to use the facility, managing information, securing a budget, gaining understanding from the people around us, and maintaining the members’ motivation. However, I was able to continue working until the end of the activity because I was encouraged by the people around me to say, “That was good.” I was able to change and progress more than I had expected, and I felt the company’s generosity in addition to my energy.



**NUMATA Naoya**  
Raw Material Gas  
Section, Urethane  
Manufacturing  
Department

## Human Resources Strategy

**Feature** People and organization embodying the Mitsui Chemicals Group’s employee engagement and corporate culture

### Creating with a diverse group of colleagues—Nico Nico Chokaigi “Super Strange Science Experiment”

Since fiscal 2022, we have participated in the “Super Strange Science Experiment” category of the Nico Nico Chokaigi (a participatory complex event called an offline meeting of Niconico) hosted by DWANGO Co., Ltd. and have been branding the Group by conveying the excitement of chemicals (science) and its roles in society through communication such as demonstrations of chemicals based on customer experience and mystery solving events. Planning and operations are carried out by employees who apply for the job, and it is also a place for employees to play an active role.

At the event held in April 2024, employees from all business sites were eligible to apply for a trial of our internal side job program. Employees from all business sites, including the head office, research centers, and plants, as well as various job types, age groups, and departments, participated in the event. We encourage employees willing to take on the challenge of doing something different from their usual work with members of different departments by providing them with support in terms of systems.

As these activities involve branding and public relations,

the content of the event is not decided by a majority vote, but it is necessary to make them interesting and easy to understand, as well as to improve corporate value. This is not simply an event to have fun but to collaborate with colleagues to create a valuable project, which will also help participants grow. It also provides an opportunity for manufacturing and research employees, who normally do not have much contact with the general public, to get to know Mitsui Chemicals and raise their awareness of the companies they work for.

#### VOICE

##### Participants’ voice



**AKAMATSU Shuya**  
Olefin & Aroma Unit,  
Production Section,  
Senboku Factory, Osaka  
Petrochemical Industries, Ltd.

After discovering that shift workers at the plant could also participate, I took on the challenge of participating in the event. Sometimes, I felt crestfallen, like I could not break out of my shell in some way in my daily work, but the participants were all passionate, positive, and eager to contribute despite their different backgrounds. I was once again inspired by the excellence of Mitsui Chemicals’ human resources. This awareness has continued even after returning to my workplace, including thorough preparation. I was also reminded that I do not usually have contact with general consumers and reaffirmed my company’s presence.



**SETA Aoi**  
Material Development Team,  
Automotive Materials  
Laboratory, Prime Polymer  
Co., Ltd.

I was encouraged by the members who covered each other and was also overwhelmed by their passion and competitive spirit. Many people enjoyed it because the members consistently made no compromises. Balancing work with my main job was hard, but my workplace was supportive. I am sincerely grateful for the cooperation of many people in the company in borrowing and testing equipment for the molding demonstration for the project to create key chains from scrap material. It was a good memory to have a good time with the members after the successful molding for the first time.



**FUSHIMI Mayu**  
R&D Planning &  
Coordination Division,  
R&D Center

In my current position, I am still rarely involved in all processes, but in this event, I enjoyed being busy and found it rewarding because I could make things from scratch and decide things quickly. I am also attending college and had limited time to spare, but my boss encouraged me to participate, saying, “If you think you can do it, try it.” It was also an asset to have been able to network with people from various departments and ages. It was also an opportunity to have my family members come and feel closer to the company.

## Human Resources Strategy

Feature

People and organization embodying the Mitsui Chemicals Group’s employee engagement and corporate culture

### Make our laboratories a better place! Volunteers’ challenge —Go Beyond Petrochemicals\* Project (R&D Center)

As the Mitsui Chemicals Group’s largest R&D center, VISION HUB™ SODEGAURA (“V.HUB”), we are engaged in cross-organizational, bottom-up organizational revitalization activities in which researchers think about what they want to be and take on the challenge of actually giving shape to that vision.

The project members, who gathered voluntarily, had thorough discussions from the following perspectives: what is the site’s function as a place for co-creation to create the future, and “what kind of institute do we want to be?” to foster and promote a culture in which each researcher takes pride and boldly takes on challenges as his or her own. The members promote various initiatives to realize this space, including refurbishing facilities and setting up symbolic objects and exhibition stands.



\* “Go Beyond Petrochemicals” is derived from a concept born in the 1980s: “Look at the new society in the 21st century and launch new business in advanced technological fields beyond the conventional petrochemical field” in the R&D sites. Nearly 40 years have passed, and the concept of “breaking through the conventional framework” is still being inherited.

VOICE

Participants’ voice

**NUKUI Marina** (Leader)  
Surgical Materials Section,  
Medical Devices Department,  
Synthetic Chemicals  
Laboratory

At first, I was worried that I would not be able to fulfill my role without a sense of beauty, but I found that if I had a desire to make it an attractive place, I would be supported by the members around me. I realized the attractiveness of collaboration and the culture that accepts such efforts. I feel that V.HUB has gradually changed, and I would like to continue to involve new members in our efforts.

**INABA Kazuto** (Leader)  
Oligomeric Materials Section,  
Modifier Department,  
Polymers & Composite  
Materials Laboratory

I have had many opportunities to talk to people in different workplaces and work with researchers who are generally uninvolved. Recently, I have had no resistance to taking cross-departmental action. During the activity, I realized that many people have high expectations for the improvement of the V.HUB, even though they usually do not say it out loud. I felt that there was still room for growth because if I created an opportunity to say something, a variety of unexpected ideas could emerge.

**FUNABASHI Junki**  
(Secretariat)  
Communications Section,  
R&D Communications  
Department, R&D Planning &  
Coordination Division

The project started in earnest with the renovation of some areas through a DIY project with the participation of researchers, and the entrance area and cafeteria area were renovated in March 2023. At the exhibition stand, we held the “Trash to Treasure” exhibition, which weaves together the thoughts and stories of researchers using various waste materials generated in the daily research process and created a touch point for communication inside and outside the company. Through the planning and production of original items (exhibition stands, sofas, and symbolic objects), the institute has transformed itself into “an institute where members can speak for themselves.” As a secretariat, I supported young leaders and diverse members in actively expressing and communicating their thoughts and ideas in their own words.

## Maximizing investment efficiency

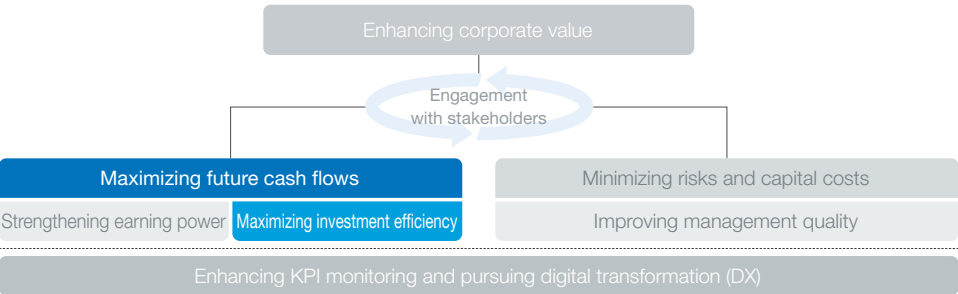
The Mitsui Chemicals Group is working to maximize future cash flows based on two major axes: “strengthening earning power” and “maximizing investment efficiency.”

In this section, we will introduce our strategies employed in pursuit of maximizing investment efficiency for transforming our business portfolio, which is the top priority of VISION 2030, and our R&D and intellectual property strategy that accelerates these strategies.

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CHAPTER — 04



\* For full diagram, see The Mitsui Chemicals Group’s Management Driven by Integrated Thinking on p. 5.  
■ colored item is mentioned in this chapter.



## Current Status of Our Business Portfolio Transformation



### Life & Healthcare Solutions

Business vision (Our ideal vision for 2030)

Contributing to improved quality of life and the assurance of food safety and security by offering solutions that support life, health, and comfortable lifestyles

Business domains

- Life care solutions
- Wellness solutions
- Medical solutions

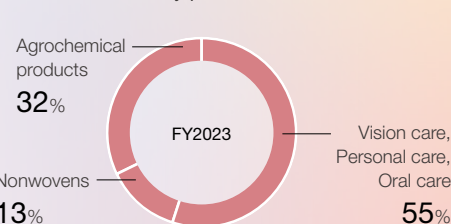
Key products

Plastic ophthalmic lens materials, materials for disposable diapers, masks, and medical gowns, insecticides, fungicides, oral care materials, and others



FY2023 results	
Sales revenue	¥271.7 <sub>bn</sub>
Operating income before special items	¥30.0 <sub>bn</sub>

Sales revenue by product



### Mobility Solutions

Business vision (Our ideal vision for 2030)

Providing unique materials, features, and services to help solve social challenges and achieve sustainable business growth

Business domains

- Materials business
- Solutions business

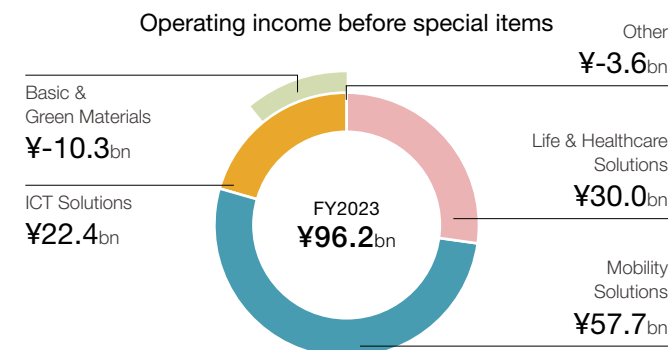
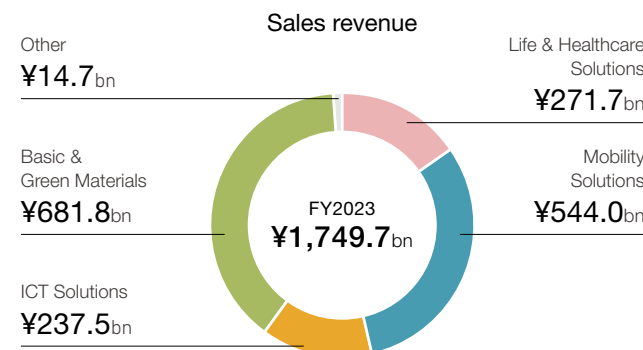
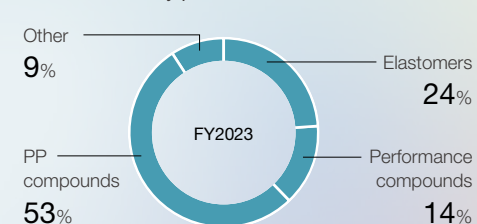
Key products

Auto bumper and instrument panel materials, solar cell encapsulant sheets, and others



FY2023 results	
Sales revenue	¥544.0 <sub>bn</sub>
Operating income before special items	¥57.7 <sub>bn</sub>

Sales revenue by product



## Current Status of Our Business Portfolio Transformation



### ICT Solutions

Business vision (Our ideal vision for 2030)

Creating and growing a “unique” ICT Solutions business that contributes to the evolution of AI, beyond-5G, and other such technologies that can support safe and pleasant infrastructure, healthy living, and a sustainable global environment

Business domains

- Semiconductor & assembly solutions
- Imaging solutions
- Battery material solutions
- Converting solutions

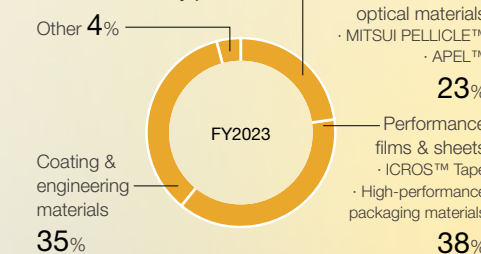
Key products

Tape for semiconductor manufacturing process, industrial films and sheets, smartphone camera lens materials, dust covers for photomasks, high-performance packaging materials, packaging films, and others

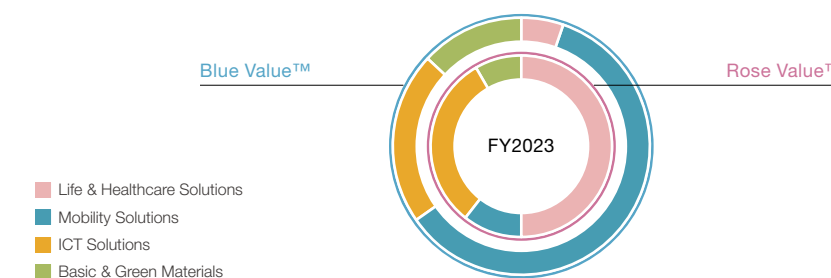


FY2023 results	
Sales revenue	¥237.5 <sub>bn</sub>
Operating income before special items	¥22.4 <sub>bn</sub>

Sales revenue by product



Sales revenue by business segment of Blue Value™ and Rose Value™ products



### Basic & Green Materials

Business vision (Our ideal vision for 2030)

Accomplishing business restructuring as well as leading the Mitsui Chemicals Group's efforts to bring about a circular economy revolution with the aim of reducing environmental impacts and realizing a decarbonized society

Business domains

- Petrochemicals
- Basic chemicals
- Polyurethane raw materials

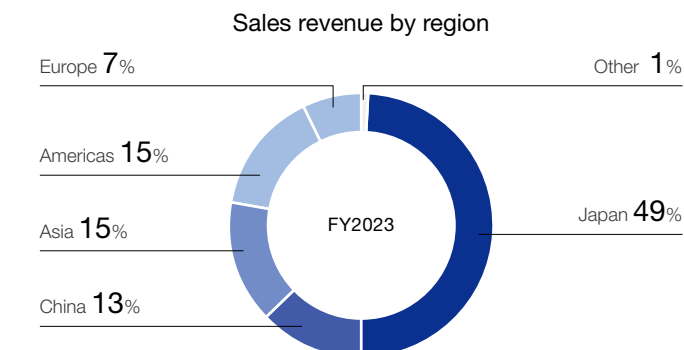
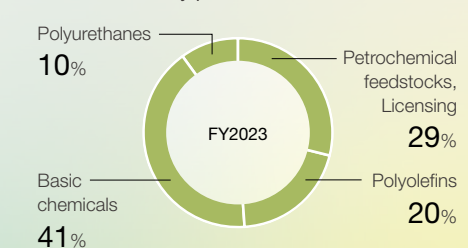
Key products

Polyolefins and others



FY2023 results	
Sales revenue	¥681.8 <sub>bn</sub>
Operating income before special items	¥-10.3 <sub>bn</sub>

Sales revenue by product







## R&D and Intellectual Property Strategy for Accelerating Portfolio Transformation

### R&D strategy

As part of VISION 2030, the Mitsui Chemicals Group has formulated an R&D strategy that combines two approaches in order to promote R&D from a long-term perspective: short- to medium-term, and medium- to long-term. Based on our Groups' core technologies of precision synthesis technology, polymer science, and manufacturing process technology, we will strengthen human resources, which are of paramount importance, while implementing a cycle of functions, organization, and technology to execute two R&D measures.

#### Outcomes achieved over the past three years under VISION 2030

##### (1) Forecast-based R&D

The forecast-based R&D approach has helped strengthen and expand our core technologies, which constitute our

Group's strength, and been translated into numerous business achievements such as the expansion of our existing product lineup, increase in our market share, and expansion into new applications. This has contributed to increasing the sales of our existing products and businesses. For example, TAFMER™, a resin modifier and soft molding material we developed mainly for automobiles and sports shoes to dramatically improve the properties of resin, has been adopted for encapsulant sheets for solar cells whose market is rapidly growing. Meanwhile, in the face of increasing demand for recycling and other environment responses, packaging technologies, including the one for reducing the coating thickness utilized to develop coatings such as TAKELAC™ and CHEMIPEARL™, have contributed to such demand.

Also, our R&D efforts for creating new products and businesses by leveraging these strengths resulted in

meeting one of our fiscal 2023 non-financial targets—i.e., 48 Stage 1 development themes registered in our Stage Gate System against the targeted 30 or more themes. As shown in the chart of products commercialized between fiscal 2021 and fiscal 2023 below, we have consistently created new products in the three growth domains. As we work to transform from a materials business to a business that operates from a social issue perspective, we have been striving to understand customers' various needs through interaction, thereby developing new products.

<b>Life &amp; Healthcare Solutions</b> <b>4 products</b> Vision care: 3 products Personal care: 1 product	<b>Mobility Solutions</b> <b>3 products</b> Automotive materials	<b>ICT Solutions</b> <b>5 products</b> Coating & engineering materials: 2 products ICT materials: 2 products Semiconductor & optical materials: 1 product
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#### TOPICS: 01

##### ABSORTOMER™—a product commercialized by taking advantage of its distinctive performance attributes

ABSORTOMER™ is a unique  $\alpha$ -olefin copolymer with high stress absorption performance developed with our Group's proprietary polymerization catalyst technology and nano-level polymer design technology. We have explored the polymer's applications and customers by taking advantage of its distinctive performance attributes. In recognition of such commercialization efforts, as well as successful development, we were awarded the Chemical Society of Japan Award by the Chemical Society of Japan.

##### Do Green™

Do Green™ is a plant-derived high refractive index ophthalmic lens material and certified as a biomass mark product both in Japan and the U.S. Compared to petroleum-derived equivalents, Do Green™ not only reduces CO<sub>2</sub> emissions but also has favorable features, such as thin and light; safe and resistant to breakage; lasting appeal; and clear view, stemmed from MR™'s exceptional optical properties. We have been engaged not only in manufacturing and sales of products, but also in

developing this product through trial and error with customers. We are striving to provide a wide range of support including R&D, such as the technical quality verification, quality assurance, and stable production of the lens, as well as the establishment of its supply chain.

This marked the world's first attempt to sell a biomass mark certified ophthalmic lens material with a refractive index of 1.60. We hold an approximately 45% share of the global ophthalmic lens material market. We believe that it is highly significant that we, a corporate group with such a market position, produce bio-based products. We will continue actively offering eco-friendly products.

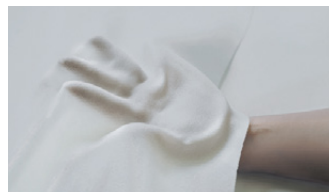
##### HUMOFIT™

HUMOFIT™ is a new material developed through the synergistic effect of our Group's proprietary materials and shaping technology. Because of its property of becoming softer at human's body temperature and slowly returning to its original shape at room temperature, the material was originally developed for the use of shape-memory sheet. On the other hand, however, it was unknown in what fields or for what kinds of applications it could be used. So, our representatives of

responsible business divisions and researchers repeatedly interviewed customers who had shown interest in the material at tradeshow or other events to understand their needs more deeply and precisely. Through such efforts, we came to realize that there was a common phrase in their answers: "fitting the body," which gave us a hint for the commercialization of this material.



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HUMOFIT™, a material that molds itself to fit human body at body temperature

## R&D and Intellectual Property Strategy for Accelerating Portfolio Transformation

### R&D strategy

##### (2) Backcast-based R&D

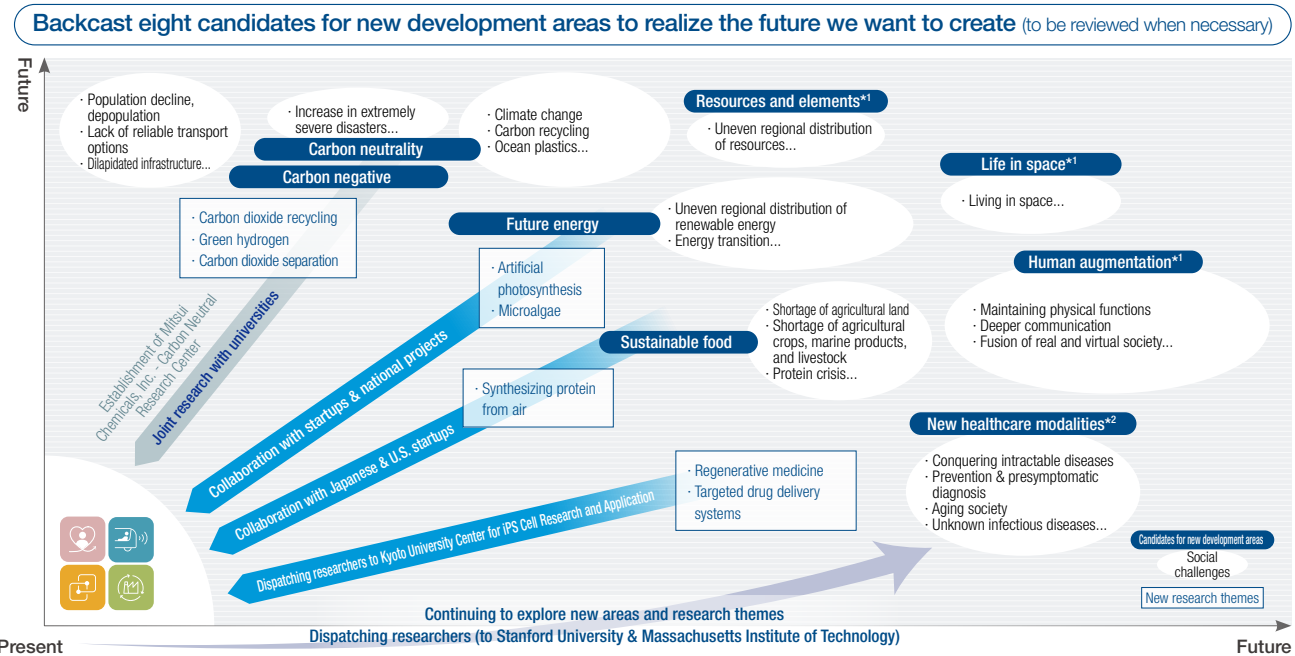
Looking ahead to the world after 2030, we use a method that combines science fiction ideas with scenario planning to draw the "future we want to create" from among infinite possibilities, and backcast candidates for new areas of development to realize that future. In fiscal 2023, we added three more new candidate areas. We will review the current eight development areas when necessary as the environment changes.

In the meantime, in the era of uncertainty where it is difficult to foresee the future, it has become more difficult for a single company to solve complicated social challenges

solely by itself. Therefore, we will promote open innovation among industry, government, and academia to open up new business areas.

#### Eight new areas of development

Resources and elements*1	Human augmentation*1
Life in space*1	Carbon neutrality
Carbon negative	Future energy
Sustainable food	New healthcare modalities*2



\*1 Candidates for new development areas added in FY2023  
 \*2 Modalities: Modes of treatment including low molecular weight drugs, antibody drugs, nucleic acid medicine, cell therapy, gene and cell therapy, and gene therapy

#### TOPICS: 02

##### [Carbon negative] Progress made by Mitsui Chemicals, Inc. - Carbon Neutral Research Center

The Mitsui Chemicals, Inc. - Carbon Neutral Research Center (MCI-CNRC), established within Kyushu University in November 2021, applied for four patents (+3 YoY), published 10 journal articles (+5 YoY), and made 18 academic conference presentations (+8 YoY) in fiscal 2023, achieving more outcomes than fiscal 2022. We are planning to move from basic research to demonstration testing for commercialization by 2030. Carbon neutrality cannot be achieved solely by the efforts of a single company. Therefore, we will accelerate its development activities while promoting co-creation with other companies based on outcomes to be made by MCI-CNRC, with the aim of achieving carbon neutrality by 2050.

##### [Resources and elements] Participating in Feasibility Study Program on New Technology of NEDO Feasibility Study Program 2024

A project theme "development of circulation technology for high-purity phosphorus materials—important materials for the manufacturing sector" jointly applied by Mitsui Chemicals, National Institute of Advanced Industrial Science and Technology, Saga University, Yoneyama Chemical Industry Co., Ltd., and Shimonoseki Mitsui Chemicals, Inc. was adopted for a cross-sectoral proposal-based activity of "Feasibility Study Program on Creation of New Industries and Innovative Technologies" under Feasibility Study Program on New Technology of NEDO Feasibility Study Program 2024 solicited by the New Energy and Industrial Technology Development Organization (NEDO). The supply chains of high-purity phosphorus materials are exposed to economic security risks even though they are important substances for the manufacturing sector. This project aims to establish technologies that enable atomic- or molecular-level purification and cyclic use of collected phosphates in a wide range of manufacturing fields in Japan in order to turn unused domestic phosphorus resources into more value-added high-purity phosphorus materials. We will continue participating in this project for three years to develop catalyst and process technologies for the hydrogen reduction of collected phosphates, thereby contributing to achieving a sustainable industrial foundation.

## R&D and Intellectual Property Strategy for Accelerating Portfolio Transformation

### R&D strategy

#### Challenges identified over the past three years of VISION 2030

Through our R&D activities, we have worked to expand existing products and businesses as well as to create new products and businesses. In the course of such efforts, we have identified the following challenges based on the recognition that we need to further strengthen our efforts to achieve VISION 2030.



- Early contribution of R&D to businesses
- Development of researchers
- Achievement of early social implementation

#### TOPICS: 03

##### Shortening development period by using MI technology

We are encouraging the use of MI for new material development by facilitating the acquisition of MI technology and accumulation of relevant knowledge, as well as by providing digital science education for researchers.

We succeeded in significantly improving the physical properties of existing items that took five years to develop in a mere one year by optimizing the structure and composition of their materials based on the results of MI analysis. We also jointly developed a combinational optimization technology using quantum annealing technology with Sigma-i Co., Ltd.

Going forward, we will further accelerate the exploration of new materials using high-speed calculation through the combined use of HPC and MI technologies.

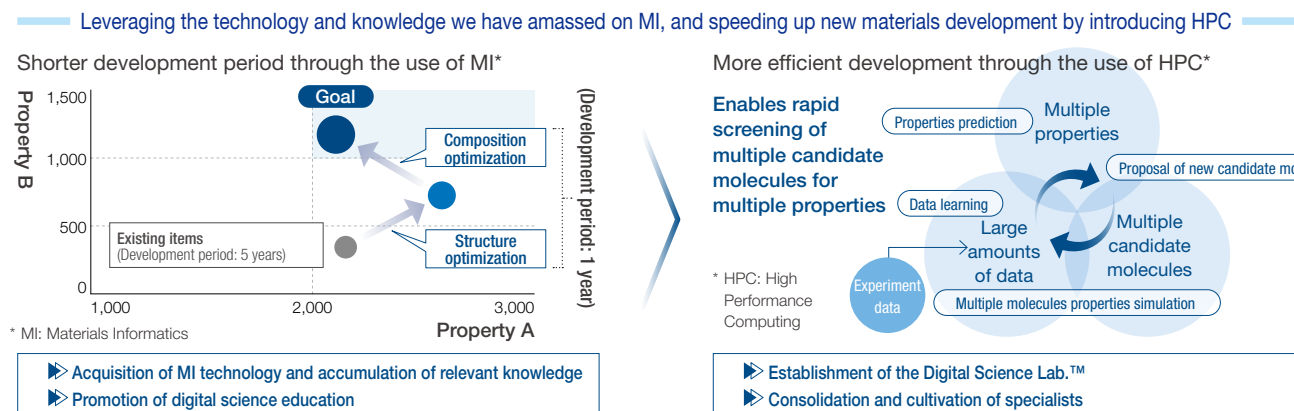
#### Future directions to be taken to address the challenges

We will take the following directions to promote efforts for addressing the identified challenges.

##### Further accelerating R&D activities to create new products and businesses

To further accelerate the development of new products and businesses, we will evolve our Stage Gate System into a more agile system, in addition to promoting the proposition of Stage 1 themes. Moreover, we will move forward with working on larger R&D themes by clustering and co-creating multiple themes and projecting such themes. In addition, we will accelerate our R&D activities by actively using digital technologies, such as shortening development period by using materials informatics (MI) technology and calculating larger molecular structures through the use of HPC\* technology.

\* HPC: High Performance Computing



## R&D and Intellectual Property Strategy for Accelerating Portfolio Transformation

### Intellectual property strategy

#### Directions for initiatives to achieve VISION 2030

##### —Aiming to actively promoting ambidexterity in defensive and offensive management of intellectual properties—

Since fiscal 2023, we have utilized digitally analyzed data multifacetedly to further enhance both defensive and offensive management of intellectual properties.

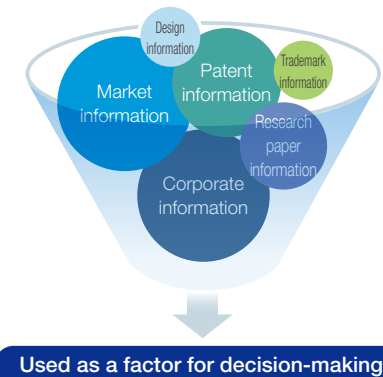
For defensive intellectual property management, we have pushed forward with transformation and development of intellectual property portfolios to respond to our business portfolio transformation and business model transformation. Meanwhile, for offensive management, we have promoted IP landscaping activities. In this way, we will stay up-to-date with timely market information and entrench future prediction and other approaches within our Group to contribute to new business creation. We aim to achieve the robust and substantial management of intellectual properties that contributes to management and businesses by further stepping up such activities.

In particular, many of the cases subject to our IP landscaping activities are themed on “exploring new applications,” which have been highly in-demand in recent years, and they account for almost half of the analyzed cases. While the themes of basic research to date have tended to focus on seeds-oriented approaches, we will speed up our new product development by adding analyzed data of data-driven approaches.

A system is now being established where members from relevant business divisions, R&D divisions, and the Intellectual Property Division are engaged in IP landscaping activities as their own problems by drawing on their strengths and sharing their wisdom as one team. With that system, we have been seeking to maximize synergetic effects in a wide range of projects.

As a result of such efforts, the number of requests for IP landscaping activities has doubled with increases in not only those for exploring new applications but also for trend analysis and alliance analysis for potential M&As. In addition, recently, many requests have been made not only by business divisions or R&D divisions but also by corporate planning divisions, decreasing the deviation in requester divisions. This shows that IP landscaping activities are being spread across our Group.

Major achievements made through these activities include the successful cases of seeds technologies that have not met the intended uses to date, such as discovering potential customers in a broad range of industries and moving on to the prototyping phase by making applicable and concrete proposals. In one case, through our IP landscaping activities, the number of target industries for a technology seed has more than doubled, and the number of its potential corporate customers has increased about 3.5 times from what had been expected before the activities.



#### VOICE

#### DX utilization

##### IP analysts x Data scientists

We have continued focusing on initiatives for promoting the digital transformation (DX) of intellectual properties. In order to utilize the state-of-the-art AI and generative AI technologies, our internal IP analysts and data scientists are working together to intensively examine issues, including shortening time required for exploring new applications, selecting candidate applications in a wide range of fields, and increasing the efficiency of patent search. Through these efforts, we aim to improve our development potential to ensure our competitive advantage.



**UCHIDA Naoki**  
IP analyst

Patent research is an essential task for R&D activities and plays an important role in reducing business risks. We will continue pursuing creative operations through data utilization in cooperation with our internal data scientists.



**NOMOTO Takumi**  
Data scientist

In cooperation with the Intellectual Property Division and other relevant divisions, the DX Planning & Coordination Division is promoting the strategic use of generative AI technology in patent search, exploration of new applications, among other activities. Furthermore, we will explore the possible uses of AI technology in a broad range of areas, such as streamlining of R&D work and market analysis.



## R&D and Intellectual Property Strategy for Accelerating Portfolio Transformation

### Intellectual property strategy

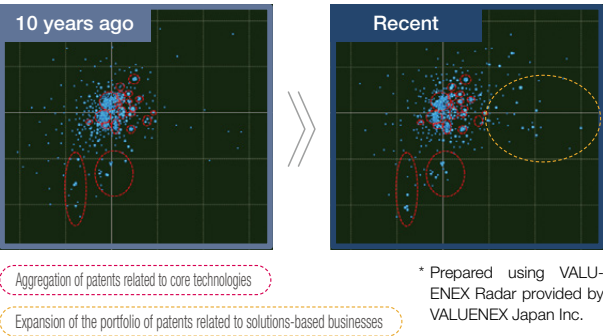
#### Expanding intellectual property portfolios in response to the expansion of solutions-based businesses

Robust defensive intellectual property activities are an absolute requirement for actively promoting our IP landscaping activities, which constitute a pillar of our offensive intellectual property management, and are important intellectual property management activities that should be strengthened consistently.

Intellectual property activities also play a vital role in promoting solutions-based businesses, one of the components of the Basic Strategy of VISION 2030. As shown in the chart on the right, which provides a holistic view of our Group's patent information, when looking at changes in our recent patent portfolio compared to that of 10 years

ago, we can see that the patent family related to solutions-based businesses has been expanding into an area (on the right side of the chart) different from the area for the patent family related to existing core technologies.

The chart shows that we have succeeded in ensuring that we have been protecting technical areas that respond to our business model transformations by filing patents and securing intellectual property rights for our new business area, solutions-based businesses (e.g., systems, diagnosis services, simulation technology), while consistently expanding patents related to existing core technologies.



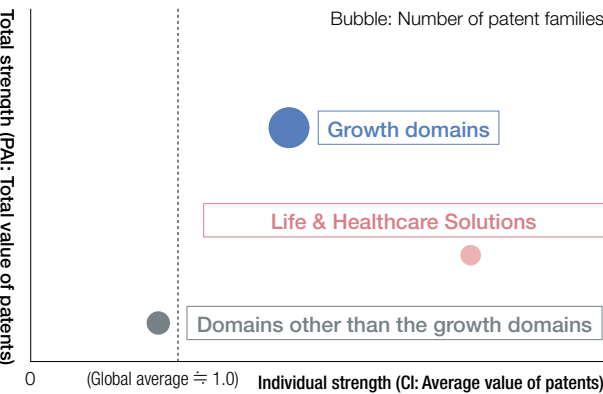
#### Advantage of our patent portfolio related to the growth domains

For patent families in growth domains defined in VISION 2030, we have compared the value of patents registered in the growth domains to patents registered in other domains using a map with the Patent Asset Index™ (PAI) as the vertical axis and the Competitive Impact™ (CI) as the horizontal axis. PAI represents the total strength of patents that is generally proportionally related to their portfolio, while CI represents the strength of each individual patent—i.e., the average value of patents.

As a result, we can see that the value of patents in the growth domains exceeds the value of patents in other domains in terms of both total strength and individual strength. This shows that we have steadily made up-front

investments in intangible assets in the growth domains. In addition, we can highly expect future growth as the individual strength (CI) of patents in the growth domains substantially exceeds the global average and we hold high-value patent families in those domains.

Among the growth domains, the individual strength of the patent portfolio (the value of each individual patent) of the Life & Healthcare Solutions business segment in particular is exceptionally high, representing the high quality of patent families the segment holds. In the next page, we will introduce the trends in the patent value of vision care materials and agrochemical products, which are growth drivers for the business segment.



\* Prepared using a patent analysis tool PatentSight™ provided by LexisNexis™.

## R&D and Intellectual Property Strategy for Accelerating Portfolio Transformation

### Intellectual property strategy

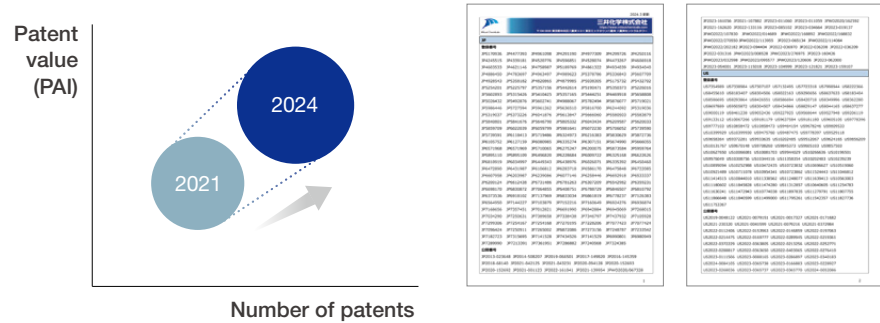
#### CASE STUDY

##### Expansion of the portfolio of patents related to vision care and a rise in their patent value

Among products offered by the Life & Healthcare Solutions business segment, which holds particularly high-value patents, the MR™ series\* of high refractive index ophthalmic lens materials has contributed to society for many years. The series has functional value as high refractive index ophthalmic lens materials that offer clarity, safety, durability, and refractive index in a balanced way, as well as emotional value such as sense of security and confidence in the MR™ brand cultivated by consistently providing high quality products.

Since the series' market launch in 1987, we have been protecting the value offered by the MR™ series from various aspects by pursuing technology innovation for a long time to establish the MR™ brand and obtaining patents and trademarks around the world. As the value of relevant patents in force has been increasing over recent years, we will actively continue our intellectual property activities with the aim of further growing the business.

\* Certified as a Rose Value™ product that contributes to improving people's QOL.  
<https://jp.mitsuichemicals.com/en/service/product/mr-series/index.htm#patent>



Left: Trends in the number and value of patents (Illustrative) / Right: A part of the list of patents disclosed on our corporate website

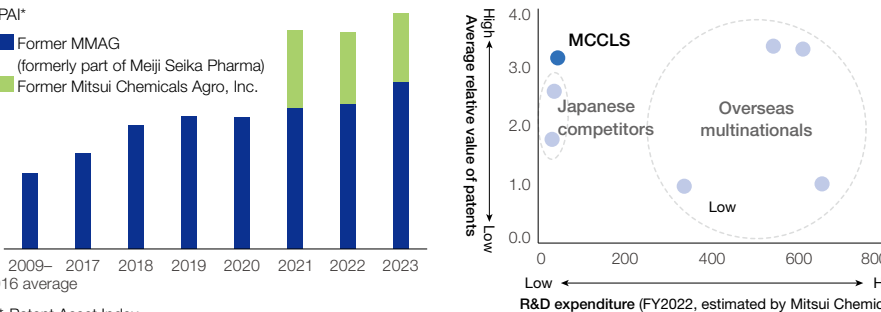
##### Expansion of the patent portfolio and a rise in patent value due to active investments made by Mitsui Chemicals Crop & Life Solutions, Inc.

Mitsui Chemicals Crop & Life Solutions, Inc. (MCCLS), which offers agrochemical products, has expanded its patent portfolio in line with the expansion of its technology portfolio through the acquisition of the agrochemicals business of Meiji Seika Pharma Co., Ltd.

As shown in the following chart that describes the chronological trends in the total strength (PAI) of patents, the patent value increased rapidly in and after 2021 when the large-scale business acquisition took place. Generally speaking, while the total strength of patents tends to increase in proportion to the size of each patent family, in some cases, the value of patents itself does not rise so high. Nevertheless, it can be confirmed that the value of patents rose rapidly due to the acquisition of high-quality patents, while the patent portfolio steadily expanded in the wake of the acquisition of Meiji Seika Pharma's business.

Moreover, by comparing the correlation between patent value (average relative value: the average value of each individual patent) and R&D expenditure to that of competitors, we have verified from the perspective of patent value that, as shown in the chart below, MCCLS' cost performance is very high and its development initiatives are highly cost-competitive.

##### Mitsui Chemicals Group: Trends in the patent value of agrochemicals



\* Patent Asset Index  
Measure of patent value used in PatentSight™ calculated based on citations and countries of application

\* Prepared using a patent analysis tool PatentSight™ provided by LexisNexis™.

Dialogue Chief Technology Officer (CTO) x Investor

# Delivering transformation and enhancing corporate value through intellectual property strategy

**YOSHINO Tadashi**  
Representative Director  
Senior Managing Executive  
Officer & CTO

**Mr. NAKAYAMA Iori**  
Chief Analyst  
Nissay Asset Management  
Corporation

## Establishment of intellectual property strategy and new structure for VISION 2030

**Nakayama:** As investors, we consider intangible assets such as technology, and especially intellectual property, to be critical variables for enhancing corporate value over the medium to long term, and we place great importance on them as sources of “excitement.” However, many parts of an intellectual property strategy are black-boxed, and determining how the strategy will lead to competitiveness is often difficult. Therefore, to build a business model to realize its vision, a company needs to articulate how it will acquire the intellectual property it requires and how it will utilize it in its business, and also the cause-effect relationship between these two tasks. In other words, we believe that by sharing stories about how to achieve KPI targets and how the intellectual property strategy will lead to profits via this cause-effect path, the company will be able to promote dialogue and build a relationship of trust with investors over the medium to long term, such that the investors are not preoccupied with the highs and lows of short-term corporate performance.



So could you tell me about the vision that the Mitsui Chemicals Group is aiming for, what role intellectual property will play on the road to getting there, and how it will contribute to enhancing corporate value?

**Yoshino:** The Mitsui Chemicals Group has set out its ideal vision in its long-term business plan, VISION 2030, and we are executing a five-prong Basic Strategy to achieve the vision. To measure our progress, we have determined financial and non-financial KPIs, which include indicators to measure innovation in technological development and indicators related to DX for encouraging such innovation,

and we are pursuing an intellectual property strategy that is aligned with these components of the Basic Strategy.

In particular, we believe that business portfolio transformation, which is the first and most important pillar of the Basic Strategy, should be conducted in a completely different way from before, not only in terms of business, but also in the areas of technology and intellectual property. For example, our intellectual property strategy, which used to be focused on securing rights, is now influenced by the open innovation trend, and we have been delivering various outcomes from R&D by actively sharing our IP externally through knowledge sharing and collaboration with other

## Chief Technology Officer (CTO) x Investor

companies and academia, while still firmly protecting the IP that needs to be protected. Through this approach, we aim to develop new technology fields, serve new needs, and increase the speed of innovation. We hope that our corporate culture will change as a result, and that this will lead to the reorientation of our business model and portfolio toward our ideal vision.

**Nakayama:** I feel impressed with your remark that you’re being progressive in shifting from a rather defensive intellectual property strategy to one that actively promotes open innovation, but within what kind of structure is this strategy going to be implemented?

**Yoshino:** We’ve adopted an organizational structure and decision-making structure that looks ahead to 2030 and beyond. Within the R&D Center, we have established the Frontier Technology Center, which is conducting R&D that explores diverse possibilities with long-term time horizons, such as 40 to 50 years, under the banner “Beyond 2030.”

Another important organization is the New Business Incubation Center. Its mission encompasses the development of products that the Group doesn’t currently offer, the launch of completely new businesses, and so on. With an emphasis on the potential for future commercialization, it carries out research designed to leverage synergies with existing businesses and utilize technology.

And in April 2023, we set up the CTO Office, which is tasked with tackling development projects that traverse business sector boundaries and integrate the technologies and materials of the entire Group. For example, by leveraging the properties of a material normally used for ophthalmic lenses, we have developed Diffra<sup>TM</sup>, an optical

polymer wafer product, expanding its application to the ICT field. So it’s working to unearth potential synergies within the Group, and besides that, it also fulfills the role of coordinating the partnerships with the startups that our corporate venture capital (CVC) fund has invested in, industry peers, and academia. The CTO Office plays a central role in facilitating communication among business divisions, while also enhancing internal and external collaboration, and is also responsible for commercializing new ideas that emerge from these collaborations.

**Nakayama:** So you’re pursuing a variety of approaches, all under the umbrella of R&D. It’s interesting that you’re focusing on products and businesses that are currently absent from the Group, and I really commend your stance of teaming with other companies to solve social challenges by actively putting your technology out there.

Unfortunately, though, looking at metrics like your price-to-book (P/B) ratio, it seems that the Mitsui Chemicals Group’s stance and policies are not being fully understood by the capital markets.

**Yoshino:** It’s true that perhaps we haven’t sufficiently conveyed the appeal of our Group’s technologies either internally or externally. We’re at the stage of reviewing our entire intellectual property strategy, while reflecting, in particular, on shortcomings with respect to sharing technology internally.

For example, in the past, matters like patent continuation were handled by each business sector, so decisions were made based on the status of products and individual businesses, but now we have an organizational structure where the Intellectual Property Division is directly linked to

the R&D Center, and the utility of a technology is judged from a broader perspective that also includes areas like basic research. Under this structure, we’re focusing more on the monetization of intellectual property.

**Nakayama:** So you have a structure in place whereby intellectual property is properly positioned and discussed as part of the broader corporate strategy, rather than being viewed as something handled behind the scenes within business divisions. Even among Japanese companies, I think this is a really pioneering approach. And if you can share the success stories that emerge from this structure in the future with the capital markets, I think your valuation will be enhanced, and capital market participants will feel more positive about what you’re doing. What do you think?

**Yoshino:** Our Group is engaged in the licensing business, which involves granting licenses for our technologies so they can be used in various parts of the world, and this business actually generates considerable revenue. In addition, there are a certain number of plants around the world that operate using the Group’s polymer-related technologies and catalysts, and earnings are being generated in a way similar to the printer ink business model. We have personnel who specialize in licensing, which allows us to both safeguard our rights and leverage them as a standalone business. I believe that what made this kind of business possible was that we re-assessed the value of our intellectual property from a fresh perspective.

**Nakayama:** That’s a good example of how you’re translating your technological strength into revenue opportunities



## Chief Technology Officer (CTO) x Investor

in concrete ways. Going forward, I really hope that you'll let us know how you're going to expand on that in the future, as I think doing so will increase interest in you and boost your valuation even more.

### Pushing ahead with the utilization of intangible assets and building anticipation in the capital markets

**Nakayama:** Another thing I'd like to ask you about is how you're going to efficiently identify new themes as societal needs diversify and trends keep changing dramatically.

**Yoshino:** An important factor for identifying needs is human capital, which is another type of intangible asset. In addition to scouting R&D talent, we're currently institutionalizing a system by which personnel in research positions are assigned to business divisions, where they leverage their technical backgrounds to dig deeper into needs. With this system in place, we're seeking to identify potential customers and markets as well as possibilities for new products and services.

**Nakayama:** Hearing from you about your various initiatives, my feeling has been that in the future it's going to be increasingly important for you to communicate with the capital markets about your R&D, technologies, and intangible assets in general. No matter how high your expectations for an initiative may be, if you're unable to convince people that you're using intangible assets to lock in future profits, you're going to find it tough to enhance your corporate value by boosting your stock price, so I hope you'll be more conscious of that.

**Yoshino:** First off, the term "intangible assets" is still not used much on the frontline of R&D, and I get the impression that the view that R&D investment is a cost still prevails. The other day I was having a discussion with some of our research people about intangible assets, and I told them that things like employees' R&D capabilities, ability to make breakthroughs, and communication with academia are all intangible assets. My intention was to get them to understand that only when the value of such assets is unleashed will the speed of R&D be increased and results will be produced.

**Nakayama:** The issue is that because it's difficult to use intangible asset-related metrics as KPIs, even if such assets accumulate internally, they can be cut out as costs when there's a short-term deterioration in business performance. If you properly visualize them as KPIs and set them as a reminder of future enhancement of corporate value, you will find it easier to take action internally, and as investors, we will be more likely to support you. Are you having discussions about things like this?

**Yoshino:** To that end, what we're stepping up the use of right now is technologies like digital (for DX) and artificial intelligence (AI). One example is the creation of patent maps to verify the value of intellectual property and explore promising areas of research. Digital and AI tech are also being used for the thorough visualization and analysis of the number of highly specialized talent, sales of new products, and so on. In addition, AI is increasingly being used in production technology, and by actively deploying advanced technologies and using them for analysis, the production frontline has become more efficient and

safer. Reducing problems and accidents means fewer opportunity losses, which also significantly improves financial performance.

**Nakayama:** If you become more conscious of cost of capital by experiencing one success after another after investing resources based on that kind of analysis, what you're doing will make a lot more sense to investors. Standout products like Diffra<sup>TM</sup> have tended to catch us by surprise when they've been announced, but talking to you today, I've become more confident in them as success stories made possible by growing synergies across your businesses. For you to maintain dialogue with the capital markets going forward, I hope that you will tell us stories based on the cause-effect path I mentioned at the beginning. I think that will make things easier to understand for us and raise our expectations about where you're headed.

**Yoshino:** I think you're absolutely right. The initiatives in the area of intangible assets such as intellectual property that I've talked about today are not independent of each other. Rather, we're pursuing them in conjunction with the VISION 2030 strategy, which calls for business portfolio transformation and building solutions-based business models. You've given me a stark reminder that to give the capital markets a better understanding of us and raise their expectations, it's vital to communicate, in the form of more compelling stories, what we're doing in these areas. Thank you very much for today.

## Business Overview



# Life & Healthcare Solutions

### Competitive advantages

#### Life care solutions

##### Vision care materials

- Broad product lineup
- Global brand power
- Production and R&D capabilities to meet customer demand and needs

##### Nonwovens

- Production and technological capabilities that leverage synergies from integration

##### Personal care materials

- R&D capabilities founded on enzyme technology and organic synthesis technology

#### Wellness solutions

##### Agrochemical products

- Highly unique drug discovery capabilities and production technology based on organic synthesis
- Portfolio of products derived from natural materials that are safe and have a low environmental impact
- Ability to develop formulations that can be tailored to each customer's needs

#### Medical solutions

##### Oral care

- Global brand power
- Product development capabilities through the combination of polymer science, precision synthesis technology, and clinical dental knowledge

##### Orthopedic materials

- Materials technology applied to dental materials, etc.

### Challenges and strategies

#### Life care solutions

##### Vision care materials

- Further create demand for high refractive index ophthalmic lens materials in key overseas markets
- Provide products and services including coating materials and processing equipment necessary for the lens manufacturing process
- Secure MR<sup>TM</sup> supply capacity to meet growing demand
- Increase the resilience of supply chains from raw materials to product supply

##### Nonwovens

- Expand SYNTEX<sup>TM</sup> MB nano and new products; accelerate the shift to industrial materials through the creation of development synergies
- Expand sales of differentiated products such as stretchable nonwoven fabric; pursue higher added value for hygiene materials through the creation of synergies from integration

##### New fields

- Cultivate other pillars beyond vision care through new business and new product development in the living environments and aquatic environments field

#### Wellness solutions

##### Agrochemical products

- Speed up overseas expansion for growth drivers by promoting sales of dinotefuran, TENEBENAL<sup>TM</sup>, and flupyrimin in the key overseas market
- Increase the resilience of supply chains by bolstering production capacity for active ingredients at Omuta Works and the Kitakami plant
- Expand our lineup of eco-friendly agrochemicals by pursuing drug discovery of innovative agrochemicals with high safety levels and low environmental impact and strengthening R&D and production technology for biological solutions, including natural products
- Improve QOL by promoting the registration of VECTRON<sup>TM</sup> T500, which contributes to the eradication of malaria, in various African countries, including the eradication of mosquito-borne diseases

##### New fields

- Expand business in areas related to health technology and biotechnology through the development of new businesses and new products in the nutrition field and the testing and diagnosis field

#### Medical solutions

##### Oral care

- Expand business and strengthen the foundation in key markets (in Europe, Japan, and the U.S.) by developing new products and strengthening collaboration between Group companies in core dental sectors (restorative materials, denture-related products, 3D printer & printable materials, and dental cement)

##### Personal care materials

- Launch new businesses such as nucleic acid raw materials using biotechnology

##### Orthopedic materials

- Accelerate product development and strengthen and expand business foundations through collaboration with Japan Medical Dynamic Marketing, Inc.

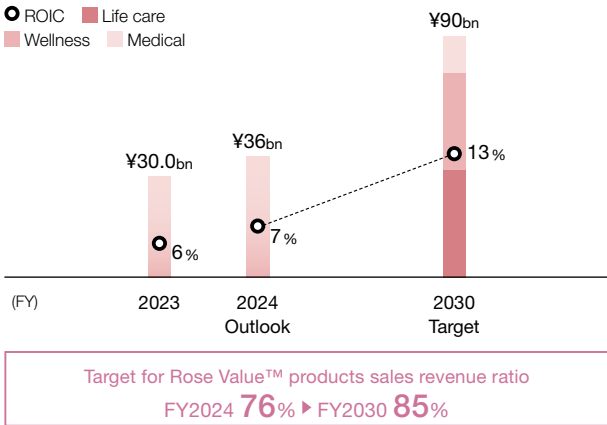
Life & Healthcare Solutions

TANAKA Hisayoshi

Managing Executive Officer  
Business Sector President,  
Life & Healthcare Solutions  
Business Sector



Operating income before special items/ROIC targets



Initiatives and accomplishments over the past three years

The vision of our business is to contribute to improved quality of life and the assurance of food safety and security by offering solutions that support life, health, and comfortable lifestyles. To realize this vision, we have been continuously expanding our business foundation and markets, increasing our production capacity to meet growing demand, and accelerating the development of new businesses and products through M&A and other means. In our vision care materials business, we expanded our production capacity and acquired Coburn Technologies, Inc.; in the agrochemical products business, we acquired the agrochemicals business of Meiji Seika Pharma Co., Ltd. and strengthened our production system; in the oral care business, we established our three-way partnership with SHOFU INC. and SUN MEDICAL Co., Ltd.; and, in the nonwovens business, we established a new joint venture company with Asahi Kasei Corporation. In addition, in the orthopedic surgery sector, we invested in Japan Medical Dynamic Marketing, Inc., and in the testing and diagnosis sector, we signed a capital and business alliance agreement with DNA Chip Research Inc.

In the vision care materials business, we have steadily expanded the business of the MR™ series of high refractive index ophthalmic lens materials to respond to the increasing demand for thin, strong, high-value-added lenses. In line with this increased demand, we have reinforced facilities at Omuta Works. In addition, the acquisition of Coburn Technologies, Inc., a leading lens-processing equipment company, by SDC Technologies, a subsidiary with high-quality hard-coating materials, has accelerated the development of new technologies that combine the strengths of materials and equipment. In the agrochemical products business, the acquisition of the agrochemicals business of Meiji Seika Pharma Co., Ltd., enabled us to expand our business in key overseas countries by expanding environmentally friendly active ingredients, such as flupyrimin, which is a new growth driver. To meet the growing demand in growth markets abroad, we strengthened our production framework at Omuta Works and MC Crop & Life Manufacturing Co., Ltd.

Challenges currently identified

We see it as a challenge to further expand our growth business and rebuild our low-profitability businesses. We need to transform our portfolio by significantly developing our solutions businesses, which identify social challenges and needs and contribute to their resolution. The vision care materials business will require the stabilization of supply and capacity to meet the growing demand for high refractive index lenses while strengthening regional marketing to ensure market growth is also important. Another challenge is the development of a solutions business, with a focus on coating materials, to establish a new competitive foundation. The agrochemical products business requires further business expansion by utilizing the expanded growth drivers. The oral care business is currently facing a slowdown in demand in Kulzer's North American markets, making it a challenge for us to strengthen its profitability. In the nonwovens business, while the competitive environment in the hygiene materials field is worsening, we need to expand our portfolio in the industrial materials field.

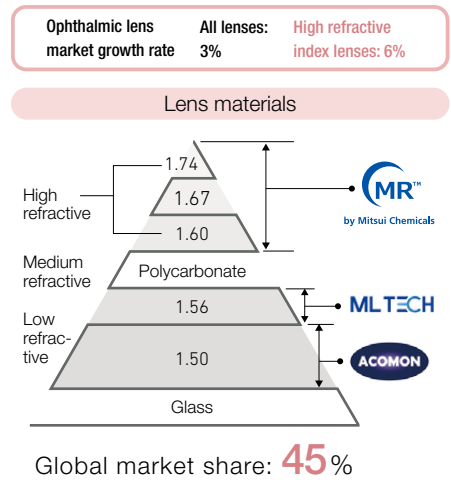
Strategies going forward to overcome the challenges

In the vision care materials business, we started developing basic designs for the next-phase production capacity expansion. In marketing by region, we will work to expand sales of the MR™ series, which has product characteristics that meet the needs of each country and region, and to spread the use of Do Green™, a plant-derived lens material. In addition, in the coating materials field, we will accelerate the utilization of sales channels of acquired companies and the development of applications other than lenses. Among agrochemical products, in the agrochemicals field, we will expand sales by increasing the number of countries in which our growth driver products are registered. We will also expand into the life solution field, such as household chemicals, and fully leverage our active ingredients to expand our business. We plan to put our oral care business back on a growth track by further strengthening collaboration between Group companies, continuing to introduce new products, and fundamentally strengthening Kulzer's profitability to develop it into a third pillar of earnings alongside vision care and agrochemical products. In the nonwovens business, we will pursue synergies from integration by optimizing the production system and strengthening the industrial materials field through the development of new products.

Life & Healthcare Solutions

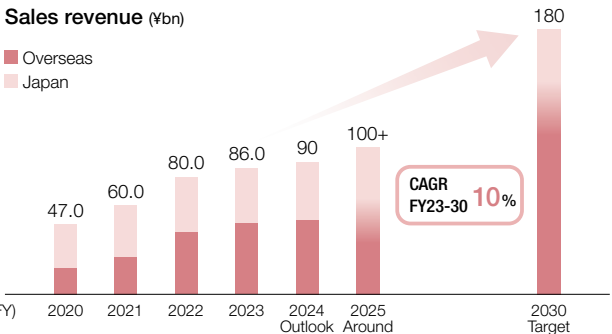
Vision care: Strengthening area marketing and create new synergies

Among ophthalmic lens materials, the high refractive index lens market is expected to grow faster than the overall ophthalmic lens market, as demand for high-value-added lenses increases in China and India, in addition to Europe and the U.S. To meet this demand, we will further increase production capacity and expand capacity using the facilities of our subsidiary, ML TECH Co., Ltd., and strengthen area marketing. In the coating materials business, we will contribute to surface coatings for all industries, including mobility and electronics, by strengthening collaboration with SDC Technologies, Inc., which develops high-quality coating materials, and Coburn Technologies Inc., which has strengths in lens processing equipment. At the same time, we will continue M&A activities to create new synergies.

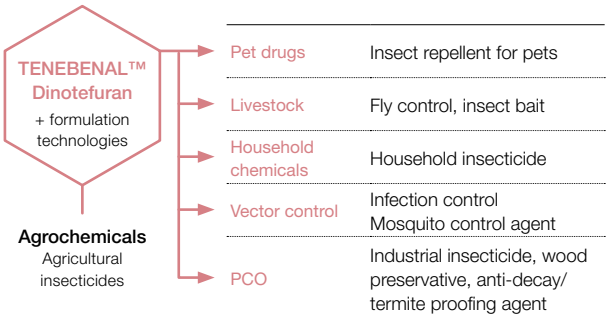


Agrochemical products: Accelerating overseas expansion for growth drivers

In the agrochemical products business, we are steadily increasing our overseas sales revenue by actively expanding our growth-driver products, such as dinotefuran, TENEBENAL™, and flupyrimin, in Brazil, India, and Southeast Asia, which are positioned as priority regions. Growth is expected to continue with further sales expansion in countries where these products are registered and an



Bolstering efforts to expand into the life solutions field

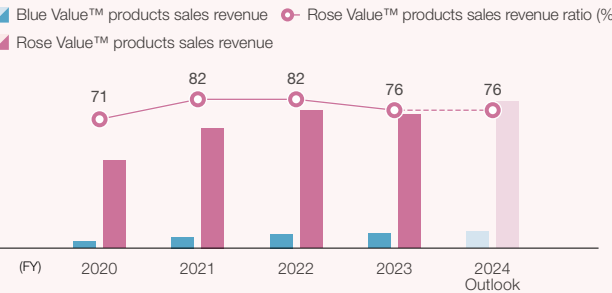


Status of Blue Value™ and Rose Value™ products

This business segment's certified Rose Value™ products include vision care materials, personal care materials, oral care, agrochemical products, and nonwovens, which contribute to a more comfortable lifestyle and to improving food productivity. For agrochemical products, we are working to ensure food security for a growing global population and to eradicate malaria in emerging and developing countries through the global expansion of our unique proprietary insecticides. Moreover, for oral care, we will strive to develop and launch new products in the core dental sectors. With respect to Blue Value™ products, we manufacture acrylamide, a raw material for polymer flocculants used in wastewater treatment, via the eco-friendly biocatalytic method. By licensing this manufacturing technology and supplying highly active bio-catalysts on a global scale, we also contribute to the reduction of global greenhouse gas emissions.

Ophthalmic lens materials <b>MR™</b> <ul style="list-style-type: none"><li>Contributes to the vision correction for people across the world and makes their daily lives more comfortable through superior optical performance.</li></ul>	Enriches life and society
Nonwoven fabric for disposable diapers <b>AIRYFA™</b> <ul style="list-style-type: none"><li>Reduces the amount of waste by using a hollow fiber structure. Utilized in adult and baby diapers to help reduce the workload of care providers.</li></ul>	Reduces CO <sub>2</sub> Enriches life and society Conserves resources Extends healthy life-span
Insecticide <b>STARKLE™</b> <ul style="list-style-type: none"><li>Helps boost food production and stabilize agricultural production in rice paddies, farms, and orchards through its insecticidal effect against a variety of pests.</li></ul>	Protects food

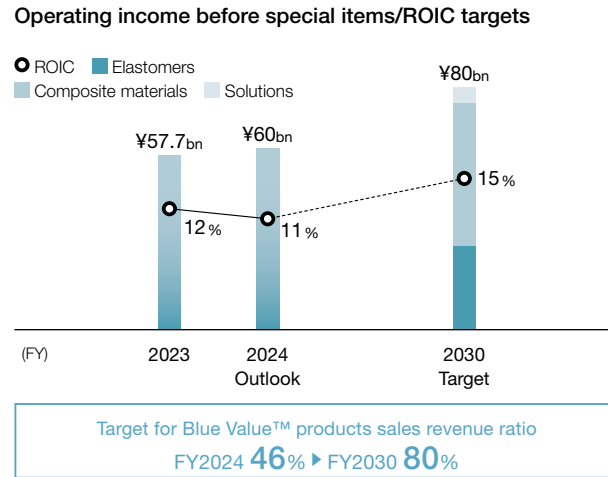
Sales revenue and sales revenue ratios of Blue Value™ and Rose Value™ products in each business





# Business Overview

## Mobility Solutions



**Initiatives and accomplishments over the past three years**

...

The mobility domain is undergoing a once-in-a-century period of change. The Mitsui Chemicals Group has lived up to customer needs and expectations through our high-value-added materials business. In addition, we are building a global supply network through our continuous and appropriate investment of resources to ensure supply to our customers expanding across the globe. As for the solutions business, we aim to establish a new business model by

**Competitive advantages**

- Extensive lineup of materials
- Advanced technological capabilities and product quality
- Extensive customer base that taps into our global network
- Technical services
- Ability to propose total solutions across the value chain

**Challenges and strategies**

**Materials business**

- Focus sales and development on fields where growth potential and contribution to sustainability overlap with our competitive edge
- Increase production capacity to meet demand and build a flexible and resilient production system beyond the boundaries of products and organizations by maximizing the utilization of global sites

**Solutions business**

- Promote the development of module concepts created through collaboration with other companies using the functions, technologies, and materials possessed by the Mitsui Chemicals Group
- Explore business opportunities by providing services that utilize our technologies and expertise

combining our design and analysis functions that have so far been strengthened or acquired through M&A with our technologies and expertise as a materials manufacturer, while collaborating with external parties.

Our achievements over the past three years include revenue growth through transforming the portfolio and capturing demands. In TAFMER™ elastomer, we have expanded the scale of operations in response to the expansion of the solar cell market. We are continuously investing resources, such as increasing production capacity in Singapore. Demand for PP compounds for automotive materials, which boast a high global market share, is growing thanks to the increased use for interior and exterior components because it contributes to improved driving range through reduced EV weight, and the adoption of performance compound product lines is expanding for EV batteries, cooling systems, and other applications. In the solutions business, we are also building a foothold to extend the value chain through partner collaboration in the fields other than automobiles such as new transportation systems and drones.

**Challenges currently identified**

...

The mobility domain is in the midst of significant changes triggered by CASE and MaaS, and new needs are emerging one after another, driven by social challenges such as improvement of fuel efficiency and electric mileage, enhancements to added value including greater vehicle-interior comfort, and reduction in environmental impact. As a leading player in the market, the Mitsui Chemicals Group will

seize this business opportunity, accelerate the development and market launch of materials, and expand its strong materials business. At the same time, we see it as an important challenge to pursue differentiation from emerging players following us based on technology and quality. Furthermore, from the perspective of strengthening the earnings base, it is essential to maximize the use of assets deployed globally and secure supply capacity through appropriate execution of investments. In the solutions business, we aim to contribute to earnings as soon as possible through the speedy launch of new business models.

**Strategies going forward to overcome the challenges**

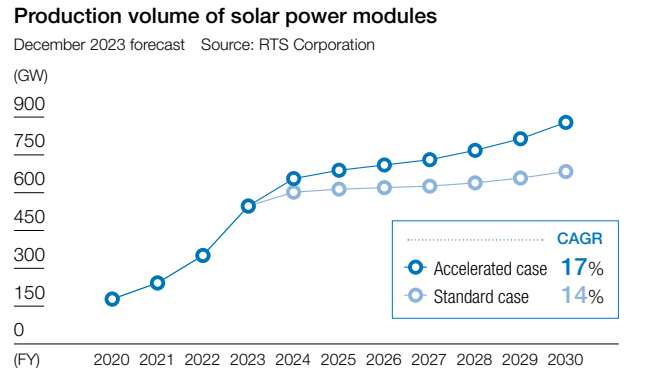
...

In the materials business, the Mitsui Chemicals Group will accelerate its shift to growth markets in which we can create a competitive advantage, aiming for further growth through portfolio transformation. We will promote area marketing by utilizing our sales, production, and R&D bases in major regions worldwide and strengthen collaboration with local customers to quickly capture needs and collaboration opportunities to develop new products and next-generation revenue drivers. We will also strengthen our local production for local consumption structure by maximizing the use of our production sites, and at the same time expand the total production capacity of the compound product line. In the solutions business, in addition to providing development support to existing OEMs through advanced concept proposals, we will launch a new business model to provide one-stop development assistance and commercial-production support for emerging EV manufacturers and startups.

## Mobility Solutions

### Elastomers (TAFMER™): Adding value through application development and expanding applications for solar cell encapsulants

TAFMER™ is a resin modifier and soft molding material that improves resin performance. With its flexible and light weight making TAFMER™ a solution for a wide range of fields including automobiles and packaging materials, the product enjoys the second-largest global market share and largest Asian market share. In recent years, the solar cell market has been expanding rapidly against the backdrop



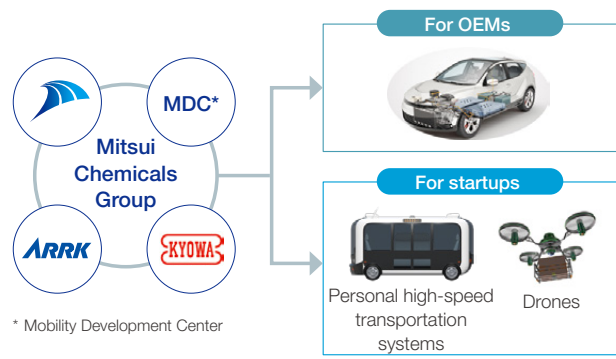
of the spread of renewable energy, and TAFMER™ has been increasingly used for encapsulation sheets for solar cell modules. Aiming at capturing future growth of the solar power market as well as growing demand created by further application development, our plant in Singapore plans to complete a 120 thousand tons per year increase in production capacity by the end of fiscal 2024.



Examples of TAFMER™ applications

### Solutions business: Providing solutions that combine the Mitsui Chemicals Group's knowledge with new materials

By leveraging materials, technologies, and global network of our own, as well as the design, analysis, prototyping, and other functions we have strengthened and acquired through M&A, we offer one-stop services by providing existing OEMs with materials that respond to changing needs and proposing advanced module concepts, as well as development support to startups and low-volume commercial production. For example, in the existing OEMs, the evaluation of lightweight backdoors is progressing smoothly toward the targeted commercialization in 2026, and our proposed concept of using plastics instead of metal for battery packs, under panels, etc., is also being evaluated. We also began planning and prototyping optional parts with excellent balance between performance and design by combining materials, technologies, and functions.



**Status of Blue Value™ and Rose Value™ products**

The Mobility Solutions Business Sector is working to develop products and services that contribute to improving the energy efficiency of automobiles via lighter weight and recyclability, as well as increasing the usage of renewable energy, in line with development trends in the value chain that are occurring in response to growing environmental awareness around the world. In fiscal 2023, we continued to work on increasing sales of Blue Value™ products, primarily items that contribute to a reduction in energy consumed in manufacturing and processing throughout the supply chain. Going forward, we will strive to contribute to society through our business by continuing to enhance the performance and quality of our Blue Value™ products. We will achieve this by developing products and services that help realize a circular economy and by pushing forward with sales, development, and production strategies with the same objective, such as through efforts to support mechanical recycling.

Auto bumper and instrument panel materials	Reduces CO <sub>2</sub>
<b>PP compounds</b> <ul style="list-style-type: none"><li>• Can reduce greenhouse gas (GHG) emissions by 13% as painting process is no longer required</li></ul>	Conserves resources
Adhesive polyolefin for plastic fuel tanks	Reduces CO <sub>2</sub>
<b>ADMERTM</b> <ul style="list-style-type: none"><li>• Lightens fuel tanks by 10–30% with the use of plastics instead of metal</li><li>• Enables realization of small welfare vehicles due to increased design flexibility of tank shape</li></ul>	Enriches life and society
Lubricant additive for automobiles	Reduces CO <sub>2</sub>
<b>LUCANTTM</b> <ul style="list-style-type: none"><li>• Improves fuel efficiency by reducing the dependence of lubricant viscosity on temperature.</li></ul>	Reduces CO <sub>2</sub>
Concrete surface reinforcement agent	Enriches life and society
<b>Toughness CoatTM</b> <ul style="list-style-type: none"><li>• Resin film formed on the surface of concrete structures gives greater durability and impact resistance. Extends infrastructure service life and prevents/mitigates the effects of disasters.</li></ul>	Enriches life and society

**Sales revenue and sales revenue ratios of Blue Value™ and Rose Value™ products in each business**

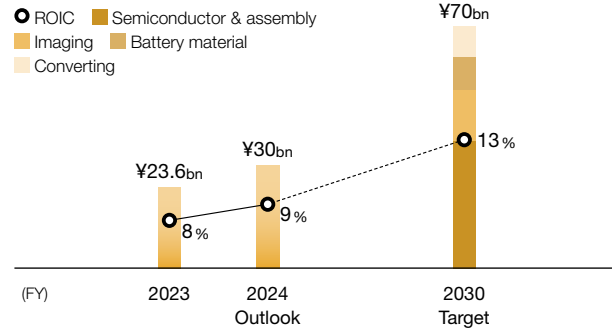
(FY)	2020	2021	2022	2023	2024 Outlook
Blue Value™ products sales revenue (¥bn)	37	47	54	47	46
Blue Value™ products sales revenue ratio (%)	37	47	54	47	46

Business Overview

ICT Solutions



Operating income before special items/ROIC targets



\* From fiscal 2024, we have revised the segments to which certain affiliates in ICT Solutions and Basic & Green Materials belong. The figures for fiscal 2023 reflect the revised segments.

Target for Blue Value™ products sales revenue ratio FY2024 31% ▶ FY2030 56%	Target for Rose Value™ products sales revenue ratio FY2024 38% ▶ FY2030 60%
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Initiatives and accomplishments over the past three years

To ensure that we can respond flexibly to the fast-moving ICT market, we created the ICT Solutions Business Sector in April 2022 to consolidate our products and services in the ICT field, which were distributed across various business segments. Since then, we have worked to strengthen our key products through capital

Competitive advantages

- Unique products with high market share in the semiconductor and assembly field as well as the imaging field
- Advanced technological capabilities and product quality, and technical support
- Global customer base
- Ability to propose total solutions across the value chain

Challenges and strategies

- Semiconductor & assembly solutions
  - Strengthen and expand existing businesses and strengthen proposals for new products and solutions with competitive advantages in response to semiconductor and assembly process innovation
  - Collaborate with digital platform companies by strengthening the planning and marketing capabilities of our overseas bases to better capture the needs of overseas customers and create a system suitable for customer speed by strengthening joint development with external partners
  - Strengthen research and development functions through co-creation with customers by establishing Creative Integration Lab.™ and consolidating and expanding customer process capability evaluation facilities
- Imaging solutions
  - Strengthen proposals for new products and solutions with highly competitive advantages to take the lead to meet advanced needs
- Battery material solutions
  - Strengthen development of next-generation battery materials
- Converting solutions
  - Expand eco-friendly packaging materials

investment and technology alliances in the four key solutions areas—semiconductor & assembly, imaging, battery material, and converting. We also focused on developing new products and launched Diffrar™, an array of optical polymer wafers for AR glasses.

In M&A-related initiatives, we took over Asahi Kasei Corporation's pellicle business and established Mitsui Chemicals EMS Corporation in July 2023 to establish our position as the world's No. 1 manufacturer of pellicle, equipped with the world's top supply capability and the most advanced product technology and process development capabilities.

We have also made business investments and restructuring efforts, including the split of Mitsui Chemicals Tohcello, Inc. (and the establishment of Mitsui Chemicals ICT Materia, Inc.), to pursue synergies specific to the Mitsui Chemicals Group more than ever and establish a structure that enables rapid decision-making.

In terms of strengthening existing mainstay products, we have started the effort to increase the capacity of POD and PUD to respond to the growing need for eco-friendly packaging materials in the field of converting solutions. The shift to sales in differentiated areas has enabled us to increase revenues.

Challenges currently identified

To leverage our competitive edge in the ICT field, it is important to create unique products with new added value in a prompt fashion by creating new businesses and products and enhancing existing products. In particular, challenges we have recognized include

taking the lead in cutting-edge areas in semiconductors and expanding new technological requirements driven by the spread of generative AI and other technologies.

While we were facing a difficult business environment amid the downturn of the semiconductor and smartphone markets, we need to actively invest resources in anticipation of a recovery beginning in fiscal 2024.

Strategies going forward to overcome the challenges

We will create new businesses and products by aligning the Group's business strategy with the technology roadmap drawn by our customers.

In investing in SHINKO ELECTRIC INDUSTRIES CO., LTD., we will work to make new materials created from our core molecular design and synthesis technology consistent with conformity assessments that satisfy our customers' next-generation semiconductor packaging and assembly processes.

In terms of strengthening existing products, we aim to commercialize next-generation EUV pellicles as soon as possible by strengthening our collaboration with ASML, the world's only EUV lithography equipment manufacturer, and imec, an international semiconductor research institute, for our key products, pellicles. In addition, we will respond to growing demand for our key product, ICROS™ Tape, by expanding its capacity in Taiwan, and we will also move forward with efforts to expand our portfolio in new areas.

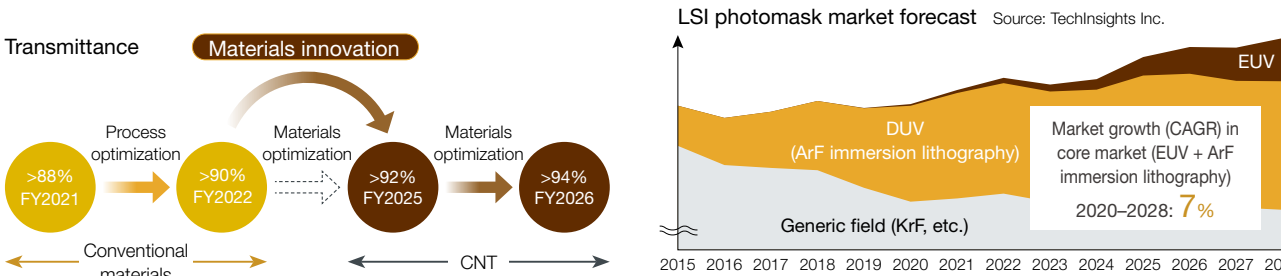
ICT Solutions

Semiconductor & assembly solutions: Strengthening next-generation product lineup of EUV pellicles

As EUV lithography is becoming more widely adopted, pellicles made from new materials will be essential to withstand harsh lithography environments, such as high NA\* and high-output lithography, required to further reduce the size and increase the production efficiency of semiconductors. To meet such needs, we have decided to accelerate our materials innovation and establish mass production facilities at the Iwakuni-Ohtake Works as a step toward commercializing CNT pellicles that have both

high EUV transmittance (92% or above) and light resistance for exposure output of over 1kW (the construction is scheduled to be completed in December 2025). By adding next-generation products to its lineup alongside conventional EUV pellicles, we will respond to the most advanced needs.

\* NA: An abbreviation of "numerical aperture," a term for a number that quantifies a lens' ability to concentrate light—including the lens' brightness, resolution, and depth of focus. The larger the number, the more light rays a lens is able to capture, and the better it is able to narrow that light down to a small point.



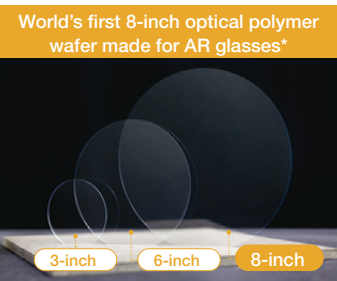
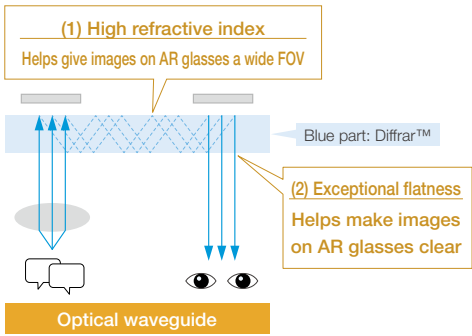
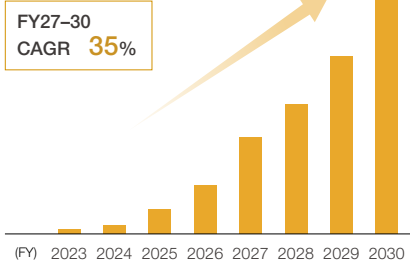
Imaging solutions: Launching novel optical polymer wafer Diffrar™ for the growing AR glasses market

For the AR glasses market, which is expected to grow in earnest from 2027 onward, we have developed the Diffrar™ array of polymer wafers for waveguides. Equipped with outstanding optical properties, including a high refractive index of 1.67 or higher and exceptional flatness, Diffrar™ optical polymer wafers offer users of AR glasses a wide field of view (FOV).

We aim to develop and sell Diffrar™ as optical polymer wafers for AR glasses, rather than merely selling it as a raw material. The product lineup features wafers ranging from 3 inches to 8 inches in size, and the products have been well received, especially by U.S. platform companies. We intend to develop our processing business by steadily implementing such initiatives.

AR glasses market

Full-fledged growth in 2027



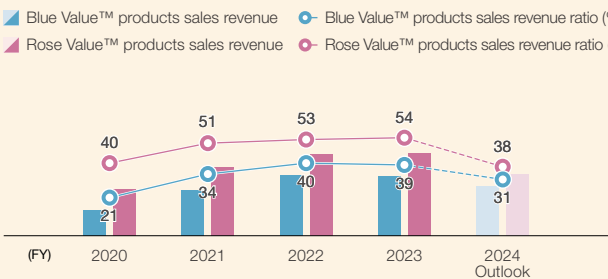
https://jp.mitsuichemicals.com/en/release/2023/2023\_1218/index.htm  
\* Surveyed by Mitsui Chemicals

Status of Blue Value™ and Rose Value™ products

The ICT Solutions business segment provides ICT materials and solutions that contribute to the evolution of technologies such as AI and beyond-5G/6G, which support the realization of the following goals: "Ensuring the sustainability of communities" and "Improving comfort in people's lives." In fiscal 2023, Blue Value™ products and Rose Value™ products accounted for over 39% and 54%, respectively, of sales revenue in this business segment. Going forward, we will continue to further enhance the performance and quality of our existing certified product lineup and develop new certified products in response to changing social needs.

Heat sealant for environmentally friendly paper packaging materials <b>CHEMIEPEARL™</b> <ul style="list-style-type: none"><li>• Enables coatings with a smaller environmental impact than polyethylene (PE) laminated paper. Paper coated with it is easily turned into a recycled pulp slurry, improving recyclability</li></ul>	Reduces CO <sub>2</sub>	Conserves resources
Dust cover for photomasks <b>MITSUI PELLICLE™</b> <ul style="list-style-type: none"><li>• Improves productivity of semiconductors through high light transmittance and its function of protecting photomasks. Helps to realize the miniaturization of semiconductors, which contributes to the sophistication of communication infrastructure</li></ul>	Reduces CO <sub>2</sub>	Conserves resources
Electrolyte for lithium-ion batteries <b>MILLET™</b> <ul style="list-style-type: none"><li>• Contributes, as an EV battery-related material, to reduction of greenhouse gas (GHG) emissions that result from switching from gasoline to electric vehicles</li></ul>	Reduces CO <sub>2</sub>	Enriches life and society

Sales revenue and sales revenue ratios of Blue Value™ and Rose Value™ products in each business





Business Overview

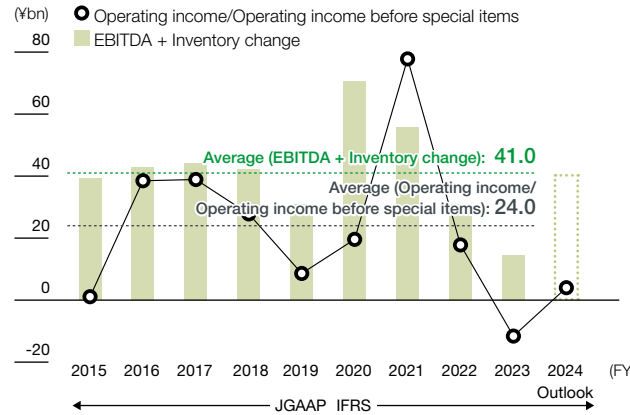
Basic & Green Materials

IZAWA Kazumasa

Senior Managing Executive Officer  
Business Sector President, Basic &  
Green Materials Business Sector



Trends in operating income before special items/  
cash flows from operating activities



\* From fiscal 2024, we have revised the segments to which certain affiliates in ICT Solutions and Basic & Green Materials belong. The figures for fiscal 2023 reflect the revised segments.

Initiatives and accomplishments over the past three years

...

This business sector has been working on portfolio transformation under the VISION 2030 business strategies of “Restructuring,” “Bolstering downstream businesses,” and “Green chemicals.” However, further restructuring has become necessary because of factors such as a structural supply-demand gap due to oversupply

Competitive advantages	
<ul style="list-style-type: none"><li>Globally competitive naphtha crackers</li><li>Metallocene and other polyolefin catalytic technologies</li><li>High-performance polyols and high-performance MDIs to differentiate polyurethane products</li></ul>	<ul style="list-style-type: none"><li>Development of bio-polyols and related manufacturing technology</li><li>Development of a wide range of biomass and chemically recycled products by introducing bio-based hydrocarbons and pyrolysis oil from plastic waste</li></ul>
Challenges and strategies	
<ul style="list-style-type: none"><li><b>Restructuring</b><ul style="list-style-type: none"><li>Optimize capacity in line with demand (Iwakuni PET, Omuta TDI, and Ichihara PH) and downsize or withdraw from products with low capital efficiency</li><li>Reduce business risks, conduct restructuring and improve competitiveness through partnerships with other companies (naphtha crackers, polyolefin)</li></ul></li><li><b>Green chemicals</b><ul style="list-style-type: none"><li>Switch to alternative raw materials (bio-based hydrocarbons, pyrolysis oil from plastic waste)</li><li>Switch to alternative low-carbon raw materials and fuels (Ammonia-fueled crackers) and introduce highly energy-efficient equipment (Scopes 1 and 2)</li><li>Maximize avoided emissions through the provision of our products (Scope 3) such as by expanding bio-based derivatives and recycled products</li><li>Bolster efforts toward a circular economy through expansion of bio-based, mechanically and chemically recycled products</li></ul></li></ul>	<ul style="list-style-type: none"><li><b>Bolstering downstream businesses</b><ul style="list-style-type: none"><li>Expand our operations for high-performance (PP, MDI) and niche products (HQ, catalyst) through the development of end user-oriented materials, new brands and formulations by expanding the utilization of materials informatics (MI) and products that begin from the perspective of mechanical and chemical recycling</li></ul></li></ul>

resulting from major capacity increases in China. For green chemicals, we have steadily continued our efforts, such as introducing bio-based hydrocarbons and pyrolysis oil from plastic waste as raw materials that are fed into crackers.

As a result, the restructuring projects have started to bear fruit. In fiscal 2023, the business sector posted a loss in operating income before special items, but EBITDA (including inventory changes) was positive. We have been transforming the business structure to ensure stable cash flows over the medium term by reducing volatility, generating an average annual EBITDA (including inventory changes) of 41 billion yen from fiscal 2015 to fiscal 2023.

For green chemicals, we are promoting the chemical recycling of polyurethane in bed mattresses and are expanding eco-friendly initiatives for various products, such as bio-PP food packaging, which received the first Eco Mark under the mass balance method.

Challenges currently identified

...

The Group’s mission is to be a chemical company that solves social challenges. As such, we believe that the role of this business sector is to build a system for green chemicals and supply decarbonized and low-carbon materials to society.

However, because the shift to green chemicals in industrial complexes requires significant investment, including in technological development, we must improve the capital efficiency of our overall business and generate cash flow by strengthening downstream

products that are highly functional and competitive. To this end, we will restructure our business while remaining open to possible partnerships with other companies. At the same time, we will identify businesses to focus on while considering solutions to social challenges and matters related to economic security and other perspectives. In this way, we will create a strong businesses portfolio that can survive even in a difficult operating environment.

Strategies going forward to overcome the challenges

...

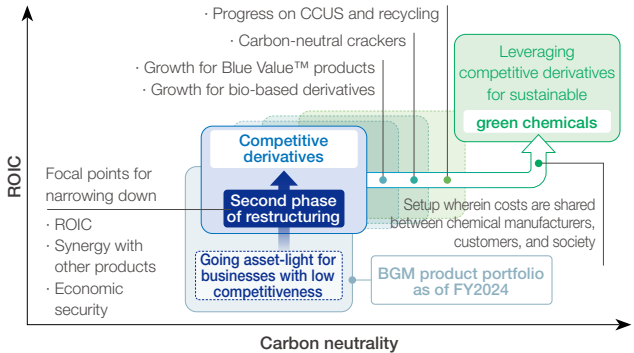
We will work on improving capital efficiency through further restructuring and bolstering of downstream businesses. For our second phase of restructuring, we have already announced the closure of the Iwakuni-Ohtake PET plant, downsizing of the Omuta TDI plant, and closure of the Ichihara PH plant. For crackers, in order to optimize capacity to meet demand and become carbon neutral, we have begun serious consideration of consolidating our ethylene complexes in the Keiyo area with Idemitsu Kosan Co., Ltd., and in western Japan, we have launched joint studies with Asahi Kasei Corporation and Mitsubishi Chemical Corporation. In the PP and PE businesses, we are also considering optimization through partnerships with other companies. To bolster downstream businesses, high-performance MDI and high-performance PP plants will start operation in fiscal 2024 and contribute to the improvement of profitability through sales of high-value-added products. We will also promote plans to strengthen competitive derivatives such as hydroquinone and catalysts for PE.

Basic & Green Materials

Taking the next step by promoting product portfolio reform

As we strive for a sustainable green chemicals business centered around competitive derivatives, we are narrowing down our existing product lineup based on various criteria such as ROIC, synergy with other products, and economic security. For our less competitive businesses, we are moving to a more asset-light structure. For the competitive derivatives that have been narrowed down, we will promote carbon neutrality through the expansion of Blue Value™ products and other initiatives, thereby increasing ROIC.

By pursuing stakeholder appreciation for the purpose and value of these initiatives, we will transition to a sustainable green chemical business that is highly capital-efficient and profitable.



Example of green chemicals: Polyurethane recycling business

We are working to monetize environmental value by deliberating on the market launch and commercialization of recycled polyols, one of the principal components of polyurethane, and by establishing chemical recycling technologies through participation in activities such as a demonstration of used mattress disposal and recycling technologies\*.

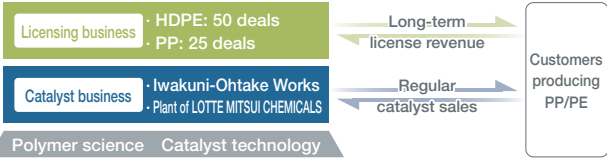
Paramount Bed, Mitsui Chemicals and Rever Launch Chemical Recycling Demonstration for Polyurethane Mattresses  
[https://jp.mitsuichemicals.com/en/release/2023/2023\\_0904/index.htm](https://jp.mitsuichemicals.com/en/release/2023/2023_0904/index.htm)

\* This demonstration project has been selected as the “Promotion Project to Establish a Decarbonized Circular Economy System” under the Ministry of the Environment.

Example of narrowing down to competitive derivatives

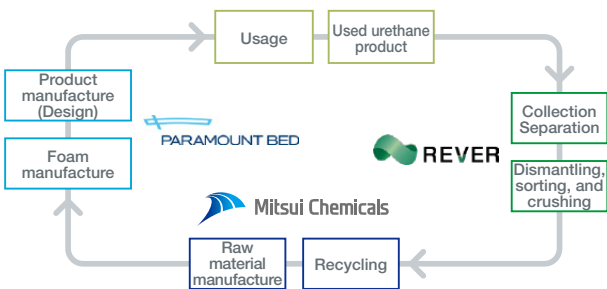
(1) Licensing & catalyst businesses

The licensing & catalyst businesses are capital-efficient businesses based on our core polymer science and catalyst technology. They provide licenses to petrochemical projects and other projects in developing nations to secure rising demand from such nations and elsewhere. In this way, they secure long-term license revenue and generate revenue from regular catalyst sales, thereby achieving a high and stable ROIC over the long term.



(2) AdBlue™

AdBlue™ is an advanced urea solution that breaks down NOx emitted from diesel engines of heavy-duty trucks into harmless water and nitrogen. It is an essential product for economic security because it contributes to the maintenance of domestic logistics infrastructure. Our integrated production system encompasses the robust supply process from ammonia to urea to AdBlue™, making it less likely to be affected by external factors.



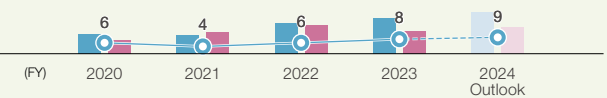
Status of Blue Value™ and Rose Value™ products

Utilizing our distinctive catalyst and resin design technologies, to date, we have certified products including EVOLVE™, Nextyol™, and ECONYKOL™, which is derived from bio-based raw materials, as Blue Value™ products. Furthermore, we have certified products including HI-ZEX™, NEO-ZEX™, Prime Polypro™, and ACTOCOL™ as Rose Value™ products. We have also started handling certified products at overseas sites, and are promoting the expansion of Blue Value™ and Rose Value™ products globally. With regard to petrochemicals and basic chemicals derived from fossil materials, we will promote the shift to bio-based and chemical recycling raw materials in line with our carbon neutral strategy, thereby expanding Blue Value™ products and helping to reduce GHG emissions across the supply chain.

Seat cushion material <b>Nextyol™</b> <ul style="list-style-type: none"><li>Contributes to mitigating climate change and improving comfort in people’s lives by omitting the manufacturing processes and significantly reducing volatile organic compounds (VOCs)</li></ul>	<ul style="list-style-type: none"><li>Reduces CO<sub>2</sub></li><li>Coexists with nature</li><li>Extends healthy life-span</li><li>Enriches life and society</li></ul>
Exhaust gas reduction agent <b>AdBlue™</b> <ul style="list-style-type: none"><li>Reduces NO<sub>x</sub> emissions and contributes to fuel economy</li></ul> <small>* AdBlue™ is a trademark of the Verband der Automobilindustrie.</small>	<ul style="list-style-type: none"><li>Reduces CO<sub>2</sub></li><li>Coexists with nature</li></ul>

Sales revenue and sales revenue ratios of Blue Value™ and Rose Value™ products in each business

Blue Value™ products sales revenue (Blue circle) Blue Value™ products sales revenue ratio (%) (Pink triangle)  
Rose Value™ products sales revenue (Pink triangle)



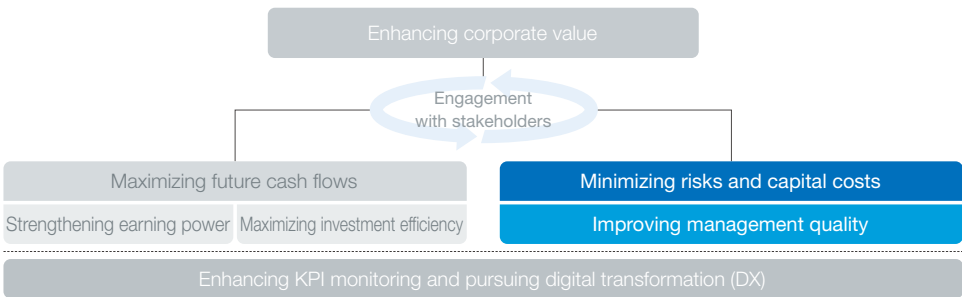
# Improving management quality

The Mitsui Chemicals Group is working on “improving management quality” in pursuit of minimizing risks and capital costs.

In this section, we will outline our corporate governance that forms the foundation of management. At the same time, we will also lay out, among other topics, risk management that we have rolled out not only to minimize threats but also to maximize opportunities and our sustainability governance.

90	Dialogue	Outside Directors x Investor
95		Directors and Audit & Supervisory Board Members
97		Corporate Governance
105		Risk Management
107		Sustainability Governance
108		Responsible Care safety initiatives
109		Respect for human rights
110		Implementing the Recommendations of the TCFD

## CHAPTER — 05



\* For full diagram, see The Mitsui Chemicals Group's Management Driven by Integrated Thinking on p. 5.  
■ colored item is mentioned in this chapter.

### Dialogue Outside Directors x Investor

## Squarely facing challenges and exploring the optimal approach to achieving VISION 2030



<b>Mr. MATSUBARA Minoru</b> Chief Sustainability Officer Managing Executive Officer, Responsible Investment Division Resona Asset Management Co., Ltd.	<b>MIMURA Takayoshi</b> Outside Director (two years in role)	<b>KIHARA Tami</b> Outside Director (newly appointed)	<b>MABUCHI Akira</b> Outside Director (three years in role)
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### Reflecting on progress with VISION 2030 and challenges that have emerged

**Matsubara:** Three years have passed since you embarked on VISION 2030, so I'd like to start by asking you for your assessments of the strategies that have been implemented and the challenges that have emerged so far. To begin with, could you give me your thoughts, from your perspectives as outside directors, on the Mitsui Chemicals Group's competitive advantages and how it plans to leverage them to achieve VISION 2030?

**Mabuchi:** After spending about 40 years in technology development and corporate strategy in the automotive industry, I was made an outside director of Mitsui Chemicals in 2021, just as VISION 2030 was launched. In summing up the past three years, while the Group has made steady progress with business portfolio transformation, there remain many issues that still need to be addressed. Although earnings in the growth domains have been rising, those from the Basic & Green Materials business remain volatile, with the business still in the process of restructuring. I also feel that there are still barriers between

departments in the growth domains, and I think one of the reasons for this might be a lack of horizontal connections with the researchers. For example, it would be good to improve the ability of the research side to produce output, share their results with the business side, and enable their potential and capabilities to be more clearly visualized.

In addition, I believe it's necessary for the company, at the level of the Group as a whole rather than the business division level, to be fully cognizant of the direction in which it should concentrate its efforts, and to clearly articulate that direction. The Group has defined its ideal vision for 2030 as “Chemistry for a Sustainable World.” However, this message can give the impression that it's only about chemistry in general, so I think it should break this down further and pursue a more specific direction for the Group.

**Mimura:** It's been two years since I was appointed as an outside director in 2022, having made my career in the medical industry. Overseas competitors have become a more formidable presence since the formulation of VISION 2030, and I have the impression that progress in the growth domains is becoming patchier, so I think it's necessary to pursue additional forms of growth. From a management perspective, I believe it's important to pay more attention to the cost of capital, and especially to strengthen follow-up monitoring and post-merger integration (PMI) after M&A, an essential component of future growth strategies.

As for the Group's competitive advantages, it has materials and technologies that boast huge market shares worldwide, in Asia, or domestically in Japan, so I think



## Outside Directors x Investor

deepening understanding of these fields throughout the Group is critical to fostering the kind of Group-wide consciousness that Mr. Mabuchi mentioned.

**Matsubara:** Focusing on the challenge of reducing the short-term volatility in the earnings of the Basic & Green Materials business seems to create a bit of a conflict in terms of time frame with the long-term goals outlined in VISION 2030, but do you consider these two separately or do you think they will eventually be connected?

**Mimura:** I view the growth domains and that business separately, at least to some degree. Regarding the growth domains, risks and opportunities are carefully assessed not only from the financial side but also from the non-financial side, with the aim of making growth more stable going forward. On the other hand, I believe that the Basic & Green Materials business should, while fulfilling its responsibility to support social infrastructure as a key industry for Japan, take a leadership position in, for example, collaborating with other industry peers. I think this will be crucial for strengthening the Group, so I hope that's what will happen.



Mr. MATSUBARA Minoru

Since joining Resona Bank in 1991, he has spent his entire career in the asset management field. He has worked in investment management, planning, and responsible investment in the Investment Development Office and Public Fund Management Department, Pension Fund Management Department, Trust Fund Management Department, Investment Management Department, and Asset Management Department. In April 2020, he became an Executive Officer and General Manager of the Responsible Investment Division of Resona Asset Management, before assuming his current position in August 2023.

His appointments as a committee member include Vice Chairman of the Steering Committee of the Japan Impact-driven Financing Initiative; Member of the SX Study Group of the Ministry of Economy, Trade and Industry; Member of the Steering Committee of the Impact Consortium; and Member of the Expert Committee for the Sustainable EXPO of the Japan Association for the 2025 World Exposition. He authored or co-authored several books including Ethical White Paper (co-author).

### Promoting DX and further utilization of intangible assets

**Kihara:** I became an outside director in June 2024, so I'd like to express an opinion from a fresh perspective. At Ricoh Company, Ltd., I was involved in the digital human resources strategy for the entire group, so witnessed digital transformation in the manufacturing industry up close, and I feel that strengthening digital skills is a key task for the Group. In VISION 2030, the only DX-related KPI is the number of data scientists, but this can't be said to be sufficient for future transformation, so I think it's necessary to review targets and KPIs.

Mr. Mabuchi mentioned that there are issues with cooperation across divisions, and I believe another reason for this is the lack of visibility of the skills of human resources within the Group and the skills required internally, which is inhibiting the smooth allocation of human resources in line with business strategies.

However, given the recent introduction of the Workday platform and the fact that the infrastructure is being put in place, I think the task for the Group going forward is to visualize skills related to the materials technology that it has accumulated over the years, and also to improve the

skills, including literacy, of its people, in the realm of digital technology, which is critical for developing its solutions business and orienting toward the circular economy.

**Matsubara:** Many companies are grappling with the issue of siloed business strategies, and digital technology is effective as a means of slicing through organizational boundaries. To make the transition to a solutions-based business, I think it's essential to have an understanding of other departments' talent pools and initiatives and to be convinced of their merit. But the hurdles to creating such a platform for that kind of human capital seem to be high. So what kinds of challenges will need to be embraced to create a platform like that?

**Kihara:** I believe that the purpose of a human resources strategy is to define the "to be," as represented by business targets, and to fill the gap between the "to be" and the "as is," as represented by factors such as current skill levels. But I think the first step is to visualize the "as is" through the painstaking process of properly identifying the skills of each individual and the skill levels that are required. I think that in the manufacturing industry, people aren't used to visualizing skills, because skills are transferred in the form of tacit knowledge, as though being passed down from father to son in some cases, but by measuring the skills of all employees in the same way and making them open, individuals will realize what they themselves are lacking and be able to define their personal "to be," so I think it's important to move swiftly to visualize the "as is."

**Matsubara:** When you look at an organizational chart, I think you can infer a great deal about the relationship

## Outside Directors x Investor

between corporate strategy and human resources strategy. For example, if the HR department is under the purview of the finance department, there's going to be a heavy focus on cost-cutting, making it difficult for the human resources strategy to be aligned with corporate strategy, and the strategies of each department will tend to become siloed. The "to be" that Ms. Kihara is talking about should probably be defined as part of overall corporate strategy.

**Kihara:** In the Group, a director serves as the chief human resources officer (CHRO), so it's clear from the organizational chart that management places importance on human resources strategy. Going forward, I think the challenge is going to be to work with a sense of urgency to break the strategy down into concrete tactics.

**Matsubara:** Alongside human capital, I get the impression that intellectual capital is another area attracting attention in the capital markets as a key theme, but what do you think is going to be the key to building the Mitsui Chemicals Group's muscle in terms of intellectual capital and intellectual property in the future?

**Mabuchi:** I think it's going to be essential to visualize the intellectual property possessed by the Group. Though progress with visualization may be being made in research departments, I feel that the sharing of information on a Group-wide basis is still insufficient. In M&A, there should be discussions on how to leverage synergies based on an understanding of the strengths of both the other company and the Group, but I think it's also useful to visualize the status of one's own IP so that objective and careful judgments can be made at that time.

**Kihara:** To acquire and develop high-caliber talent to handle intellectual property, I think it's also going to be important to make effective use of human resources systems for highly specialized talent, such as the so-called fellow system. The Group has already instituted a framework for specialist positions in research and IP, setting evaluation criteria that differ from those for line positions, and I think initiatives like this can be a powerful tool for emphasizing to the outside world that here is a company that values technology.

**Mabuchi:** The question of how to treat technical specialists so that the company can deliver results is a key issue for the manufacturing industry. Among technical specialists, there are the types with strong skills in a narrow field, and there are the generalists with a flair for organizing and commercializing technologies across a wide range of fields. It's inherently important to strike a balance between the two groups, but even so, I feel that conventional human resources systems are biased, with the latter more likely to pick up high marks in their evaluations. I think criteria for properly evaluating personnel who specialize in technology are essential.

**Kihara:** As you say, evaluation design is indeed critical. However, in any company, I believe that highly specialized talent such as fellows are not valued solely for their expertise, but also for their ability to bring others on board and for their project management skills, so I think we need to incorporate those elements into the definition of "highly specialized talent." Evaluation systems like that tend to get gradually hollowed out over time, so I think it's necessary to update the definition as the environment changes.



**Mimura:** With technological challenges becoming more diverse, it's become harder for a single company to complete projects on its own, so M&A deals are on the rise, but companies should pay attention to whether the overall design is solid. To make sure M&A doesn't become an end in itself, it's vital for the technology divisions and those who create the overall vision to be on the same page before any decisions are made, but there are some areas where the Group has been falling short in this regard, and unfortunately the success rate of past M&A deals has been low, so I view the strengthening of monitoring as a key task. To accomplish that task, the human resources strategy is going to be important, so I think acquiring and developing people who can design businesses is imperative.

## Outside Directors x Investor

### Aiming to both create economic value and fulfill social responsibilities as a chemicals manufacturer

**Matsubara:** Moving on, I'd like to hear your thoughts on social challenges as a chemical manufacturer. A lot of emphasis has been put on sustainability governance in recent years, and the key question is how to monitor negative impacts and then turn them into positive impacts. That being said, focusing on discharging such corporate responsibilities may conflict with earnings in the short term, and it's often difficult for investors to see how non-financial initiatives will eventually lead to financial gain. What are your views on this?

**Mabuchi:** Regarding issues like that, the Group has set targets for reducing greenhouse gas emissions by 2030 and has pledged to achieve carbon neutrality by 2050. And it is driving initiatives to accomplish those goals in line with detailed non-financial KPIs. Among these initiatives, Blue Value™ and Rose Value™ products not only contribute to surmounting social challenges, but are also characterized by high profit margins, so they can be seen as initiatives for creating both economic value and social value. On the



other hand, I feel that with initiatives such as the introduction of bio-based hydrocarbon, challenges still need to be overcome before they can generate stable earnings.

**Kihara:** Earlier on I mentioned that the objective visualization and utilization of data with digital technology is effective in the areas of human capital and intellectual capital, and I think the same can be said for sustainability initiatives. The Group is currently working to strengthen its IT infrastructure, including ERP, and I expect this to enable it to quickly run simulations of sustainability-related measures that will have a negative effect on earnings in the short term but a positive effect in the long term. By utilizing such systems, it will be able to speed up the implementation of more appropriate measures and also hasten recovery. The Group will be able to secure a competitive advantage and stakeholders will be more convinced that the Group is heading in the right direction.

**Mimura:** In the future, it will be important to steadily advance initiatives such as Blue Value™ and Rose Value™ products and bio-based hydrocarbons, and at the same time, to take steps to ensure that society recognizes the added value of these products. As part of that process, it's also going to be necessary to pay close attention to recent debates surrounding electric vehicles, for example, that are taking place especially in Europe.

**Matsubara:** Looking at developments that Mr. Mimura just mentioned, it could perhaps be said that part of the global debate on ESG and sustainability concerns the notion that while the ultimate goal is to improve the earth's environment, business strategy will also play a major part



in shaping the rules. That being the case, is there any chance that the Mitsui Chemicals Group will get involved in the rule-making process?

**Mimura:** I think it's really important that it does. I take the VISION 2030 slogan as an ambitious message of commitment to reaffirming the power of chemistry and altering certain negative images, rules, and social mechanisms, so I expect the Group will demonstrate leadership in such areas as well. I think this will require it to avoid being swayed by the rules currently in place. Instead, it will need to actively emphasize the value that the chemical industry contributes, and at the same time to take part in the process of setting rules for the realization of sustainability in such a way as to ensure that this value isn't compromised.

## Outside Directors x Investor

### Developing a bespoke governance structure for the Mitsui Chemicals Group

**Matsubara:** I'd like to move on to talk about governance. Could you share your thoughts on the current level of effectiveness of the Board of Directors and the appropriate organizational design toward realizing VISION 2030?

**Mimura:** First off, one characteristic of the Group that I'd like to mention is that, in my view, the Board of Directors is quick to incorporate the views of us outside directors. The committee system has also been revitalized, and the executive compensation system, in particular, has undergone significant changes that I feel are contributing to fostering an awareness that the company is being run together with investors. An example of that is the way stock compensation as a proportion of total compensation was altered in response to the opinions of outside directors.

**Mabuchi:** I agree, as I also feel that the Board of Directors views opinions from outside directors and external parties positively. As for the design of the governance structure, it's currently a hybrid structure in which the Company is formally classified [under the Companies Act of Japan] as a company with an Audit & Supervisory Board, but has also voluntarily established various committees. Going forward, it should move further to separate execution and oversight functions, engage in thorough discussions on the roles of each function, and if necessary, consider shifting to a company with an Audit and Supervisory Committee. In doing so, there's a risk of the structure being reduced to just a set of formal arrangements, so it'll be necessary to encourage attention to be paid to ensuring it functions properly.

**Matsubara:** Speaking from our standpoint as investors, if you have 100 companies, they're going to be governed in 100 different ways, so I believe it's important for the organizational design to be tailored to the company concerned, but I'd still like to see an awareness of the global perspective over the long term.

**Mimura:** As Mr. Mabuchi touched on just now, care should be taken not to be satisfied with just establishing the form of governance. While keeping in mind the original objective of enhancing effectiveness, I think it's also important to clearly emphasize that the structure for considering systems has also been changing for the better, with an example in the case of the Group being Mr. Mabuchi serving as the chair of the Executive Compensation Committee, and the way that free and open discussion had a significant positive effect on the revision of systems.

**Mabuchi:** If I had to point out a current issue that I see from my vantage point as chairman of the Committee, it would be the question of whether the thinking behind the new compensation system has been properly communicated internally and externally. I view one of the roles of the compensation system as being to have the officers who are being evaluated think not about the final amount of compensation, but instead about what approach to business execution will earn them high marks, and given that, how they should alter their behavior. Facilitating the understanding of stakeholders that



this is the policy of the Group is another role of the compensation system.

**Matsubara:** Indeed. I also feel that compensation systems are a key factor in driving behavioral change. Since the goal is to motivate officers to execute business in line with corporate strategy and thereby enhance corporate value, the essence lies in the design of the system and the process of discussion that led to it, rather than the amount of compensation itself, and I'd like them to focus on that.

As I mentioned earlier, governance differs from company to company, so we don't make judgments about them based on the surface-level structure. Rather, we focus on how that structure functions. Right now, I get the impression that awareness of issues related to governance at each company is growing, and I'm increasingly asked for my opinion on how committees should be organized and how they should function. I also come across domestic companies that are ahead of the curve in this area. Looking ahead, I hope that the Mitsui Chemicals Group will take a look at such examples and continue searching for even better forms of governance. Thank you very much for today.



## Directors and Audit & Supervisory Board Members (As of June 25, 2024)

Directors



### TANNOWA Tsutomu

Member of the Board, Chairman

Meetings of the Board of Directors attended/held: **13/13**

Term of office: **12 years**

Number of shares of the Company owned: **80,194**

Apr. 1976 Joined the Company  
Apr. 2023 Member of the Board, Chairman of the Company  
Significant concurrent positions  
Outside Director of KDDI CORPORATION (since Jun. 2022)  
Outside Director of TOKYO GAS Co., Ltd. (since Jun. 2023)



### HASHIMOTO Osamu

Representative Director, Member of the Board, President & CEO

Meetings of the Board of Directors attended/held: **13/13**

Term of office: **6 years**

Number of shares of the Company owned: **44,592**

Apr. 1987 Joined the Company  
Apr. 2020 Representative Director, Member of the Board, President of the Company



### YOSHINO Tadashi

Representative Director, Member of the Board, Senior Managing Executive Officer & Chief Technology Officer

Meetings of the Board of Directors attended/held: **13/13**

Term of office: **3 years**

Number of shares of the Company owned: **33,100**

Apr. 1987 Joined the Company  
Apr. 2022 Representative Director, Member of the Board, Senior Managing Executive Officer of the Company



### NAKAJIMA Hajime

Representative Director, Member of the Board, Senior Managing Executive Officer & Chief Financial Officer

Meetings of the Board of Directors attended/held: **13/13**

Term of office: **4 years**

Number of shares of the Company owned: **21,271**

Apr. 1984 Joined the Company  
Apr. 2023 Representative Director, Member of the Board, Senior Managing Executive Officer of the Company



### ANDOU Yoshinori

Member of the Board, Senior Managing Executive Officer & Chief Human Resources Officer

Meetings of the Board of Directors attended/held: **13/13**

Term of office: **2 years**

Number of shares of the Company owned: **22,221**

Apr. 1986 Joined the Company  
Jun. 2022 Member of the Board, Senior Managing Executive Officer of the Company



### NISHIO Hiroshi

Full-time Audit & Supervisory Board Member

Meetings of the Board of Directors attended/held: **13/13**

Meetings of the Audit & Supervisory Board attended/held: **16/16**

Term of office: **2 years**

Number of shares of the Company owned: **10,979**

Apr. 1984 Joined the Company  
Jun. 2022 Full-time Audit & Supervisory Board Member of the Company



### HOSOMI Yasuhiro

Full-time Audit & Supervisory Board Member

**Newly appointed**

Number of shares of the Company owned: **18,460**

Apr. 1985 Joined the Company  
Jun. 2024 Full-time Audit & Supervisory Board Member of the Company



### SHINBO Katsuyoshi

Outside Audit & Supervisory Board Member

Meetings of the Board of Directors attended/held: **13/13**

Meetings of the Audit & Supervisory Board attended/held: **16/16**

Term of office: **7 years**

Number of shares of the Company owned: **—**

Apr. 1984 Registered as an attorney  
Jun. 2017 Audit & Supervisory Board Member of the Company  
Significant concurrent positions  
Attorney at Shinbo Law Office  
Outside Director of Sumitomo Mitsui Financial Group, Inc. (since Jun. 2017)  
Outside Director of Yakult Honsha Co., Ltd. (since Jun. 2021)  
· He has specialist knowledge and extensive experience not only as a longstanding lawyer but also as an outside officer of other companies. He expresses opinions for sound and efficient corporate management at meetings of the Company's Board of Directors.



### GOTO Yasuko

Outside Audit & Supervisory Board Member

Meetings of the Board of Directors attended/held: **10/11**

Meetings of the Audit & Supervisory Board attended/held: **13/13**

Term of office: **1 year**

Number of shares of the Company owned: **—**

Apr. 1980 Joined the Ministry of Transport (currently the Ministry of Land, Infrastructure, Transport and Tourism)  
Jun. 2023 Audit & Supervisory Board Member of the Company  
Significant concurrent positions  
Outside Auditor of DENSO CORPORATION (since Jun. 2019)  
Audit and Inspection Commissioner of the Tokyo Metropolitan Government (since Oct. 2023)  
External Director of Shiseido Company, Limited (since Mar. 2024)  
· She has held important positions at central and local governments and has experience as a corporate manager and an outside officer of listed companies. She expresses opinions for sound and efficient corporate management at meetings of the Company's Board of Directors.



### ONO Junshi

Outside Audit & Supervisory Board Member

Meetings of the Board of Directors attended/held: **11/11**

Meetings of the Audit & Supervisory Board attended/held: **13/13**

Term of office: **1 year**

Number of shares of the Company owned: **—**

Oct. 1985 Joined Asahi Shinwa & Co (currently KPMG AZSA LLC)  
Mar. 1989 Registered as a certified public accountant  
Jun. 2023 Audit & Supervisory Board Member of the Company  
Significant concurrent position  
Director of Junshi Ono Certified Public Accountant Office  
· He has extensive experience as a certified public accountant over many years. He expresses opinions for sound and efficient corporate management at meetings of the Company's Board of Directors.

## Directors and Audit & Supervisory Board Members

Full-time Audit & Supervisory Board Members

Independent Outside Audit & Supervisory Board Members

President	HASHIMOTO Osamu (CEO)
Senior Managing Executive Officers	YOSHINO Tadashi (CTO) NAKAJIMA Hajime (CFO) ANDOU Yoshinori (CHRO) HIRAHARA Akio (Business Sector President of ICT Solutions Business Sector) IZAWA Kazumasa (Business Sector President of Basic & Green Materials Business Sector)
Managing Executive Officers	SHIBATA Shingo (Center Executive of R&D Center) KOMORIYA Atsushi (Business Sector President of Mobility Solutions Business Sector) TANAKA Hisayoshi (Business Sector President of Life & Healthcare Solutions Business Sector) YOSHIZUMI Fumio (President of Prime Polymer Co., Ltd., Managing Executive Officer, Corporate Fellow) SAMBE Masao (COO, Sector President of Digital Transformation Sector) OKADA Kazunari (Center Executive of Production & Technology Center) ICHIMURA Satoshi (CSO)

Executive Officers	MATSUZAKA Shigeharu (President of RM TOHCELLO CO., LTD., Executive Officer, Corporate Fellow) HAYASHIDA Hiromi (Business Sector Vice President of Life & Healthcare Solutions Business Sector) FUNAKOSHI Hiromitsu (Business Sector Vice President of Basic & Green Materials Business Sector) TSURUDA Satoshi (General Manager of Omuta Works) MIGITA Ken (General Manager of Human Resources Division) ZENKOH Hirofumi (Deputy Center Executive of R&D Center) YOSHIDA Osamu (General Manager of Finance & Accounting Division) ABE Shinji (General Manager of Ichihara Works) MATSUE Kaori (General Manager of Planning & Coordination Division, Production & Technology Center)	Antonios GRIGORIOU (Representative in the Americas, President of Mitsui Chemicals America, Inc.) URAKAWA Toshiya (Sector Vice President of Digital Transformation Sector) KOUZUMA Yasuhisa (General Manager of Iwakuni-Ohtake Works) SAKAMOTO Akihiro (General Manager of CTO Office) OGIZAWA Masaaki (General Manager of Internal Control Division) MAEDA Mitsutoshi (General Manager of Corporate Administration & Legal Division) MOROZUMI Naoki (President of ARRK Corporation, Executive Officer, Corporate Fellow) KAKIMOTO Takeshi (President of Mitsui Chemicals Crop & Life Solutions, Inc., Executive Officer, Corporate Fellow) ANAMIZU Takayoshi (General Manager of Osaka Works)
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\* Please also see our Convocation Notice for General Meeting of Shareholders for the career summary of each of our directors and Audit & Supervisory Board Members.

📄 Convocation Notice for General Meeting of Shareholders: <https://jp.mitsuichemicals.com/en/ir/library/notice/index.htm>

Independent Outside Directors



### MABUCHI Akira

Member of the Board, Outside Director

Meetings of the Board of Directors attended/held: **13/13**

Term of office: **3 years**

Number of shares of the Company owned: **2,300**

Apr. 1979 Joined Fuji Heavy Industries Ltd. (currently SUBARU CORPORATION)  
Jun. 2010 Director of the Board and Executive Vice President of Fuji Heavy Industries Ltd.  
Jun. 2015 Corporate Auditor of Fuji Heavy Industries Ltd.  
Jun. 2021 Member of the Board of the Company  
Oct. 2022 Chair of the Executive Compensation Committee of the Company  
· He has in-depth knowledge of the mobility field, on which we are focusing. He expresses opinions for sound and efficient corporate management at meetings of the Board of Directors.  
· As the Chair of the Executive Compensation Committee, he is committed to realizing an appropriate executive compensation system. As a member of the Nomination Committee, he also oversees the selection process of candidates for directors or Audit & Supervisory Board Members from an objective and neutral standpoint.



### MIMURA Takayoshi

Member of the Board, Outside Director

Meetings of the Board of Directors attended/held: **13/13**

Term of office: **2 years**

Number of shares of the Company owned: **800**

Apr. 1977 Joined Terumo Corporation  
Apr. 2017 Chairman of the Board of Terumo Corporation  
Jun. 2022 Member of the Board of the Company  
Significant concurrent positions  
Outside Director of AUTOBAOS SEVEN CO., LTD. (since Jun. 2022)  
Outside Director of Nittera Co., Ltd. (since Jun. 2023)  
· He has in-depth knowledge of the healthcare field, on which we are focusing. He expresses opinions for sound and efficient corporate management at meetings of the Company's Board of Directors.  
· As a member of the Executive Compensation Committee and Nomination Committee, he oversees the selection process of candidates for directors or Audit & Supervisory Board Members and the decision-making process of executive compensation from an objective and neutral standpoint.



### KIHARA Tami

Member of the Board, Outside Director

**Newly appointed**

Number of shares of the Company owned: **—**

Apr. 1985 Joined Ricoh Company, Ltd.  
Apr. 2021 Director of Digital Talent Strategy Center, Digital Strategy Div. of Ricoh Company, Ltd.  
Jun. 2024 Member of the Board of the Company  
Significant concurrent position  
Outside Director of Seven Bank, Ltd. (since Jun. 2023)  
· She was responsible for leading a digital talent strategy at the listed company and has in-depth knowledge of it.  
· She is a member of the Executive Compensation Committee and Nomination Committee.

# Corporate Governance

## Corporate governance framework

At Mitsui Chemicals, the Board of Directors, which includes outside directors who are independent of the business execution, makes material management decisions and oversees the execution of duties by each director and the duties of executive officers and others. As a company with an Audit & Supervisory Board, the status of each director’s execution of his/her duties is audited by Audit & Supervisory Board Members and the Audit & Supervisory Board, which

are independent of the Board of Directors. In accordance with such organizational design, the Company aims to realize smooth and efficient management through initiatives such as to clarify official authority and decision-making rules based on company rules, clarify the division of responsibilities between management oversight and business execution by introducing an executive officer system, deliberate on important matters at the Management Committee, and

Corporate Governance

Corporate Governance Guidelines

ESG Performance Data – Governance

https://jp.mitsuichemicals.com/en/corporate/governance/index.htm

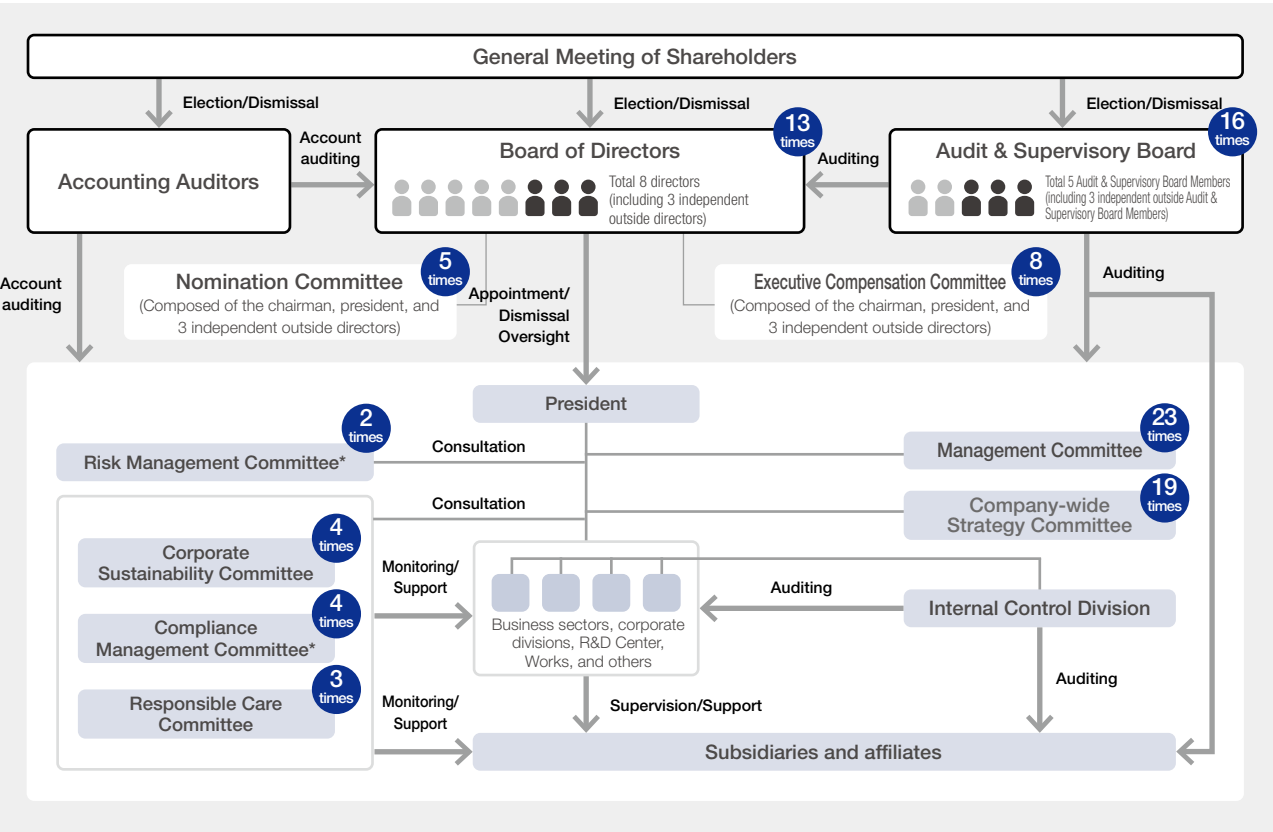
https://jp.mitsuichemicals.com/content/dam/mitsuichemicals/sites/mci/documents/pdf/en/corporate/governance/governance\_guide\_e.pdf

https://jp.mitsuichemicals.com/en/sustainability/others/esg\_performance/governance/index.htm

discuss strategies from a Company-wide perspective at the Company-wide Strategy Committee. In addition, the Company strives to ensure soundness and appropriateness through an internal control system based on serious regard for the roles of Audit & Supervisory Board Members, auditing of appropriateness of business operations by the Internal Control Division, and sound risk management.

### Outline of boards and committees

<b>Board of Directors</b>	The Board of Directors decides business strategies, business plans, and all other important matters related to the management of Mitsui Chemicals pursuant to laws, ordinances, the Company’s Articles of Incorporation, and Rules for Meetings of the Board of Directors. The Board of Directors also oversees the overall management of the Group through reporting on matters such as the execution of duties of individual directors, the execution of important operations of subsidiaries and affiliates, and the implementation status of compliance and risk management systems by the Company and its subsidiaries and affiliates. In addition, the Board of Directors works to strengthen its management oversight role by discussing the important policies related to the running of the Company from an intermediate stage while providing advice to the persons executing business.
<b>Audit &amp; Supervisory Board</b>	The Audit & Supervisory Board prepares the audit report, selects and dismisses full-time Audit & Supervisory Board Members, and determines audit policies, etc., in accordance with laws, ordinances, the Company’s Articles of Incorporation, and Rules for Meetings of the Audit & Supervisory Board.
<b>Nomination Committee</b>	The Company has established the Nomination Committee as an advisory body to the Board of Directors to strengthen the independence, objectivity, and accountability of the Board of Directors’ roles related to the election and dismissal of directors, Audit & Supervisory Board Members, and president/CEO and the nomination of candidates for these positions.
<b>Executive Compensation Committee</b>	The Company has established the Executive Compensation Committee as an advisory body to the Board of Directors to strengthen the independence, objectivity, and accountability of the Board of Directors’ roles related to compensation for directors, Audit & Supervisory Board Members, and other executive officers.
<b>Risk Management Committee</b>	The Company started operating a new risk management system in fiscal 2023. Accordingly, the Company has established the Risk Management Committee. The committee prioritizes risks in the business areas for which individual executive officers with specific titles are responsible from a holistic and comprehensive perspective, sets the risks as key Group-wide risks following deliberation by the Management Committee and determination by the Board of Directors, and implements the PDCA cycle.



\* ● Number of meetings held in fiscal 2023  
\* In fiscal 2023, we abolished the Risk & Compliance Committee and established the Risk Management Committee and Compliance Management Committee.

# Corporate Governance

## Main themes discussed at meetings of the Board of Directors and its member meetings in fiscal 2023

### Main themes

- Risk management (key Group-wide risks)
- Progress of the Long-Term Business Plan VISION 2030
- Evaluation of the results of investments made in the past fiscal years
- Direction of the Basic & Green Materials business segment
- Digital transformation
- Individual projects (investment projects, etc.)
- Activities of the Corporate Sustainability Committee, etc.

### Key opinions of outside directors and outside Audit & Supervisory Board Members on the theme of risk management

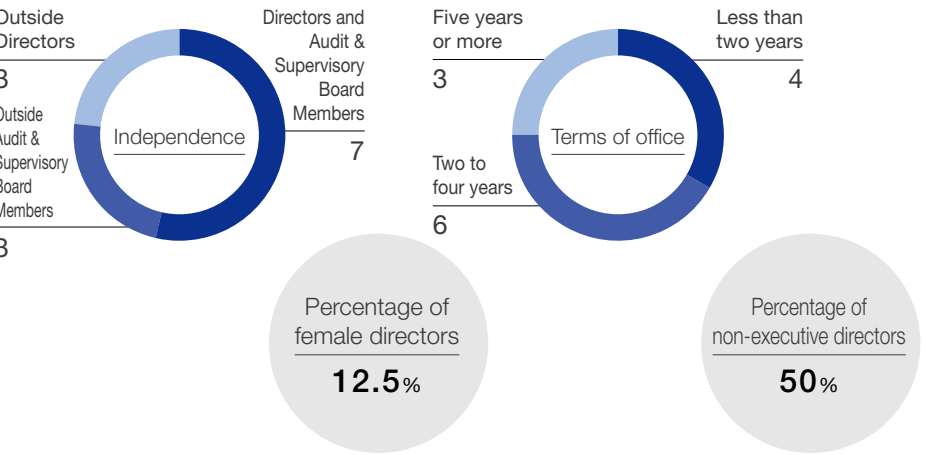
- ▶ There are 30 key Group-wide risks. I think the Company needs to devise ways to classify them. It would be good if the Company clearly states as its management style that it selects the most important risks out of the 30 and that each division implements the PDCA cycle and takes specific actions to address the risks.
- ▶ It would be necessary to express the Company's intention to address Group-wide risks by, for example, assigning someone to be responsible for managing them across divisions, in addition to the most important risks related to business continuity.
- ▶ It is necessary for risk owners to take responsibility for risks in their respective business areas of responsibility; however, it is desirable that the committees with a cross-organizational role (Corporate Sustainability Committee, Compliance Management Committee, and Responsible Care Committee) coordinate how to proceed and ensure balanced risk responses throughout the Group to avoid imbalanced ones due to the prominence or stagnation of certain items.
- ▶ It is important to clarify the degree of importance of responses to address key risks so as not to be exhaustive. It is necessary not only to hold committee meetings but also to devise ways to ensure that the risks are managed on a daily basis.
- ▶ I think it is important to prepare for the development and implementation of countermeasures against key risks. To this end, sufficient time should be secured.
- ▶ I think it is necessary to verify whether the sum of the countermeasures developed by each division is the countermeasures from a Group-wide perspective. I hope that the perceptions of those in charge of implementing the countermeasures will be consistent with a Group-wide perspective.

## Capabilities of the Board of Directors as a whole and views on diversity

As stipulated in the Articles of Incorporation, the Company shall have no more than 12 directors. The appropriate number within that range is decided at each opportunity in consideration of the status of authority delegated to executive officers and the need to streamline decision-making in response to business expansion. The Company appoints its directors, irrespective of gender, race, nationality, age, or other factors so that directors as a whole possess balanced business experience in areas such as corporate planning, business operations, production and technology, research and development, accounting and finance, and general, personnel, and legal affairs in order to achieve the Group's long-term business plan. In principle, the Company appoints one third or more as independent outside directors who have corporate management experience at other companies. This allows the Company to appropriately reflect in its management the opinions of individuals from outside the Company that hold extensive experience and insight and to ensure the effectiveness of overseeing business execution by directors.

The directors appointed in accordance with the above-mentioned criteria are engaged in the Company's management, based on their high-level insight in their respective fields, gained both inside and outside the Company. Moreover, toward achieving VISION 2030, we have categorized the skills and experience especially expected of our directors and Audit & Supervisory Board Members into nine items, and have set a maximum number of items (up to three items) to be certified per each director and Audit & Supervisory Board Member and marked ● (see Skills matrix, p. 102), so that we can appropriately visualize and manage the overall balance of the skills and experience possessed by the members of the Board of Directors.

### Composition of directors and Audit & Supervisory Board Members





Corporate Governance

Evaluation of the effectiveness of the Board of Directors

The Company's Board of Directors strives to improve its meetings by analyzing and evaluating the effectiveness of the Board of Directors as a whole every year following self-evaluations performed by directors and Audit & Supervisory Board Members, various discussions, discussions at meetings of the Board of Directors, and other activities. In fiscal 2023, based on the results of the evaluation performed in fiscal 2022, the Company took steps to monitor the operation of the new risk management system, among others.

The evaluation was performed in fiscal 2023 as described below.



(1) A survey with directors and Audit & Supervisory Board Members

Interviews with the newly appointed outside Audit & Supervisory Board Members

Evaluation items	Compared to other companies*	Questions
Operation of the Board of Directors	+	Free, vigorous and constructive discussion and exchange of opinions, rather than formal discussion and exchange of opinions
Operation of committees	+	Deliberations for developing the selection criteria for CEO (including succession plans for CEO and clarification of the dismissal process)
	+	Effectiveness of each voluntary committee
	+	Sufficient deliberations to set an appropriate percentage of performance-based compensation
	+	Free, vigorous and constructive discussion and exchange of opinions, rather than formal discussion and exchange of opinions
Discussion	+	Proactive involvement in the development and operation of succession plans for CEO and others
	+	Allocation of management resources to human capital and other capitals and oversight of implementation of business portfolio strategy
	+	Design of management's compensation system and determination of specific compensation amounts
Support system	+	Training opportunities required for directors and Audit & Supervisory Board Members
	-	Personnel structure to support the activities of directors and Audit & Supervisory Board Members
Own initiatives	-	Reflection of their own opinions in decision-making and judgments
	-	Exchange of opinions among outside directors and outside Audit & Supervisory Board Members outside of meetings of the Board of Directors

\* Items for which the difference between our score and the average score of other companies is ±0.3 points or more.

The Board of Directors was confirmed to have been improved and invigorated by implementing measures to enhance its oversight functions. Therefore, the effectiveness of the Board of Directors was evaluated as fully sufficient, as was the case in the previous fiscal year.

The evaluation results indicated that the Board of Directors had free, vigorous, and constructive discussion and exchange of opinions, rather than formal discussion and exchange of opinions, and that it also had thorough discussions about the succession plans for CEO and others and the executive compensation system to encourage management from the perspective of shareholders and enhance the Group's corporate value over the medium to long term. The evaluation results also indicated that the effectiveness of each voluntary committee improved.

On the other hand, as for items for which our score was low compared to the average score of other companies, we recognize the need to work on improving those areas by digging deeper into the specific issues and addressing them appropriately in order to make the operation of the Board of Directors more effective.

We will implement necessary measures as appropriate to enhance the oversight functions of the Board of Directors in light of the results of these effectiveness evaluations.

(2) Compilation of survey results

Discussion by directors and Audit & Supervisory Board Members

Discussion by outside directors and outside Audit & Supervisory Board Members

Future issues and initiatives

(1) Selection of meeting agenda for the Board of Directors

- ▶ In selecting meeting agenda for the Board of Directors, we will seek to further enhance the agenda by increasing the number of topics for discussion, such as the Company's policies and strategic themes, from the viewpoint of securing opportunities for diverse discussions that help grow the Company.

(2) Improvement of the operation of the Board of Directors to deepen a discussion on the day of a meeting

- ▶ We will seek to promote prior understanding of projects by outside directors and outside Audit & Supervisory Board Members by ensuring more sufficient time between the prior briefing and the day of the meeting to further deepen a discussion at the meeting.
- ▶ We will increase opportunities for outside directors and outside Audit & Supervisory Board Members to visit our sites to further deepen their understanding of the Company, which is the premise for discussion.

(3) Improvement of reports on the operation of our internal control system

- ▶ We will enhance the substantivity of reports to the Board of Directors to further ensure the effectiveness of our risk management and internal control systems (e.g., incorporate issues related to internal audits and compliance, which were previously reported separately to the Board of Directors, into a risk management review at a meeting of the Board of Directors to deepen a discussion in a more realistic way).

Corporate Governance

Opinions of outside directors and outside Audit & Supervisory Board Members

Discussions at meetings of the Board of Directors

- I think it is the right time to increase opportunities for discussion on the progress, future prospects, and course corrections of VISION 2030.
- Discussions are active regardless of agenda, but as many items are more like reviewing results, I think more time should be allocated to future themes such as personnel policies and medium- to long-term strategies to make the discussions more active.
- I evaluate discussions at meetings of the Board of Directors as free and vigorous. In particular, there has recently been an increased awareness of management from the perspective of investors and shareholders. As an outside director, I think that the Company should conduct a management framework more mindful of ROE, PBR, and other metrics and strive to further enhance its corporate value. I have proposed this at meetings of the Board of Directors.
- I feel that the Company needs to go back to the basics and carefully assess what the purpose of M&A is because pursuing M&A activities solely for the purpose of achieving targets is meaningless. I believe it important for the Company to strengthen the monitoring of M&A activities and increase the accuracy of due diligence from the planning phase.

Operation of the Board of Directors

- I think the agenda and operation of meetings of the Board of Directors have improved, but the meeting materials tend to be voluminous. I hope that simple materials that make it easier to understand the points will be prepared and that man-hours required for practical work will be reduced.
- In addition to meetings of the Board of Directors, there are opportunities to discuss important management matters in the form of meetings for exchange of opinions. I hope such opportunities will be increased.

Support system

- Stakeholders' expectations of outside directors and outside Audit & Supervisory Board Members are increasing. I feel that the burden on the secretariat is also increasing. I think reinforcing the support system and increasing personnel are urgent issues.

Nomination Committee and Executive Compensation Committee

- I feel discussions at meetings of these committees have been becoming more substantial due to the change in the structure of both committees in fiscal 2022. However, as the committee members are limited, I think the committees as advisory bodies to the Board of Directors should give more detailed reports and explanations to the Board of Directors.

Activities of the Audit & Supervisory Board

Audits by Audit & Supervisory Board Members

As an independent body from the Board of Directors, Audit & Supervisory Board Members audit the execution of duties by directors as well as the Company's internal controls, business performance, financial condition, and other results, by requesting reports on the Company's business as required by law, inspecting the state of operations and assets, and exercising their authority to elect and dismiss the Accounting Auditors, among others. Audit & Supervisory Board Members also strive to conduct audits efficiently by regularly receiving reports from and exchanging opinions with the Accounting Auditors and the Internal Control Division.

Main activities of full-time Audit & Supervisory Board Members

- ▶ Audit the Company's divisions and domestic and overseas subsidiaries and affiliates based on audit plans
- ▶ Attend meetings of the Board of Directors and other important internal meetings such as those of the Management Committee
- ▶ Regularly exchange opinions with the president, etc.
- ▶ Inspect approval documents and important minutes
- ▶ Regularly exchange opinions with full-time Audit & Supervisory Board Members of significant domestic subsidiaries

Main activities of outside Audit & Supervisory Board Members

- ▶ They contribute to appropriate auditing based on their broad knowledge and extensive experience by attending meetings of the Board of Directors, regularly meeting with outside directors, and attending, as necessary, important internal meetings and audits by full-time Audit & Supervisory Board Members.

Key audit items in fiscal 2023

- Initiatives aimed at achieving VISION 2030
- Key ESG issues, items addressed, and stance
- Risk and compliance-related concerns and status of responses

VOICE

With sufficient information provided by full-time Audit & Supervisory Board Members, the Audit & Supervisory Board holds in-depth discussions and makes necessary proposals to the Board of Directors. For the growth of a company, the creation of new businesses and M&A are essential. As an Audit & Supervisory Board Member, I am considering how to approach PMI, and in particular, how the head office can effectively control overseas affiliates, while at the same time keeping a close eye on the initiative to develop a new risk management system.



ONO Junshi,  
Outside Audit & Supervisory  
Board Member

## Corporate Governance

### Succession—Election and dismissal of senior management and nomination of candidates for directors and Audit & Supervisory Board Members

The Nomination Committee deliberates the draft of a proposal on candidates for directors, by taking into consideration the qualifications necessary for the Board of Directors to oversee the long-term business plan and the standards for electing directors and Audit & Supervisory Board Members, as deliberated and determined by the Committee, and reports the deliberation results to the Board of Directors. The Board of Directors determines the final list of candidates for directors by giving the fullest possible consideration to the results report from the Nomination Committee.

In nominating directors, we strive to strengthen the oversight function of the Board of Directors as a whole by taking into consideration diversity, including internationality, gender, and race.

In addition, the president formulates a proposal on candidates for Audit & Supervisory Board Members in consultation with the full-time Audit & Supervisory Board Members in advance, and reports the proposal to the Board of Directors after obtaining the consent of the Audit & Supervisory Board, and the Board of Directors deliberates and determines the proposal.

### Election and dismissal of the President/CEO

- The Nomination Committee deliberates the draft of candidates for the President/CEO by taking into consideration the position-specific requirements and election and evaluation criteria for the President/CEO as deliberated and determined by the Committee, and reports the results to the Board of Directors.
- The Board of Directors determines the final list of candidates for the President/CEO and the agenda for their election by giving the fullest possible consideration to the results report from the Nomination Committee.
- The Nomination Committee deliberates on the dismissal of the President/CEO in cases where it is deemed that the individual has not adequately carried out his or her role in light of business performance or other factors, or

where there has been a serious compliance violation.

- If the Board of Directors receives findings from the Nomination Committee constituting grounds for dismissal of the President/CEO, the Board of Directors shall make a decision on dismissal by respecting the results report to the maximum extent possible.

### Activities of the Nomination Committee

In fiscal 2023, the Committee deliberated on how to identify, evaluate, train, and assign the candidates for the President/CEO in line with the position-specific requirements and the selection and assessment process for the President/CEO, which were redefined in fiscal 2022, while leveraging support from an outside expert organization.

The Committee also identified and deliberated on what the medium- to long-term targets for business execution should be like for the President/CEO as a new agenda by taking into consideration the achievement status of the Group's corporate value enhancement, including financial/non-financial targets in VISION 2030.

In addition, to further strengthen its oversight functions, the Nomination Committee also deliberated the roles and

responsibilities required of the Chair (expected roles, knowledge/skills and experience) by taking into consideration the changing business environment both inside and outside the Company.

Position-specific requirements for the President/CEO	
<b>1. Summary of roles and responsibilities</b>	
▶ To foresee how the global environment and human society should be in the future, and to envision the path that the chemical industry should take. To resolve social challenges and drive the realization of the ideal future society.	
▶ To enhance our corporate value on a continuous basis while fulfilling commitment and accountability for delivering results as the person ultimately responsible for the overall management.	
<b>2. Assessment items</b>	
Achievements	Performance and results for the past several years
Position-specific requirements	Competencies
	Personal attributes
Management philosophy	Experience
	Perspective and vision as the management
Humanity	Will and determination
	Ethics
Attribute	Fairness/unselfishness
	Age

#### Details of discussions at the Nomination Committee

- With the reshuffle of the Nomination Committee in fiscal 2022, I believe that assessment items/processes that allow for effective discussions relating to the evaluation of the President/CEO have been put in place.
- It would be desirable if the deliberations on how to set targets for the President/CEO could trigger dialogues among the Committee members. Achieving quantitative targets, such as financial/non-financial targets, is obviously important. I hope, however, that such deliberations help promote discussions as to what are challenges and what approach and policies the President/CEO is trying to present to achieve VISION 2030 as the top management.
- I am uncertain how much upside the market sees in our growth domains. Each of our business sectors has established its own strategies and properly promoted its business. However, I sometimes feel that "which direction the Mitsui Chemicals Group as a whole should head for" is not understood clearly both inside and outside the Group. I hope that the President/CEO will lead discussions about this topic and work to build a stronger organization.

- If the medium- to long-term targets for business execution are to be used for the election and dismissal of the President, it would be desirable that the Committee establishes a process in which the President/CEO shares his or her thoughts in that position at the Committee meetings and exchanges opinions with the Committee members. I also believe that the Committee should discuss whether the qualifications (strengths) of candidates for the President are appropriate in achieving our ideal vision over the medium to long term.
- As for CxOs, including CEO, how they see things is particularly important when they replace their successors. If the next-generation talents are of the same type (in qualifications) as their predecessors, they cannot make up for existing deficiencies. If the direction the Company should head for changes, the capabilities of a company/an organization might not change with a successor of the same type of qualifications. I therefore believe it would be desirable that the Committee discuss ideal successors with such directional changes in mind.

## Corporate Governance

### Skills matrix—Skills and experience expected in particular of directors and Audit & Supervisory Board Members

Toward promoting and achieving VISION 2030, we have defined the skills (knowledge, experience, and capabilities) required for the Board of Directors.

In designing the skills matrix, we have covered the supervisory skills necessary to monitor the overall business

management, and identified the oversight functions (specific skills) necessary to direct the long-term business plan (decision-making).

By categorizing the skills and experience expected in particular of directors and Audit & Supervisory Board Members

into nine items and setting the items especially expected of each director and Audit & Supervisory Board Member, we have visualized the skill balance of the entire Board of Directors, thereby strengthening the effectiveness of the succession plan for the Board of Directors in the future.

Skills and experience	Definition (the skills and experience to oversee execution in relation to each item)	TANNOWA Tutomu	HASHIMOTO Osamu	YOSHINO Tadashi	NAKAJIMA Hajime	ANDOU Yoshinori	MABUCHI Akira	MIMURA Takayoshi	KIHARA Tami	NISHIO Hiroshi	HOSOMI Yasuhiro	SHINBO Katsuyoshi	GOTO Yasuko	ONO Junshi
		Member of the Board, Chairman	Representative Director, Member of the Board, President and Chief Executive Officer	Representative Director, Member of the Board, Senior Managing Executive Officer	Representative Director, Member of the Board, Senior Managing Executive Officer	Member of the Board, Senior Managing Executive Officer	Member of the Board	Member of the Board	Member of the Board	Full-time Audit & Supervisory Board Member	Full-time Audit & Supervisory Board Member	Audit & Supervisory Board Member	Audit & Supervisory Board Member	Audit & Supervisory Board Member
		Chair of the Board of Directors	Chair of the Nomination Committee				Chair of the Executive Compensation Committee			Chair of the Audit & Supervisory Board				
		12 years	6 years	3 years	4 years	2 years	3 years	2 years	Newly appointed	2 years	Newly appointed	7 years	1 year	1 year
Corporate management and planning	• Establishment of the corporate vision and long-term/short-term management plans from a Group-wide, long-term perspective • Decision making that immediately responds to changes in an uncertain environment • Engagement activities with various stakeholders	●	●	●				●						
								●	●	●				
Business portfolio transformation	• Business management and the formulation of marketing and business strategies from a social issue perspective for the business domains we focus on						●	●	●					
R&D/Production and technology	• R&D activities towards realizing a competitive advantage beyond 2030 from a long-term perspective • R&D processes that set issues in a backcasting style • Advancing development processes in the areas of production and technology			●			●		●		●			
New business creation/M&A	• Various measures related to new business creation, M&A, alliances, other strategic planning, and integration activity to achieve long-term value creation		●									●		●
Global business	• Strategic planning, decision making, and stakeholder management from a global perspective			●		●		●						
Finance and accounting	• Monitoring and reporting of corporate performance in an appropriate manner, from both financial and non-financial perspectives • Measures in relation to finance, including capital policies, investment plans, and financing plans				●					●			●	●
Risk management	• Building of an appropriate Group-wide risk management system and monitoring activities for various risks that may arise in corporate activities in the Group and globally				●		●			●		●	●	●
Diversity/Organization and HR management	• Promoting the HR strategy and HR portfolio transformation • Improving organizational diversity, equity, and inclusion • Building a corporate culture that embodies self-initiative, autonomy, and collaboration, and increasing the engagement of each individual employee	●				●			●					
Sustainability	• Appropriate understanding of the essentials of social challenges and social demands that could affect the success or failure of achieving sustainable improvement of corporate value • The Group's sustainability initiatives based on the above	●	●								●		●	

\* In this skills matrix, we have set a maximum number of items (up to three items) to be certified per each director and Audit & Supervisory Board Member and have marked ●. The skills matrix does not represent all of the skills and experience possessed by our directors and Audit & Supervisory Board Members.



Corporate Governance

Activities of the Executive Compensation Committee

In fiscal 2022, we changed the structure of the Executive Compensation Committee so that the majority of its members and its chair are composed of independent outside directors. Under this new structure, the Committee has implemented a new compensation system since fiscal 2023 through repeated discussions. In response to recent changes in the environment surrounding executive compensation governance, as well as the launch of VISION 2030, we refurbished the system to place more importance than ever on the perspectives of our shareholders and investors to establish executive compensation governance appropriate for a company listed on the TSE Prime Market and thereby enhance the corporate value of our group. Specifically, to refurbish the system, we implemented a range of measures, such as separating management oversight and business execution, and introducing valuation items including non-financial metrics (ESG metrics), ROE, and TSR.

In April 2024, the Executive Compensation Committee also revised part of the executive compensation system after repeated discussions in fiscal 2023, and has implemented the revised system. To further deepen discussions and realize a practical executive compensation system, the Committee has held study sessions by outside experts, thereby striving to better understand the environment surrounding executive compensation and the details of revisions to related laws, regulations, and frameworks.

TOPICS: Guidelines for ownership of Mitsui Chemicals shares

In April 2024, Mitsui Chemicals established the “Guidelines for Ownership of Mitsui Chemicals Shares” with the aim of increasing the Mitsui Chemicals Group’s corporate value over the medium to long term. The Guidelines are expected to further raise the awareness of shareholder value among our directors and encourage them to manage the Company from the same perspective as shareholders by having them own shares of Mitsui Chemicals. Within five years of assuming office, our directors shall endeavor to own a number of shares in Mitsui Chemicals equivalent to the following target holdings designated in the table below.

Rank and position	Basis for calculation of target holdings	Target holdings
(Representative) Member of the Board, Chairman/ President and Chief Executive Officer	Annual fixed compensation	2.0x
(Representative) Member of the Board, Executive Vice President/Senior Managing Executive Officer		1.0x
Member of the Board, Managing Executive Officer		

Summary of executive compensation system

Executive compensation policy

Rank and position	Compensation policy
Directors	The Mitsui Chemicals Group aims to be “a corporate group that continues to grow by solving social challenges and creating diverse value with the power of chemistry.” The Group’s policy on compensation for directors and executive officers who drive the realization of the Company’s goals is as follows. (1) Our compensation system shall be competitive enough to acquire and retain excellent and diverse human resources who can contribute to the sustainable enhancement of the Group’s corporate value. (2) Our compensation system shall be the one that can strongly motivate the promotion of various “transformations” aimed at enhancing corporate value. (3) Our compensation system shall be the one that encourages the bold challenge towards and certain achievement of short- and medium- to long-term financial and non-financial goals (ESG goals) in order to promote “transformation” to enhance corporate value. (4) Our compensation system shall be the one that is conscious of shareholder value and encourages management from the same perspective as that of shareholders. (5) Our compensation system and compensation determination process shall be those that are supported by all stakeholders, including shareholders, from the perspectives of transparency, objectivity, rationality, and soundness.
Executive officers	
Outside directors	The Company’s policy on compensation for outside directors responsible for overseeing the Company’s management is as follows. (1) Our compensation system shall be at a level that enables us to acquire and retain human resources who can contribute to the improvement of the oversight and governance of the Company’s management. (2) In particular, the compensation system shall be at a level that enables us to acquire and retain the following human resources. a. Human resources who can contribute to the improvement of transparency, objectivity, and appropriateness, and other aspects of the Company’s management nomination and evaluation, and the determination of compensation b. Human resources who have expertise and experience in the Company’s businesses, including current businesses and future new businesses, and who can lead the Company’s sustainable growth from a medium- to long-term perspective (3) Based on the role of outside directors to oversee the execution of duties from an objective and independent standpoint, their compensation shall be only fixed compensation, and performance-based compensation in the form of bonuses and stock compensation shall not be paid.
Audit & Supervisory Board Members	The Company’s policy on compensation for Audit & Supervisory Board Members and outside Audit & Supervisory Board Members who are responsible for auditing and overseeing the Company’s management is as follows. (1) Our compensation system shall be at a level that enables us to acquire and retain human resources who can contribute to the improvement of audit and oversight of the execution of duties. (2) In particular, the compensation system shall be at a level that enables us to acquire and retain the following human resources. a. Human resources who have expertise and experience in legal affairs, finance, tax, and crisis/risk management b. Human resources who can contribute to the improvement of the quality of the Company’s compliance and governance through audit and oversight of the execution of duties (3) Based on the role of Audit & Supervisory Board Members to audit and oversee the execution of duties from an objective and independent standpoint, their compensation shall be only fixed compensation, and performance-based compensation in the form of bonuses and stock compensation shall not be paid.
Outside Audit & Supervisory Board Members	

Approach to compensation levels

As stated in the executive compensation policy above, to set our executive compensation at a level that enables us to acquire and retain human resources who can contribute to the sustainable enhancement of the Group’s corporate value, the improvement in the oversight and governance of the Company’s management, as well as the improvement in the audit and oversight of the execution of duties, we use compensation data obtained from an external research organization, identify companies to be compared, and set compensation levels that are competitive and above the middle to top levels among those companies.

As the companies to be compared, we select Japanese companies whose consolidated operating income (or an equivalent indicator)—which is an important management indicator of the Company and an objective and continuously comparable indicator—is comparable to our current performance and the performance we should aim for (100 billion yen or more to 250 billion yen or less).

Composition and composition ratio of compensation

We have revised the composition of executive compensation into one that is simpler than before and is conducive to increasing the awareness of governance. Specifically, to this end, we have separated the fixed compensation of our directors (excluding Chairman and outside directors) into three portions (representation portion (paid to representative directors), oversight portion, and execution portion) to make clear the compensation for each portion.

Further, the compensation composition is designed so that the ratio of performance-based bonuses and restricted stock compensation will be higher for positions with greater executive responsibility.

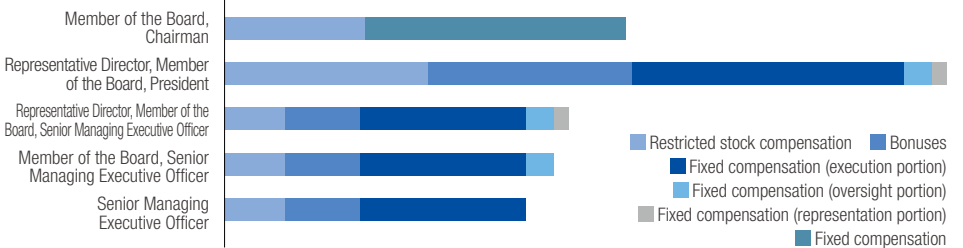
Corporate Governance

Summary of compensation items (fixed compensation, bonuses, and restricted stock compensation)

Compensation items	Payment format	Payment details	Performance index Evaluation index	Formula	Recipient				
					(Representative) Directors	Executive officers	Member of the Board, Chairman	Outside directors	Audit & Supervisory Board Members/Outside Audit & Supervisory Board Members
Fixed compensation	Executive portion	Fixed compensation to be paid for business execution	—	—	●	●	—	—	—
	Oversight portion	Fixed compensation to be paid to directors who are responsible for overseeing management			●	—	—	—	—
	Representation portion	Fixed compensation to be paid to directors who have authority to represent the Company			● Representative director	—	—	—	—
Variable compensation	Bonuses	Short-term incentive compensation to encourage the steady achievement of performance targets each fiscal year	—	Operating income before special items • Non-financial metrics* • Performance of divisions in charge	●	●	—	—	—
	Restricted stock compensation	Medium- to long-term incentive compensation to encourage the enhancement of corporate value and shareholder value		• Net income attributable to owners of the parent • ROE* • TSR*	●	●	●	—	—
Fixed compensation	Monetary compensation	Fixed compensation to be paid to those in positions dedicated to overseeing and auditing the Company’s management	—	—	—	—	●	●	●

\* Non-financial metrics: Number of serious accidents occurred; Number of serious violations of laws, regulations, and rules; Blue Value™/ Rose Value™ products sales revenue ratio; GHG emissions reduction rate (Scope 1 and 2); and Engagement score  
\* Return on equity (ROE): We measure the achievement rate of target ROE each fiscal year, aiming to efficiently improve return on equity

Image of compensation structure

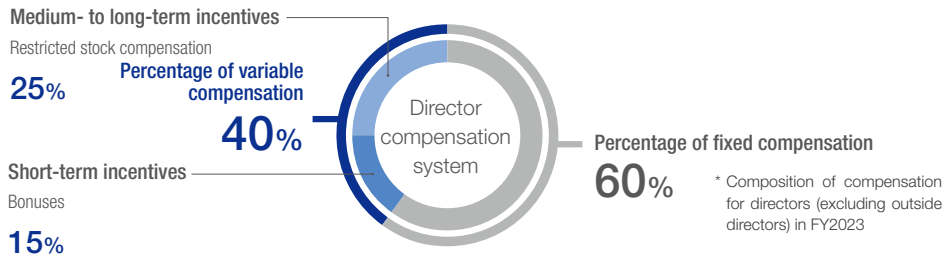


Total compensation for directors and Audit & Supervisory Board Members in fiscal 2023

Classification	Number of recipients	Total compensation (millions of yen)	Fixed compensation	Bonuses	Restricted stock compensation
Directors (excluding outside directors)	5	475	286	72	117
HASHIMOTO Osamu (included in the total compensation for directors)	—	159	79	35	45
Audit & Supervisory Board Members (excluding outside Audit & Supervisory Board Members)	2	72	72	—	—
Outside directors and outside Audit & Supervisory Board Members	8	97	97	—	—
Total	15	644	455	72	117

\* The figures in the table above include amounts paid to two Audit & Supervisory Board Members who retired as of the close of the Annual General Meeting of Shareholders for the Company’s 26th Business Term held on June 27, 2023, covering the period from April 1, 2023 through to the date of retirement.

\* Total Shareholder Return (TSR): We evaluate our TSR each fiscal year, aiming to improve our overall corporate value and shareholder value reflecting our share prices as well as operating performance.  
\* In April 2024, we revised the compensation structure for Member of the Board, Chairman, so that it will be composed of fixed compensation plus restricted stock compensation in line with his/her primary responsibility of management oversight in that position.



VOICE Executive Compensation Committee: Voice of the Chair

I’ve worked on the reform of our executive compensation system since fiscal 2022 as the Chair of the Executive Compensation Committee. At the Committee, I have focused on providing each of the members with the opportunities to freely voice their opinions. In the past two years, through unfettered discussions, I believe our system has become more conscious of the perspectives of shareholders and investors. We will continue efforts to strengthen our compensation governance and establish an executive compensation system that contributes to further enhancing our corporate value.



Chair  
MABUCHI Akira

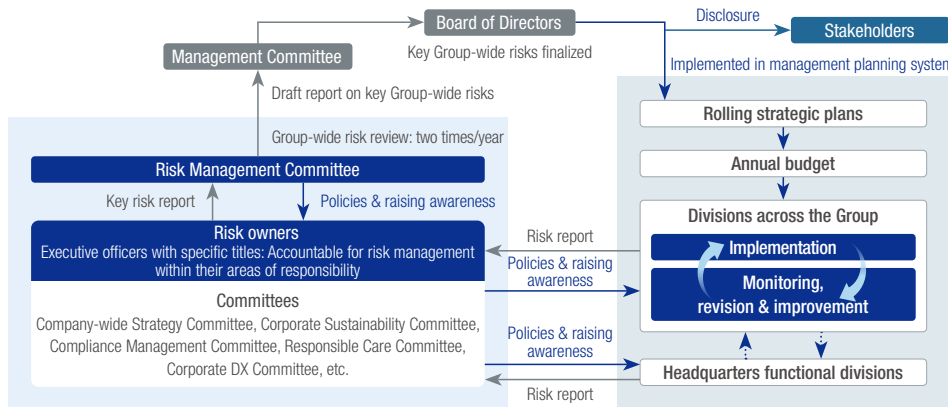
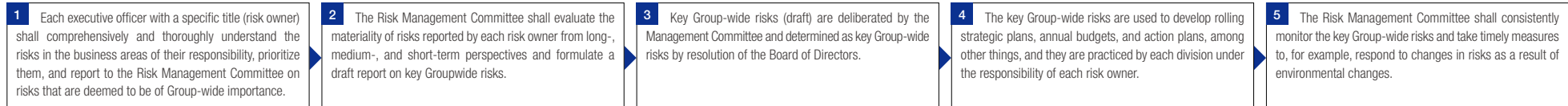
## Risk Management

### Basic philosophy

The Mitsui Chemicals Group aims to achieve sustainable growth and increase corporate value over the medium to long term by taking full advantage of opportunities without missing out any, while working to minimize threats from risks from a medium- to long-term and continuous perspective. In fiscal 2023, we began operating a Group-wide perspective risk management system (hereinafter, the “System”) and newly established the Risk Management Committee to determine our key Group-wide risks and most important risks. Going forward, we will continue to operate the System and review and upgrade it as necessary in the course of implementing the PDCA cycle that embraces changes in internal and external environments.

### Risk management process

The following process (Group-wide risk review) will be used to determine key Group-wide risks, thereby implementing the PDCA cycle.

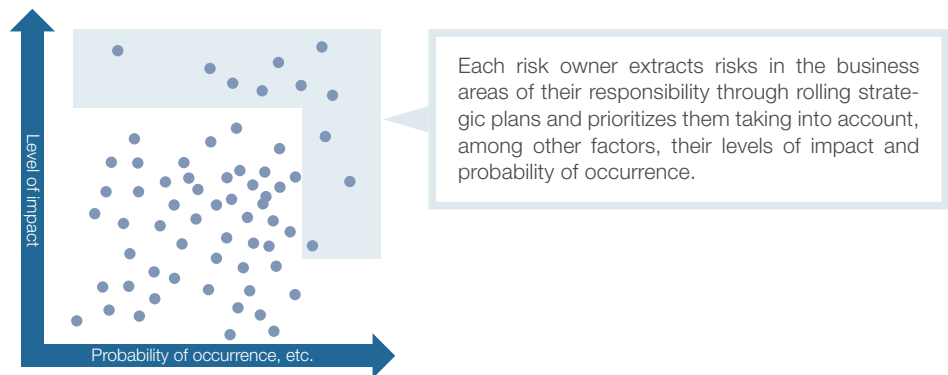


### Risk Management Committee

In order to operate the System, we established the Risk Management Committee as a committee that is responsible for deliberating on key Group-wide risks (draft) and consistently reviewing the Group-wide risk management system, among other responsibilities. The Committee is composed of the President (Chair), CSO (Vice-Chair), and executive officers with specific titles, and full-time Audit & Supervisory Board Members may attend the meetings and express their opinions when necessary.

Roles played by the Committee	
(1)	Deliberation of proposed basic policies, strategies, plans, measures for our Group-wide risk management and other important issues related thereto (including measures to improve risk management processes and tools and raise awareness and literacy regarding risk management among employees)
(2)	Deliberation of key Group-wide risks (draft) through Group-wide risk review
(3)	Discussion of individual important risks (including discussions on the impact that each of the individual risks has on our Group and policies for handling such risks)
(4)	Report on and discussion of the status of our Group-wide risk management (including the status of monitoring of key Group-wide risks)

### Visualization of the key Group-wide risk (draft) identification process



## Risk Management

### Key Group-wide risks

In fiscal 2023, the Risk Management Committee met twice to discuss key Group-wide risks (draft). The key Group-wide risks (draft) identified by the Committee were deliberated by the Management Committee and determined as our key Group-wide risks by resolution of the Board of Directors as shown on the right.

Key Group-wide risks	Material topics	Non-financial KPI
① Business continuity risks	Climate change	• Blue Value™ products sales revenue ratio
② Production/quality risks	Circular economy	• Rose Value™ products sales revenue ratio
③ Compliance risks	Health and livelihood	• GHG emissions reduction rate (Scopes 1 and 2)*
④ Technological innovation risks	Highly livable communities	
⑤ Climate change risks	Food security	
⑥ Natural capital risks	Product design based on full life-cycle considerations	
⑦ Human rights risks	Safety	
⑧ Business infrastructure risks	Respect for human rights	
⑨ Digital transformation risks	Compliance	
⑩ Corporate management and supervision risks	Product quality	
⑪ Macroenvironmental risks	Stable production	
	Corporate culture	
	Human capital	
	Digital transformation	
	Innovation	
	Partnerships	

### Most important risks for fiscal 2024

Among the key Group-wide risks, business continuity risks have been identified as our most important risks and used to develop fiscal 2024 annual budgets of all divisions and formulate their specific response measures.

Recently, the pace of changes in our surrounding environment has been accelerated. For example, we are facing increasing tensions in competition among major powers, regional conflicts, and other international affairs and higher frequency of natural disasters

around the world, as well as growing demand for companies to take appropriate response measures for climate change and other environmental issues. Under such circumstances, we recognize that there is a pressing need to enhance our resilience on a Group and global level. In the first year of operating the System, we will once again verify the status of response to the above-mentioned risks from a Group-wide perspective and make the response more sophisticated.

Envisaged events		Main response measures
Root cause	Event	
<b>Unexpected situations</b> Major disasters/accidents, Emergence of geopolitical risks, Outbreak/spread of infectious diseases, Cyberattacks, etc.	<ul style="list-style-type: none"> <li>• Interruption/restriction of production/sales/R&amp;D</li> <li>• Supply chain disruption</li> </ul>	<ul style="list-style-type: none"> <li>• Updating BCP</li> <li>• Procurement of supplies and materials from several sources, mutual use of global sites and plants, diversification of distribution routes</li> <li>• Maintenance of appropriate inventory</li> <li>• Formulation/updating of response measures in the event of a disaster involving a subcontractor</li> <li>• Response to vulnerabilities based on the results of IT system security checks at domestic and overseas affiliates</li> <li>• Regular sharing of information with regional headquarters in case of emergency situations overseas, and checks of regional safety situations, etc.</li> </ul>
<b>Growing demand concerning social challenges</b> Climate change, Creating a circular society, etc.	<ul style="list-style-type: none"> <li>• Interruption/restriction of production/sales/R&amp;D</li> <li>• Reputational decline, reduced rating, withdrawal of investment</li> </ul>	<ul style="list-style-type: none"> <li>• Apprehension of global trends and information concerning laws and regulations gained via regional headquarters and bodies to which Mitsui Chemicals belongs, enhancement of internal information-sharing frameworks</li> <li>• Further refinement and implementation of the rules for Blue Value™ and Rose Value™ certification and operation</li> <li>• Establishment and pursuit of indicators and targets concerning recycling/biomass strategies, etc.</li> </ul>

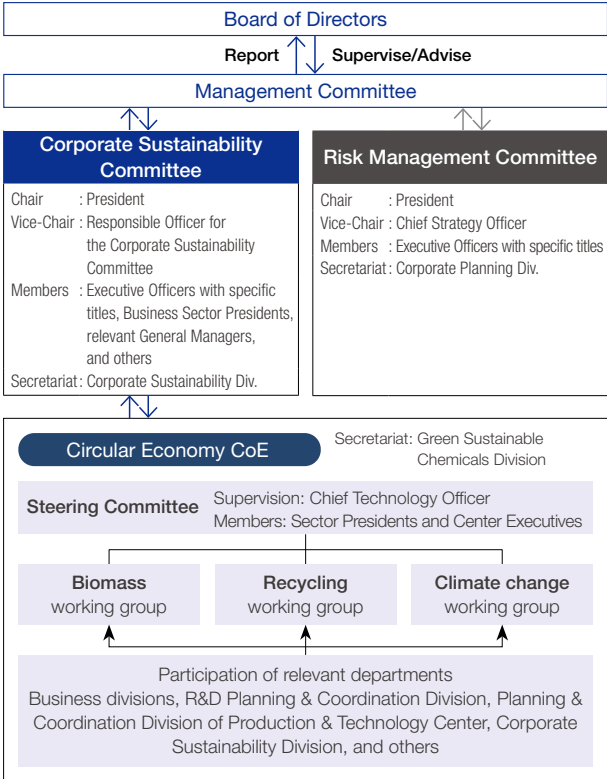


## Sustainability Governance

The Mitsui Chemicals Group has established the Corporate Sustainability Committee as a platform for cross-group discussion on ESG-related policy, strategy, and planning. The Committee holds sessions four times a year. The results of the Committee's discussions and activities conducted are reported to the Management Committee.

Furthermore, particularly important matters are determined and supervised by the Board of Directors after

deliberation at the Company-wide Strategy Committee and the Management Committee. The management of significant risks, including corporate sustainability issues, are integrated into the Group-wide risk management system. Under the supervision of the Board of Directors, those risks are managed by the Risk Management Committee in terms of the significant issues that are deemed to be of Group-wide importance.



### Circular economy-related governance

To bolster circular economy initiatives, we have established the Circular Economy Center of Excellence (CoE) as a subcommittee under the Corporate Sustainability Committee. The Circular Economy CoE comprises the Steering Committee and three working groups on biomass, recycling, and climate change. The Green Sustainable Chemicals Division serves as its secretariat.

Through participation in each working group by related departments and information sharing and discussion, it is working to efficiently promote both projects run individually by departments and cross-organizational projects. Moreover, the policies discussed at the Steering Committee are fed back to the working groups to ensure consistency with the Group-wide strategy.

### Corporate Sustainability Committee (April 2023–May 2024) main discussion items and opinions (excerpt)

- **Review of material topics and non-financial KPIs in fiscal 2023**
  - During fiscal 2022, we conducted a review based on discussions among the officers of the Strategy Committee and others and a financial/non-financial relationship analysis using the logic tree. In fiscal 2023, we linked them to risk management, which was a unique initiative to visualize how each job at work aligns with the non-financial KPIs and ultimately material topics.
  - Stable production, one of our material topics, is originally intended to reduce business opportunity losses. Accordingly, it is more effective to change its KPI from the number of advanced production technologies implemented to the number of problems involving high-value losses.
- **Carbon neutral strategy**
  - Our carbon neutrality concept for the Osaka Works is not merely an effort of our Group alone. It requires envisioning and implementing a larger picture of the future beyond the boundaries of individual companies. We need to accelerate further collaboration with neighboring companies in the region and with peer companies.
  - Our carbon neutral roadmap shows that our GHG emissions will decrease over the long term, though they may increase or decrease on an annual basis. For example, our GHG emissions may increase due to the addition of new facilities, while they may decrease due to business restructuring. Overall, the GHG emission reduction makes strides toward 2030.
- **Scope 3**
  - As for Scope 3, we need to clarify the calculation method, disclose Scope 3 emissions as a Group, and present a reduction target and timeframe to stakeholders. Setting indicators and targets for biomass/recycling strategies, one of the reduction measures, is also required.
- **Human capital**
  - To boost the ratio of women in management positions, a non-financial KPI, we need to promote this not only in Japan but also by appointing talent in overseas Group companies, encouraging everyone to understand their working styles. Simply raising the number of women in management positions is not enough. We must first clarify the purpose of doing so and then take effective measures to support those committed to this effort.
- **Response to human rights risks**
  - Responses to human rights risks are not just the initiative of the Corporate Sustainability Division; each division should embrace them as part of Responsible Care activities from the perspective of fulfilling responsibility throughout the supply chain.
  - The current investigation is conducted with the support of the external non-governmental organizations (NGOs), prioritizing not overlooking human risks from the internal perspective. However, in the future, we aim to establish a system to check those risks by ourselves, as the internal audit does.

## Sustainability Governance

Responsible Care <https://jp.mitsuichemicals.com/en/sustainability/rc/index.htm>  
Safety and Prevention [https://jp.mitsuichemicals.com/en/sustainability/rc/safety\\_prevention/index.htm](https://jp.mitsuichemicals.com/en/sustainability/rc/safety_prevention/index.htm)

## Responsible Care safety initiatives

The Mitsui Chemicals Group recognizes ensuring safety to be the foundation of continuous growth for the Group. It is the cornerstone of the trust placed in us by society, and at the same time, it increases our manufacturing quality, leading to improvement of corporate value.

With this approach, based on the management policy

that states “Safety is our top priority,” our Responsible Care (RC) Policy—which serves as our Group’s basic policy and principles on ensuring safety—declares: “We pledge that safety is our top priority and will focus on achieving zero accidents and occupational injuries.” Safety has also been given as one of the “prerequisites for

business continuity” in our material topics, and VISION 2030 defines our ideal state of safety as: “By committing to our principle of ensuring safety as our top priority, we have fostered a culture of safety and achieved a high level of safety throughout the Group amidst the diversifying talent, equipment, and technology.”

### CASE STUDY Using a hazard detection AI at Osaka Works

With the goal of creating a safe and secure working environment, a hazard detection AI “Mitsui Ai Real-time Safety Assistant (Marsa)” has been operational at our Osaka Works since 2021. Based on a digital database we compiled from information about past cases of occupational injuries, near-misses, and trouble reports, users can search for keywords for the location or content of the work to look up past cases from the database

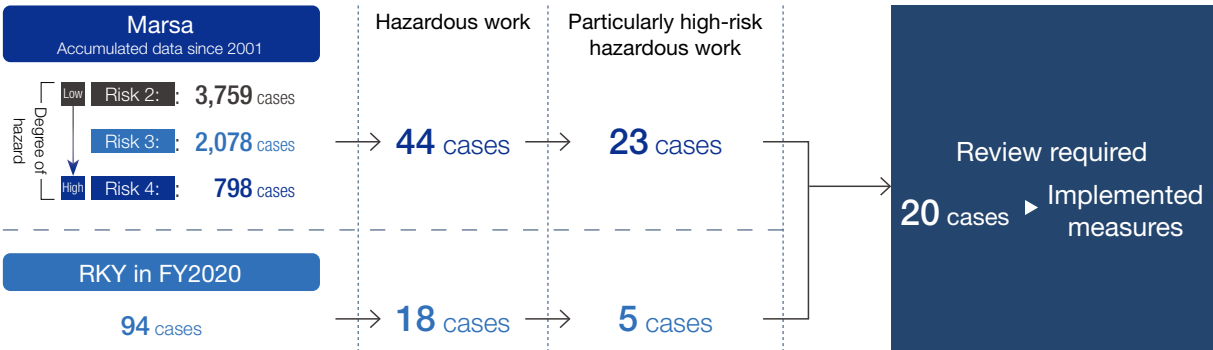
that are highly relevant to their work.

One example of Marsa’s usefulness is the identification of high-risk work in Urea Sect., Manufacturing Dept.-2, Osaka Works. In addition to the risk work identified in the RKY\* activities that was conducted at that time, we used Marsa to identify 20 particularly high-risk cases out of approximately 6,600 near-misses that occurred in the past and took measures for each

of 20 cases (consisting of three physical measures such as equipment modification and 17 non-physical measures such as changes in rules and operational methods).

\* Abbreviation for Risk assessment KY (*Kiken Yochi*, meaning hazard prediction). Risk assessment is a series of procedures for identifying hazards and harms in a plant, estimating risks, setting priorities, and determining risk reduction measures.

#### An example of risk work identification



An example of a physical measure: Installation of fall prevention fence

## Sustainability Governance

### Respect for human rights

#### Basic philosophy

The Mitsui Chemicals Group pursues just business throughout the supply chain based on the belief “having a high regard for people” is important. The Group lists “respect for human rights” as part of the Group’s material topics as one of its prerequisites for business continuity and incorporates its status of response to human rights risks into its business targets as non-financial metrics in VISION 2030.

The Group revised its Human Rights Policy (in July 2022), after obtaining approval from the Board of Directors. In order to implement management that respects human rights, we have declared our commitment both within and outside the Group to take further initiatives in line with the latest global developments.

 Mitsui Chemicals Group Human Rights Policy <https://jp.mitsuichemicals.com/en/sustainability/society/rights/ms/index.htm>

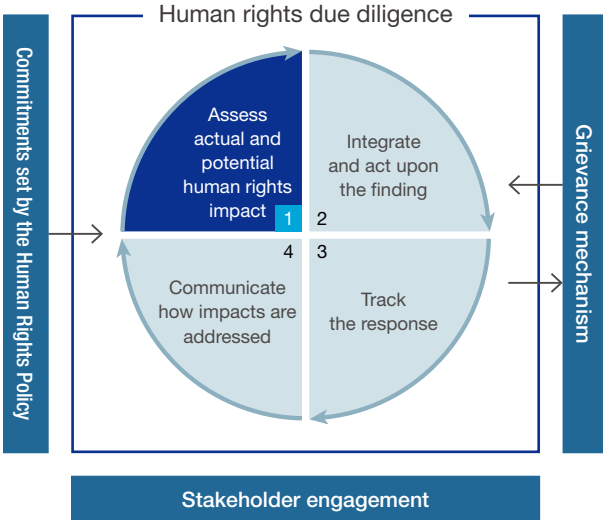
#### Human rights due diligence: Assessment of actual and potential human rights impacts


Based on the above philosophy, we will establish a system of human rights due diligence in accordance with the UN Guiding Principles on Business and Human Rights to prevent and mitigate any adverse human rights impacts that our business activities may have on the rights holders.

As part of this effort, we conduct human rights risk assessments to identify potential human rights risks in our business activities. In 2021, we conducted an assessment with the cooperation of Caux Round Table Japan (CRT Japan). Through this assessment, we confirmed that the indirect employees of our manufacturing sites may be in a vulnerable position and require particular attention, and that of the 32 countries in which the Group operates, eight countries are considered to have high human rights risks. In fiscal 2023, with the cooperation of The Global Alliance for Sustainable Supply Chain, we chose Indonesia and India out of those eight countries, taking into consideration their priorities for our business, the number of manufacturing sites, and the number of workers indirectly employed. We then conducted human rights impact assessments of our manufacturing sites in the two countries. This survey did not find any human rights violations or evident negative

impact on the human rights of indirectly employed workers. However, each company, employment agency, and subcontracting company is reviewing, discussing, and implementing measures to address the potential human rights risks that have been identified as requiring our attention. Although the scope and target of the survey is limited, we will consider the human rights risks identified through the on-site survey as challenges that should be recognized throughout the Group and will take steps to prevent and remedy them.

Since the circumstances surrounding human rights are constantly changing, we believe that a review of human rights challenges must be conducted on an ongoing basis. In fiscal 2024, we will once again identify human rights challenges that the Group should consider, taking into account that three years have passed since the last human rights risk assessment was conducted. We will further enhance the effectiveness of our human rights due diligence by reviewing business and value chains, assessing human rights risks, and conducting self-assessments in the form of questionnaires for domestic and overseas consolidated group companies.



 Overview of our human rights risk assessment and human rights impact assessment <https://jp.mitsuichemicals.com/en/sustainability/society/rights/initiative/index.htm>

## Implementing the Recommendations of the TCFD

The Mitsui Chemicals Group announced its support of the recommendations of the Task Force on Climate-related Disclosures (TCFD) in January 2019 and continues to disclose information on its efforts to tackle climate change.

#### Disclosure item 1 Governance

• Policy, strategy, and planning to address climate change are discussed at the Corporate Sustainability Committee. Results of discussions are reported to the Management Committee. Particularly important matters are decided and supervised by the Board of Directors upon discussion at the Company-wide Strategy Committee and deliberation by the Management Committee.

▶▶ For details, see **Sustainability Governance**, p. 107

#### Disclosure item 2 Risk management

• We manage risks posed by climate change across the entire Group by integrating such risks into our Group-wide risk management system.


• We identify climate change-related risks as our key Group-wide risks and reflect them in the management planning system, such as rolling strategic plans, annual budgets, and action plans, thereby implementing the PDCA cycle.

▶▶ For details, see **Risk Management**, p. 105

#### Disclosure item 3 Strategy

• We analyzed risks posed by and opportunities arising from climate change based on views of potential worlds (scenarios) that reflect predictions of how climate change may affect our Group’s business environment.

• We also reflect the results of the analyses in VISION 2030—our transition plan for achieving a low-carbon society—and our carbon neutral strategy to guide progress.

▶▶  For details on views of potential worlds (scenarios), see “Implementing the recommendations of the TCFD, Disclosure item 3” on our Sustainability website. [https://jp.mitsuichemicals.com/en/sustainability/mci\\_sustainability/circular\\_economy/tcfd/index.htm#dataList03](https://jp.mitsuichemicals.com/en/sustainability/mci_sustainability/circular_economy/tcfd/index.htm#dataList03)

▶▶ For details on risks and opportunities, see “Quantifying business impacts” on the right.

#### Disclosure item 4 Metrics and targets


• Our Group sets metrics and targets for use in managing climate-related risks and opportunities. We have positioned these as non-financial metrics and business targets for VISION 2030 and are managing their progress.


	Classification	Metric	Target	FY2023 results
Mitigation	GHG emissions reduction (Scopes 1 and 2)	GHG emissions reduction rate (vs. FY2013)	40% (FY2030) 100% (FY2050)	25%
	Maximization of avoided emissions	Blue Value™ products sales revenue ratio	40% (FY2030) 70% (FY2050)	24%
Adaptation	Contribution to disaster prevention/mitigation measures and prevention of infectious disease, etc.	Rose Value™ products sales revenue ratio	40% (FY2030)	24%

▶▶ For details, see **Numeric targets for VISION 2030 and the status of their progress**, p. 28 and **Carbon neutral strategy**, p. 53

• Our Group’s GHG emissions are as follows.

GHG emissions	Emissions: Scope 1: 3.68 million tCO <sub>2</sub> e (FY2023)
	Scope 2: 0.91 million tCO <sub>2</sub> e (FY2023)
	Scope 3: 11.69 million tCO <sub>2</sub> e (FY2022) * Mitsui Chemicals non-consolidated
	Per unit of sales revenue for Scopes 1 and 2: 26.3 tCO <sub>2</sub> e/billion yen (FY2023)

▶▶  For other information disclosed in accordance with the climate-related metrics categories, see “Implementing the recommendations of the TCFD, Disclosure item 4” on our Sustainability website. [https://jp.mitsuichemicals.com/en/sustainability/mci\\_sustainability/circular\\_economy/tcfd/index.htm#dataList04](https://jp.mitsuichemicals.com/en/sustainability/mci_sustainability/circular_economy/tcfd/index.htm#dataList04)

 For details, visit our Sustainability website. [https://jp.mitsuichemicals.com/en/sustainability/mci\\_sustainability/circular\\_economy/tcfd/index.htm](https://jp.mitsuichemicals.com/en/sustainability/mci_sustainability/circular_economy/tcfd/index.htm)

#### Quantifying business impacts

We have estimated the anticipated Group-wide impact upon implementing decarbonization measures toward VISION 2030, including the carbon neutral strategy. We also examined business risks and opportunities, accounting for changes in related markets.

▶▶ Long-Term Business Plan VISION 2030, p. 26 ▶▶ Carbon neutral strategy, p. 53

#### Group-wide risks

Risk classification	Events	Impact calculation target	Calculation approach	Impact	
				Medium-term (2030)	Long-term (2050)
3–4°C world					
Physical risks	Catastrophic worsening of natural disasters	Increase in damage at production sites due to river and coastal flooding	Calculated asset damage and economic losses from suspended operations at production sites due to flooding, taking into account the probability of occurrence * FY2020 baseline * Reference: IPCC RCP8.5	¥-10bn	¥-33bn
1.5–2°C world					
Transition risks	Strengthened laws and regulations	Increased costs due to introduction of carbon tax * Carbon tax calculated based on predicted carbon price (with reference to IEA NZE2050) and FY2021 GHG emissions	Cost increases calculated assuming that no decarbonization measures are taken	¥-104bn	¥-185bn
			Cost increases calculated assuming that decarbonization measures are taken * Investments related to the carbon neutral strategy up to 2030 are estimated at 140 billion yen.	¥-78bn (GHG emissions reduction rate* compared to FY2013: 40%)	¥0 (GHG emissions reduction rate*: 100%)
Transition risks	Market changes	Increased cost of fuel and electricity	Cost increases of fuel and electricity calculated based on inflation rate	¥-15bn	¥-23bn * 2040

\* GHG emissions reduction rate (Scopes 1 and 2)

#### Group-wide opportunities

Opportunity classification	Events	Impact calculation target	Calculation approach	Impact	
				Medium-term (2030)	Long-term (2050)
3–4°C world					
Transition opportunities	Increased demand for products and services that contribute to adaptation	Increased sales revenue of Rose Value™ products, which contribute to disaster prevention/mitigation measures and prevention of the spread of infectious disease, etc.	Set as a non-financial metric * FY2023 Rose Value™ product results: sales revenue of 410.0 billion yen, sales revenue ratio of 24% * Reference: our Group's VISION 2030	Rose Value™ products sales revenue ratio: 40%	—
1.5–2°C world					
Transition opportunities	Increased demand for products and services that contribute to mitigation	Increased sales revenue of Blue Value™ products, which contribute to reduction of GHG emissions	Set as a non-financial metric * FY2023 Blue Value™ product results: sales revenue of 420.0 billion yen, sales revenue ratio of 24% * Reference: our Group's VISION 2030	Blue Value™ products sales revenue ratio: 40%	Blue Value™ products sales revenue ratio: 70%



Implementing the Recommendations of the TCFD

Risks and opportunities for individual business segments

Changes in related markets	Life & Healthcare Solutions Business Sector	Mobility Solutions Business Sector	ICT Solutions Business Sector	Basic & Green Materials Business Sector
3~4°C world				
(1) Stable food supply	Creation of agrochemical active ingredients and expansion of overseas operations		Expanded demand for ICT products with spread of industrial farming (semiconductor components/ gas-permeable films)	Expanded demand for packaging raw materials that help maintain food quality
(2) Infrastructure service-life extension and disaster prevention/mitigation	National resilience: Expanded green-infrastructure demand for nonwovens	Expanded demand for concrete surface reinforcement agent	Expanded demand for components for solar panels and stationary-storage batteries as corresponding needs grow Expanded demand for drinking-water filters	Expanded demand for raw materials for polyethylene pipes, etc.
(3) Public health and hygiene	Development and marketing of new insecticides for malaria vector mosquitoes to help eradicate the disease Provision of high-performance antibacterial and anti-mold agents Expanded demand for hygiene supplies (masks, gowns) resulting from pandemics Growing needs and expanded demand for simple testing and diagnosis solutions to prevent the spread of infectious disease			
1.5~2°C world				
(1) Reduction of environmental impact in the supply chain	Expanded demand for lens materials using plant-derived raw materials (Do Green™) Sales promotion for highly active biocatalysts (acrylamide, etc.) Hollow, thin products (AIRYFA™) to meet demand for weight reduction	Expanded demand for parts for renewable-energy applications (highly durable TAFMER™) Expanded demand for products contributing to reductions in painting processes (PP compounds) Creation of products utilizing renewable raw materials Expanded demand for lithium-ion battery components Expanded demand for the development of materials to reduce the weight of EVs, extending their driving range (rigid and lightweight PP) Expanded demand for E-Axle Difficulties in passing on the costs of decarbonization measures Reduced demand for components for gasoline vehicles as the shift to EVs continues	Expanded demand for eco-friendly packaging materials (coating materials and paper replacements for plastic) Growing needs for recycling (mono-material packaging) Improved functionality of semiconductor components and expanded demand for such components	Expanded demand for the development of materials to reduce the weight of EVs, extending their driving range (rigid and lightweight PP, polyurethane materials) Expanded demand for eco-friendly packaging materials Difficulties in passing on the costs of decarbonization measures Expanded demand for lithium-ion battery components for EVs Reduced demand for components for gasoline vehicles as the shift to EVs continues

Changes in related markets	Life & Healthcare Solutions Business Sector	Mobility Solutions Business Sector	ICT Solutions Business Sector	Basic & Green Materials Business Sector
(Reference) Scenario-independent market environment				
(1) Economic growth, population growth, and urbanized, health-conscious lifestyles in emerging countries	Further spread of high refractive index ophthalmic lens materials (MRT™) Expanded demand for oral care and oral diagnostics Expanded demand for disposable diapers Pursuit of higher quality medical care and longer healthy life expectancy: Entry into new business areas (orthopedics, testing and diagnosis, nucleic acid medicine CDMO, nutrition)	Development of module concepts for vehicle interiors, etc. that help enhance comfort in mobile spaces Decline in number of new vehicles being manufactured	Expanded semiconductor & assembly solutions market Expanded smartphone and XR markets	Development of module concepts for vehicle interiors, etc. that help enhance comfort in mobile spaces Decline in number of new vehicles being manufactured
(2) Changes in the mobility market			Expanded demand for automotive lenses, sensors, and high-frequency materials Expanded demand for EV batteries	
(3) Consideration of environmental impact	Expanded demand for agrochemicals derived from natural materials Waste reduction/labor saving by producing dental prosthetics through 3D printing and related products			
<div>● Toward minimizing risks</div> <div>· We assessed the business impact of catastrophic worsening of natural disasters not only from the perspective of asset damage but also from a new perspective of economic losses from suspended operations. We will incorporate the business impact identified through the assessment into the Basic Strategy of VISION 2030, "Accelerating management and business transformation," in order to respond thereto.</div> <div>· The business impact of increased costs due to introduction of carbon tax and increased cost of fuel and electricity will become large over the medium to long term. As part of our carbon neutral strategy measures, we will promote carbon-free raw materials and fuels and energy efficiency, while also pushing forward with introducing renewable energy by fiscal 2030. Furthermore, we will progress with steady reductions of GHG emissions through further considerations.</div> <div>· We are projecting 140 billion yen in investments for our carbon neutral strategy through 2030. Considering that the carbon tax burden would amount to 104 billion yen per year if no carbon-neutrality measures were taken, we believe that the investment amount is appropriate in light of the impact on tax burden reduction.</div> <div>● Toward maximizing opportunities</div> <div>· The impact assessment identified many potential opportunities for Blue Value™ and Rose Value™ products. Reflecting the opportunities in our Group-wide strategy, we will work to contribute to the building of a sustainable society and seize more opportunities for our Group.</div> <div>· Reductions in GHG emissions are deeply related to expanding the revenue of our Group, and it is therefore necessary to not only execute the announced carbon neutral strategy measures but also continually examine and add further measures.</div> <div>· In addition to further increasing the resilience of our global supply chain by adding to the number of our raw-materials suppliers and production sites, we will also improve our production and supply capacity to cope with market changes and meet market needs as we look to successfully seize business opportunities.</div> <div>· As capturing the opportunities listed in the table links into the growth of our Group, we have set them as VISION 2030 business targets (non-financial targets) and will continue to manage their progress.</div> <div>● Improving resilience</div> <div>· The results of the scenario analyses validated the resilience of our strategies for the 1.5~2°C and 3~4°C worlds. We will continue to enhance the precision of our impact assessments.</div> <div>· In our Group-wide strategies, including our business strategies and site strategies, we will work to improve our Group's resilience in the aim of minimizing risk and maximizing opportunities.</div>				

Financial and company data

113	Data Highlights
115	11-Year Overview of Major Financial and Non-Financial Indicators
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CHAPTER — 06

Financial and company data

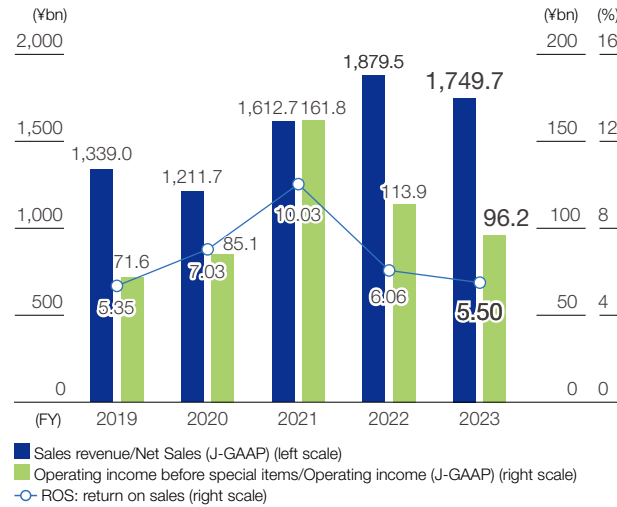
Data Highlights

Financial highlights

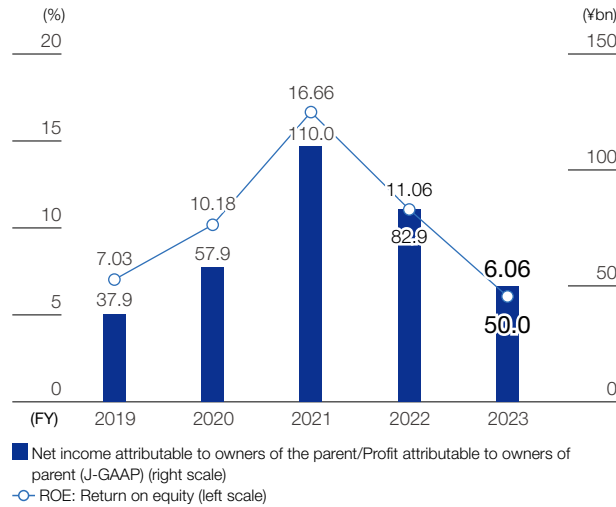
Mitsui Chemicals, Inc. has voluntarily adopted International Financial Reporting Standards (IFRS) from fiscal 2020. Figures for fiscal 2019 are reported under Japanese Generally Accepted Accounting Principles (J-GAAP), while figures for fiscal 2020 and later are reported under IFRS.

📄 Data Highlights [https://jp.mitsuichemicals.com/en/ir/fact\\_book/](https://jp.mitsuichemicals.com/en/ir/fact_book/)

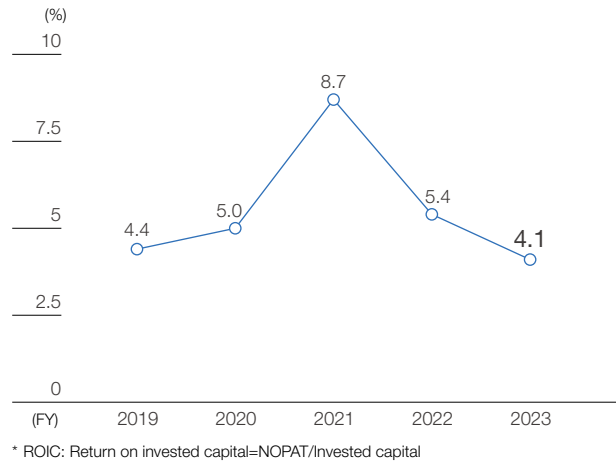
Sales revenue/Operating income before special items/ROS



ROE/Net income attributable to owners of the parent

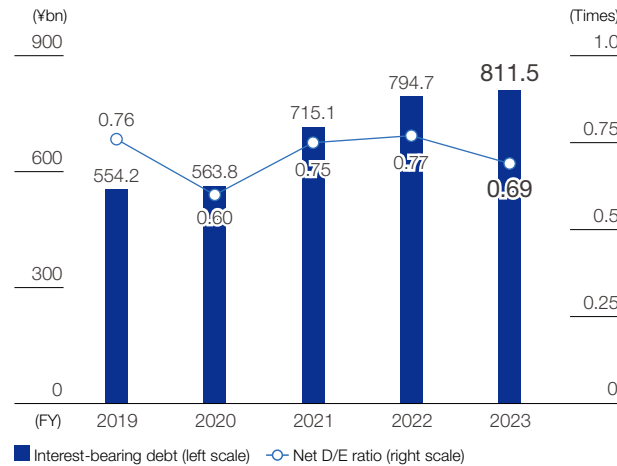


ROIC

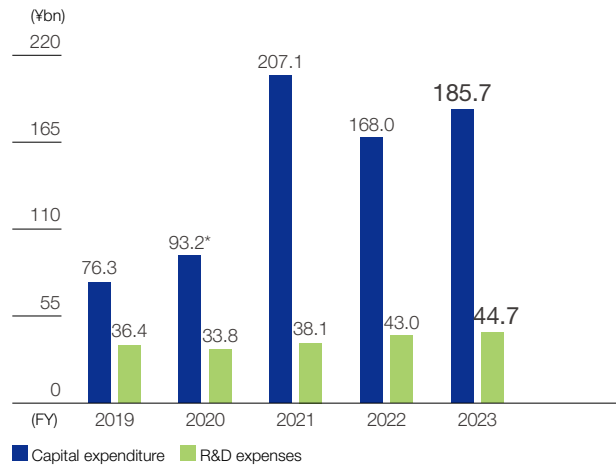


\* ROIC: Return on invested capital=NOPAT/Invested capital

Interest-bearing debt/Net D/E ratio

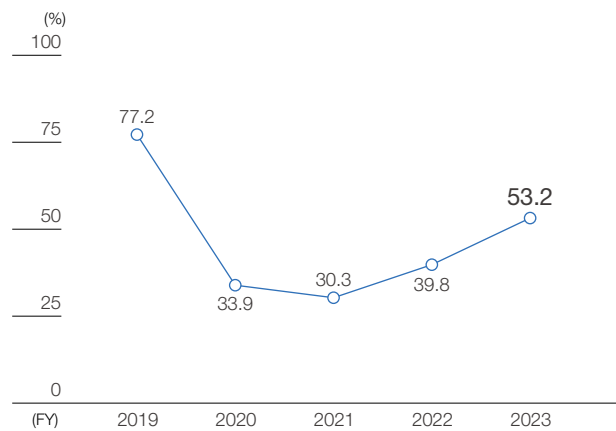


Capital expenditure/R&D expenses



\* Includes increase from the recognition of regular maintenance and repair costs, etc., under IFRS

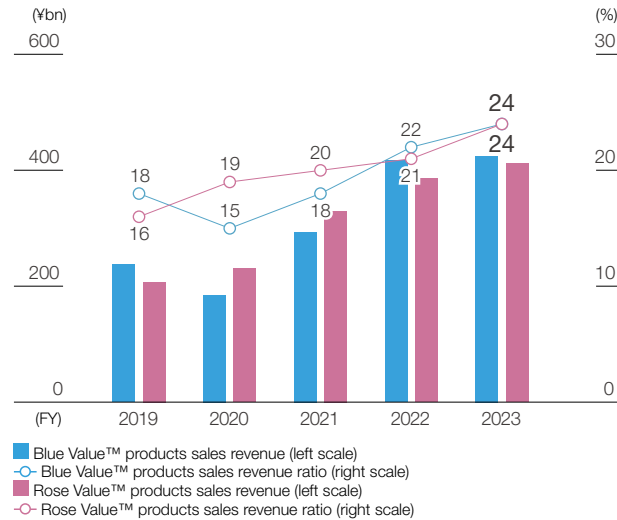
Total return ratio



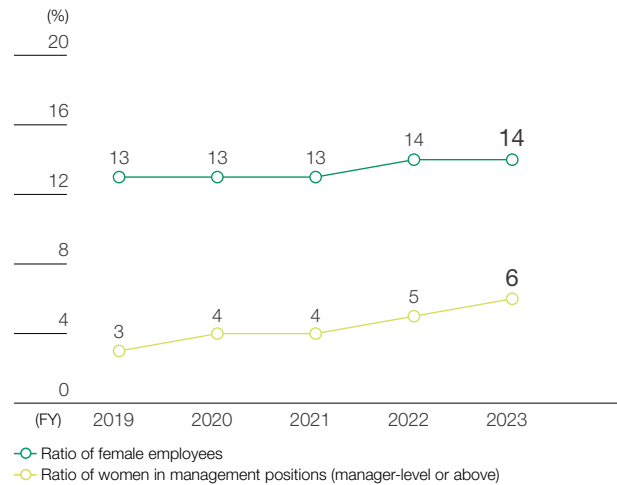
Non-financial highlights

🖨️ \* We plan to obtain a third-party guarantee on the data for fiscal 2023. In this process, some of the numerical data may be revised. The most updated data is as shown below.  
ESG Performance Data – Environment [https://jp.mitsuichemicals.com/en/sustainability/others/esg\\_performance/environment/index.htm](https://jp.mitsuichemicals.com/en/sustainability/others/esg_performance/environment/index.htm)  
ESG Performance Data – Society [https://jp.mitsuichemicals.com/en/sustainability/others/esg\\_performance/society/index.htm](https://jp.mitsuichemicals.com/en/sustainability/others/esg_performance/society/index.htm)

Blue Value™ and Rose Value™ products sales revenue ratios

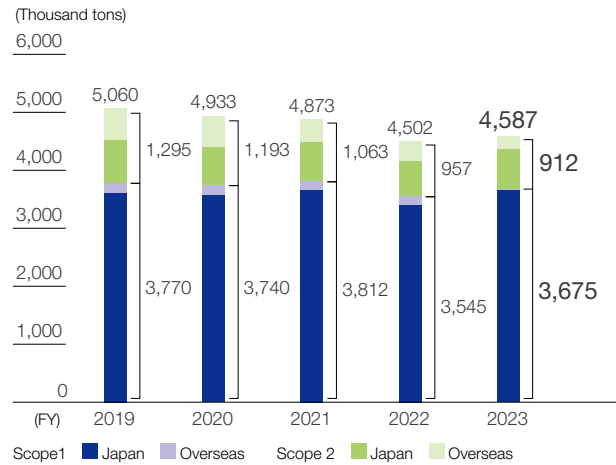


Ratio of female employees/Ratio of women in management positions (manager-level or above)

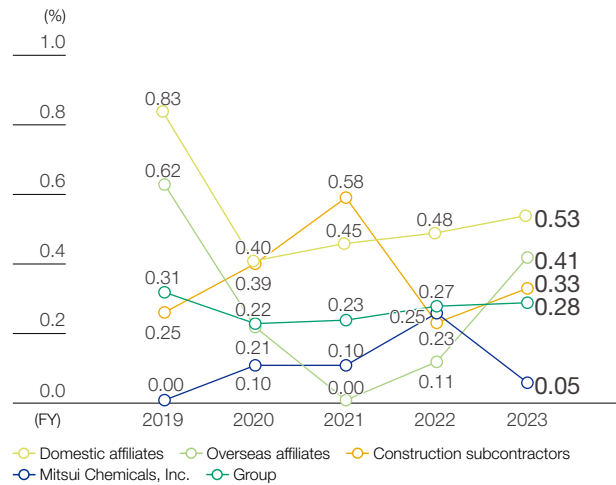


\* Mitsui Chemicals, Inc. registered employees  
\* The ratio of women in management positions (manager-level or above) has included only the full-time employees (excluding the rehired employees).

GHG emissions

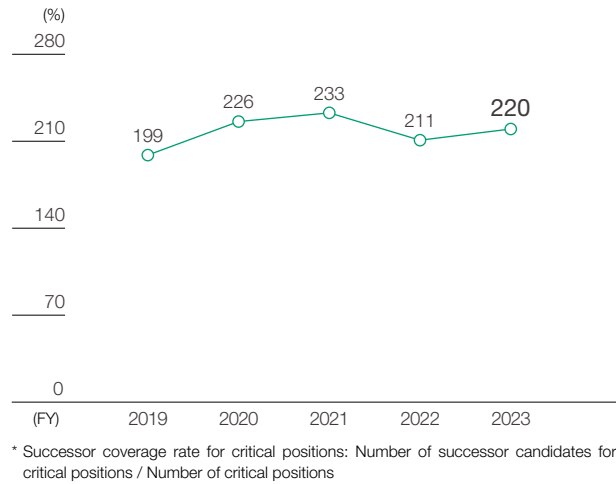


Significant occupational injury\* frequency



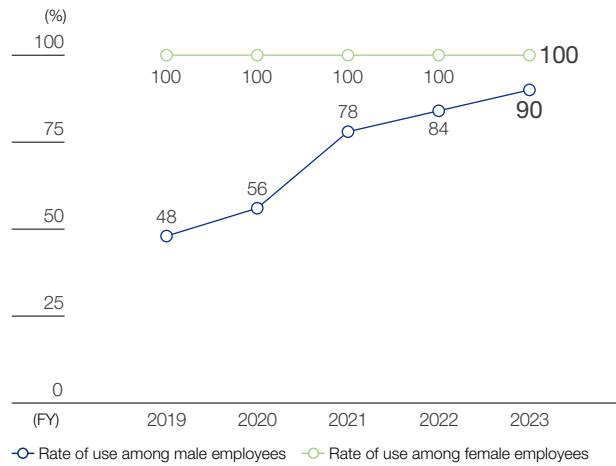
\* Significant occupational injuries (SOIs) refer to occupational injuries that resulted in absence from work or death. SOIs also include lighter occupational injuries that, due to the potential danger in the cause of the injury, could have led to absence from work or death. SOIs do not include those injuries that are not directly related to operations.

Successor coverage rate for critical positions\*



\* Successor coverage rate for critical positions: Number of successor candidates for critical positions / Number of critical positions

Childcare leave usage rate



\* Mitsui Chemicals, Inc. registered employees



## 11-Year Overview of Major Financial and Non-Financial Indicators

For the Fiscal Year	2013	2014	2015	J-GAAP 2016	2017	2018	2019
Financial Data							
Operating Results (for the year)							
Net Sales	¥1,566,046	¥1,550,076	¥1,343,898	¥1,212,282	¥1,328,526	¥1,482,909	¥1,338,987
Operating income (loss)	24,899	42,040	70,926	102,149	103,491	93,427	71,636
Profit (loss) before income taxes	(10,538)	35,840	41,302	85,772	94,208	105,297	68,460
Profit (loss) attributable to owners of parent	(25,138)	17,261	22,963	64,839	71,585	76,115	37,944
Net cash provided by operating activities	43,476	58,287	145,913	100,440	82,660	109,492	114,974
Net cash used in investing activities	(89,781)	(35,036)	(36,365)	(47,395)	(75,041)	(64,255)	(85,168)
Free cash flows	(46,305)	23,251	109,548	53,045	7,619	45,237	29,806
Financial Position (at year-end)							
Total current assets	¥ 777,015	¥ 731,708	¥ 628,210	¥ 678,938	¥ 731,326	¥ 786,677	¥ 781,347
Property, plant and equipment, net	425,840	433,629	413,402	409,429	432,908	443,063	485,531
Total intangible assets, investments and other assets	229,307	246,453	217,336	237,158	267,075	271,334	213,189
Total assets	1,432,162	1,411,790	1,258,948	1,325,525	1,431,309	1,501,074	1,480,067
Total current liabilities	507,056	448,499	364,259	392,783	443,105	458,758	478,498
Total non-current liabilities	515,459	491,992	451,452	418,107	400,982	410,577	393,548
Total shareholder's equity & Total accumulated other comprehensive income (loss)	352,843	406,235	381,971	449,692	511,586	551,915	527,589
Interest-bearing debt	581,260	548,713	472,986	439,868	463,658	485,043	554,243
Other							
Depreciation and amortization	¥ 48,143	¥ 48,251	¥ 48,640	¥ 44,057	¥ 45,654	¥ 49,504	¥ 52,106
Capital expenditures	113,200	47,531	43,405	45,383	81,248	61,924	76,294
R&D expenses	33,569	32,473	31,493	30,777	33,377	35,796	36,368
Per Share Data <sup>(2)</sup>							
Net income (loss) per share (basic)	¥ (125.50)	¥ 86.20	¥ 114.75	¥ 324.05	¥ 358.38	¥ 385.60	¥ 194.94
Cash dividends per share	15.00	25.00	40.00	70.00	90.00	100.00	100.00
Ratios							
Return on sales	1.59	2.71	5.28	8.43	7.79	6.30	5.35
Return on equity	—	4.55	5.83	15.59	14.89	14.31	7.03
Return (Operating income (loss)) on assets	1.80	2.96	5.31	7.90	7.51	6.37	4.81
Net D/E Ratio	1.44	1.22	1.03	0.79	0.75	0.68	0.76

For the Fiscal Year		2013	2014	2015	2016	2017	2018	2019
<b>Non-Financial Data</b>								
<b>Social and Environmental*3 Data</b>								
Employees	Consolidated	14,271	14,363	13,447	13,423	17,277	17,743	17,979
	Mitsui Chemicals, Inc. registered employees	7,129	6,931	6,733	6,516	6,541	6,670	6,773
Ratio of female employees	Mitsui Chemicals, Inc. registered employees	12	12	12	12	13	13	13
SOI*4 frequency*5	Consolidated	0.24	0.18	0.30	0.23	0.24	0.33	0.31
GHG emissions (Scopes1 and 2) *6	Consolidated*7	520	501	5,780	5,730	5,580	5,220	5,060
Energy consumption	Consolidated	89	86	95	97	95	93	89.3
Industrial waste	Landfill disposal volume (Consolidated)	0.6	0.7	1.0	0.9	0.7	0.7	0.8
	Landfill rate (Consolidated)*8	0.2	0.2	0.4	0.4	0.3	0.3	0.4

For the Fiscal Year	2019	2020	2021	2022	2023
Financial Data					
Operating Results (for the year)					(Millions of yen)
Sales revenue	¥1,349,522	¥1,211,725	¥1,612,688	¥1,879,547	¥1,749,743
Operating income before special items	72,330	85,140	161,815	113,903	96,234
Income before income taxes	60,824	74,243	141,274	117,278	73,331
Net income attributable to owners of the parent	33,970	57,873	109,990	82,936	49,999
Net cash provided by operating activities	142,232	174,323	92,584	101,241	161,339
Net cash used in investing activities	(109,112)	(77,555)	(205,234)	(106,340)	(123,939)
Free cash flows	33,120	96,768	(112,650)	(5,099)	37,400
Financial Position (at year-end)					(Millions of yen)
Total current assets	¥ 781,834	¥ 787,572	¥1,033,445	¥1,094,286	¥1,150,579
Property, plant and equipment and Right-of-use assets, net	499,650	501,960	553,584	600,887	652,098
Intangible assets and Investments and other assets	249,031	268,593	347,936	373,030	413,142
Total assets	1,530,515	1,558,125	1,934,965	2,068,203	2,215,819
Total current liabilities	485,674	466,305	706,569	695,444	676,579
Total non-current liabilities	435,134	409,663	421,274	489,456	554,434
Total equity attributable to owners of the parent	529,220	607,921	712,654	786,827	862,851
Interest-bearing debt	599,388	563,791	715,059	794,700	811,456
Other					(Millions of yen)
Depreciation and amortization	¥ 76,009	¥ 76,621	¥ 84,222	¥ 92,080	¥ 95,249
Capital expenditures	106,539	93,170	207,132	168,002	185,703
R&D expenses	36,081	33,802	38,124	42,954	44,695
Per Share Data					(Yen)
Net income (loss) per share (basic)	¥ 174.52	¥ 298.00	¥ 565.45	¥ 431.17	¥ 262.99
Cash dividends per share	100.00	100.00	120.00	120.00	140.00
Ratios					
Return on sales	5.36	7.03	10.03	6.06	5.50 (%)
Return on equity	6.28	10.18	16.66	11.06	6.06 (%)
Return (Operating income (loss) before special items) on assets	4.63	5.51	9.26	5.69	4.49 (%)
Net D/E Ratio	0.81	0.60	0.75	0.77	0.69 (Times)
Return on invested capital	—	5.0	8.7	5.4	4.1 (%)

For the Fiscal Year		2020	2021	2022	2023	
<b>Non-Financial Data</b>						
<b>Social and Environmental<sup>*3</sup> Data</b>						
Employees	Consolidated	18,051	18,780	18,933	19,861	(Persons)
	Mitsui Chemicals, Inc. registered employees	6,809	6,899	7,073	7,265	(Persons)
Ratio of female employees	Mitsui Chemicals, Inc. registered employees	13	13	14	14	(%)
SOI <sup>*4</sup> frequency <sup>*5</sup>	Consolidated	0.22	0.23	0.27	0.28	
GHG emissions (Scopes 1 and 2) <sup>*6</sup>	Consolidated <sup>*7</sup>	4,933	4,873	4,502	4,587	(Thousand PJ)
Energy consumption	Consolidated	87.1	88.0	82.8	77.8	
Industrial waste	Landfill disposal volume (Consolidated)	0.7	0.7	0.6	1.5	(Thousand PJ)
	Landfill rate (Consolidated) <sup>*8</sup>	0.3	0.3	0.3	0.4	(%)

\*1 The Mitsui Chemicals Group adopted IFRS in fiscal 2020. Comparisons with fiscal 2019 have been made using data adjusted to IFRS.

\*2 On October 1, 2017, Mitsui Chemicals, Inc. conducted a 5-to-1 share consolidation. Net income (loss) per share is calculated as if the consolidation had been conducted at the start of fiscal 2016. The figures listed for cash dividends per share have also been retroactively adjusted to account for the impact of the consolidation.

\*3 Due to changes in aggregation methods and legal revisions, only data that complies with such methods and laws is presented.

74 “Significant Occupational Injuries (SOIs)” refer to occupational injuries that resulted in absence from work or death. SOIs also include lighter occupational injuries that, due to the potential danger in the cause of the injury, could have led to absence from work or death. SOIs do not include those injuries that are not directly related to operations.


\*5 SOI frequency: The number of deaths or SOIs per million hours worked.

<sup>6</sup> We had disclosed our GHG emissions as a combination of both Scope 1 and 2 less the amount of electricity and steam sold up to fiscal 2014. Since fiscal 2015, we have been disclosing the sum of Scope 1 and 2, and extended the calculation scope to comply with the GHG protocol in fiscal 2023.

7 GHG emissions for overseas consolidated subsidiaries are calculated in accordance with Japan's Law Concerning the Promotion of Measures to Cope with Global Warming based on energy consumption figures. (CO<sub>2</sub> emission factors from electricity generation were retroactively changed to the International Energy Agency (IEA) emission factors for each country.) Data reflect the total of domestic and overseas consolidated subsidiaries.

\*8 Figures are calculated based on global data. However, figures before the fiscal year ended March 31, 2018 are calculated based on consolidated data in Japan.

\* We plan to obtain a third-party guarantee on the data for fiscal 2023. In this process, some of the numerical data may be revised. The most updated data is as shown below.





 ESG Performance Data—Environment  
[https://jp.mitsuichemicals.com/en/sustainability/others/esg\\_performance/environment/index.htm](https://jp.mitsuichemicals.com/en/sustainability/others/esg_performance/environment/index.htm)

ESG Performance Data—Society  
[https://jp.mitsuichemicals.com/en/sustainability/others/esg\\_performance/society/index.htm](https://jp.mitsuichemicals.com/en/sustainability/others/esg_performance/society/index.htm)

Data by Business Segment

Life & Healthcare Solutions

Main products

Life care solutions		<b>Vision care materials</b> * Plastic ophthalmic lens materials (MR™, RAV 7™, Do Green™), Photochromic lens materials (SunSensors™), Coating materials (Crystal Coat™)	<b>Personal care materials</b> * Acrylamide, Methacrylamide, Synthetic pulp (SWP™), Antibacterial and anti-mold agents (YOHTOL™ DP95, YOHTOL™ DP-CD), DMI™		
		<b>Nonwovens</b> * Nonwovens (AIRYFA™, SYNTEX™, ELTAS™, TAFNEL™, Precise™, ECORISE™), Filters (EUTEC™), Shape holding material (TEKNOROTE™), Breathable films (ESPOIR™)			
Wellness solutions		<b>Agrochemical products</b> * Insecticides, Fungicides, Herbicides, Non-crop specialty chemicals, Pet medication ingredients	<b>Personal care materials</b> * Medical materials (taurine)		
Medical solutions		<b>Oral care materials</b> * Restorative materials (Venus™, Charisma™), Dental cement (Super-Bond™), Denture-related products (PALA™), 3D printable material (DIMA™)	<b>Personal care materials</b> * Medical materials (taurine, serine, PLGA™)		





Market share and market growth rate of key products (FY2023)

		Share		Market growth rate			Share		Market growth rate
Vision care	Ophthalmic lens materials (MR™ series, RAV 7™ series)*1	Global	45%	Overall 3% High refractive index 6–7%	Agrochemicals		Global	—	6.7%*4
Nonwovens	Spunbonded nonwoven fabric (hygiene materials)*2	ASEAN	No. 2 in market	8%	Oral care	Dental materials	Germany	No. 1 in market	4%*5
		Japan	No. 1 in market	-6%*3					

\*1 FY2014–2022 (including impact from COVID-19) \*2 FY2019–2022 (Japan) \*3 FY2023 \*4 FY2021–2023 \*5 FY2019–2024

Mobility Solutions

Main products



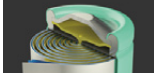

Materials business		<b>Elastomers</b> • Ethylene-propylene terpolymer (Mitsui EPT™), Alpha-olefin copolymer (TAFMER™), Liquid polyolefin oligomer (LUCANT™)
		<b>Composite materials</b> • Adhesive polyolefin (ADMERT™), Thermoplastic elastomer (MILASTOMER™), Engineering plastics (ARLEN™), PP compounds, Metal/resin integral molding parts (POLYMETAC™), Unsaturated polyester (POLYHOPE™), Molding compound (POLYMAL™ MAT)
Solutions business	• ARRK Group  , Kyowa Industrial Co., Ltd 	

Market share of key products (FY2023)

		Share	
TAFMER™	Global	No. 2 in market	
	Asia	No. 1 in market	
	Japan	No. 1 in market	
PP compounds	Global	No. 2 in market	
	Asia	No. 2 in market	
	Japan	No. 1 in market	

ICT Solutions

Main products

Semiconductor & assembly solutions		• Dust covers for photomasks (MITSUI PELLICLE™), high purity gas for deposition process (silane/disilane), photoresist raw material (MILEX™), tape for semiconductor manufacturing process (ICROS™ Tape), silicone-coated film (SP-PET™), heat-resistant release film (Opulent™)
Imaging solutions		• Lens materials (APEL™), materials for reflective films (TPX™), LCD and OLED sealing materials (STRUCTBOND™), Solar cell encapsulant sheets (SOLAR ASCE™)
Battery material solutions		• Materials for LiB separator (HI-ZEX MILLION™), electrolyte for LiB (MILLET™), adhesive for LiB pouch (UNISTOLE™), heat resistant coating material (BONRON™)
Converting solutions		• Heat sealant for environmentally friendly paper packaging materials (CHEMIPEARL™), barrier coating materials for sustainable packaging materials (TAKELAC™ WPB), packaging adhesives (TAKENATE™ & TAKELAC™)

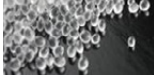


Market share and market growth rate of key products (FY2023)

	Share		Market growth rate	
ICROS™ Tape, tape for semiconductor manufacturing process	Global	No. 1 in market		7%
APEL™, cyclic olefin copolymer	Global	Over 50% (No. 1) (convex-lens)	Smartphone lens market	-10%*1
Pellicles	Global	No. 1 in market		7%*2 (cutting-edge area)

\*1 FY2022–2023 \*2 2020–2028 CAGR

Basic & Green Materials

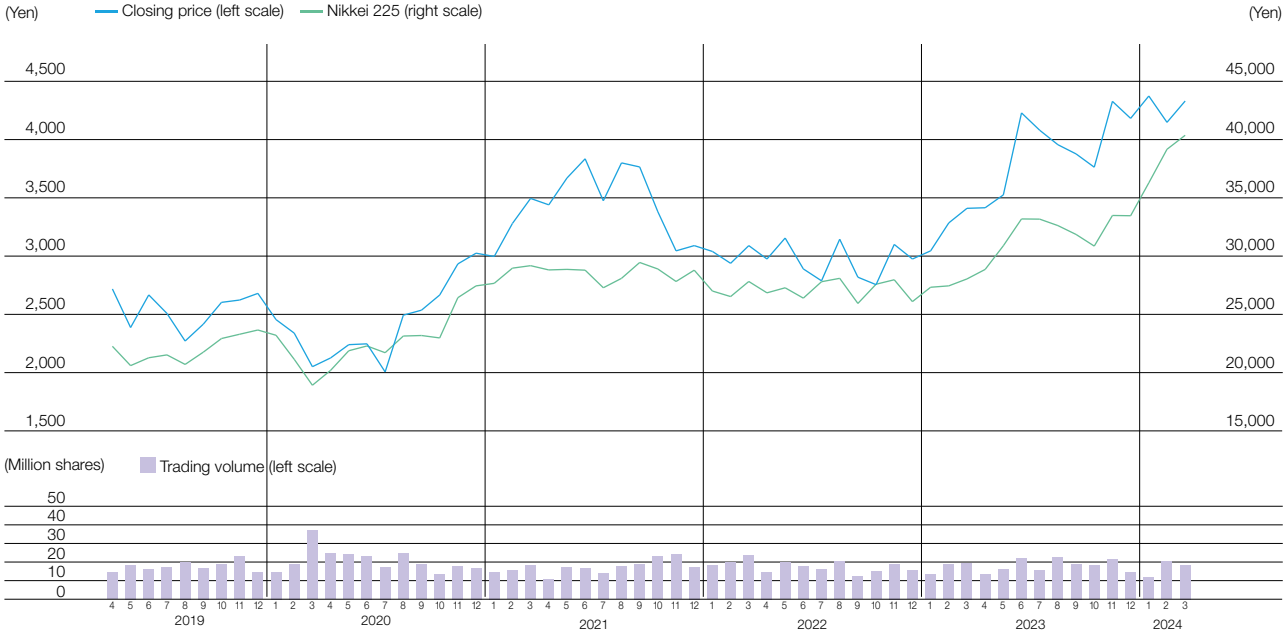
Main products

Petrochemicals		• Ethylene, Propylene, High density polyethylene, Metallocene linear low density polyethylene (EVOLUE™), Linear low density polyethylene, Polypropylene, Olefin polymerization catalysts
Basic chemicals		• Phenol, Bisphenol A, Acetone, Isopropyl alcohol, Methyl isobutyl ketone, Purified terephthalic acid, PET resin, Ethylene oxide, Ethylene glycol, Hydroquinone, Meta/Para-cresol, Ammonia, Urea, Melamine
Polyurethane raw materials		• TDI (COSMONATE™), MDI (COSMONATE™), PPG (ACTCOL™, ECONYKOL™, Nextyol™)



## Stock Information

### Common Stock Price and Trading Volume



### Total Shareholder Return (TSR)

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Year-end stock price (yen)	2,671	2,051	3,495	3,090	3,410	4,331
Dividend per share (yen)		100	100	120	120	140
Cumulative dividends per share (yen)		100	200	320	440	580
TSR		80.5%	138.3%	127.7%	144.1%	183.9%
TOPIX Total Return		90.5%	128.6%	131.2%	138.8%	196.2%

\* Total shareholder return is the value as of the end of the year in fiscal 2019 and thereafter assuming investment at the closing price at the end of fiscal 2018.

### Credit Ratings (As of March 31, 2024)

Rating Agencies	Rating
Japan Credit Rating Agency, Ltd. (JCR)	A+
Rating and Investment Information, Inc. (R&I)	A+

## Corporate Information (As of March 31, 2024)

Date of Establishment	October 1, 1997
Paid-in Capital	125,738 million yen
Employees	19,861 (Consolidated)
Subsidiaries and Affiliates	164 (Domestic 56, Overseas 108)
Shares of Common Stock Issued	200,843,815
Number of Shareholders	68,635
Stock Exchange Listing	Prime Market, Tokyo Stock Exchange (Code: 4183)
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited

Head Office	Tokyo Midtown Yaesu, Yaesu Central Tower, 2-2-1 Yaesu, Chuo-ku, Tokyo 104-0028 Phone: +81-3-6880-7500 Facsimile: +81-3-6880-7616
U.S.A.	MITSUI CHEMICALS AMERICA, INC. 800 Westchester Avenue, Suite S306 Rye Brook, NY 10573, U.S.A. Phone: +1-914-253-0777 Facsimile: +1-914-253-0790
Germany	MITSUI CHEMICALS EUROPE GmbH Oststr. 34, 40211 Düsseldorf, Germany Phone: +49-211-17332-0 Facsimile: +49-211-17332-701

Singapore	MITSUI CHEMICALS ASIA PACIFIC, LTD. 3 HarbourFront Place, #10-01 HarbourFront Tower 2, Singapore 099254, Singapore Phone: +65-6534-2611 Facsimile: +65-6535-5161
China	Mitsui Chemicals (China) Co., Ltd. 21F, Capital Square, 268 Hengtong Road, Jing'an District, Shanghai, 200070, P. R. China Phone: +86-21-5888-6336 Facsimile: +86-21-5888-6337



Corporate Communications Division IR Department

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