



# KAITEKI REPORT 2020

Integrated Report

# KAITEKI Value for Tomorrow

## Imagine the future. Change for tomorrow.

Imagine our future. How do we get there to a sustainable future?  
KAITEKI—the sustainable well-being of people, society and our planet Earth.  
For our future, the Mitsubishi Chemical Holdings Corporation (MCHC) Group  
will bring solutions for tomorrow.



## Mission

We create innovative solutions globally based on our core values of Sustainability, Health, and Comfort, striving for the well-being of people, society and our planet Earth.

## Vision

Realizing KAITEKI

## Value

Sustainability, Health, Comfort

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### Editorial policy

The Mitsubishi Chemical Holdings (MCHC) Group publishes the KAITEKI Report as a value creation story that covers the progress and outlook of corporate activities aimed at the realization of KAITEKI. This report summarizes financial and non-financial information from the past, present and future projections based on what we have determined to be highly pertinent to our decision-making criteria and results of materiality assessments for corporate activities. In preparation of this report, we referred to the International Integrated Reporting Framework created by the International Integrated Reporting Council. Further information on the topics of this report is available on Mitsubishi Chemical Holdings website. For detailed financial information, please refer to our securities reports filed with the Financial Services Agency. For detailed governance information, please refer to our corporate governance report submitted to the Tokyo Stock Exchange.

**Mitsubishi Chemical Holdings Website**  
<https://www.mitsubishichem-hd.co.jp/english>

**Securities Reports**  
[https://www.mitsubishichem-hd.co.jp/ir/library/stock\\_securities\\_report.html](https://www.mitsubishichem-hd.co.jp/ir/library/stock_securities_report.html)

**Corporate Governance Report**  
<https://www.mitsubishichem-hd.co.jp/english/pdf/governance.pdf>

### Reporting period

Fiscal 2019 (April 2019–March 2020), including some information from fiscal 2020

### FY2020 Reporting boundary

This report covers information relating to Mitsubishi Chemical Holdings and the MCHC Group. For matters with a different reporting scope, we clearly specify the reporting boundary covered.

### Accounting standards

Mitsubishi Chemical Holdings has adopted International Financial Reporting Standards (IFRS), effective from the first quarter of fiscal 2016, the financial year ended March 31, 2017. In this report, data in and after fiscal 2016 are based on IFRS, while other figures are based on J-GAAP unless otherwise noted.

(Note) Taiyo Nippon Sanso Corporation converted to a holding company and changed its trade name to Nippon Sanso Holdings Corporation. Taiyo Nippon Sanso will continue operations in Japan for Nippon Sanso Holdings. This report uses the name Taiyo Nippon Sanso for the events that happened before October 2020 as well as future events for the company's operations in Japan.

### Assessment results of corporate value including ESG

#### Dow Jones Sustainability Indices

MEMBER OF  
**Dow Jones  
Sustainability Indices**

In collaboration with

**SAM Sustainability Award  
Bronze Class**

**SAM Sustainability Award  
Bronze Class 2020**

**MSCI Japan  
ESG Select Leaders Index\***

MSCI Japan  
ESG Select Leaders Index

**MSCI Japan  
Empowering Women Index\***

MSCI Japan  
Empowering Women Index (WIN)

**FTSE4Good  
Index Series**



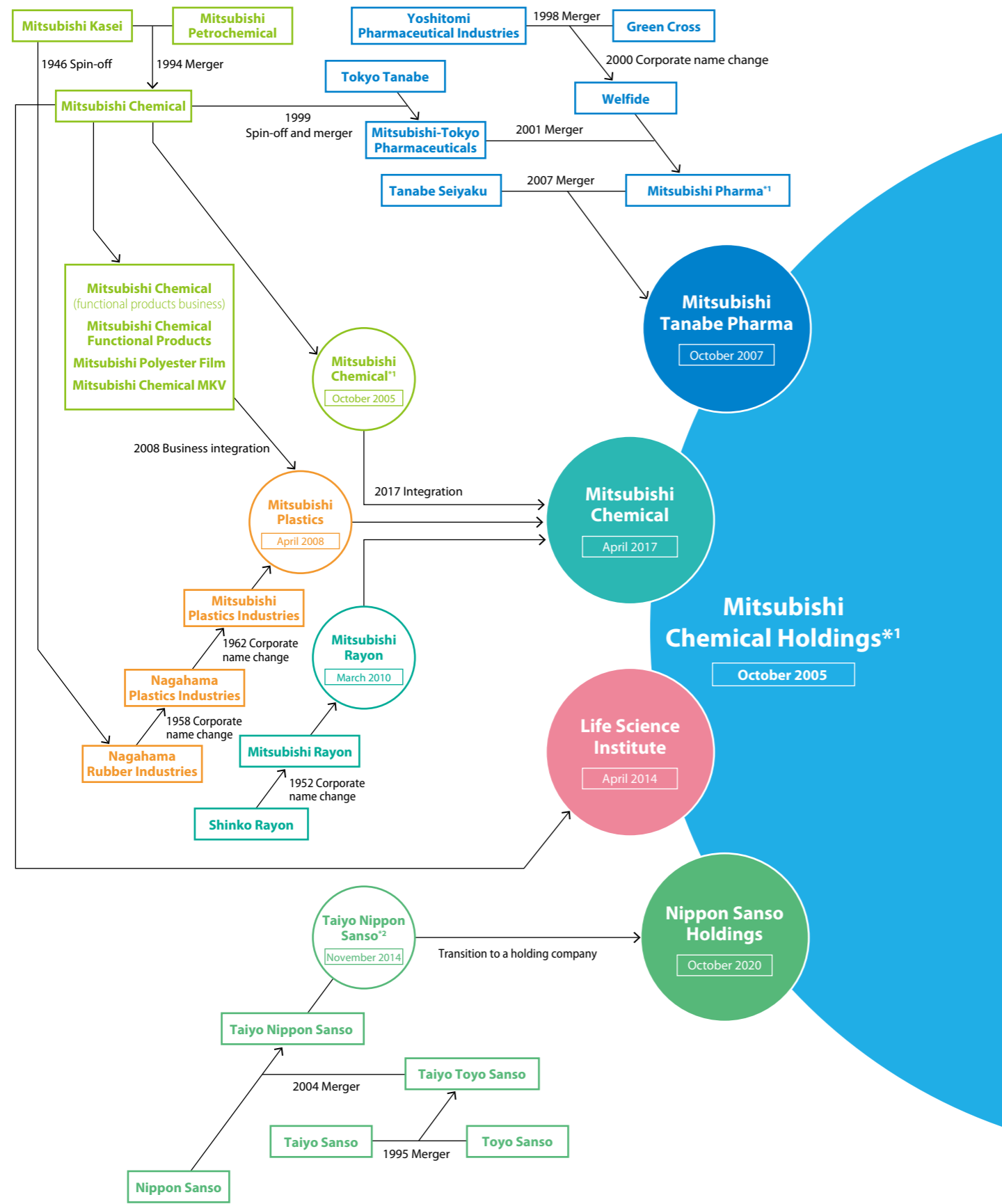
**FTSE Blossom  
Japan Index**



(As of June 30, 2020)

\* The inclusion of Mitsubishi Chemical Holdings in any MSCI Index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement or promotion of Mitsubishi Chemical Holdings by MSCI or any of its affiliates. The MSCI Indexes are the exclusive property of MSCI. MSCI and the MSCI index names and logos are trademarks or service marks of MSCI or its affiliates.

## History of the MCHC Group



\*1 Mitsubishi Chemical Corporation and Mitsubishi Pharma Corporation established a joint holding company, Mitsubishi Chemical Holdings Corporation.  
 \*2 Taiyo Nippon Sanso Corporation will continue operations in Japan for Nippon Sanso Holdings Corporation.

Transition of Portfolio Transformation and Review of the Medium-Term Management Plan P. 9

## Key Indicators in KAITEKI Management (As of the end of March 2020)

### Management resources to support value creation

**Robust financial position**

Total assets  
**¥5,132.1 billion**

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**Strategic investments**

Capital expenditures  
**¥240.4 billion**

R&D expenditures  
**¥133.4 billion**

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**Global network**

Group sites (number of countries & regions)  
**43**

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**Diverse human resources**

Number of employees (consolidated)  
**69,609**

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**Sustainability management**

Energy consumption  
**49.1 TWh**

Water withdrawal (excluding seawater)  
**204 million m<sup>3</sup>**

### Value created by the MCHC Group

**Improvement in economic value**

Sales revenue  
**¥3,580.5 billion**

Core operating income\*  
**¥194.8 billion**

ROE (Return on equity)  
**4.2%**

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**Acceleration of overseas businesses**

Ratio of overseas revenue  
**42.9%**

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**Advancement of innovation**

New product commercialization rate  
**140%**

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**Improvement in creativity and productivity**

Employees' vitality index  
**69 points**

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**Contributing to the reduction of environmental impact**

Contribution to the reduction of GHG emissions through products  
**62 million t-CO<sub>2</sub>e**  
Response to climate change

Amount of reused water supplied (meeting quality standards for both daily and industrial use)  
**780 million tons**  
Efficient use of water

**Creation, growth, and advancement of businesses by executing KAITEKI Management**

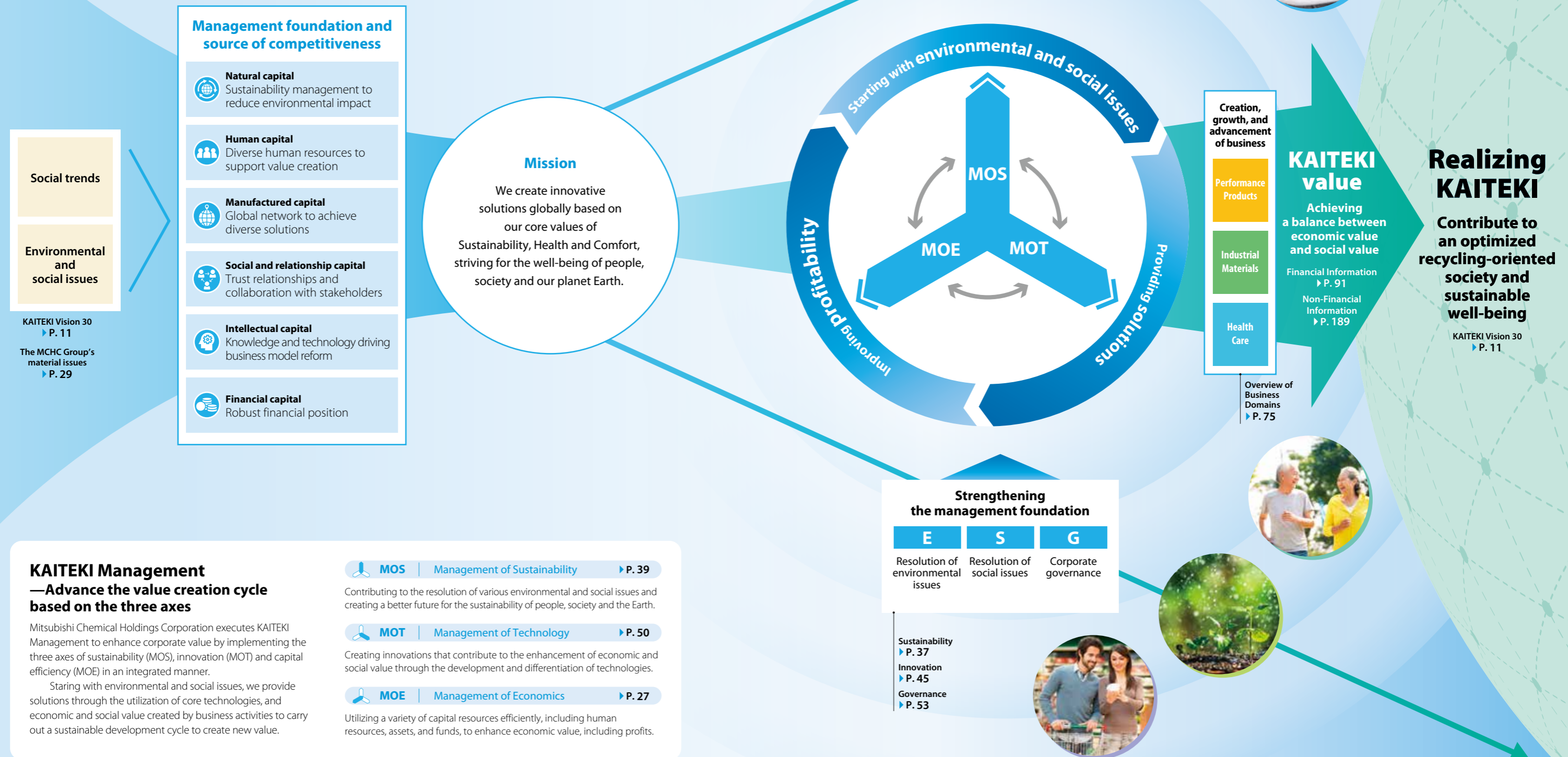
Value Creation Model P. 7

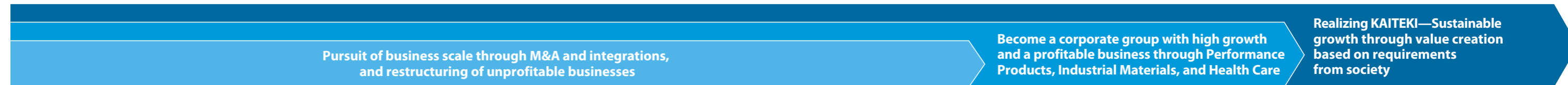
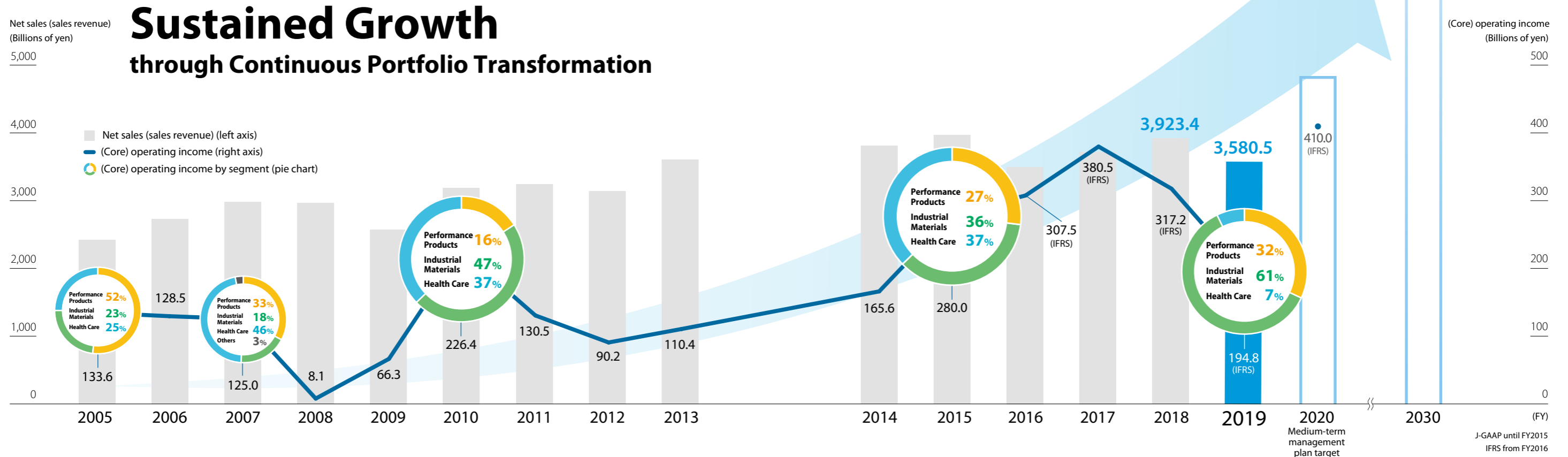
**Realizing KAITEKI**

\* Core operating income is calculated as operating income (loss) excluding certain gains and expenses attributable to non-recurring factors (gains and losses incurred by business withdrawal and contraction, etc.). We disclose core operating income as unique gains/losses incurred by staged gains/losses, while considering the comparability with operating income under J-GAAP.

# Create New Value Starting with Social Issues Executing KAITEKI Management

The Mitsubishi Chemical Holdings (MCHC) Group is implementing KAITEKI Management to realize the society we envision looking at the future. We strive to promote our value creation cycle, which starts with our attention to environmental and social issues in line with our mission and value, while taking into account the rapidly changing global environment and stakeholders' requirements. This model enables us to maintain sustainable growth while contributing to the sustainable development of the global environment and society.





Medium-term management plan and portfolio transformation ● Growth measures ▲ Restructuring

KAKUSHIN Plan—Phase 2 FY2005 to FY2007	APTSIS 10 FY2008 to FY2010	APTSIS 15 FY2011 to FY2020	APTSIS 20 FY2016 to FY2020	New medium-term management plan FY2021–
<p><b>Achievements</b></p> <p><b>Raised the ratio of the pharmaceutical business and strengthened earnings less susceptible to the economy</b></p> <ul style="list-style-type: none"> <li>● 2005 Establishment of MCHC</li> </ul> <p><b>Strengthened the pharmaceutical business</b></p> <ul style="list-style-type: none"> <li>● 2007 Establishment of MTPC</li> </ul> <p><b>Challenges for the next management plan</b></p> <p><b>Creation of growth drivers in the Performance Products domain and structural reform of unprofitable businesses</b></p>	<p><b>Achievements</b></p> <p><b>Expanded the Performance Products domain</b></p> <ul style="list-style-type: none"> <li>● 2008 Integrated MPI, MCC's functional products business, and three affiliate companies</li> <li>● 2009 Conversion of Quadrant AG, the world's largest manufacturer of engineering plastic products, into a consolidated subsidiary</li> </ul> <p><b>Shifted to a higher value-added business portfolio</b></p> <ul style="list-style-type: none"> <li>● 2010 Conversion of MRC into a consolidated subsidiary</li> <li>▲ 2010 Withdrawal from the nylon chain business</li> <li>▲ 2011 Withdrawal from the PVC chain business</li> <li>Withdrawal from the SM chain business</li> </ul> <p><b>Challenges for the next management plan</b></p> <p><b>Structural reforms and profit stabilization in the Industrial Materials domain</b></p> <p><b>A shift to higher performance and added value</b></p>	<p><b>Achievements</b></p> <p><b>Stabilized profitability through structural reform in Industrial Materials domain and the conversion of an industrial gas company into a subsidiary</b></p> <ul style="list-style-type: none"> <li>● 2014–2015 Production optimization of polyolefin</li> <li>▲ 2014 Retained a single naphtha cracker at the Kashima Plant (now Ibaraki Plant)</li> <li>● 2014 Conversion of TNSC into a consolidated subsidiary</li> <li>▲ 2016 Formed a joint venture to operate the naphtha cracker at the Mizushima Plant (now Okayama Plant)</li> <li>▲ 2016 Decided on the equity interest transfer of the terephthalic acid business in India and China</li> </ul> <p><b>Shift to high performance and added value</b></p> <ul style="list-style-type: none"> <li>● 2013 Conversion of Qualicaps Co., Ltd., capsules and pharmaceutical processing equipment businesses based in Japan, the US and Europe, into a consolidated subsidiary</li> <li>● 2014 Established LSII</li> </ul> <p><b>Strengthening corporate governance</b></p> <ul style="list-style-type: none"> <li>● 2015 Transition to a company with a nominating committee, etc.</li> </ul> <p><b>Challenges for the next management plan</b></p> <p><b>Driving growth through synergies, development of a global management system, and measures for low-profit businesses</b></p>	<p><b>Achievements</b></p> <p><b>Accelerated growth of Performance Products domain through integrations</b></p> <ul style="list-style-type: none"> <li>● 2016 Converted the Nippon Synthetic Chemical Industry Co., Ltd. into a wholly owned subsidiary</li> <li>● 2017 Establishment of the New-MCC</li> <li>Integration of the three chemical operating companies (MCC, MPI and MRC)</li> </ul> <p><b>Strengthened management through continuous business restructuring and investment in growth areas</b></p> <ul style="list-style-type: none"> <li>● 2018 Started commercial operations of the new MMA plants with the Saudi Methacrylates Company, in the Middle East</li> <li>● 2018 and 2019 Expanded the global market share of the industrial gas business through M&amp;A activities</li> <li>▲ 2019 Strategic capital alliance with PHC Holdings Corporation through share exchange with LSI Medience Corporation</li> <li>▲ 2019 Withdrew from the storage media business</li> <li>● 2020 Converted MTPC into a wholly owned subsidiary</li> </ul> <p><b>Strengthened global management capabilities</b></p> <ul style="list-style-type: none"> <li>● 2017 MCC established regional headquarters</li> </ul> <p><b>Accelerated digital transformation</b></p> <ul style="list-style-type: none"> <li>● 2017 Establishment of the Emerging Technology and Business Development Office</li> </ul> <p>See the following pages for details on the progress of APTSIS 20.</p> <p>▶ Message from the President P. 19 ▶ Progress of the Medium-Term Management Plan P. 27</p>	

MCHC: Mitsubishi Chemical Holdings Corporation	MTPC: Mitsubishi Tanabe Pharma Corporation	PVC: Polyvinyl chloride
MCC: Mitsubishi Chemical Corporation	LSII: Life Science Institute, Inc.	SM: Styrene monomer
MPI: Mitsubishi Plastics, Inc.	TNSC: Taiyo Nippon Sanso Corporation	
MRC: Mitsubishi Rayon Co., Ltd.	New-MCC: Mitsubishi Chemical Corporation (Apr. 2017–)	



# KAITEKI Vision 30,

our medium- to long-term basic management strategy  
by backcasting from our social vision for 2050

With drastic changes in the industrial structure and business environment, what should the Mitsubishi Chemical Holdings (MCHC) Group do to continue to grow together with stakeholders?

Considering social and technological trends and backcasting from our social vision and corporate approach for the year 2050, Mitsubishi Chemical Holdings Corporation has clearly defined the vision and the goals of the Group for 2030 to formulate KAITEKI Vision 30 (KV30).

KV30 serves as a foundation for the next medium-term management plan.

### Waves of drastic changes

Globalization

Digitalization

Socialization

2050

#### Social vision

An optimized recycling-oriented society  
Sustainable well-being

#### Corporate approach

Identify new social issues and provide ongoing solutions

Backcasting approach

Backcasting from our vision for 2050 to set our 2030 goals

2030

## Approach to formulating KAITEKI Vision 30

### [Innovation and Solutions]

#### The Earth

Addressing climate change and improving resource and energy efficiency

- ▶ Reducing GHG emissions
  - Carbon management through LCA\*
  - Establishing technologies for the utilization of CO<sub>2</sub>, etc.

#### Society

Promoting an optimal circular economy

Contributing to healthy and vibrant lives

Resolving social issues through the reformation of business models and the utilization of digital technologies

#### People

Enabling fulfilling work, improving creativity and productivity

- ▶ Personnel system that encompasses diversity, expertise, and mobility
- ▶ Organization that accelerates growth by addressing global needs

\* Life cycle analysis (LCA): A method for quantitatively assessing the environmental impact throughout the life cycle of a product or service

Prospective solutions

## Present

### Environmental and social issues

- Accelerating climate change
- Water stress and pollution
- Ocean plastic pollution
- Increasing population and aging society
- Globalization and widening disparities
- Rise of protectionism (populism and trade wars)
- Expansion of regional economic zones
- Increasing medical expenses
- Changing values resulting from the spread of infection

Projecting to the next medium-term management plan

### Trends in regulatory reinforcement

- Paris Agreement: Zero GHG emissions early in second half of this century
- Strengthening fuel efficiency standards in each country
- 2030 European Circular Economy target: 75% recycling of packaging waste
- 2018 Ocean Plastics Charter announced (G7)
- Trend of introducing carbon taxes
- Strengthening "soft" laws relating to human rights, etc.

## Future envisioned by the MCHC Group Implementing reform with 2030 as a waypoint

The MCHC Group aims to realize its own sustainable growth while creating a society where all of today's social issues have been resolved by 2050 through providing solutions to social issues. The vision for 2030 in KV30 is not a final goal, but just a waypoint for reforms that we will pursue with a long-term perspective to realize the society we envision for 2050.

### What will the future be like in 2050?

Data and digital technologies are used as an infrastructure, biotechnology has become well-developed, and a society in which all current social issues have been solved. This is the society envisioned for 2050.



### MCHC Group's vision for 2030

Solve social issues for a sustainable future through leadership as a global solutions provider

- Accelerate growth and enhance corporate value by making the resolution of social issues a business opportunity
- Establish an innovative R&D structure and keep providing solutions to social issues
- Build infrastructure to ensure environmental impact neutrality by reinforcing sustainability management
- Create flexible human resources systems that embrace the diversity, expertise, and mobility of its people
- Foster digital natives who are sufficiently skilled to accelerate growth
- Intensify our global management structure to meet regional needs and accelerate growth

#### Three perspectives leading to the vision



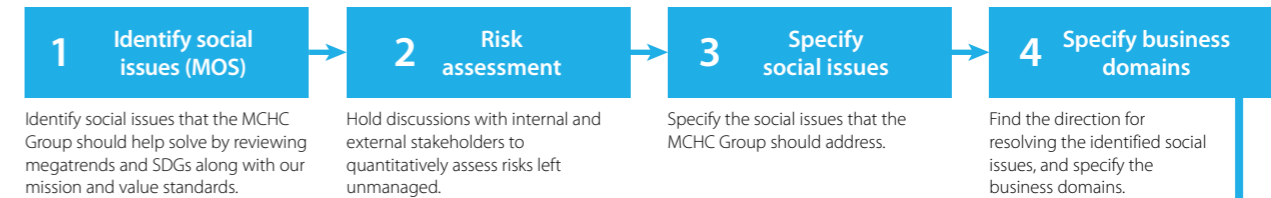
### ACT 1 Business portfolio transformation

#### Business domain to address social issues

With the aim of realizing the society that we envision for 2050, Mitsubishi Chemical Holdings has identified the social issues that we should contribute to resolving, reviewing SDGs and megatrends along with our mission and value standards. The resolution of these social issues has been defined as a business domain Mitsubishi Chemical Holdings should work on. When identifying social issues, the Company quantitatively assessed

the risks associated with social issues and structural changes, and estimated that they were in the range of ¥1 trillion. Under KV30, we aim to minimize these risks, position the resolution of social issues as business opportunities, and continue to reform our business portfolio to achieve sustainable improvements in corporate value.

#### Process for specifying social issues and business domains



#### Social issues and business domains for the MCHC Group

Social issues	Directions for contributions to solving issues	Business domains
GHG reduction	Contribute to climate change mitigation through GHG reduction and effective utilization	GHG reduction (Energy/Mobility)
Resource management	Realize a recycling-based society for materials	Carbon cycle
Food and water supply	Contribute to ensuring the stability of food and water supply	Food and water supply
Healthy and vibrant lives	Realize a society where people can enjoy healthy and vibrant lives	Medical advances
Digital	Contribute to building the infrastructure for a data society that realizes optimization at the social system level	Digital society infrastructure
Safety	Contribute to the realization of safe and comfortable lives	Human interface
Human resources and work styles	Provide workplaces where people who are enthusiastic about solving social issues can work with motivation	[Human resources system reforms ▶ P. 18 ]

#### Risks of leaving social issues unmanaged

	Risk 1 Loss of corporate and brand value	Risk 2 Loss or contraction of existing business	Risk 3 Loss of new growth opportunities
Social issues	Institutional investors emphasize ESG Sluggish stock prices and higher interest rates due to insufficient ESG response	Risk actualization of existing businesses due to changes in customer demands, tighter regulations, and policy changes Increase in business costs due to actualization of risks related to social issues • Carbon tax burden • Rising food prices • Operating loss due to extreme weather • Increase in medical insurance • Shut-down of operation due to spread of infections	Loss of growth opportunities due to delays in portfolio reforms that solve social issues Loss of new growth opportunities due to delays in business model reforms and technological innovations to form platforms Loss of growth opportunities due to delayed globalization
Reformation responding to structural changes	Loss of outstanding young personnel who strongly demand corporate social responsibility	Reduction in operating profit by cutting medical costs Decline in competitiveness due to delays in digitalization • DX-based business optimization • Development competition based on MI*	



\* Materials informatics (MI): AI-based method to design new materials and explore alternative materials rapidly and efficiently.



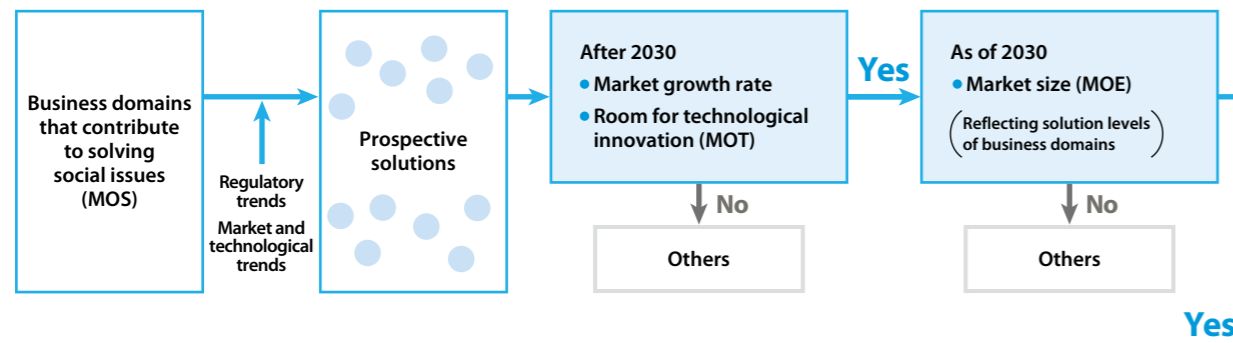
ACT 1 Business portfolio transformation

### Selection of growth businesses as the pillars of the portfolio

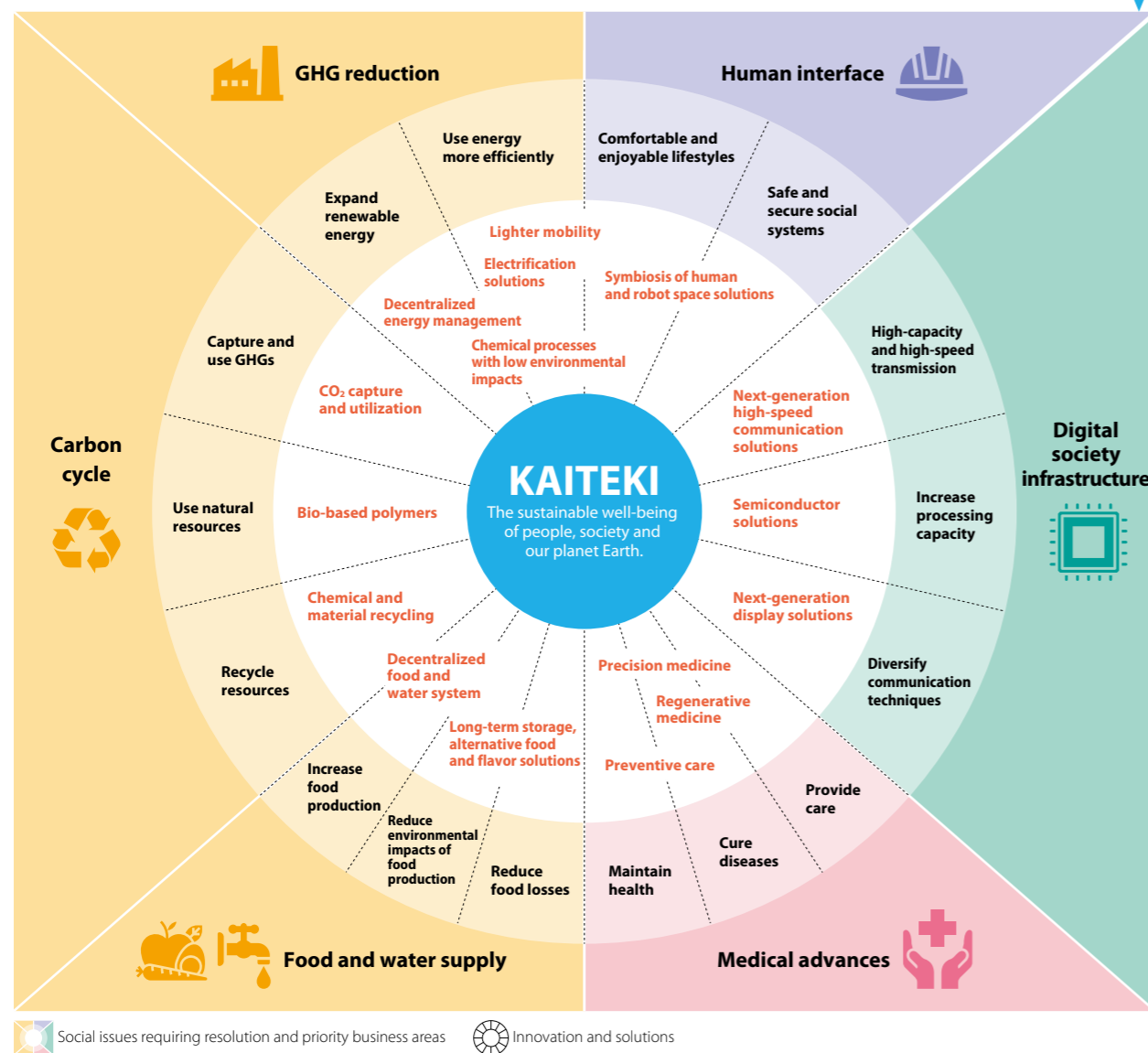
We are building a business portfolio from a medium- to long-term perspective in order to achieve sustainable growth. When selecting growth businesses, we considered GHG emissions regulations, plastic recycling, and other regulations that affect our business areas. We analyzed market and

technological trends between now and 2030, with an eye to 2050, and chose prospective solutions. Among these solutions, we narrowed them down to identify the growth businesses based on the following three criteria: **market growth potential, room for technological innovation, and market size.**

Growth business selection process



Growth businesses as the pillars of the portfolio for 2030

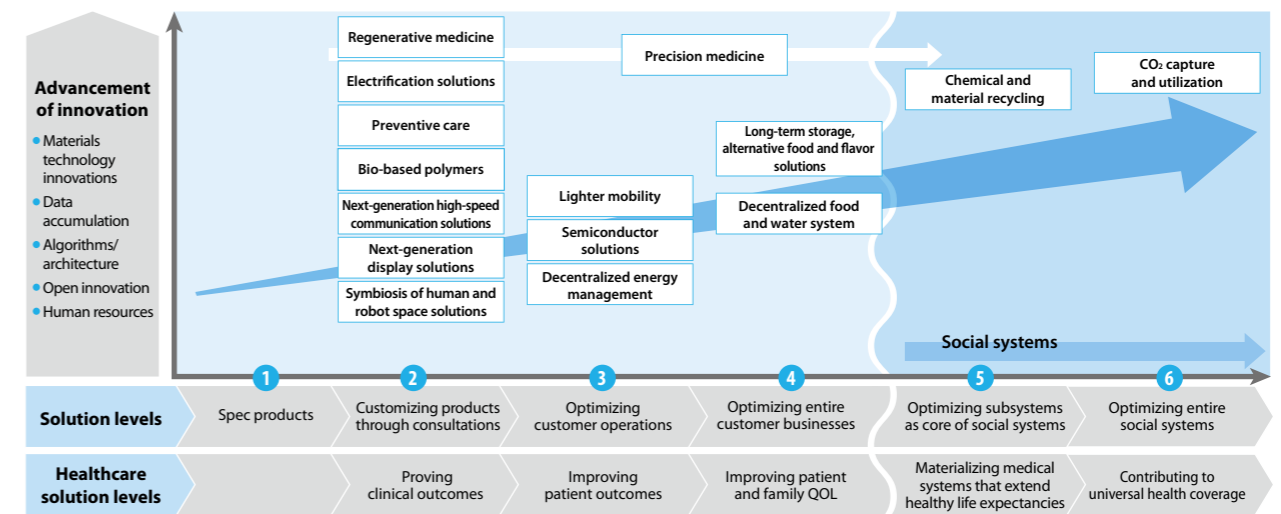


### Business model reformation through the improvement of solution levels and the advancement of innovation

Mitsubishi Chemical Holdings believes that it is necessary to make fundamental changes to our business models in order to expand growth businesses that will form the pillars of our business portfolio. Under KV30, we will reform our business models that provide high value-added solutions to meet the demands of society in addition to supplying products to meet

customer needs. In other words, we will improve our solution levels and expand the scope of problem solving and optimization to the entire social system. The MCHC Group will increase the added value of its growth businesses and strengthen its earning power by improving solution levels and advancing innovation.

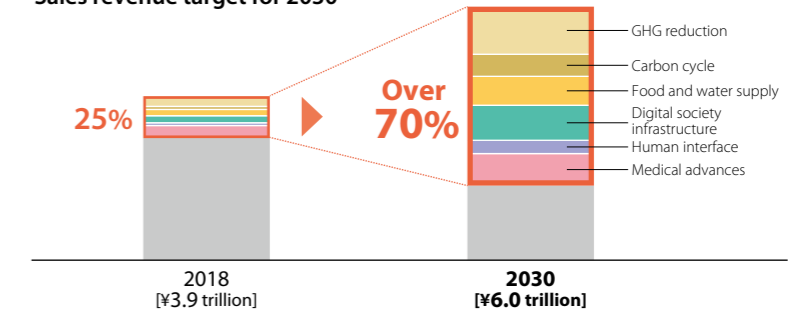
Business model reformation



### Developing a business portfolio focused on growth businesses

The MCHC Group aims to increase the share of sales revenue from growth businesses from the current level of approximately 25% to over 70% by 2030 by boldly transforming the business portfolio to businesses focused on solving social issues.

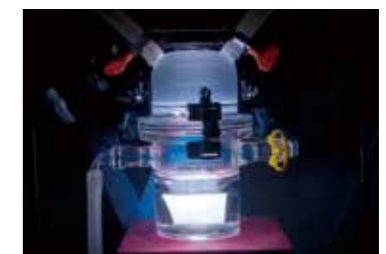
Sales revenue target for 2030



### Topic

#### Working to achieve a carbon cycle system through CO2 capture and artificial photosynthesis

Artificial photosynthesis is a technology for converting the CO2 captured from exhaust gas from power plants and factories into basic chemicals that can be used as raw materials for products including plastics by utilizing clean hydrogen produced from solar energy and water. Mitsubishi Chemical Corporation is working on the Artificial Photosynthetic Project led by the New Energy and Industrial Technology Development Organization (NEDO), with the aim of conducting a large-scale demonstration by 2030 and the social implementation of a carbon cycle system using artificial photosynthesis by 2040. On January 23, 2020, we gave a presentation on artificial photosynthesis as one of the representative examples of such innovative technology at the Council for Science, Technology and Innovation held by the Prime Minister's Office.



**ACT 2 | Thorough sustainability management**

## Improving sustainability and strengthening the management base through five measures

Under KV30, we are working to improve environmental and social sustainability and strengthen our management base through five measures toward the realization of the society we envision for 2050.

### Sustainability management

<b>1</b>	<b>Evolve LCA tools</b>		We will elevate our LCA evaluations from the current environmental impact of products to cover the entire value chain, including the impact on society.
<b>2</b>	<b>Reduce environmental impact</b>		In addition to reducing and making effective use of GHGs throughout the entire value chain, we will work to reduce our environmental impact by contributing to the sustainable supply and use of water and resource management for all of society, including our business activities.
<b>3</b>	<b>Promote a circular economy</b>		Through the development of technologies and business models for material and chemical recycling, and the provision of bio-based polymers, we will contribute to promoting a circular economy.
<b>4</b>	<b>Feasibility studies of KAITEKI factories</b>		We aim to realize an ecosystem that integrates KAITEKI factories, which provides solutions to social issues, with local communities.
<b>5</b>	<b>Build a sustainability management system</b>		We will build a sustainability management system by developing decision-making processes and management foundations in order to achieve these four measures.

### GHG emissions

**26% reduction in Japan by fiscal 2030 compared to fiscal 2013**

**Aim to reduce emissions in line with target levels in each country and region**

**Building a foundation for achieving environmental impact neutrality by 2050**

### Topic

#### Evolution of LCA tools—Joining the Value Balancing Alliance

In December 2019, Mitsubishi Chemical Holdings became the first Japanese company to join the Value Balancing Alliance (VBA), which was established to develop a new method of measuring corporate value. In cooperation with the OECD and several audit firms, VBA has **expanded the concept of LCA to include not only environmental impact but also social impact** in aiming to establish a method for measuring corporate value and accounting standards based on this framework. This enables companies to convert their impact on the environment, people, and society into a monetary value

and for this value to be compared and analyzed across companies. **The Company has joined the VBA steering committee and the team responsible for the development and studying of methods for measuring enterprise value.** Through the development of methodologies at VBA, we will evolve from the conventional LCA, which evaluates the environmental impact of products, to a higher level of LCA, which evaluates the impacts through the entire value chain, including the impact on society. In doing so, we aim to **enhance the measurement of KAITEKI value.**

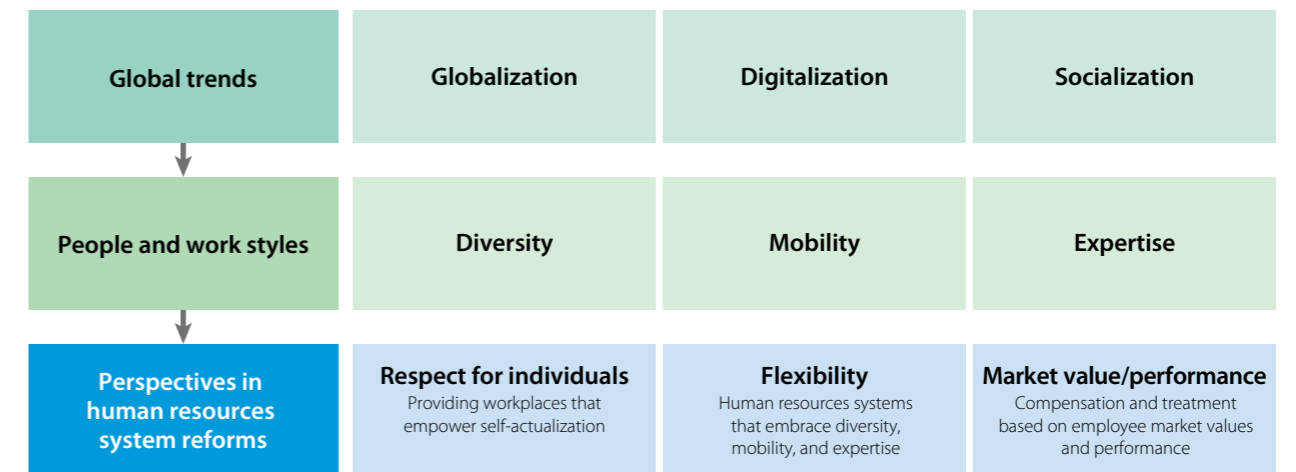
**ACT 3 | Human capital system and framework reforms**

## Implementing human resources systems and organizational reforms which embrace diversity, mobility, and expertise

In order to achieve reform, it is necessary to not only change goals and processes but also create a workplace in which people with diverse values and expertise can thrive. Based on this recognition, the MCHC Group will strive to reform human resources systems to make them more fully embrace diversity, mobility, and expertise. Meanwhile, highly inclusive human resources systems may result in higher mobility with strong

centrifugal force. For this reason, the MCHC Group is working to strengthen engagement by associating KAITEKI with individual jobs so that each employee is aware of why they are doing their job within the MCHC Group. We will put into practice our mission both inside and outside the Company, with KAITEKI as a centripetal force.

### Human resources system reforms and global management



### Five pillars that form the foundation for highly accommodating human resources systems

- 1. Ensuring pay for job/performance**
- 2. Human resources systems designed according to each type of operation/job**
- 3. Strengthening functions to create skills and minds that can meet global needs**
- 4. The right jobs for the right people globally by using a common platform of talent management**
- 5. Cluster-type organizations that enable complex problem solving**

### Topic

#### Project to study approaches to people and organizations

Members with diverse backgrounds of the MCHC Group gathered for a project to consider measures related to people as part of KV30. In order for the MCHC Group to achieve sustainable growth by enhancing job satisfaction and improving creativity and productivity, project members held discussions on the vision for the Group in 2030 and what needs to be done to achieve that vision, while taking into consideration the value and businesses that should be provided to society. The project members then made proposals to management on approaches to people and organizations. The perspectives that the MCHC Group should focus on were then derived based on the keywords of diversity, mobility, and expertise.



## Confronting uncertainty with a long-term business perspective and continued transformation

### Hitoshi Ochi

Representative Corporate Executive Officer  
President & Chief Executive Officer



#### Our mission in a significantly changing environment

First and foremost, I would like to extend my deepest condolences to those who have lost their lives or family members to COVID-19, and offer my heartfelt compassion to those who are suffering from the virus. I would also like to thank healthcare workers and all those who are doing their best to prevent the spread of the virus.

As this unprecedented and unexpected situation continues to unfold, I am, as CEO, fully aware of the responsibility I bear to lead Mitsubishi Chemical Holdings Corporation through various ever-changing challenges.

Among these challenges, myself and the management team have focused on maintaining and restoring global supply chains. At the Mitsubishi Chemical Holdings (MCHC) Group, we offer a variety of materials and components to a wide range of industries. These include lifeline products such as medical, pharmaceutical, hygiene, and food products that are essential for overcoming situations such as the one we are currently experiencing. As the pandemic disrupts supply chains, we have continued to take measures appropriate to each region and workplace. We also hold regular remote meetings to maintain a close collaboration with both development and production teams, thereby fulfilling our

social mission of ensuring a stable supply of products. Our reliable provision of products and technology can also help prevent the spread of COVID-19 and thereby support healthcare providers.

As a group that also operates a pharmaceutical business, the MCHC Group considers the development of vaccines that can help prevent infection as one of its top priorities. At Medicago Inc., a subsidiary of Mitsubishi Tanabe Pharma Corporation, researchers have focused their efforts on developing its proprietary virus-like particle (VLP) vaccine.

#### Pursuing sustainability amidst an uncertain future

The threat of COVID-19 is expected to continue for the foreseeable future. Consequently, people's way of life and how we all conduct business are drastically evolving. In light of this, we have witnessed digital technologies leading the way, with disrupted supply chains already starting to be rebuilt.

Digital technologies have also helped reduce energy consumption while promoting more diverse ways of working. Furthermore, it ensures the decentralization of populations and functions traditionally concentrated in large cities.

In the short term, these changes require work style and business process transformation. In the medium to long term, a

complete replacement of the existing, obsolete business model is needed.

I believe these changes can shine a light on how to achieve sustainability—an important question for businesses today. Pressing social challenges such as a rising global population, global warming, food and water shortages, and energy and resource depletion are urgent issues that need to be addressed, yet the outlook for an immediate solution remains unclear. At the same time, advanced technology innovations are being launched more quickly than ever before. To be able to lead a business into the future with a sense of certainty we need to mobilize as much knowledge and data as possible to predict future events and take the necessary action. That is why the management has been discussing our goals in the coming years based on our vision of society in 2050.

COVID-19 is a symbolic example of the uncertain outlook the global environment and international society and economy face. This situation affirms the assumptions that we have discussed. Our medium- to long-term basic management strategy KAITEKI Vision 30 (KV30), released in February 2020, is expected to fulfill our aims steadily and help us navigate toward sustainable growth through these uncharted waters.

#### KAITEKI Vision 30—Setting forth our goals in 2030

KV30 aims to achieve a world where all the social challenges we face today have been resolved toward 2050. We strive to achieve this by transforming our business model and becoming a global solutions provider that can help society. For that, we need to transform our portfolio to one that can help address social challenges and increase the added value of our business by working outside the traditional framework of a chemical company.

In the past, our KAITEKI Management (see page 7) has enabled us to pursue the maximum corporate value while creating both economic and social value through innovation. However, current trends indicate we need to take transformation to the next level. Issues that need to be addressed include global efforts to address environmental and social challenges such as the UN's Sustainable Development Goals (SDGs), and seeking stricter regulations such as the toughening of the Paris Agreement. There is a need to carefully identify long-term risks within the Group and leverage digital technologies to accelerate and convert innovation into opportunities.

In 2018, the management began discussions for KV30. As part of this process, we identified the risks deriving from social

challenges and structural changes, and estimated damage to corporate value at ¥1 trillion if those risks were left unmanaged. We then identified our goals in 2030 based on these assumptions. We also set an ambitious target to enable our six business areas, including medical advances, sustainable carbon cycle, and digital society infrastructure, to address social challenges and generate over 70% of our total sales by 2030.

I believe in transparency when conducting business, which is why we disclose medium- to long-term operational risks and opportunities to our valued stakeholders. It is also in our business and society's interests to help resolve social challenges through our practices, and expand growth opportunities as well.

### Results and progress of the medium-term management plan APTSIS 20

While taking urgent measures to address COVID-19, APTSIS 20 will come to an end in fiscal 2020.

In fiscal 2019, the prolonged trade friction between the US and China unfortunately dampened the demand for automotive applications and semiconductors. This was followed by the outbreak of COVID-19, which caused economic activities to be restricted and revenues and profits to be reduced in the fourth quarter. KPIs for the Management of Economics (MOE) Indices were also significantly lower compared to the previous quarter. Furthermore, the outlook for fiscal 2020 remains unclear apart from the semiconductor market, where demand is showing signs of recovery. This makes our financial goals, including ¥410 billion of core operating income, a 13% ROE and

a 9% ROS, extremely unlikely to be achieved at the end of the current medium-term management plan.

Even in this challenging environment, we managed to deliver tangible results in achieving creation of synergies through the integration of three chemical operating companies and the improvement of infrastructures by strengthening portfolio management. This was realized through the implementation of the basic policies of APTSIS 20, which aimed for us to become a corporate group with high growth, and a profitable business through the Performance Products, Industrial Materials, and Health Care domains (see page 23 about strengthening portfolio management on APTSIS 20). We have also made solid progress in the development of strong operational infrastructures, by successfully accelerating digital transformation (DX) and improving both global management and R&D structures. I have summarized our progress below:

#### Numerical targets and results (KPIs for MOE Indices)

	FY2018 Results	FY2019 Results	APTSIS 20 FY2020 Targets
<b>Core operating income</b>	¥317.2 billion	¥194.8 billion	<b>¥410.0 billion</b>
<b>Net income attributable to owners of the parent</b>	¥169.5 billion	¥54.1 billion	<b>¥220.0 billion</b>
<b>ROE</b>	12.7%	4.2%	<b>13.0%</b>
<b>ROS</b>	8.1%	5.4%	<b>9.0%</b>
<b>Net D/E ratio</b>	1.26 times	1.79 times	<b>1.0 times</b>



### 1. Accelerating the growth of the Performance Products domain and strengthening the infrastructure of the Industrial Materials domain by integrating three chemical companies

To be able to achieve growth as a chemical company, we integrated three chemical operating companies into the new Mitsubishi Chemical Corporation in 2017, built systems to facilitate synergies, and strengthened our Performance Products domain. We also built a new plant in the Middle East to further extend our world-leading share in methyl methacrylate (MMA), and overall competitiveness in our Industrial Materials domain. We aim to expand our industrial gas-related business globally through M&A mainly in Europe and the US.

### 2. Improved global management structure

As the domestic market approaches saturation, APTSIS 20 set the goal in fiscal 2016 of increasing our overseas sales revenue ratio from 39.5% to 50% and above, and we achieved the overseas sales ratio of 42.9% in fiscal 2019. Meanwhile, to enable the quick provision of solutions to address regional needs and challenges, we started to improve our digital network platform about two years ago to allow the sharing of information across the world and aid in timely decision making within each region of Europe, Americas, and China.

### 3. Accelerated digital transformation (DX)

In recent years, science and technology have advanced at a truly astonishing rate. Liaising with major international IT companies has convinced me of the potential impact of DX, leading to the launch of the Emerging Technology and Business Development Office in 2017. Since then, we have hired talented personnel based on advice from an externally-hired Chief Digital Officer. As a result, R&D leveraging materials informatics\* have already started. Also, in the field of plant optimization, we have replaced the traditional deductive approach of gathering facts to identify solutions with an inductive approach consisting of formulating hypotheses through data analytics.

\* Materials informatics: AI-based method to design new materials and explore alternative materials rapidly and efficiently

### 4. Making Mitsubishi Tanabe Pharma Corporation our wholly owned subsidiary

In March 2020, Mitsubishi Chemical Holdings made Mitsubishi Tanabe Pharma (see page 35) its wholly owned subsidiary based on our long-term perspective of effectively using our capital in order to deliver productive synergy. In recent years, cutting-edge technologies such as AI and quantum computing

have been widely used in the field of pharmaceutical development. To deliver speedy R&D results in such environments, we need to find a way to achieve sustainable R&D investments in the chemical and biotechnological fields.

The potential of the pharmaceutical areas that Mitsubishi Tanabe Pharma focuses on, including immunity disorders and the central nervous system, as well as the expanding trend of the global healthcare market, were important factors in our decision to make it the MCHC Group's wholly owned subsidiary. With a large range of pharmaceutical products that can address unmet medical needs, we expect the company, driven by the desire to resolve social challenges, to achieve strong growth.

### Leveraging the Group's strengths to provide solutions to social challenges

We are developing a new medium-term management plan that will start in fiscal 2021. Since 2011, we have pursued our KAITEKI Management in earnest and aim to achieve sustainable growth by balancing both social and economic values at our three business domains. At the same time, by withdrawing from unprofitable business areas and making Mitsubishi Rayon Co., Ltd. and Taiyo Nippon Sanso Corporation our consolidated subsidiaries, we underwent a major portfolio restructuring and created a more stable revenue structure. We have also strengthened our foundation in terms of environment, social, and governance (ESG), which led to us achieving a world-class rating in the Dow Jones Sustainability World Index. We are now working on a new medium-term management plan starting from fiscal 2021 based on the KV30 strategy, which combines our expertise with our vision for future society.

To be able to achieve that, the first two years of the new medium-term management plan will be focused on building further resilience toward the post-COVID-19 era and strengthening operational structures. The final three years will be centered around getting growth back on track as set out in KV30.

With COVID-19 severely disrupting global supply chains, I believe rebuilding them is one of the most important activities during the resilience period. Partly prompted by the emergence of nationalism in recent years, an increasing number of countries are becoming self-sufficient in lifeline products. Businesses are also expected to localize their geographically dispersed global supply chains, while maintaining the global sharing of information. APTSIS 20's commitment to meeting the specific needs and challenges of each region is therefore validated and should continue to be pursued.

In this changing business landscape, I would like to ensure that the MCHC Group's comprehensive strengths are reevaluated. With our extensive range of businesses, we can respond flexibly to changing markets. Most importantly, we

have a unique capacity to create value as a chemical conglomerate. By building robust operational infrastructures and by leveraging both the individual and synergistic strengths of each region, I am confident that we will be able to create unique solutions in the target business areas set forth in KV30.

**Developing personnel and a corporate culture for a new era**

No matter how grand a vision or how precise a prediction, we will not be able to achieve anything without people who deliver the vision, as well as a culture that encourages each person to challenge what is new.

What supports this is strong corporate governance focused on providing a comfortable and safe working environment, compliance, and fair human resource/resource allocation policies.

In particular, we have ensured the safety of our employees by remembering past accidents and using the lessons learned to identify the appropriate ways to maintain production facilities, as well as by using the latest technologies to develop and implement accident prevention procedures. We have also

strived to prevent accidents and disasters at approximately 330 subsidiaries overseas by providing employees with necessary training to make them aware of the operational and equipment procedures.

In the area of compliance, we have focused on strengthening our internal control system by using the internal control map introduced in fiscal 2018, to ensure we adhere to the laws, regulations, and standards of each country.

Our corporate governance has also been bolstered by transitioning to a company with nominating committee, etc. in 2015 and separating execution from supervision in order to ensure the agility, objectivity, and transparency of the operation.

In addition to stronger operational infrastructures, the prevalence of human resources who can think and act independently, and a corporate culture that can facilitate active discussions, will become increasingly important in the coming years while we strive to deliver on the KV30 targets. As part of this effort, we have embarked on the work style reforms, focused on the satisfaction levels of each employee, and highlighted the theme of the human resources system reforms and global management.

**Listening to diverse views to create value**

The theme of the 2020 World Economic Forum Annual Meeting in Davos was Stakeholders for a Cohesive and Sustainable World. This promoted the idea of “stakeholder capitalism,” where businesses should serve all stakeholders as well as shareholders. This concept can bring value to every stakeholder through ongoing and open dialogue, while also helping us to pursue social and environmental sustainability. This focus coincides with both our KAITEKI Management and the underlying values of KV30.

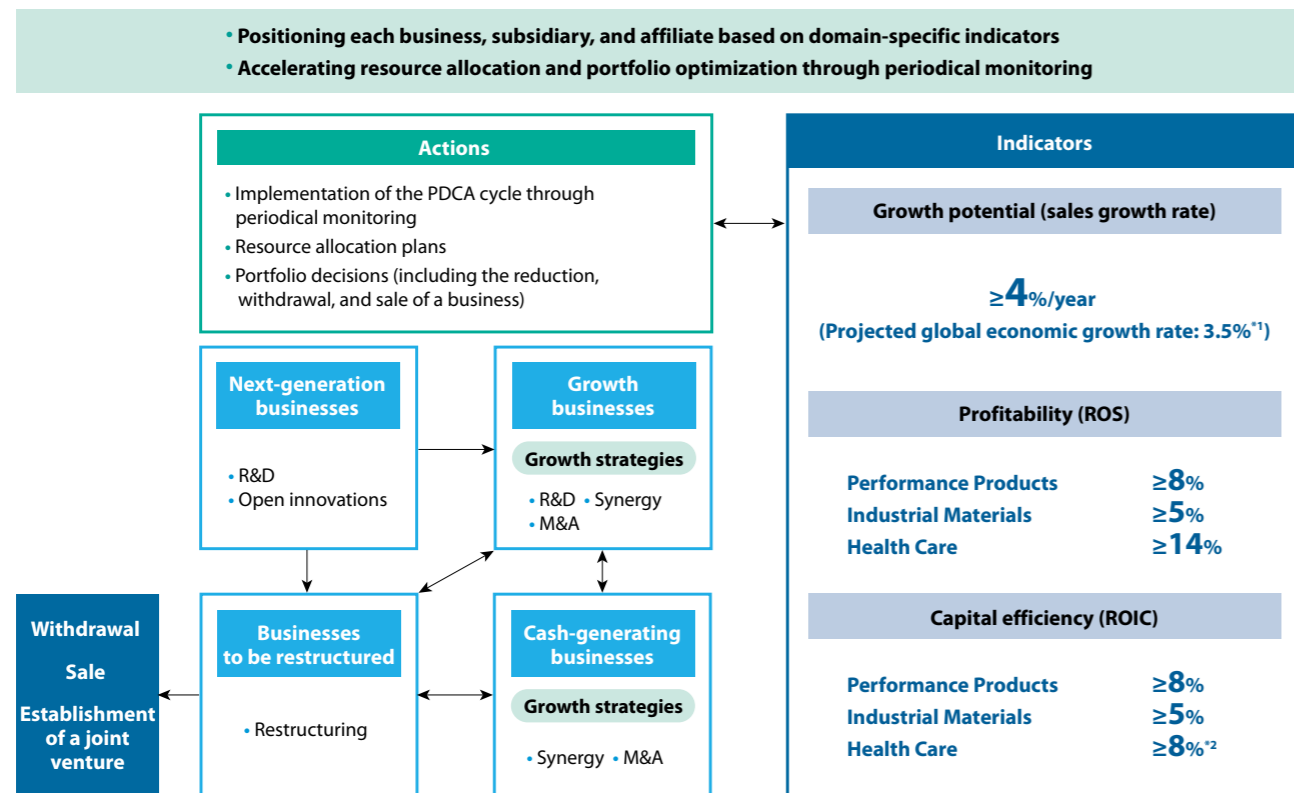
While COVID-19 continues to bring significant changes to the world, the MCHC Group is continuing to transform itself and improve its KAITEKI value by striving to create both social and economic values in line with our KAITEKI Management and by listening and talking to our diverse stakeholders.

In conclusion, I would like to extend my gratitude for your continued understanding and support regarding the activities of the MCHC Group.



Inspection of Medicago second factory construction

**Strengthening portfolio management on APTIS 20**



\*1 Average annual growth forecast from 2016 to 2020 by IMF \*2 Calculated by excluding cash and deposits

**Changes brought by COVID-19**

Changes to the economy and businesses	Impacts on individuals/society
<ul style="list-style-type: none"> <li>Expanded global multipolarization with a more fragmented economy</li> <li>Tendency to focus on stable procurement within each region</li> <li>Full-scale transition to non-face-to-face interaction</li> <li>Significant improvements in work style reforms and operational efficiency</li> <li>Increased government involvement in the economy</li> </ul>	<ul style="list-style-type: none"> <li>Increased awareness of health and wellness</li> <li>Increased sensitivity to safety and security</li> <li>Development and proliferation of virtual technologies</li> <li>Transition to remote approaches</li> <li>Increased social value</li> </ul>

**Trends in corporate activities to address the impacts of COVID-19**

During COVID-19	Post-COVID-19
<ul style="list-style-type: none"> <li>Efforts to ensure productivity in the social-distancing environment (digitalization, automation, more efficient communication systems including internal/external meetings)</li> <li>Review and revision of investment plans based on past demand forecasts</li> <li>Development of solutions to address new needs; Reformation toward and the building of a new business model</li> <li>Accelerated restructuring of the portfolio in response to the emergence of new values</li> </ul>	<ul style="list-style-type: none"> <li>Accelerated growth driven by the provision of solutions to achieve a sustainable society envisioned in KV30</li> <li>Development of next-generation advanced medical care, pharmaceuticals, regenerative medicine, and healthcare systems</li> <li>Creation of solutions by maximizing the potential of digital technologies; Accelerated advancement of productivity</li> <li>Creation of new businesses and business models in response to COVID-19</li> <li>Development of a global management structure to meet regional needs in an increasingly multipolarized world</li> </ul>

# We are further enhancing our asset efficiency and refortifying the financial base to raise corporate value —our KAITEKI value

**Hidefumi Date**  
Managing Corporate Executive Officer  
Chief Financial Officer



## In the current circumstances, we will focus on further strengthening our financial base in fiscal 2020

Under the current medium-term management plan *APTSIS 20*, we are putting more emphasis than I ever have as CFO on raising ROE and improving ROIC management to establish efficient profit generation.

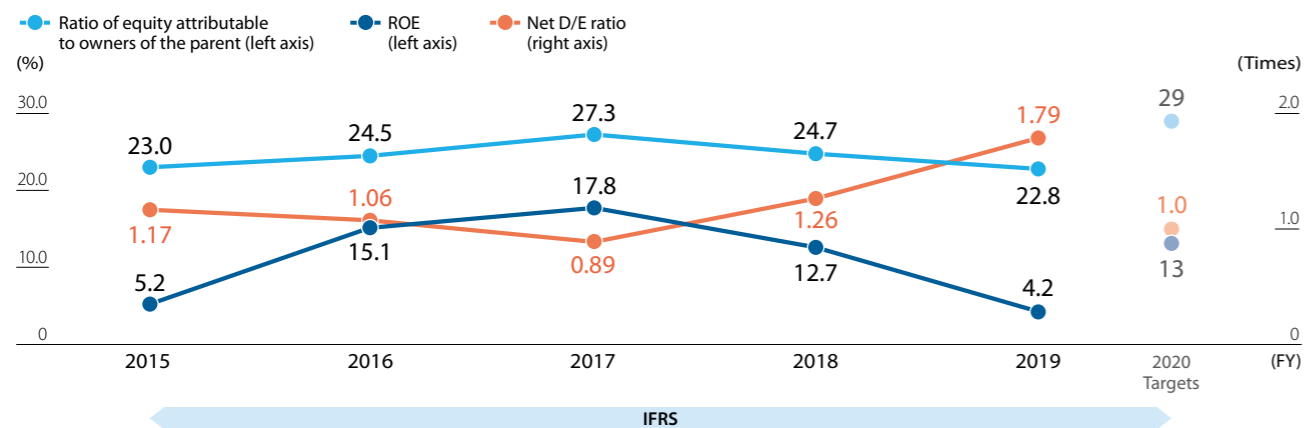
To improve our low asset efficiency, which was producing ROE of roughly 5%, we created a system enabling us to focus on profitability and agile management by initiating balance sheet management for each business domain and applying the ROIC tree to visualize each domain's invested capital. In addition, we shortened the cash conversion cycle (CCC), set up a four-region Europe-North America-Japan-Asia cash management system (CMS), and regularly reviewed the purpose of asset holdings and sold unnecessary assets. In the three years since its inception, we have achieved asset efficiency of approximately

¥450 billion, already surpassing the initial five-year target of ¥300 billion. Through these measures, we have constructed a system that has enabled us to consistently maintain ROE above 10% since fiscal 2016.

In fiscal 2019, however, the impacts of the trade friction between the United States and China and the COVID-19 pandemic led us to record core operating income of ¥194.8 billion and net income attributable to owners of the parent of ¥54.1 billion. We expect business conditions to continue to be severe in fiscal 2020, making it unlikely we will be able to attain the KPI set in *APTSIS 20*.

Our net debt-to-equity ratio swelled to 1.79 times upon making Mitsubishi Tanabe Pharma Corporation a wholly owned subsidiary at the end of March 2020. While actively and flexibly responding to the changing financial conditions during the COVID-19 pandemic, we will continue working to bring the net debt-to-equity ratio down to under 1.0 times as quickly as possible.

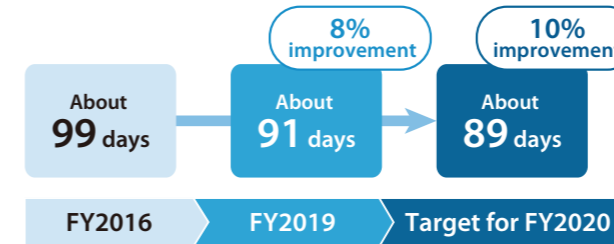
### Changes in consolidated financial indicators



### Efforts for asset efficiency

- Shorten the cash conversion cycle (CCC)\*

\*Action plan benchmarks



- Establish a cash management system (CMS) in four regions (Europe, North America, Japan and Asia)
- Sell assets with lowered ownership value by regularly verifying their value

### Portfolio management with balanced risk-return and incorporating social issues

To ensure a full reemergence in fiscal 2021, it is essential that we strengthen our capital efficiency by building up our cash flow as much as possible and quickly put our business on a growth track.

In fiscal 2017, we initiated a global structure that delegates substantial authority to our operating companies around the world. While pursuing the management indicators of sales revenue growth rate, ROS, and ROIC, the system facilitates quick decision-making catered to each specific business region and business portfolio management that fully leverages our technological advantages and business models (see page 23).

In our role as a holding company, we are also focused on guiding post-merger integration (PMI)\* to enhance the value of the Mitsubishi Chemical Holdings (MCHC) Group. Following a merger, we hold meetings to review the PMI status and continuously verify that the anticipated synergies are materializing. In the three years since the fiscal 2017 integration of the three chemical operating companies and creation of the new Mitsubishi Chemical Corporation, the synergies from business collaboration and growth generated some ¥13.8 billion, while savings from streamlining amounted to ¥17.9 billion.

Our acquisition of a European firm in the industrial gas field gave us a broad-based business foundation in four regions—Japan, the US, Europe, and Asia-Oceania. We are further strengthening the Nippon Sanso Holdings Group management by giving the business headquarters in each region greater authority to make business decisions.

Portfolio management will be guided by the medium- to long-term basic management strategy KAITEKI Vision 30 (KV30) (see page 11). Business portfolio decisions will therefore seek to control risk while also controlling return by examining growth potential from various perspectives.

In the past, we were focused on rehabilitating low-profit businesses where ROIC was less than the weighted average cost of capital (WACC). We will now consider reorganizing or restructuring a business even if it is currently profitable by taking a broader view of its future growth potential and examining its business efficiency, including intangible assets like a company's position in the overall industry, its technology portfolio, and its synergy creation system.

We will also consider the risk-return in terms of social issues and business domains designated in our KAITEKI Management or KV30 that the MCHC Group has committed to contribute to solve these issues.

\* Post-merger integration (PMI) is the three-stage integration process after M&A of management integration, business integration, and awareness integration.

### Resource allocation and shareholder return policy

Our approach to resource allocation has not changed fundamentally from when we announced *APTSIS 20* in 2015. We seek to maintain an appropriate balance with equal weighting on investing in growth businesses, providing ample shareholder returns, and strengthening our financial position.

I have always believed that the higher the accountability, the lower the cost of capital for a company, and consider it my duty to provide and explain concrete measures related to financial and non-financial information. Mitsubishi Chemical Holdings Corporation's efforts in this area have been increasingly recognized in recent years, and the Company has been selected as a constituent in a socially responsible investment (SRI) index.

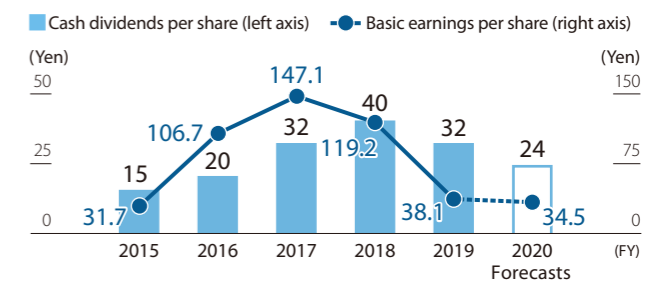
The current business conditions and uncertain outlook make it increasingly difficult to continue fulfilling our responsibility to provide full accountability. In fiscal 2020, our top priority will be managing our business portfolio in relation to the COVID-19 pandemic, and our focus will be on reconsidering investment plans for projects that are not urgent for growth and on reducing costs.

Our shareholder return policy is to preserve an appropriate balance between investing for growth and strengthening our financial position, and we remain committed to maintaining a stable dividend and to providing a medium-term consolidated payout ratio of 30%.

However, considering the overall current situation and business outlook, we have regretfully decided to reduce the fiscal 2019 year-end dividend from the initial plan of ¥20 per share to ¥12 per share and plan to distribute ¥24 per share in fiscal 2020.

I will continue fulfilling my duties as CFO by providing full accountability to our shareholders and all stakeholders and by lowering corporate risk and capital costs to enhance our corporate value.

### Shareholder returns



# APTSIS 20

Medium-Term Management Plan (FY2016–FY2020)

## APTSIS 20 Basic policy

Be a high growth/high profit-model company through businesses in the Performance Products, Industrial Materials and Health Care domains

### Growth

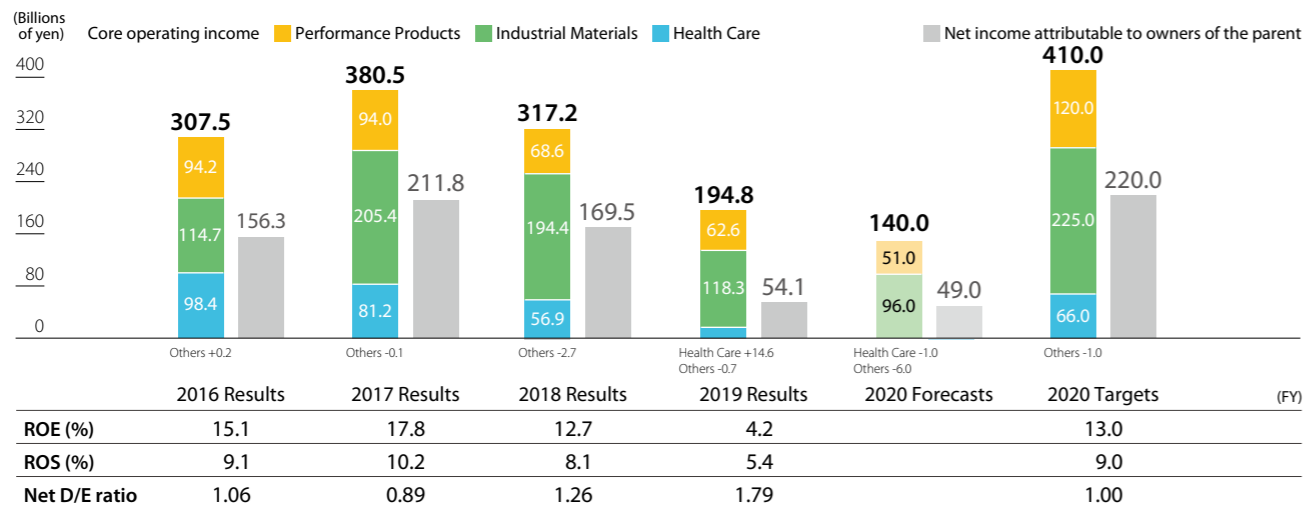
- Promotion of integration and synergies in the MCHC Group
- Accelerate overseas business development and advance well-integrated management
- Strengthen portfolio management with an awareness of earnings

### Efficiency

- Realize a highly productive corporate structure through cost-cutting and other measures
- Strengthen our financial position
- Thorough safety and compliance measures

### Strengthening foundations

## Numerical targets KPIs based on Management of Economics (MOE)



### Review of APTSIS 20

#### FY2016 to FY2018 results

We steadily achieved core operating income in excess of ¥300 billion through continuous business portfolio transformation. In addition, we worked to strengthen our management base for further growth, including early commercialization of the seeds of next-generation businesses and strengthening our access to global markets and marketing capabilities.

#### FY2019 results to FY2020 forecasts

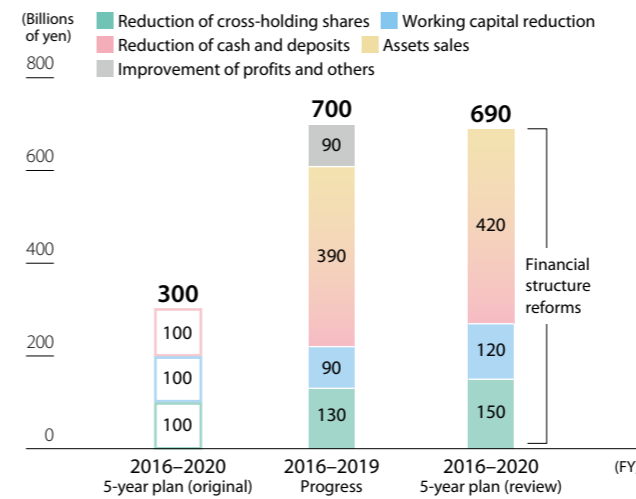
Income decreased due to the impact of trade friction between the US and China, the drastic downturn in the global economy caused by the impact of COVID-19 that emerged in 2020, and the impact of not recording royalties (see page 77) in the Health Care domain during arbitration proceedings. Factors such as delays in M&As, mainly in the Performance Products domain, and an increase in interest-bearing debt due to the conversion of Mitsubishi Tanabe Pharma Corporation into a wholly owned subsidiary, made it difficult to achieve the medium-term targets for fiscal 2020. We will continue to strengthen our management base and make steady efforts to get closer to our targets.

## Priority management measures in APTSIS 20

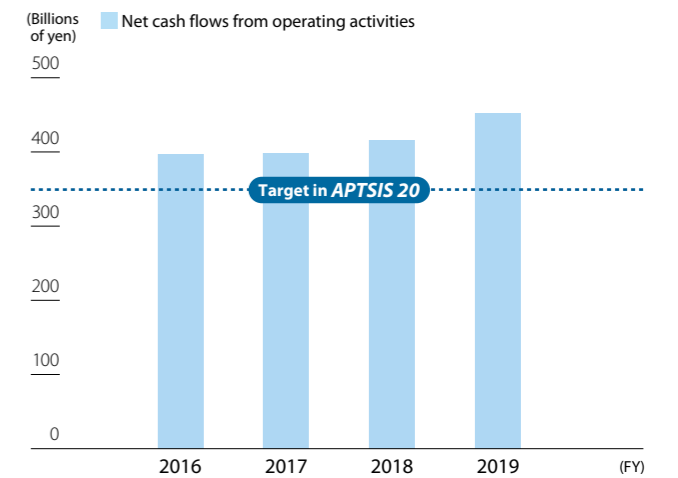
Performance Products	Industrial Materials	Health Care
<b>Reinforcement and expansion of business foundation by strengthening portfolio management (promoting the growth strategies) ▶ P. 19–26</b> <ul style="list-style-type: none"> <li>Positioning each business, subsidiary, and affiliate based on domain-specific indicators</li> <li>Accelerating resource allocation and portfolio optimization through periodical monitoring</li> <li>Consideration and acceleration of restructuring businesses and reduction of 25% (approximately 190 companies) of 760 subsidiaries and affiliates equivalent to total sales revenue of ¥300.0 billion (Restructuring businesses and reduction of 164 subsidiaries and affiliates equivalent to total sales revenue of ¥240.0 billion was carried out in FY2017 to FY2019)</li> </ul>		
<b>Generating synergies from the establishment of the new Mitsubishi Chemical Corporation (The integration of the three chemical operating companies) ▶ P. 19–26</b> <ul style="list-style-type: none"> <li>Aiming to achieve synergies from the integration of ¥50.0 billion by FY2020 (Growth through collaboration: ¥35.0 billion + operational efficiency: ¥15.0 billion)</li> <li>(Total synergies and growth amounted to approximately ¥13.8 billion in collaboration from FY2017 to FY2019 and ¥17.9 billion in rationalization from FY2017 to FY2019)</li> </ul>		
<b>Intensifying marketing and access to the global market ▶ P. 81–82, P. 85–86, P. 89–90</b> <ul style="list-style-type: none"> <li>Overseas revenue ratio—FY2019 result: 42.9% FY2020 target: 50%</li> <li>Mitsubishi Chemical established regional headquarters (2017)</li> </ul>		
<b>Early commercialization of the seeds of next-generation businesses (R&amp;D, open innovation, digital transformation) ▶ P. 45–50</b>		
<b>Deepening KAITEKI Health and Productivity Management, promotion of work style reforms ▶ P. 43–44</b>		
+		
<b>Strengthening the management base (considering further streamlining, including organizational restructuring, by converting MTPC into a wholly owned subsidiary)</b>		

## Higher cash-generating capability owing to improved performance and asset reduction

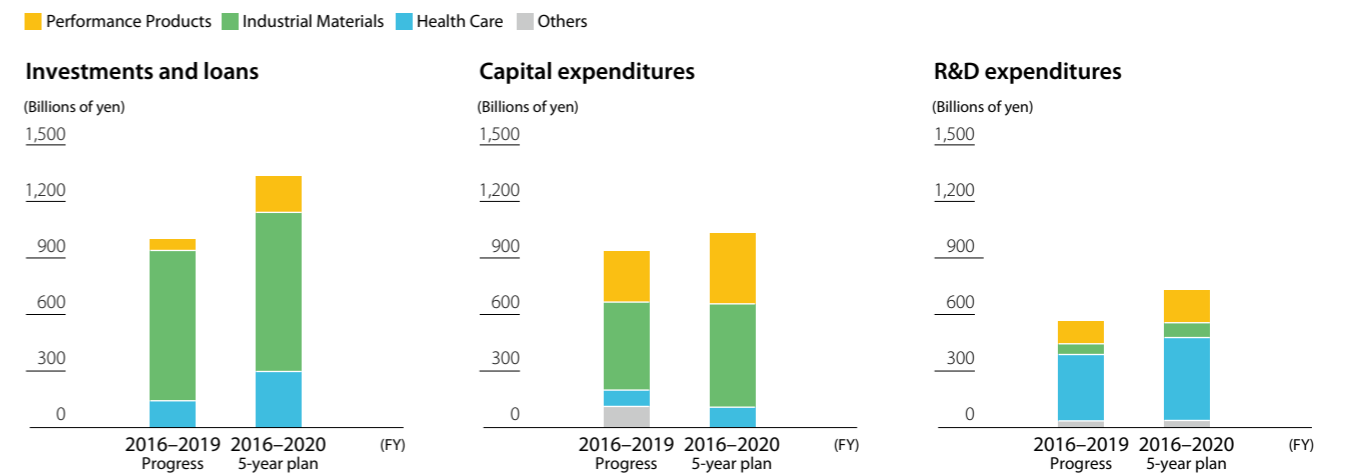
### Details of cash generated by asset reduction



### Changes in net cash flows from operating activities



## Progress in resource allocation (investments and loans, capital expenditures, and R&D expenditures)



## Sustainability targets

The MCHC Group has introduced the sustainability indices (MOS) that reflect our material issues as sustainability KPIs. The MOS Indices are divided into three categories: global environment items, healthcare items, and corporate responsibility initiative items. We are monitoring the progress of each index on a quantitative basis converted from the original point systems and working to improve sustainability.

### Review (FY2016 to FY2019)

As many of our plants were operating at high capacity, we strived for stable operations, steadily reduced the environmental impact of production activities, while all global environment-related indicators performed well. Meanwhile, although there is an improved awareness of safety and compliance, efforts to strengthen the basis of our continued existence are still insufficient and there is a gap from the targets. We will continue to strengthen our management base by thoroughly implementing ESG initiatives.

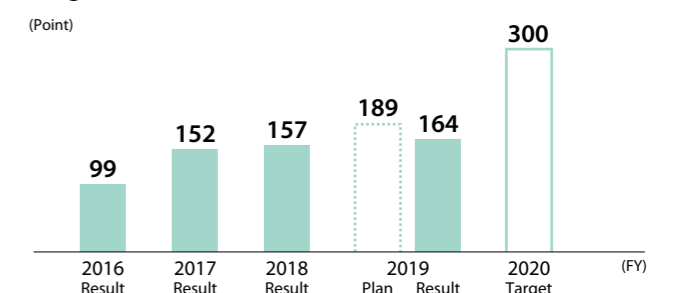
### Major results regarding products and services

(We selected indices with large impacts on our operation from MOS Indices.)

KPI	FY2019 Results	FY2020 Targets
Provide products and services that contribute to reducing GHG emissions Contribution to the reduction of GHGs emissions (hundreds of millions of tons-CO <sub>2</sub> equivalent)	0.62	1.50
Provide products and services that help to solve water resource problems Total supply of reused water (hundreds of millions of tons)	7.8	17.0

Progress with Sustainability Management ▶ P. 39

### Progress of MOS Indices



## Material Issues and Focus Markets of APTSIS 20

In the preparation of the medium-term management plan APTSIS 20, we conducted a materiality assessment based on macro-trends analysis, and identified material issues for KAITEKI Management through discussions on the risks and opportunities of the Mitsubishi Chemical Holdings (MCHC) Group. We prioritized these issues based on their impact on corporate activities. Over the past four years, we have steadily implemented the management and individual business strategies developed based on these material issues.

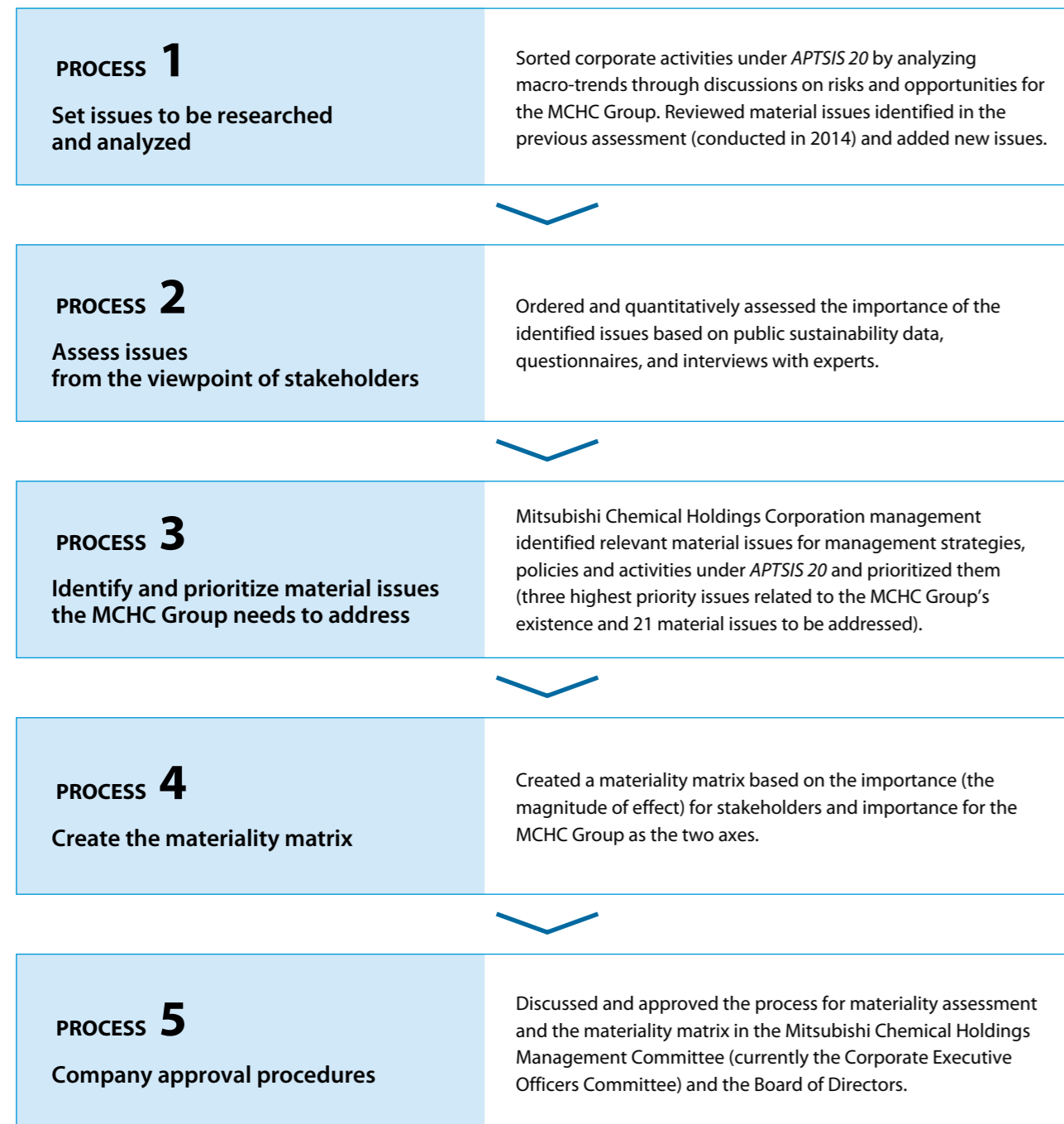
To address those issues with high priorities, we selected focus markets where we should focus our efforts for providing solutions by leveraging the entire MCHC Group's innovation

capabilities. We are implementing our growth strategy by making the maximum use of the strengths of all business segments while collaborating with each other (see page 33).

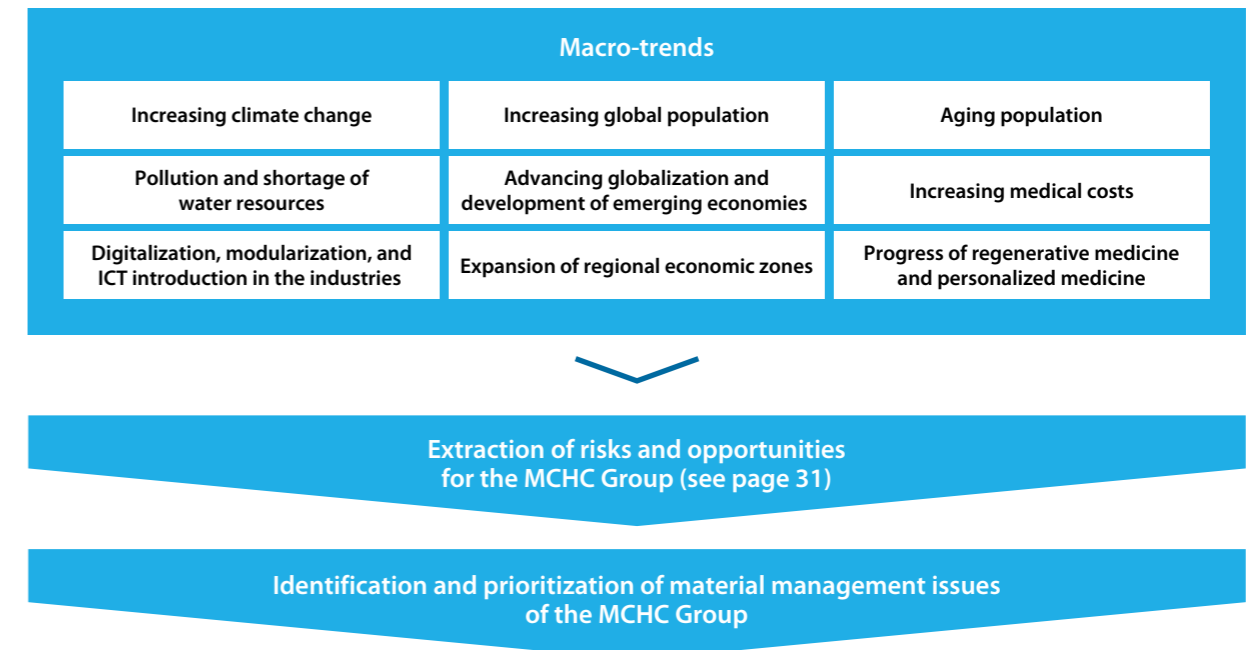
Based on the medium- to long-term basic management strategy KAITEKI Vision 30, we are reviewing material issues to flexibly respond to changes in society in preparation for the next medium-term management plan starting in fiscal 2021.

Furthermore, through initiatives to address the material issues identified of the MCHC Group, we will contribute to the SDGs adopted at the United Nations in 2015.

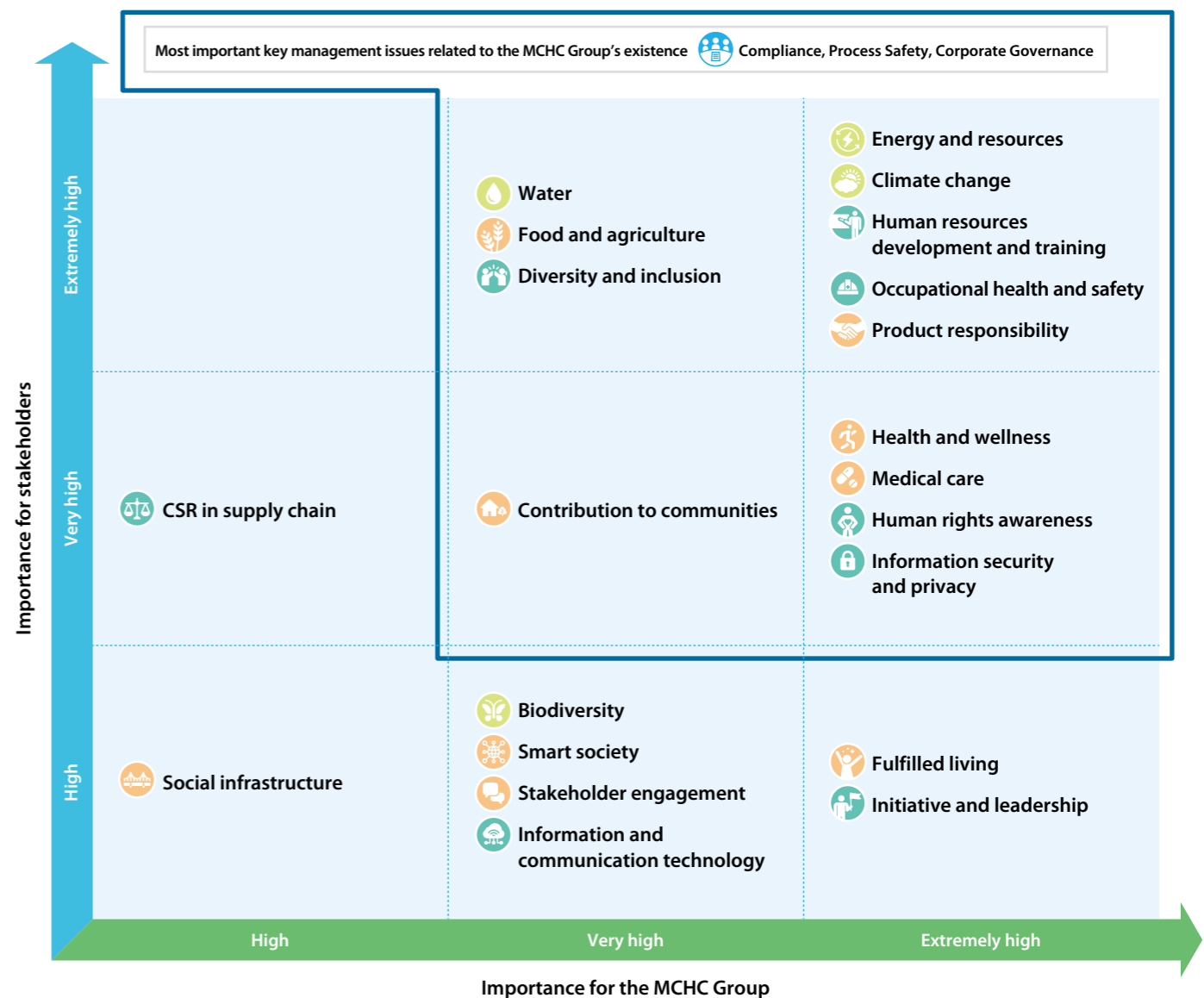
### Identification process of materiality



### Identification of materiality



















### Materiality matrix





Classification of the materiality


<b>Material issues related to the global environment</b> 	Key management issues that the MCHC Group should address through its corporate activities, innovation, and provision of products and services with the aim of achieving the sustainable well-being of our planet Earth
<b>Material issues related to social systems</b> 	Key management issues that the MCHC Group should address through its corporate activities, innovation, and provision of products and services in the aim of creating the sustainable well-being of society
<b>Material issues related to people (the company and its organization)</b> 	Key management issues that the MCHC Group should address in its internal operations and social relations as a corporate group aiming to realize KAITEKI

	Material issues	Risks for the MCHC Group	Opportunities for the MCHC Group
<b>The global environment</b> 	<b>Energy and resources</b> 	<ul style="list-style-type: none"> <li>Depletion of natural resources such as fossil resources and rare metals</li> </ul>	<ul style="list-style-type: none"> <li>Transformation and diversification of resources and energy supply sources</li> <li>Practical application of renewable energy and accelerated technological development</li> </ul>
	<b>Climate change</b> 	<ul style="list-style-type: none"> <li>Increasing risk of extreme weather events and natural disasters associated with climate change</li> <li>Strengthening regulations caused by climate change</li> </ul>	<ul style="list-style-type: none"> <li>Expanding products to mitigate and adapt to climate change</li> <li>Acquiring medium- to long-term support from stakeholders</li> </ul>
	<b>Water</b> 	<ul style="list-style-type: none"> <li>Expanding water stress due to higher demand, climate change and other factors</li> <li>Increasing health risk due to shortages of hygienic water</li> </ul>	<ul style="list-style-type: none"> <li>Expanding businesses such as water purification and recycling</li> </ul>
<b>Social systems</b> 	<b>Food and agriculture</b> 	<ul style="list-style-type: none"> <li>Destabilization in society due to imbalance in the demand and supply of food</li> </ul>	<ul style="list-style-type: none"> <li>Increase of factory-production of foods</li> </ul>
	<b>Health and wellness</b> 	<ul style="list-style-type: none"> <li>Increasing lifestyle disease and mortality rates</li> <li>Increasing failure risk of health insurance systems</li> </ul>	<ul style="list-style-type: none"> <li>Expanding health information service market (shifting from treatment to prevention)</li> </ul>
	<b>Medical care</b> 	<ul style="list-style-type: none"> <li>Increasing number of entries into the medical and healthcare business (increase in competition)</li> </ul>	<ul style="list-style-type: none"> <li>Manifestation of unmet medical needs</li> <li>Advancing digitization of medical treatment and health information data through ICT</li> </ul>
	<b>Product responsibility</b> 	<ul style="list-style-type: none"> <li>Loss of social credibility due to deterioration of quality, safety, environmental performance</li> <li>Interruption of the business</li> </ul>	<ul style="list-style-type: none"> <li>Building a relationship of trust with business partners</li> <li>Customer retention and acquisition, expansion of the business</li> </ul>
	<b>Contribution to communities</b> 	<ul style="list-style-type: none"> <li>Impact on business activities due to decreased reliability</li> </ul>	<ul style="list-style-type: none"> <li>Building trusted relationships by actively engaging in exchanges with and contributing to the communities of business operations</li> <li>Business stabilization through coexistence with the local communities</li> </ul>
<b>People (the company and its organization)</b> 	<b>Human resources development and training</b> 	<ul style="list-style-type: none"> <li>Labor shortage, outflow of human resources</li> </ul>	<ul style="list-style-type: none"> <li>Securing and training of talented human resources</li> <li>Increasing creativity and vitality</li> </ul>
	<b>Occupational health and safety</b> 	<ul style="list-style-type: none"> <li>Impact on production due to physical damages and personal injuries, etc., loss of social trust</li> <li>Harassment</li> <li>Long working hours</li> </ul>	<ul style="list-style-type: none"> <li>Securement of wellness and safety of employees</li> <li>Enhancement of labor productivity</li> <li>Enhancement of motivation</li> </ul>
	<b>Human rights awareness</b> 	<ul style="list-style-type: none"> <li>Delay and interruption of the business due to human rights abuse</li> </ul>	<ul style="list-style-type: none"> <li>Building optimal supply chain management</li> </ul>
	<b>Information security and privacy</b> 	<ul style="list-style-type: none"> <li>Loss of social trust due to information leakage and falsification, interruption of the business</li> <li>Interruption of the business by cyber attacks</li> </ul>	<ul style="list-style-type: none"> <li>Stabilization of business activities</li> </ul>
	<b>Diversity and inclusion</b> 	<ul style="list-style-type: none"> <li>Loss of competitiveness from failing to respond to diversifying needs</li> </ul>	<ul style="list-style-type: none"> <li>Securing and training talented human resources</li> <li>Enhancement of value creation process by accepting diversified human resources and values</li> </ul>
	<b>Most important key management issues related to the MCHC Group's existence</b> 		<b>Compliance, Process Safety, Corporate Governance</b>

**Selection of focus markets**


**Automobiles, Aircraft (Mobility)**

Contribute to the efficient use of resources and energy and the mitigation of climate change by reducing the weight of automobiles and aircraft, promoting electric vehicles, and offering environmentally friendly products (switching to renewable materials).




**Health Care**

Contribute to people's lives and health by developing ethical pharmaceuticals and regenerative medicines to meet unmet medical needs and by offering health management-related services.




**IT, Electronics, Displays**

Contribute to a smart society and more comfortable lifestyles by providing high-performance materials for use in next generation displays and semiconductor materials, etc.




**Environment, Energy**

Contribute to energy conservation, the effective use of water resources, improvement of productivity in the agricultural, fishery, and livestock industries and adaptation to climate change by providing lithium-ion battery materials, water treatment-related products, plant factories, and disaster prevention and mitigation products, etc.




**Medical, Food, Bio Products**

Contribute to solving medical issues and promoting health maintenance by providing medical-related products, pharmaceutical materials and functional food ingredients, etc.



**Packaging, Labels, Films**

Contribute to the safe storage and distribution of food and the reduction of food loss by providing high gas barrier films for food and medical packaging.



**Building the resilient foundation of the Group**

**ESG, Innovation, Health and Productivity Management, human resources development, etc.**

Sustainability ▶ P. 37
Innovation ▶ P. 45
Corporate Governance ▶ P. 53

**Targets for the medium-term management plan APTSIS 20**

**APTSIS 20**

▶ P. 27

**Growth measures in focus markets**

▶ P. 33

**Sustainability (MOS) Indices**

▶ P. 40


**KPIs for KAITEKI Health and Productivity Management**

▶ P. 44


**Innovation (MOT) Indices**

▶ P. 50


**Social values (Related SDGs)**




3 GOOD HEALTH AND WELL-BEING




6 CLEAN WATER AND SANITATION




7 AFFORDABLE AND CLEAN ENERGY




8 DECENT WORK AND ECONOMIC GROWTH




9 INDUSTRY, INNOVATION AND INFRASTRUCTURE




11 SUSTAINABLE CITIES AND COMMUNITIES




12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



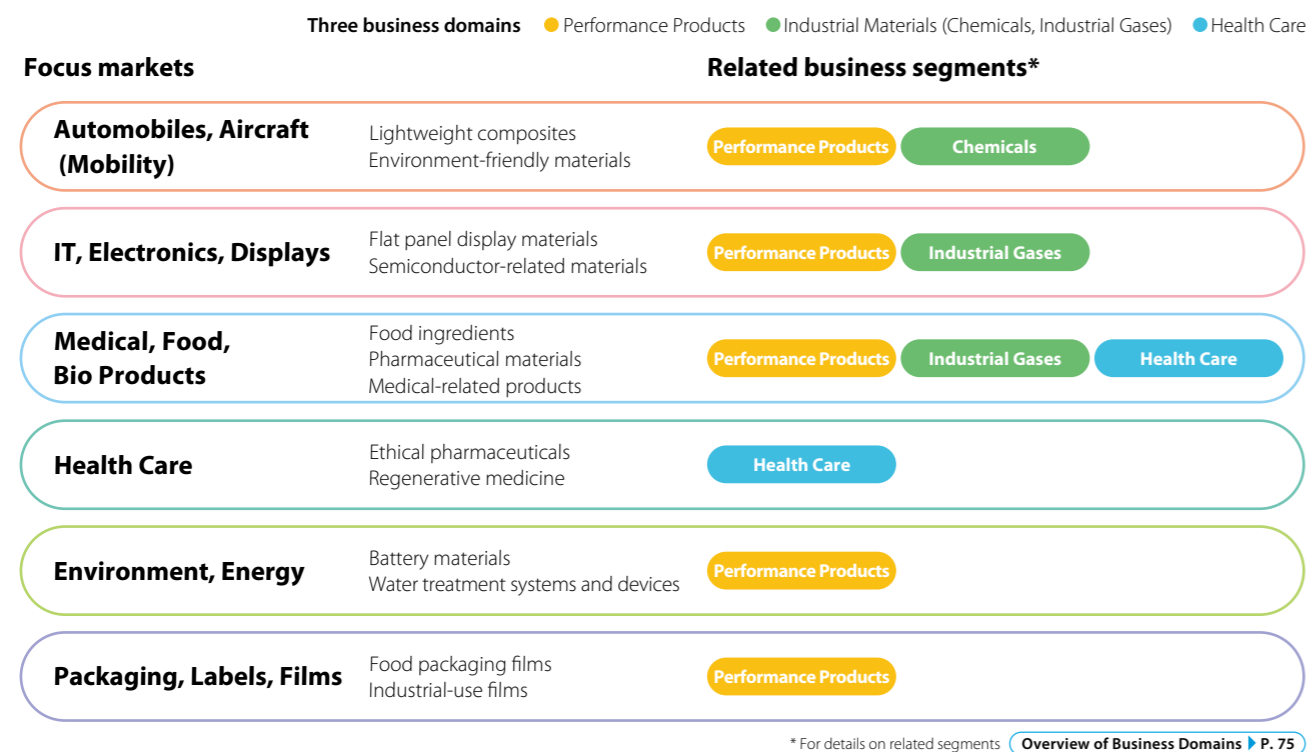
14 LIFE BELOW WATER



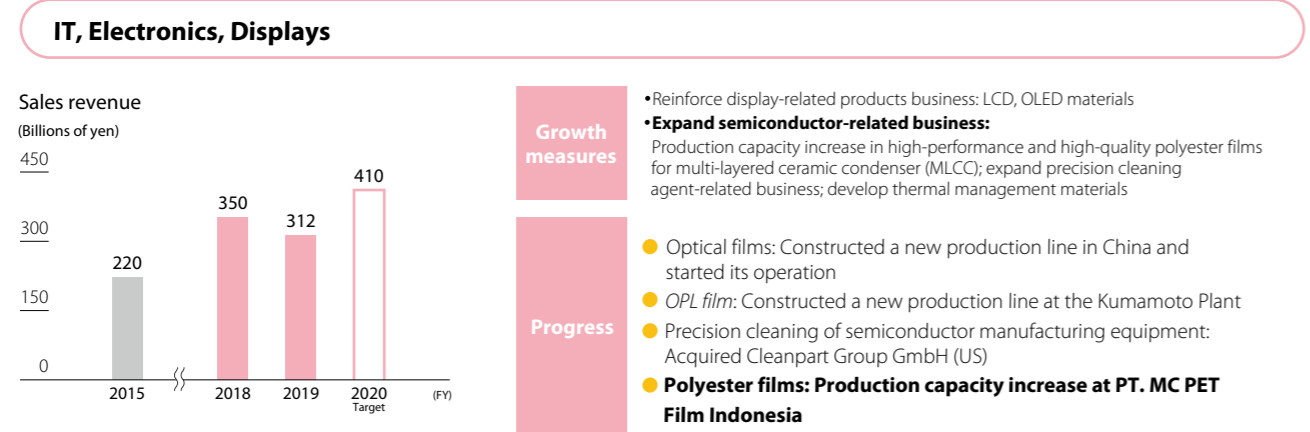
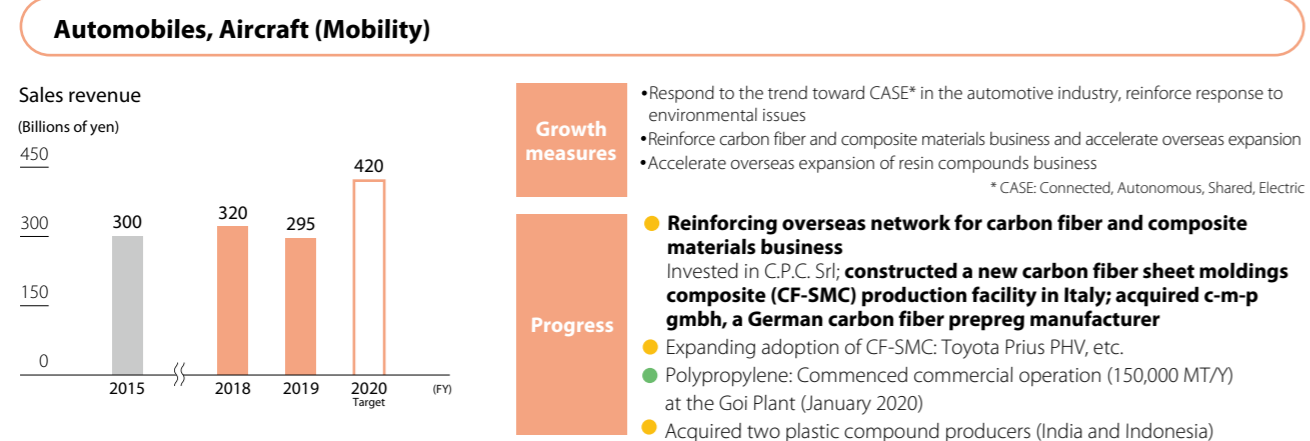
17 PARTNERSHIPS FOR THE GOALS

## Growth Measures in Focus Markets and Updates on Actions in the Three Business Domains

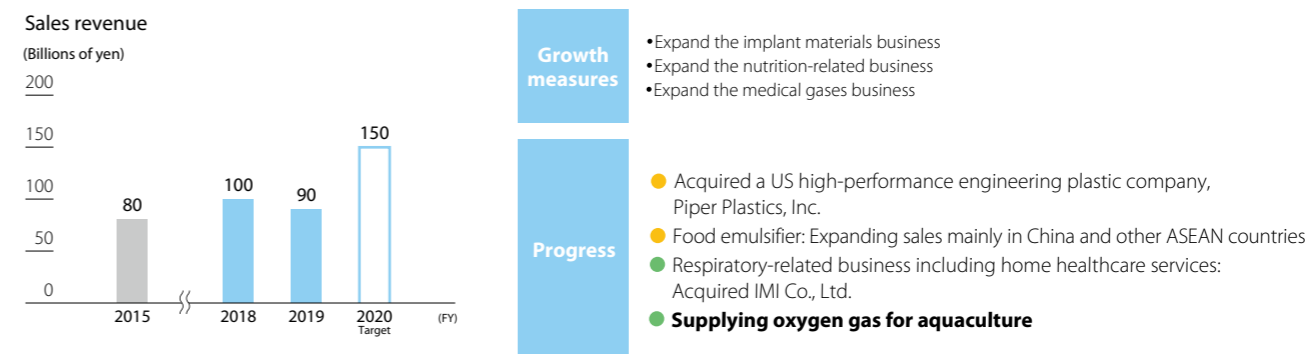
We will expand our business in the six focus markets by generating synergies among related business segments



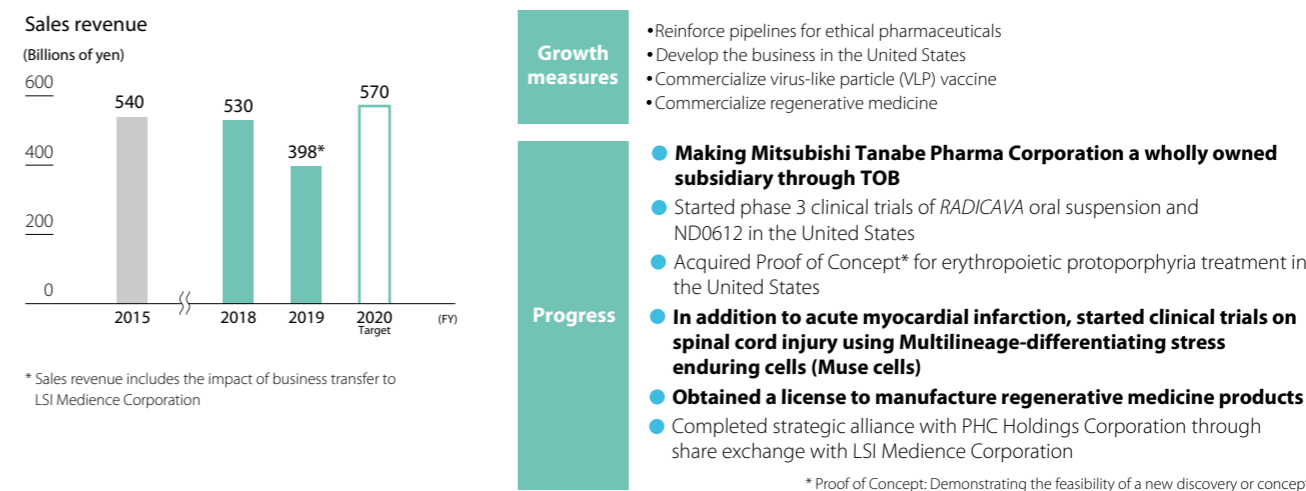
The key actions in FY2019 are in bold characters



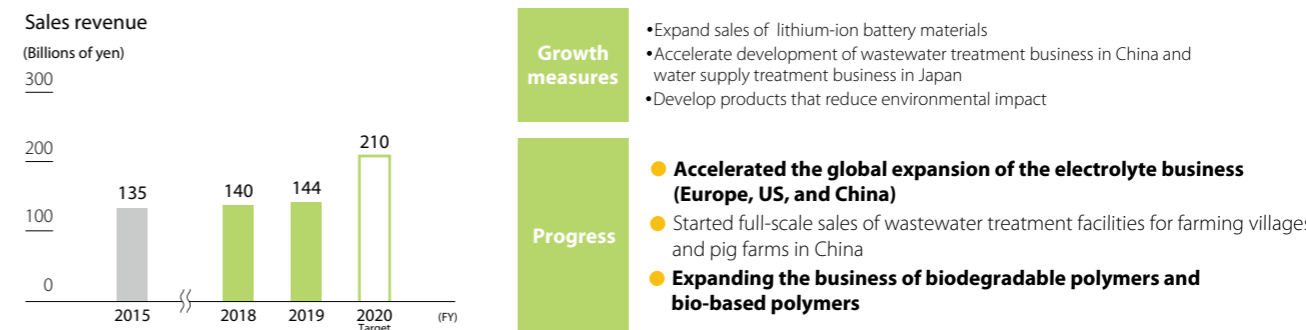
### Medical, Food, Bio Products



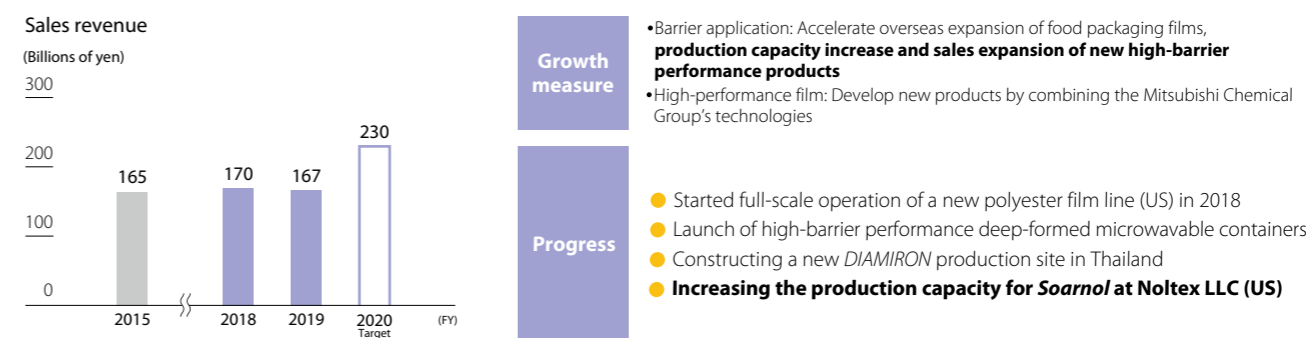
### Health Care



### Environment, Energy



### Packaging, Labels, Films



## Using a Healthcare Platform to Accelerate the Business Transformation

Mitsubishi Chemical Holdings Corporation made Mitsubishi Tanabe Pharma Corporation a wholly owned subsidiary in March 2020 as part of its efforts to shift the Mitsubishi Chemical Holdings Group's technological and human resources into the growing healthcare industry. This special feature presents some of the Group's initiatives to generate synergies.



### Pursuing medical advances for the growing global healthcare market

The global healthcare market is confronting major issues today. Among them, various countries are struggling to fund their healthcare systems as costs rise due to either aging or growing populations. Meanwhile, life expectancy is expected to increase as a result of advancements in medical technologies. To respond to these trends, our Health Care domain must create new business models.

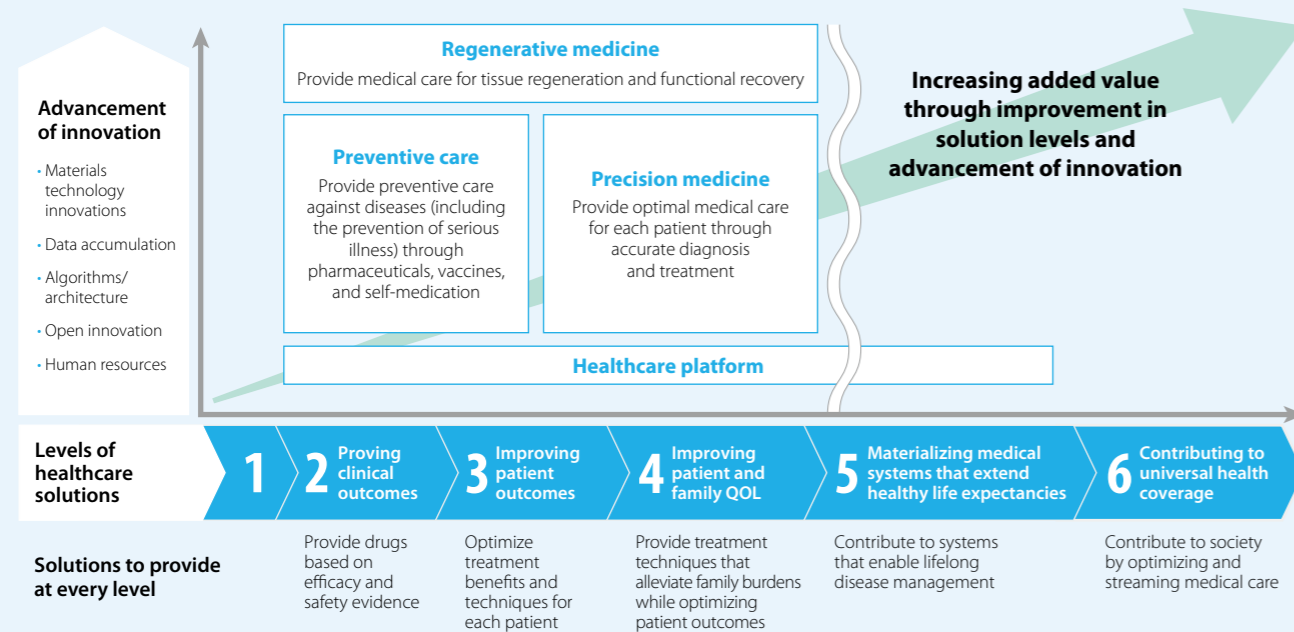
Since it was established in 2005, Mitsubishi Chemical Holdings recognized healthcare as a core business for generating stable earnings, and now designates medical advances as a key business in its medium- to long-term basic management strategy KAITEKI Vision 30 (KV30) formulated in response to the social needs and technological trends (see page 11). Specifically, the Company has targeted preventive care, precision medicine, and regenerative medicine as growth businesses that can contribute to medical advances after taking into consideration their market growth and scale as well as innovation potential.

Taking a major step forward, Mitsubishi Chemical Holdings made Mitsubishi Tanabe Pharma a wholly owned subsidiary

with a view to swiftly overcome the challenges ahead by making the most of the subsidiary's strengths. They include its unique and innovative ability to develop new drugs, extensive experience and expertise in meeting good practice guidelines and regulations related to clinical and manufacturing, etc. in the pharmaceutical industry, an established supply chain with pharmaceuticals distribution and sales networks, and an excellent reputation among medical professionals and patients.

Moreover, Mitsubishi Chemical Holdings has been promoting broader collaboration among its R&D organizations in an effort to spark further innovation. The Group's R&D has also focused on using chemicals to develop biocompatible materials, developing medical-use gas applications, and utilizing Multilineage-differentiating stress enduring cells (Muse cells) for regenerative medicine. To accelerate development for its three aforementioned growth businesses in the future, however, the Group plans to step up efforts to combine biotechnology and materials science, compile and analyze healthcare-related data, and utilize digital technologies for processes spanning from preventive care to treatment. By converting Mitsubishi Tanabe Pharma into a wholly owned subsidiary, Mitsubishi Chemical Holdings gained technologies, talent, and other resources for

### Business model reformation for medical advances domain



its operations involved in biotechnology, chemistry, and digitalization. By making the most of those resources while promoting Group-wide R&D, the Company is aiming to maximize returns from its steady investment in R&D and bolster its pipeline in the future.

### Creating an original healthcare platform as a solutions provider

To establish our medical advances businesses in line with KV30, the Group will work to apply digitalization to enable lifelong disease management and create a healthcare platform needed for promoting preventive care and precision medicine during the period of its next medium-term management plan. As a step in this direction, Life Science Institute, Inc. formed a strategic capital alliance with PHC Holdings Corporation, a major Japanese healthcare company in August 2019. Both companies will continue to actively promote collaboration through the alliance.

In addition, it will be necessary for the Group to reform its business model (as shown in the diagram below). Accordingly, while various deregulations and reforms will be essential for eventually contributing to universal health coverage, Mitsubishi Chemical Holdings intends to take the lead in promoting related systems while negotiating with relevant organizations as a key player in the industry. Furthermore, the Group will strive to improve healthcare systems designed to help people stay in good health over their entire lives by providing optimal and efficient services spanning from preventive care to treatment.

### Aiming to maximize synergies across the Group

Mitsubishi Chemical Holdings established a committee to explore ways to generate synergies in the Group's healthcare businesses in December 2019. The committee is examining Group-wide strategies and decision-making processes from the following points of view: business operations, corporate cooperation, and digital transformation (DX), and is taking steps toward executing concrete measures. The committee is also studying ways for the Group's businesses to help people deal with the COVID-19 pandemic.

As one example of how the Group can generate synergy effects, the four operating companies have begun collaborating to develop Muse cell-based products (see the table below). Specifically, Mitsubishi Chemical Corporation is producing cell scaffolding materials and other related materials, Taiyo Nippon Sanso Corporation is using its cold chain to preserve the cells, and Mitsubishi Tanabe Pharma is providing human resources and know-how in the development, production and marketing of pharmaceuticals. The Group is aiming to acquire approval for the product in fiscal 2021 and preparing to market it in the future.

The Group is also carrying out various other projects designed to generate synergies with the goal of increasing its corporate value of the medium to long term.

### Action items to generate Group synergies—Plan for operating companies to jointly develop Muse cell-based products

Activities		Mitsubishi Chemical	Mitsubishi Tanabe Pharma	Life Science Institute	Taiyo Nippon Sanso
Business operations	Regenerative medicine	Production of cell scaffolding materials and other culture peripheral materials, and development of mass culture equipment	Utilization of human resources and know-how in the development, manufacture, and sales of pharmaceuticals	Processing/culturing and formulating of Muse cells	Establishing a cold chain for frozen storage of Muse cells
	Pharmaceuticals + medical materials	Began studying the development of new materials and high-affinity materials			
	Marketing and sales collaboration	Started examining how to improve various products for hospitals and clinics, and strengthening marketing of services using each company's sales channels			
	R&D collaboration	Began examining research themes such as protein modeling and other technologies with a view to launch new businesses in the future			
	Microbiomes	Started researching microbiome analysis and control technologies while exploring new businesses			
	Development of an infectious disease prevention and pandemic response business	Planning for initiative studies on how to generate synergies			
Corporate cooperation		Centralized legal affairs department allowing for increased efficiency and enhanced capabilities			
DX/integrated healthcare platform		Began examining how to step up Group-wide collaboration			



**Message from the CSO**

**Determined to meet the social demands, realize our sustainable growth, and achieve a recycling-oriented society**

**Yoshihiro Ikegawa**

Managing Corporate Executive Officer  
Division Manager, Corporate Strategy Division  
Chief Sustainability Officer

**Achieving growth by turning social issues into business opportunities**

As the risks related to environmental and social issues become more apparent, businesses are expected to actively contribute toward achieving a sustainable society. Based on this recognition, the Mitsubishi Chemical Holdings (MCHC) Group formulated our medium- to long-term basic management strategy KAITEKI Vision 30 (KV30). This involves us visualizing what the Group should look like in 2030 by backcasting from our vision of an ideal society in 2050 (see page 11). Accordingly, we strive to solve social issues for a sustainable future through leadership as a global solutions provider.

The impacts of COVID-19 will bring significant changes to the way people think and behave. At the same time, social value will increase in its importance. We will turn these social issues into business opportunities. I believe it is our Group's mission to continue to provide new solutions while transforming to a value-adding business model that can respond to social needs. With this approach, the entire Group will tirelessly work to achieve a society where many of the social issues we face today will have been resolved by 2050.

**Thorough execution of sustainability management**

Despite the current uncertainty, our medium- to long-term sustainability strategies to provide comprehensive solutions to environmental challenges, such as climate change and resource/energy depletion, remain unchanged and we will continue to work on these issues. KV30 sets forth five measures

to build foundations for achieving environmental impact neutrality. These include evolving life cycle analysis (LCA) tools, reducing our environmental impact, promoting a circular economy, feasibility studies of KAITEKI factories, and building a sustainability management system (see page 17). We aim to progressively strengthen our management foundation that supports business model reforms by implementing specific procedures in the next medium-term management plan and ensuring a thorough execution of sustainability management.

**Achieving an optimized recycling-oriented society**

Since the launch of the Circular Economy Promotion Committee in May 2019, we have held a series of discussions regarding our policies and target resources to achieve a circular economy. We have also discussed the development of infrastructures for leveraging LCAs. The results of these discussions are reflected in KV30. With respect to climate change, we will strive to reduce GHG emissions by 26% in Japan by 2030, compared with 2013 levels, and our steps toward achieving overall GHG reduction and its effective utilization across the value chain. We are addressing the issue of plastic waste by providing products and technologies with our bio-based polymers business, as well as developing materials and technologies suitable for recycling. We have also worked with the Alliance to End Plastic Waste to develop technologies and solutions through the value chain and promote projects and educational programs to reduce waste. With these initiatives, we are making steady progress in establishing a social system that can enable optimal resource circulation.

**Major initiatives in which the MCHC Group participates**

Joined in	Initiative related to circular economy
September 2018	Japan Initiative for Marine Environment (Founding member)
January 2019	Japan Clean Ocean Material Alliance (Chair of Technology WG)
January 2019	Alliance to End Plastic Waste (Founding member/Executive Committee member)
March 2019	Ellen MacArthur Foundation's Circular Economy 100 (The first Japanese chemical company to join the CE100)
August 2019	Carbon Recycling Fund Institute (Chairperson)
December 2019	Value Balancing Alliance (the first Japanese company to join)

**Developing a new method to measure social value**

As ESG factors are becoming increasingly important criteria for evaluating the medium- to long-term corporate value, we became the first Japanese company to join the Value Balancing Alliance (VBA) in December 2019. This non-profit organization aims to change the way to measure corporate performance, and its impact on the environment, society and people. Through the development of a new impact measurement standard at the VBA, we aim to bring our LCA tools to an advanced level. This will help the Group's overall economic, environmental, and social impact to be measured and used to ensure an improved operation.

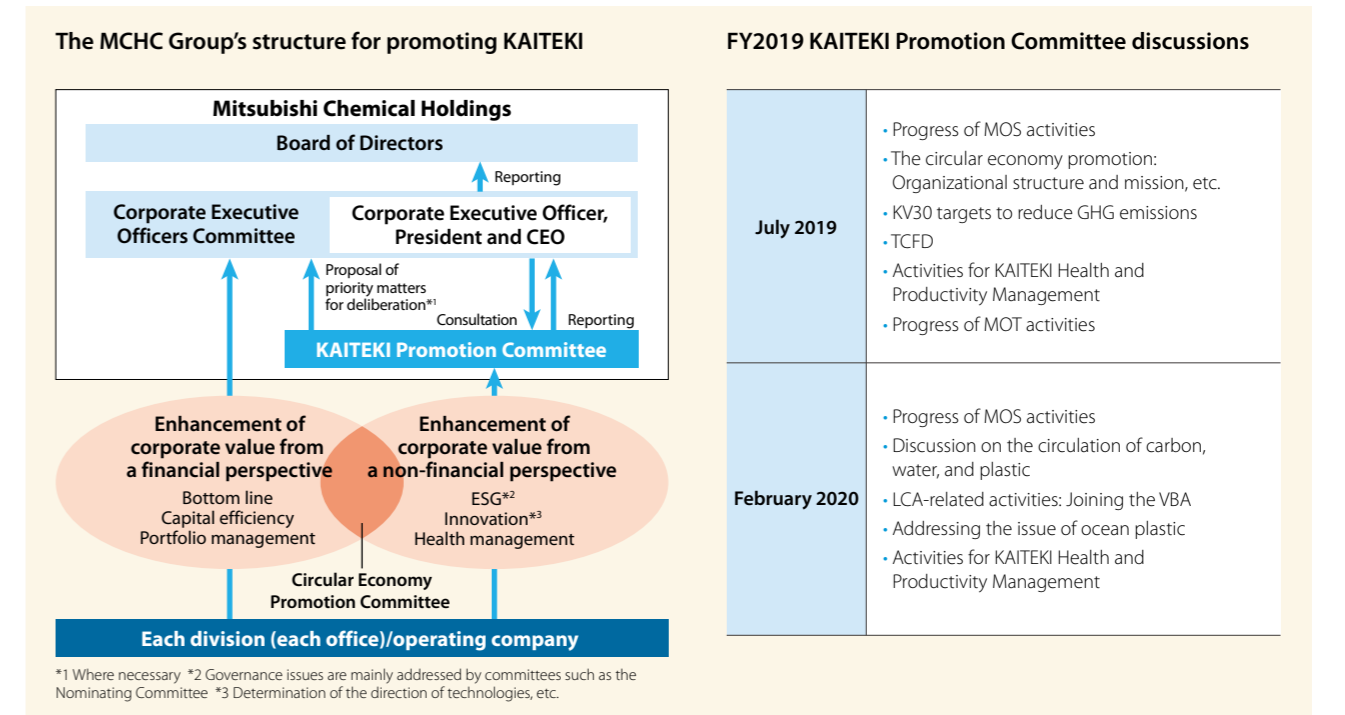
At the MCHC Group, we introduced the Management of Sustainability (MOS) Indices in 2011 in an effort to clearly monitor our progress in sustainability. With this in mind, we will

reorganize MOS Indices based on our material issues in the next medium-term management plan, and will use these indices as criteria to measure progress on our business portfolio transformation. We will also disclose appropriate information to our valued stakeholders, which will enhance the transparency of our operations.

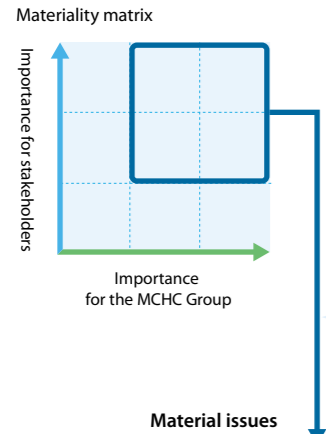
**Strengthening operations to drive new growth**

We have provided workshops for general managers in order to enhance efforts to promote our KAITEKI approach. With these workshops as a starting point, we promoted the adoption of KAITEKI in each workplace, fostering a culture to address social challenges through business activities. In fiscal 2020, in order to promote KV30, we intend on expanding these workshops to younger employees leading the next generation. Each employee must take ownership of social issues and think how to address them through their business activities and actions. This can increase the Group's resilience and provide a strong driving force to realize KV30.

With the medium-term management plan *APTSIS 20* in its final year, we are accelerating our activities regarding sustainability to consolidate our foundations for new growth. While the impacts of the COVID-19 pandemic are predicted to transform people's values and social structures in the coming years, we will continue to work toward a long-term increase of our corporate value by recognizing that these changes provide plenty of business opportunities. We will also promote a resilient business strategy focused on sustainability.



# Progress with Sustainability Management



The Mitsubishi Chemical Holdings (MCHC) Group has introduced Management of Sustainability (MOS) Indices, which quantify the degree of contribution to sustainability, as its own management indicators.

This report describes MOS Indices-related achievements (see page 40) and efforts (see pages 41 and 44) related to the targets based on material issues that have a significant impact on the environment, society and financial value, in addition to the important indicators related to the basis of our continued existence. For details on these achievements, please visit our website.

**Website (Sustainability)**  
<https://www.mitsubishichem-hd.co.jp/english/sustainability/>  
[Sustainability Indices ▶ P. 40](#) [Non-Financial Highlights ▶ P. 71](#)  
[Non-Financial Information ▶ P. 189](#)

Material issues	Core measures
The Global environment	<b>Energy and resources</b> Address the depletion of natural resources and promote energy saving by switching to renewable raw materials, curbing the use of rare metals, reducing raw fuel consumption and promoting 3R and zero emissions.
	<b>Climate change</b> Reduce GHG emissions, promote LCA and utilize low-carbon resources and energy, while creating and expanding business opportunities that mitigate or adapt to climate change.
	<b>Water</b> Use water resources efficiently and clean wastewater while helping to solve water resource issues by providing safe and clean water through our products and services.
Social systems	<b>Food and agriculture</b> Develop solutions to food and agricultural issues by preserving food resources, resolving maldistribution and providing products and services that improve agricultural productivity.
	<b>Health and wellness</b> Promote the use of health information and disease prevention by improving lifestyle habits through self-medication and expanding healthcare products and services, and contribute to the improvement of people's health.
	<b>Medical care</b> Improve patient QOL and help people's lives and health by developing pharmaceuticals that meet unmet medical needs, and improving medical care including regenerative medicine and remote medicine technologies.
	<b>Product responsibility</b> To ensure that customers can use products and services without concern, pursue initiatives to ensure the quality and safety of products throughout their lifecycle and minimize adverse effects on the environment.
	<b>Contribution to communities</b> Broadly contribute to society through business activities while deepening understanding of various communities and continually responding to their requests and expectations.
People (the company and its organization)	<b>Human resources development and training</b> Offer equal opportunities in hiring, placement, promotion and skills development, while acquiring and developing human resources for the medium to long term. Raise employee awareness of the Corporate Philosophy and increase corporate value by implementing the philosophy.
	<b>Occupational health and safety</b> Implement safety management in accordance with national and regional laws and regulations and make workplaces safe while maintaining and improving the physical and mental health of employees.
	<b>Human rights awareness</b> Respect the dignity and rights of all people in corporate activities and require that business partners refrain from violating human rights or engaging in inappropriate discrimination.
	<b>Information security and privacy</b> Recognize the importance and responsibilities associated with protecting information assets and manage information properly to prevent the leakage of confidential information of customers, business partners, Mitsubishi Chemical Holdings or other parties.
	<b>Diversity and inclusion</b> Incorporate a diverse range of human resources and views without regard to nationality, age or belief, and promote diversity and inclusion through our corporate activities, thus enhancing corporate value.

## Review of FY2019

### The global environment

The contribution to the reduction of environmental impact through products and services was not achieved due to a decrease in sales and demand for related products. Despite an increase in the environmental burden caused by the acquisition of a major business, we have made steady progress in reducing the environmental impact of production through energy-saving and production efficiency improvements. We will achieve environmental impact neutrality through the five measures of sustainability management under the KAITEKI Vision 30 (KV30) (see page 17).

### Social systems

A positive contribution was made to the prevention of diseases, as sales of related products grew steadily. Meanwhile, the target for comfort value provision was not achieved as related products did not expand on the scale envisioned. Under KV30, we have identified solutions that contribute to solving social issues as growth businesses. Through business model reformation, we will expand products and services that contribute to optimizing the entire social system (see page 16).

### People (the company and its organization)

The awareness of compliance among employees has improved over the years through a variety of training programs. Although the number of safety-related incidents has improved compared to the previous year (down 3), accidents continue to occur. We are working to strengthen our management base by implementing accident prevention measures that utilize the latest technologies, sharing information on accidents, and developing human resources who are responsible for safety at work sites. With regard to employee wellness, long working hours are on the rise. We are working to improve work-life balance through work style reforms and raising awareness of how to achieve results in a limited amount of time.

Sustainability (MOS) Indices (Data elements)	Assessment criteria (Units)	FY2019 Plan	FY2019 Results	FY2020 Targets	Self-assessment	Related SDGs
Reduce burden on the atmospheric environment (GHG, SOx and NOx emissions)	Per-unit impact on the environment (LIME/¥100 million)	573	554	549	★★	6
Reduce burden on the water environment (Total phosphorous, total nitrogen in wastewater and COD emissions)	Per-unit impact on the environment (LIME/¥100 million)	6.5	6.0	6.1	★★	7
Reduce burden on the soil environment (total landfill)	Per-unit impact on the environment (LIME/¥100 million)	5.7	6.7	5.1	★	12
Promote use of renewable energy	Volume of renewable energy generated and supplied (MW)	57.6	48.9	50.0	★★	13
Provide products and services that contribute to reducing GHG emissions	Contribution to the reduction of GHG emissions (hundreds of millions of tons-CO <sub>2</sub> equivalent)	0.82	0.62	1.50	★	14
Provide products and services that help solve water resource problems	Volume of reused water supplied (hundreds of millions of tons)	8.4	7.8	17.0	★★	17
Provide products and services that help solve food problems	Growth in sales of related products and services (%)	10.2	7.7	30.0	★	2
Contribute to medical treatment: Pharmaceuticals provision (Contribution to treatment, increased effectiveness)	Contribution index for pharmaceuticals provision (points)	13.0	12.7	15.0	★★	3
Contribute to the prevention of diseases: Provide vaccines	Vaccine provision index (points)	11.4	15.0	14.0	★★★	6
Provide products and services that contribute to a comfortable society and better lifestyles	Growth rate in the comfort value provision index (%)	19.0	6.5	40.0	Not met	9
Initiatives to provide products and services trusted by society	Customer satisfaction index (points) (Results of customer satisfaction survey)	47	44	47	★★	11
	Improvement rate in the number of complaints (%)	56	27	50	★	12
Promote communication with business partners (Regarding CSR procurement, status of initiatives such as distribution of guidelines, checklists, monitoring of the situation, interviews/visits/audits)	Communication improvement index (points)	151	127	100	★★★	17
Improve awareness of compliance (Results of awareness survey)	Compliance awareness improvement index (points)	21	21	21	★★★	9
Prevent accidents and injuries	Reduction rate of safety incidents (%)	42	-47	60	Not met	8
Build a dynamic and cooperative organization (Employee satisfaction, rate of taking paid leave, percentage of employees working long hours, rate of number of days of sick leave, percentage of female managers)	Employee wellness index (points)	17.4	8.8	16.0	★	12

## Case studies of addressing the material issues

### Building a CO<sub>2</sub>-free hydrogen refueling system

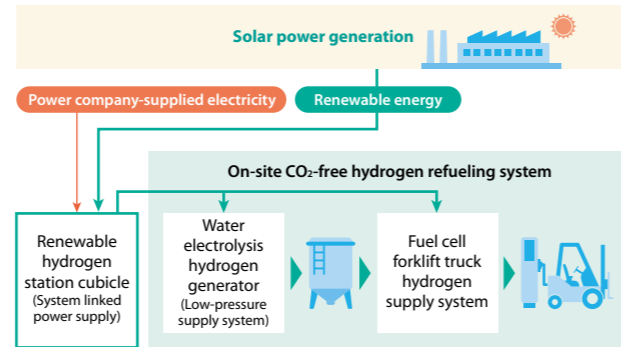
The Group's Materiality  
 • Energy and resources  
 • Climate change



Taiyo Nippon Sanso Corporation installed an on-site CO<sub>2</sub>-free hydrogen refueling system using renewable energy at its Kawasaki Mizue Plant, which was subsidized by the Ministry of the Environment, and Kanagawa Prefecture. This integrated system uses electricity from solar power to generate hydrogen without generating CO<sub>2</sub> with a water electrolysis hydrogen generator, which can then be used in a fuel cell forklift truck. This system is used as a model for medium-scale on-site refueling stations and contributes to the realization of a hydrogen society.

\* Fiscal 2018 Subsidy for Projects to Control Carbon Dioxide Emissions (Project to Promote Low Carbon Social Infrastructure Using Renewable Hydrogen - Regional Renewable Energy Hydrogen Station Introduction Project), Kanagawa Prefecture Subsidy for Hydrogen Supply Facility Installation (Fuel Cell Forklift Truck Hydrogen Supply System Subsidy)

#### On-site CO<sub>2</sub>-free hydrogen refueling system



### Providing opportunities to learn about initiatives to address global warming through games

The Group's Materiality  
 • Climate change



Mitsubishi Chemical Holdings Corporation has exhibited "Planet Earth KAITEKI Stadium" at Kandu, a work experience theme park, starting from 2019. At this exhibition, children are able to experience the issue of global warming through games. As part of efforts to develop the next generation of human resources, the Company has positioned this stadium as a place to foster an

interest in science and technology and to communicate efforts to address environmental and social issues, while emphasizing the importance of daily efforts toward a sustainable future.



Planet Earth KAITEKI Stadium

### Contributions to prevent the spread of COVID-19

The Group's Materiality  
 • Contributions to communities  
 • Medical care



The MCHC Group is working to ensure a stable supply of products and support activities that contribute to the prevention of the spread of COVID-19. In response to a request from the Ministry of Health, Labour and Welfare, Mitsubishi Tanabe Pharma Corporation provides the National Institute of Infectious Diseases with active pharmaceutical ingredients to be used in the screening of drugs used for the treatment of the coronavirus. Medicago Inc. (Canada) succeeded in producing plant-derived virus-like particles (VLPs) for COVID-19 and began its clinical trials in July. Meanwhile, Mitsubishi Chemical Corporation has provided acrylic panels to prevent airborne droplet infection, and J-Film Corporation has developed plastic gowns and face shields. These products are being supplied to medical institutions.



Acrylic panels to prevent droplet infection

### Submitted a voluntary action declaration for the White Logistics Movement

The Group's Materiality  
 • Occupational health and safety



Mitsubishi Chemical, Mitsubishi Chemical Logistics Corporation, and Taiyo Nippon Sanso have endorsed the White Logistics Movement advocated by the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Economy, Trade and Industry, and the Ministry of Agriculture, Forestry and Fisheries. They have submitted their respective declarations of voluntary action to the secretariat of the White Logistics Movement.

The handling of hazardous chemical products and high-pressure gas requires specialized skills and knowledge, and the shortage of drivers has become a serious problem. We will further collaborate with logistics companies and secure a sustainable logistics environment through the White Logistics Movement in order to improve the sustainability of a safe, stable, and secure supply chain.

#### Please take a look at some case studies of initiatives to solve environmental and social problems through our businesses.

- Working to achieve a carbon cycle system through CO<sub>2</sub> capture and artificial photosynthesis [▶ P. 16](#)
- Developing fully biodegradable multilayer barrier packaging [▶ P. 46](#)
- Applying complementary technological expertise to develop GaN substrates [▶ P. 46](#)
- Helping to reduce food loss and save resources with high-performance barrier films [▶ P. 82](#)
- Creating more employee-friendly workplaces by reducing stressful and physically demanding work [▶ P. 86](#)
- Development of a VLP vaccine for COVID-19 [▶ P. 90](#)

## Report in Line with the Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD\*)

In October 2018, Mitsubishi Chemical Holdings Corporation announced its support for the final recommendations prepared by the Task Force on Climate related Financial Disclosures (TCFD). The Mitsubishi Chemical Holdings (MCHC) Group has been working to enhance its climate change-related measures, such as reducing GHG emissions, promoting energy-saving activities, and expanding product groups that contribute to the reduction of GHG emissions, while progressively expanding its disclosure of related information as it strives to increase corporate value.

\* In June 2017, TCFD announced the final recommendations concerning disclosure of information to encourage companies to voluntarily disclose to investors the impacts of climate change-related risks and business opportunities on corporate finances.

The report based on the TCFD recommendations is also posted on the website.

URL: <https://www.mitsubishichem-hd.co.jp/english/ir/library/>

### Governance

Mitsubishi Chemical Holdings identified climate change as a material management issue by conducting the materiality assessment (see page 29) under the medium-term management plan *APTSIS 20*, and has conducted appropriate measures. Management issues based on materiality assessments are then associated with management indicators to evaluate the progress of measures taken (see "Metrics and targets" below). Mitsubishi Chemical Holdings monitors the progress against the target set for each operating company under the KAITEKI Initiative Structure (see page 38) centering on the KAITEKI Promotion Committee, an advisory body to the president of Mitsubishi Chemical Holdings.

### Strategy and risk management

Category	Report on FY2019	Related pages
Business opportunities and risks from perceived social issues	<p>Under <i>APTSIS 20</i>, response to climate change has been identified as a material issue through materiality assessment, and the risks and opportunities that are recognized as well as core measures have been reported.</p> <p>Moreover, in formulating our medium- to long-term management basic strategy KAITEKI Vision 30 (KV30) for 2030, we identified opportunities and risks related to the social issues that the MCHC Group will face over the period to 2030. Business opportunities, including the following opportunities related to climate change, have been identified as growth businesses for the MCHC Group that contribute to solutions to social issues. The Group will expand its scale and strengthen its profitability through the implementation of the next medium-term management plan.</p> <ul style="list-style-type: none"> <li>✓ Use energy more efficiently: Lighter mobility, electrification solutions, and chemical processes with low environmental impacts</li> <li>✓ Expand renewable energy: Decentralized energy management</li> <li>✓ Capture and use GHGs: CO<sub>2</sub> capture and utilization</li> <li>✓ Use natural resources: Bio-based polymers</li> <li>✓ Recycle resources: Chemical and materials recycling</li> </ul> <p>We quantitatively assess the risk of leaving social issues unmanaged. We recognize the increased carbon tax burden and reduced profitability due to lower demand for our products as risks that have a particularly large impact in relation to climate change. We aim to achieve a safe and secure society by minimizing damage and ensuring business continuity in the event of a large-scale natural disaster while providing solutions that contribute to disaster prevention and mitigation.</p>	<ul style="list-style-type: none"> <li>▶ <i>APTSIS 20</i>: The Group's material issues (page 29)</li> <li>▶ KV30:                             <ul style="list-style-type: none"> <li>• Growth businesses as the pillars of the portfolio (page 15)</li> <li>• Risks of leaving social issues unmanaged (page 14)</li> </ul> </li> <li>▶ Corporate governance: Risk management (pages 63–65)                             <ul style="list-style-type: none"> <li>• Measures against major risks</li> </ul> </li> </ul>
Impact on business scale and risks from perceived social issues	<ul style="list-style-type: none"> <li>• We aim to increase the percentage of revenue and profit from growth businesses, including the GHG reduction area, to over 70% and approximately ¥4 trillion or more by 2030.</li> <li>• We estimate that the risks associated with social issues and structural changes, including climate change, could be as large as ¥1 trillion in 2030.</li> </ul>	<ul style="list-style-type: none"> <li>▶ KV30:                             <ul style="list-style-type: none"> <li>• Sales revenue targets for 2030 (page 16)</li> <li>• Risks of leaving social issues unmanaged (page 14)</li> </ul> </li> </ul>
Risk management	<ul style="list-style-type: none"> <li>• We will strive to avoid the occurrence of major risks and minimize losses when they occur under our risk management system (see page 63).</li> <li>• We view climate change as a risk that is expected to grow further over the medium- to long-term, and we plan to incorporate it into KV30 and the next medium-term management plan, and consider how to manage this risk.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Corporate governance: Risk management (pages 63–65)                             <ul style="list-style-type: none"> <li>• Risk management system</li> <li>• Measures against major risks</li> <li>• Measures against future risks</li> </ul> </li> </ul>

### Metrics and targets

Category	Report on FY2019	Related pages
Metrics and targets to assess risks and opportunities	<p>Among the management indices that assess the improvement of sustainability (MOS Indices), we have set the reduction of burdens on the atmospheric environment such as in terms of greenhouse gases (per-unit impact on the environment) and the degree of contribution to the reduction of GHGs by providing products and services that contribute to reducing GHG emissions. Based on these, we set targets for the final year of the medium-term management plan (fiscal 2020), and assess the degree of achievement every year.</p> <p>In addition, we have established new medium- to long-term targets to be achieved by fiscal 2030 under KV30. We are now in the process of formulating specific action plans to reduce GHG emissions by 26% compared to the fiscal 2013 level in Japan.</p>	<ul style="list-style-type: none"> <li>▶ Sustainability (MOS) Indices (page 40)</li> <li>▶ KV30: Thorough sustainability management (page 17)</li> </ul>
Scope 1 to 3 GHG emissions	<p>Please see GHG emissions in "Non-Financial Highlights" for the performance in fiscal 2019. We have received independent assurance for GHG emissions, and are working to disclose highly reliable information.</p>	<ul style="list-style-type: none"> <li>▶ Non-Financial Highlights (page 71)</li> <li>▶ Environmental data/Independent Assurance Report (pages 189–190)</li> </ul>
Corporate executive remuneration	<p>The performance-based evaluation of the remuneration of corporate executive officers and executive officers is determined based on the degree of achievement of the targets for each fiscal year. The evaluation is determined by using indices including those associated with the improvement of sustainability in addition to economic and capital efficiencies, such as indices associated with climate change through the promotion of energy-saving activities. For details, please refer to the Securities Report.</p>	<ul style="list-style-type: none"> <li>▶ Corporate governance: Director remuneration (page 57)</li> </ul>

## Promoting KAITEKI Health and Productivity Management and Human Resources Development

The Mitsubishi Chemical Holdings (MCHC) Group is promoting KAITEKI Health and Productivity Management\* to help employees realize their potential to the fullest.

\* *Kenkokeiei*, which means Health and Productivity Management in Japanese, is a registered trademark of the Workshop for the Management of Health on Company and Employee, an NPO. In terms of using KAITEKI Health and Productivity Management, the trademark is authorized to be used by the NPO.



### Message from the Corporate Officer Supervising HR Management

Advancing the reform of our human resources system and organizations by focusing on diversity, mobility, and expertise

**Ken Fujiwara**

Managing Corporate Executive Officer  
Chief Group Compliance Officer  
Chief Health Officer

### Initiatives for KAITEKI Health and Productivity Management

The MCHC Group believes that people are the driving force behind the sustainable growth for society. We consider them a key management resource. To provide an environment where a diverse workforce can thrive with a sense of a social mission while creating value, we promote KAITEKI Health and Productivity Management at the center of our Group-wide efforts to reform our human resources (HR) management system and organizations.

Based on our three core KPIs (see page 44), we place an emphasis on supporting health and work style reforms. These measures include promoting diversity, supporting flexible work styles, HR development, and improving the health conditions of our employees and their families.

To support our employees' health, we utilize our ICT-based health support system—*i<sup>2</sup> Healthcare*. We provide employees with wearable devices that monitor quality of sleep, level of physical activity and heart rate. In addition to the aforementioned data, working hours and health check results can also be viewed on a dedicated user page through *i<sup>2</sup> Healthcare*, leading to increased health awareness and improved personal care for everyone.

By utilizing an ICT-based communication infrastructure system, our efforts to reform the way our employees work has helped enable flexible working arrangements, leading to a more rewarding and fulfilling working environment.

### Generating a higher level of creativity and productivity

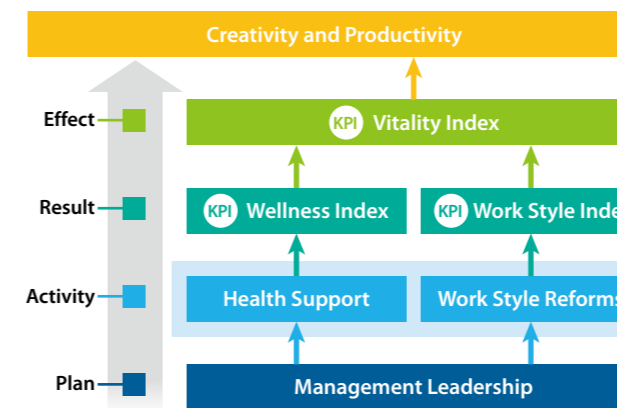
Due to the impact of COVID-19, our lifestyle and work practices have changed at a rapid and alarming pace. However, our goals and initiatives remain unchanged. We will continue our efforts to reform our HR management system and organizations as discussed in our medium- to long-term basic management strategy KAITEKI Vision 30 (see page 18). With this in mind, we are adapting our HR management system into a more comprehensive one, which accommodates diversity, mobility, and expertise, as well as executing a more global management system. This will bring about our ultimate goal of generating a higher level of creativity and productivity within our organization. As a person who oversees HR, I will continue to proactively lead and promote our efforts to reform our HR management system and organizations.

#### Our response to COVID-19

At the MCHC Group, we prioritized the health and safety of our employees and their families, as well as our partners and customers. In response to the Japanese government's declaration of a state of emergency, we decided to order our employees to work remotely from home. At production sites, we have managed to maintain our operational activities by taking measures to ensure the maximum safety of our employees, such as minimizing the required workforce and introducing staggered working hours. We will continue to encourage our colleagues to work remotely, avoid busy commuting hours, and conduct meetings and training online to help prevent infection in accordance with the new work-life arrangement guidelines.

▶ See page 65 for more details about our response.

### Approach to KAITEKI Health and Productivity Management



### ICT-based Health Support System

#### *i<sup>2</sup> Healthcare*

A proprietary system that enables each employee to see personal health data on their devices, integrating health data collected daily via wearable devices, health checkup results, and work style related information.



### Three Core KPIs for KAITEKI Health and Productivity Management

Description	FY2019 Results	FY2020 Targets
<b>Vitality Index</b> Index for employees' job satisfaction, enthusiasm, trust and growth	<b>69 pts</b> (Base year + 6 points)	<b>+15 pts</b> Increase positive choices by 15 points or more in the health survey*.
<b>Work Style Index</b> Index for levels of work style awareness, behavior and initiatives	<b>72 pts</b> (Base year + 5 points)	<b>+10 pts</b> Increase positive choices by 10 points or more in the health survey.
<b>Wellness Index</b> Index for health checkup items, lifestyle quality and level of life satisfaction	<b>46 pts</b> (Base year + 1 point)	<b>+10 pts</b> For the 10 health criteria items, increase the number of items met by each employee by one item (= 10 points) or more.

\* We conduct the health survey to assess each employee's awareness and approach to KAITEKI Health and Productivity Management.

### Review of FY2019

In fiscal 2019, the Vitality Index was up 6 points (40% achievement rate), the Work Style Index was up 5 points (50% achievement rate), and the Wellness Index was up 1 point (10% achievement rate). Looking at the Work Style Index, Japan's Labor Standards Act was amended from April 2019 to make the use of paid leave compulsory, which triggered changes in awareness and behaviors in terms of how people work at workplaces and among individual employees. As for the Wellness Index, we see use of wearable devices have some effect on employees' awareness and behaviors. However, we believe it's more important for employees to become aware of their own condition and to continue to change their mindset and behaviors, and it can be assumed that it will take some time for the results of health checks to show up in the numbers. We will improve creativity and productivity through measures for health support and work style reforms, and promoting PDCA cycle by using *i<sup>2</sup> Healthcare*.

### Case studies of addressing the material issues

#### Disease prevention and health promotion

#### Health support for employees working away from home

The Group's materiality  
• Occupational health and safety

The MCHC Group believes it is important for employees to maintain and improve their physical and mental health to lead a fulfilling working life. Taiyo Nippon Sanso Corporation has mandated transferred employees working away from their family to undergo thorough physical examinations and brain scans from April 2019, which were previously optional. This has the aim of detecting illnesses at an early stage and preventing them from



becoming serious. We will continue to support disease prevention and health promotion among employees through a variety of measures.

#### Step up the development of human resources with digital skills

#### Development of a data science education program

The Group's materiality  
• HR development and training

In order to leverage medical big data and accelerate digital business development, Mitsubishi Tanabe Pharma Corporation is fully implementing career recruitment and training with the goal of doubling the number of employees with digital skills by fiscal 2021. As part of these initiatives, in November 2019, the company began joint development with Shiga University of a data science education program for professionals working at pharmaceutical and life science companies, and selected approximately 20 participants within the company for the trial. Starting from fiscal 2020, the program continues to be implemented as a one-year educational program and will be offered to companies outside the Group to promote digital transformation across the industry.

Message from the CIO

Especially in this time of disruptive change, innovation is the driver of our business growth and our contribution to society

**Larry Meixner**  
 Managing Corporate Executive Officer  
 Chief Innovation Officer  
 Chief Technology Officer



We are living in a time of extraordinary change. Even before the emergence of the global pandemic in 2020, powerful trends of innovation in diverse fields, such as data science and biology, were already transforming every aspect of society and business. The Mitsubishi Chemical Holdings (MCHC) Group addresses a broad range of societal needs, and our business is thus deeply connected to these powerful trends. However, seizing the nascent business opportunities of this new era requires creativity, agility, and the courage to profoundly change our own ways of thinking.

To achieve early commercialization of next-generation businesses in our growth markets, the MCHC Group takes a multi-faceted approach to innovation. For example, we have developed *BioPBS* to overcome the difficult challenge of simultaneously achieving excellent material performance and biodegradability. And we are deploying complementary capabilities across the MCHC Group to secure a uniquely strong position in the strategically important gallium nitride (GaN) market. As these examples illustrate, sustainable development and leverage across MCHC Group companies are recurring themes in our efforts to realize our medium- to long-term basic management strategy KAITEKI Vision 30 (see page 11).

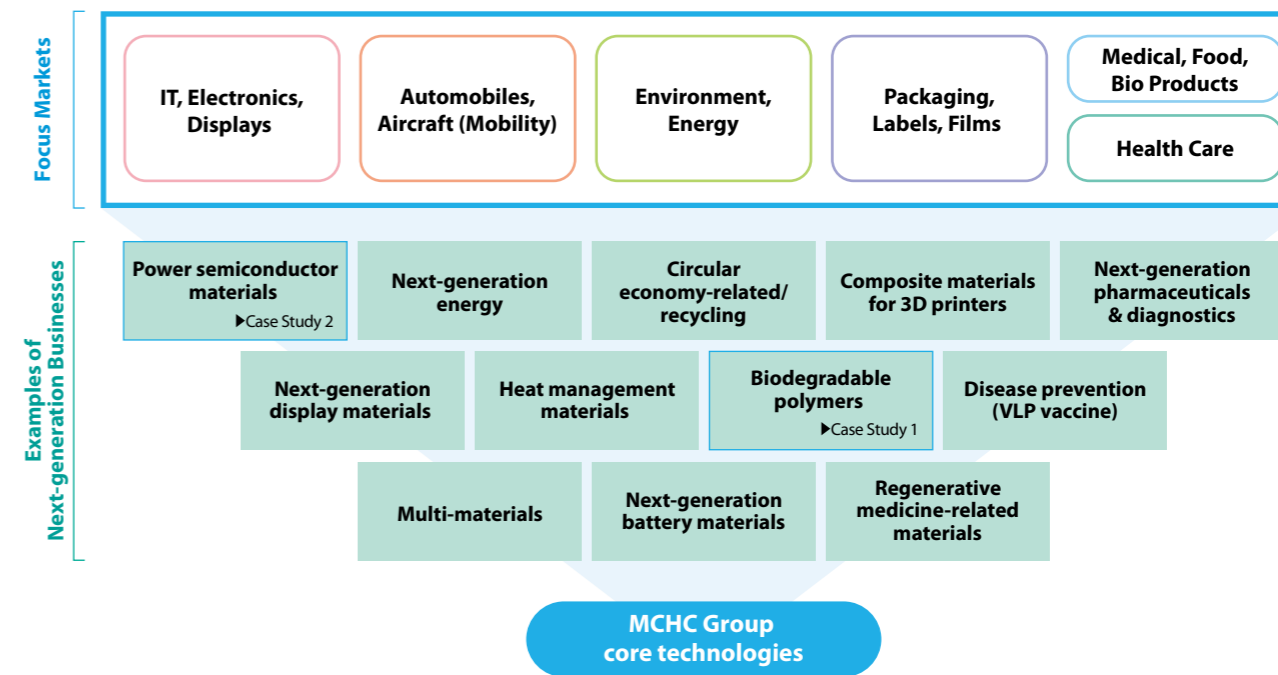
My team in the MCHC Emerging Technology and Business Development Office has established platforms that transcend the boundaries of our operating companies in areas including

digital transformation, corporate venture partnerships, and strategic market development (see pages 47–49). Silicon Valley-based Diamond Edge Ventures, Inc. (established in 2018) and our Japan-based venture team work seamlessly with internal business units to build deep partnerships with innovative startup companies worldwide. Meanwhile, our Digital Transformation Group collaborates with the MCHC Group business, production, and R&D teams to realize near-term operational excellence, while creating and implementing next-generation business models. The benefit these platforms provide to the MCHC Group runs far deeper than the immediate contribution to bottom-line profit. By creating a common vision with our startup company partners, and by reexamining our current practices through the lens of digital transformation, we expand our innovation perspective. This perspective amplifies our ability to grow our business and contribute to society.

Innovation also plays a key role in KAITEKI Management and is embodied in the Management of Technology (MOT) Indices. These indices highlight our progress in the journey toward innovation leadership. In this era of disruptive change, there are extraordinary opportunities for growth. To realize our potential, we must think globally, continuously strengthen our innovation, and leverage synergies within the MCHC Group.

Rapidly launching new products in our focus markets

The MCHC Group accelerates innovation by leveraging the core technologies of our four operating companies.



Case studies of addressing the material issues

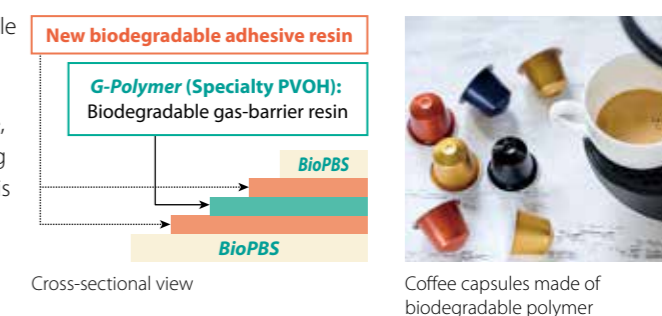
Group companies have been developing the following next-generation products.

1 Developing fully biodegradable multilayer barrier packaging

The Group's Materiality  
 • Food and agriculture  
 • Climate change



Mitsubishi Chemical Corporation is developing a biodegradable gas-barrier packaging, making use of plant-derived and biodegradable material *BioPBS*. Waste reduction can be achieved because each of the multiple layers is biodegradable, and the product can even be composted. Since this packaging maintains the freshness and aroma of contents, the company is promoting the new product for use in coffee capsules and other applications.



2 Applying complementary technological expertise to develop GaN substrates

The Group's Materiality  
 • Energy and resources  
 • Climate change



The MCHC Group has been developing GaN substrates for next-generation power devices, recognizing that this material enables devices with more efficient energy transduction, leading to reduced CO<sub>2</sub> emissions. Mitsubishi Chemical used its proprietary liquid phase epitaxy method to successfully grow large GaN single-crystals with low defect density, suitable for commercialization in power semiconductors. Meanwhile, Taiyo Nippon Sanso Corporation has jointly developed a low-cost GaN crystal production process and equipment with the Tokyo University of Agriculture and Technology, applying a vapor phase epitaxy method.

Compared with equipment based on conventional methods, this new process can continuously form high-quality crystals at three times the growth rate and only about one-fifth the defect density. The MCHC Group will continue working to accelerate product development.





Initiatives to Drive Innovation

## Creating business value and fostering a new corporate culture through digital transformation

To accelerate value creation, the MCHC Group promotes digital transformation (DX) across all operations, from R&D to manufacturing and supply chain management.



### Three strategies to realize DX

The Mitsubishi Chemical Holdings (MCHC) Group approach to DX is centered on three principal strategies.

First, we are optimizing operations across the full range of MCHC Group businesses. For example, we are digitalizing global supply chain communications in the MMA business, enabling dependable product supply to customers worldwide even when market conditions fluctuate. In other businesses, we leverage production plant data to reduce downtime and improve product quality, and we apply AI-based technologies to increase product development efficiency.

Second, we are creating new business models. We use digital technology to create new customer touch points and foster customer engagement in product development. The results are propelling the MCHC Group beyond the traditional B2B model by providing novel solutions to customers and making supply chains more dependable and resilient.

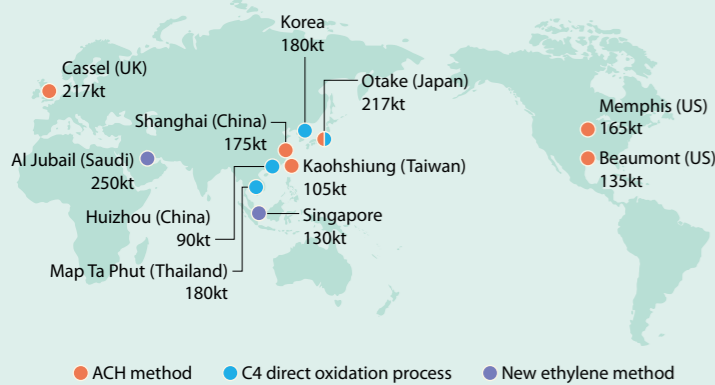
Finally, we are developing and applying technologies, such as quantum computing, that hold the potential to revolutionize business and R&D processes. These activities will enable the MCHC Group to remain a digital leader within our industry and adapt to market changes more quickly than our competitors.

### Promoting MCHC Group-wide DX through "MCHC Methods"

The MCHC Group has developed unique approaches to digitalization that can be leveraged by all companies of the Group, in businesses ranging from chemicals to healthcare services. Through these "MCHC Methods," we promote greater familiarity with digital technologies and enable closer collaborations. In addition, to keep employees up to date on the latest digital applications, we offer a DX training program and machine learning project workshops covering 12 essential topics.

There is now a renewed appreciation of the importance of DX in responding and adapting to "black swan" events like the COVID-19 pandemic. While the outlook surrounding the pandemic is uncertain, the Group is prepared to take on any future challenges by establishing a more resilient business model and integrating both in-person and online communications.

### Global MMA supply network linked via digital technologies



**Envisioning a better path for people's lives**  
**Naohiko Uramoto**  
 Executive Officer and Chief Digital Officer

DX offers the potential to create changes that directly benefit people's lives. The ability of people and organizations to recognize the relevance and properly apply these changes in newly created systems is the key to success. Drawing on my past experiences, for example as a research leader with IBM Corporation and as President of the Japanese Society for Artificial Intelligence, I have worked for many years to connect people and organizations using digital technologies. I am now applying my expertise throughout the MCHC Group to enable our own DX, with the aim of offering even more benefit to people and communities in the future.

## Creating new business opportunities through corporate venture partnerships and investments

Recognizing that strategic partnerships with promising startups can create opportunities for business growth, the MCHC Group established a global venture capital network based in Tokyo, Japan and Silicon Valley, California.







### Creating business growth for both the MCHC Group and our startup partners

The MCHC Group has much to offer our startup partners, including access to markets, manufacturing at scale, resources, and capital. Our deep connection with business units across the Group ensures that our startup partnerships yield powerful business synergies. Beyond our investments, we have facilitated more than 70 collaborations between select startups and MCHC Group business units, leading to numerous successful proof-of-concept demonstrations.

### Corporate venture capital investment through Diamond Edge Ventures, Inc. (DEV)

Even in long-established industries, startup partnerships can ignite revolutionary change. DEV was established to tap into this rich international source of innovation and help create the MCHC Group of tomorrow. We partner with and invest in startups directly related to our current businesses, and we also explore emerging areas to create the next pillar of growth for the MCHC Group.

### Startup investments by Diamond Edge Ventures, Inc. (As of March 31, 2020)

Startup partner	Specialty and scope of collaboration	Comments from startup partner
<b>Digilens, Inc.</b> United States 	<b>Specialty:</b> Enabling the next generation of waveguide-based AR/VR displays <b>Collaboration:</b> Development of plastic substrates for AR/VR waveguides	"DEV has proven to be a knowledgeable investor willing to advocate for us to the MCHC Group's business units, to its corporate leaders, and to other like-minded investors." Chris Pickett, CEO.
<b>Fluence Analytics, Inc.</b> United States 	<b>Specialty:</b> Real-time monitoring of polymerization reactors through realization of IIoT* <b>Collaboration:</b> Polymer process optimization in R&D labs and plants; new product development	"We've been impressed by the speed and breadth of our engagements with multiple business units in both Japan and the US" Alex Reed, CEO.
<b>AddiFab ApS</b> Denmark 	<b>Specialty:</b> Additive manufacturing technology merging 3D printing and injection molding <b>Collaboration:</b> Partnership in parts manufacturing; joint development of materials	"After the investment, DEV has been essential in helping to develop the business with Mitsubishi Chemical Corporation." Lasse Staal, CEO.
<b>Lactips S.A.</b> France 	<b>Specialty:</b> Fully biodegradable natural polymer contributing to circular economy <b>Collaboration:</b> Development of "green" materials and applications for customers; enhancement of biodegradability focus in product portfolio	"We are very happy with DEV's investment, as they led a win-win process with the MCHC Group's affiliates by identifying and following our engagements until a product is on the market." Marie H�el�ene Gramatikoff, CEO.

\* IIoT: Industrial Internet of Things

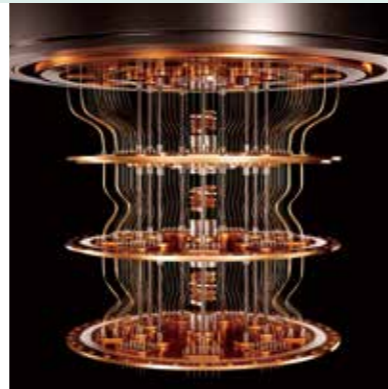
### Stepping up investment in semiconductor materials and healthcare startups

The MCHC Group has identified semiconductor materials and healthcare as strategic business areas. Accordingly, we have begun actively exploring relevant investment opportunities in the United States, Europe, and Japan. We have built our corporate venture framework with a long-term perspective, maintaining

active and steady engagement to maximize the success of our startup partners. Although the COVID-19 pandemic has caused disruption around the world and greatly changed our business environment, we continuously provide investment funds and partnership opportunities to startups with the potential to drive the innovations and solutions most needed in the world today.

## Empowering R&D through open innovation

In addition to developing components and materials, the MCHC Group constantly explores innovative ways to apply new technologies and improve manufacturing processes and logistics. We focus on promoting open innovation with other companies, government organizations, and universities. Examples of such activities led by Mitsubishi Chemical are described below.



### Collaborating in quantum computing research projects

As part of its efforts to promote open innovation in the field of quantum computing, Mitsubishi Chemical joined IBM Q Network Hub at Keio University upon its launch in fiscal 2018. The hub brings scientists together to develop algorithms related to chemistry, AI, and finance, through its access to IBM quantum computers implemented with a universal gate set. Mitsubishi Chemical assigned researchers to work onsite together with researchers from IBM and Keio University to explore world first applications for the chemical industry. To date, the researchers successfully simulated chemical reactions in lithium-air batteries in 2019, and predicted the performance of organic light-emitting diodes in 2020. Working with company members from the finance sector, they also improved the calculation accuracy of AI algorithms running on quantum computers developed by IBM. The research results were published in three papers via arXiv, a widely recognized open-access site administered by Cornell University for submitting scientific papers before publication in journals. The papers were also submitted to scientific journals, and one was accepted by the journal *Quantum Machine Intelligence*.

In addition, Mitsubishi Chemical began a joint-research project with QunaSys Inc., a venture firm specializing in quantum computing algorithm development, in fiscal 2019. This project successfully developed a method for calculating absorption spectra of dye materials, and the results were published on arXiv.

### Joint development of a new algorithm for reducing noise

Initially, error noise from gate operation on quantum computers was a major hurdle to achieving the required computational accuracy. Since it was proved that the issue may be addressable by error mitigation algorithms, expectations have risen for near-term adoption of quantum computers in business, and an era of worldwide competition has begun. Our achievements at IBM Q Network Hub are also due to an error noise mitigation algorithm originally developed by the research team from Mitsubishi Chemical along with researchers from IBM and Keio University. We expect that our algorithm will be generally useful in a wide range of fields.

## Message from the Chief Marketing Officer



**Naoko Ichikawa**  
Executive Officer and  
Chief Marketing Officer

### Developing new businesses quickly and efficiently through trial and error

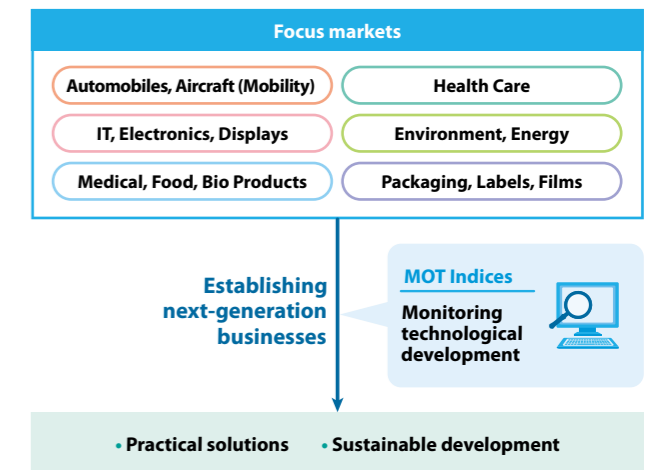
Our first step in developing new businesses is to fully understand the target market and customers. The bird's-eye view derived from this understanding helps us build a business model hypothesis. To launch a sustainable food and water supply business, for example, we consider how the MCHC Group may contribute to a circular economy encompassing the entire value chain from initial agricultural production through distribution and consumption.

We value three perspectives in designing a new business model: 1) empowering collective capabilities across the MCHC Group, 2) collaborating with external partners, and 3) integrating digital and physical technologies. To rapidly compete in markets in Europe, the United States, and China, a rigid strategic plan is not sufficient. The key is to progress through a trial and error approach, listening constantly to feedback from customers and business partners to overcome the many challenges in getting new businesses off the ground.

## Measuring Innovation through Management of Technology (MOT)

The Mitsubishi Chemical Holdings (MCHC) Group has created three MOT Indices to measure our overall technological strength over time. These indices comprise: 1) R&D Indices to evaluate the efficiency of our R&D efforts, which are critical for realizing innovation, 2) Intellectual Property Indices to measure the value of our overall technology assets, and 3) Advanced Technology Indices to assess enhancements through emerging technologies and digital transformation (DX). By tracking these indices quantitatively, the MCHC Group defines steps to bolster its collective technological capabilities. The results also guide us in quickly establishing businesses offering practical solutions in key markets (see page 32).

### Targeting key markets



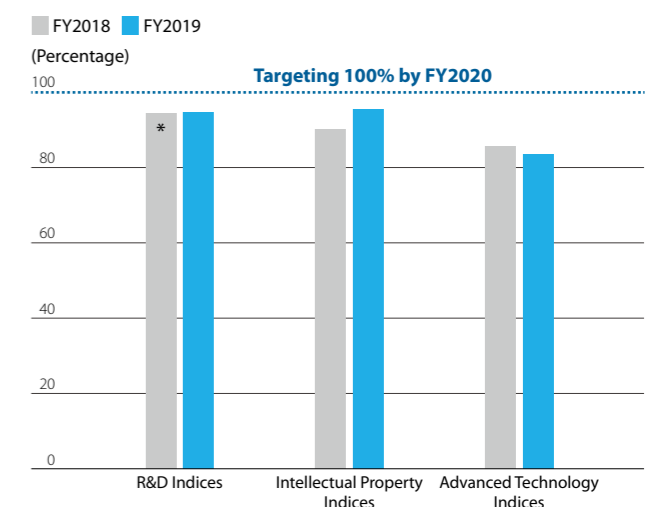
### FY2019 Results

Fiscal 2019 results for the R&D and Intellectual Property Indices show steady progress toward fiscal 2020 targets.

MOT Indices	Evaluation points	FY2019 overview
<b>R&amp;D Indices</b>	<ul style="list-style-type: none"> <li>Percentage of targeted R&amp;D milestones achieved</li> <li>Percentage of sales from newly developed products</li> </ul>	Newly developed products accounted for a higher percentage of sales than the previous fiscal year, with particularly high percentages achieved by Mitsubishi Chemical Corporation and Mitsubishi Tanabe Pharma Corporation.
<b>Intellectual Property Indices</b>	<ul style="list-style-type: none"> <li>Relative priority placed on intellectual property in business strategies</li> <li>Relative contribution of intellectual property in securing competitiveness</li> <li>Number of patents applied for in Japan and other countries</li> </ul>	Taiyo Nippon Sanso Corporation substantially increased its patent applications from joint R&D compared to fiscal 2018. In total, patent applications were higher than in fiscal 2018, but further strategic measures are required.
<b>Advanced Technology Indices</b>	<ul style="list-style-type: none"> <li>Number of new technologies developed</li> <li>Relative progress in adopting digital and other emerging technologies</li> </ul>	Progress was achieved toward our goal of Group-wide DX, and the level of digital maturity improved compared to fiscal 2018. We are expecting to accelerate progress each year.

In fiscal 2020, the final year of the current medium-term management plan, the MCHC Group will conduct innovation management with the goal of reaching its target of 100%. We will emphasize facilitating close collaborations and increasing employee capability with digital technologies across the entire MCHC Group. We will also continue to examine and improve the practical effectiveness of the three MOT Indices for realizing greater innovation and increasing the overall competitiveness of the MCHC Group.

### FY2019 MOT results compared with FY2020 targets



\* Result differs slightly from figure disclosed in the previous fiscal year due to a change in calculation method

# Directors

(As of June 24, 2020)

MCHC: Mitsubishi Chemical Holdings Corporation  
MCC: Mitsubishi Chemical Corporation  
MPI: Mitsubishi Plastics, Inc.  
MRC: Mitsubishi Rayon Co., Ltd.  
MTPC: Mitsubishi Tanabe Pharma Corporation  
LSII: Life Science Institute, Inc.  
TNSC: Taiyo Nippon Sanso Corporation  
NSHD: Nippon Sanso Holdings Corporation

- Chairperson of the Nominating Committee
- Member of the Nominating Committee
- ◆ Chairperson of the Audit Committee
- ◆ Member of the Audit Committee
- Chairperson of the Compensation Committee
- Member of the Compensation Committee



Director of the Board, Chairperson

## Yoshimitsu Kobayashi

Dec. 1974 Joined Mitsubishi Chemical Industries Ltd.  
Jun. 2003 Executive Officer, MCC  
Apr. 2005 Managing Executive Officer, MCC  
Jun. 2006 Director of the Board, MCHC  
Feb. 2007 Director of the Board,  
Managing Executive Officer, MCC  
Apr. 2007 Director of the Board,  
President and Chief Executive Officer, MCHC  
Director of the Board, President and Chief  
Executive Officer, MCC  
Apr. 2012 Director of the Board, Chairperson,  
MCC (until Mar. 2017)  
Apr. 2015 Director of the Board, Chairperson,  
MCHC (current)



Director of the Board,  
Corporate Executive Officer,  
President and Chief Executive Officer

## Hitoshi Ochi

Apr. 1977 Joined Mitsubishi Chemical Industries Ltd.  
Jun. 2007 Executive Officer, MCHC  
Executive Officer, MCC (until Mar. 2010)  
Apr. 2009 Director of the Board, MPI (until Mar. 2011)  
Jun. 2009 Director of the Board, Executive Officer, MCHC  
Jun. 2010 Director of the Board, Managing Executive  
Officer, MCHC  
Director of the Board, MRC (until Jun. 2011)  
Apr. 2011 Director of the Board, MCHC (until Jun. 2011)  
Director of the Board, Managing Executive  
Officer, MCC (until Mar. 2012)  
Apr. 2012 Director of the Board, President and Chief  
Executive Officer, MRC (until Mar. 2018)  
Jun. 2012 Director of the Board, MCHC  
Apr. 2015 Director of the Board,  
President and Chief Executive Officer, MCHC  
Jun. 2015 Director of the Board, Corporate Executive Officer,  
President and Chief Executive Officer, MCHC (current)



Director of the Board,  
Managing Corporate Executive Officer,  
Chief Financial Officer

## Hidefumi Date

Apr. 1982 Joined Mitsubishi Chemical Industries Ltd.  
Apr. 2013 Executive Officer, MCC (until Mar. 2015)  
Apr. 2015 Executive Officer, MCHC  
Apr. 2018 Managing Corporate Executive Officer, MCHC  
Jun. 2019 Director of the Board,  
Managing Corporate Executive Officer,  
MCHC (current)  
Director of the Board,  
TNSC (currently NSHD) (current)



Director of the Board,  
Managing Corporate Executive Officer,  
Chief Group Compliance Officer

## Ken Fujiwara

Apr. 1984 Joined Mitsubishi Chemical Industries Ltd.  
Apr. 2015 Executive Officer, MCHC  
Apr. 2017 Executive Officer, MCC (until Mar. 2018)  
Apr. 2018 Managing Corporate Executive Officer, MCHC  
Jun. 2018 Director of the Board,  
Managing Corporate Executive Officer, MCHC  
(current)  
Jun. 2020 Director of the Board, MTPC (current)



Director of the Board

## Glenn H. Fredrickson

Jan. 1990 Associate Professor,  
Departments of Chemical Engineering  
and Materials, University of California,  
Santa Barbara (UCSB)  
Jul. 1991 Distinguished Professor,  
Departments of Chemical Engineering  
and Materials, UCSB (current)  
May 1998 Chairperson, Department of Chemical  
Engineering, UCSB (until Jul. 2001)  
Mar. 2001 Director, Mitsubishi Chemical Center for  
Advanced Materials, UCSB (current)  
Apr. 2014 Managing Executive Officer, MCHC  
Jun. 2014 Director of the Board,  
Managing Executive Officer, MCHC  
Jun. 2015 Director of the Board,  
Managing Corporate Executive Officer, MCHC  
Apr. 2017 Director of the Board, MCHC (current)



Director of the Board

## Shigeru Kobayashi

Apr. 1980 Joined Mitsubishi Chemical Industries Ltd.  
Apr. 2013 Executive Officer, MPI  
Apr. 2015 Director of the Board, Executive Officer, MPI  
Apr. 2016 Director of the Board,  
Managing Executive Officer, MPI  
Apr. 2017 Managing Executive Officer,  
MCC (until Mar. 2019)  
Jun. 2019 Director of the Board, MCHC (current)  
Corporate Auditor, LSII (until Jun. 2020)  
Jun. 2020 Corporate Auditor, MCC (current)



Director of the Board

## Hiroshi Katayama

Apr. 1983 Joined Mitsubishi Chemical Industries Ltd.  
Apr. 2014 Executive Officer, MCC  
Apr. 2017 Executive Officer, MCC  
Apr. 2018 Managing Executive Officer,  
MCC (until Mar. 2020)  
Jun. 2020 Director of the Board, MCHC (current)  
Corporate Auditor, LSII (current)



Outside Director of the Board

## Hideko Kunii

May 1982 Joined Ricoh Co., Ltd.  
Jun. 2005 Corporate Senior Deputy CEO, Ricoh Co., Ltd.  
(until Mar. 2008)  
Apr. 2008 Chairperson, Ricoh Software Co., Ltd.  
(currently Ricoh IT Solutions Co., Ltd.)  
Apr. 2009 Associate Director, Ricoh Co., Ltd. (until Mar. 2013)  
Jul. 2009 Chairperson, Ricoh IT Solutions Co., Ltd.  
(until Mar. 2013)  
Apr. 2012 Professor, Graduate School of Engineering  
Management, Shibaura Institute of Technology  
Apr. 2013 Deputy President, Shibaura Institute of  
Technology (until Mar. 2018)  
Oct. 2013 Head of the Office of the Gender Equality  
Promotion Center, Shibaura Institute of  
Technology (until Mar. 2018)  
Jun. 2015 Outside Director of the Board, MCHC (current)  
Apr. 2018 Visiting Professor, Graduate School of  
Engineering Management, Shibaura Institute of  
Technology (until Mar. 2019)  
Apr. 2019 Visiting Professor, Shibaura Institute of  
Technology (current)



Outside Director of the Board

## Takayuki Hashimoto

Apr. 1978 Joined IBM Japan, Ltd.  
Apr. 2000 Director of the Board, IBM Japan, Ltd.  
Apr. 2003 Managing Executive Officer, IBM Japan, Ltd.  
Jan. 2007 Senior Managing Executive Officer,  
IBM Japan, Ltd.  
Apr. 2008 Director of the Board, Senior Managing Officer,  
IBM Japan, Ltd.  
Jan. 2009 Director of the Board, President, IBM Japan, Ltd.  
May 2012 Director of the Board, Chairperson,  
IBM Japan, Ltd.  
Apr. 2014 Chairperson, IBM Japan, Ltd.  
Jan. 2015 Vice Chairperson, IBM Japan, Ltd.  
Jun. 2016 Outside Director of the Board, MCHC (current)  
May 2017 Honorary Executive Advisor, IBM Japan, Ltd.  
(current)



Outside Director of the Board

## Chikatomo Hodo

Sep. 1982 Joined Accenture Japan Ltd  
Sep. 2005 Representative Director, Accenture Japan Ltd  
Apr. 2006 Representative Director and President,  
Accenture Japan Ltd  
Sep. 2015 Director and Chairperson, Accenture Japan Ltd  
Sep. 2017 Director and Senior Corporate Advisor,  
Accenture Japan Ltd  
Jul. 2018 Senior Corporate Advisor,  
Accenture Japan Ltd (current)  
Jun. 2019 Outside Director of the Board, MCHC (current)



Outside Director of the Board

## Kiyomi Kikuchi

Apr. 1986 Joined The Dai-ichi Kangyo Bank, Ltd.  
(currently Mizuho Bank, Ltd.) (until Dec. 1990)  
Apr. 1999 Registered as a lawyer  
Asahi Law Offices  
Sep. 2002 Allen & Overy LLP (London)  
May 2003 Admitted to the bar of the State of New York  
Oct. 2003 Asahi Law Offices  
Sep. 2004 Taiyo Law Office  
(currently Paul Hastings LLP/Gaikokuho  
Kyodo Jigyo)  
Sep. 2006 JPMorgan Securities Japan Co., Ltd.  
Apr. 2008 TMI Associates (current)  
Jun. 2019 Outside Director of the Board, MCHC (current)



Outside Director of the Board

## Tatsumi Yamada

Apr. 1976 Joined Sumitomo Corporation (until Jun. 1993)  
Mar. 1980 Registered as a Certified Public Accountant  
Jul. 1993 Chuo Audit Corporation (until Mar. 2001)  
Apr. 2001 Board member, The International Accounting  
Standards Board (until Jun. 2011)  
Sep. 2011 KPMG AZSA LLC (until Jun. 2018)  
Jan. 2012 Board Member, KPMG AZSA LLC  
(until Jun. 2015)  
Feb. 2014 Founding member, International Integrated  
Reporting Council (current)  
Oct. 2014 Trustee of International Valuation Standards  
Council (current)  
Sep. 2015 Specially Appointed Professor, Faculty of  
Commerce at Chuo University (current)  
Apr. 2016 Member, Certified Public Accountants and  
Auditing Oversight Board, Financial Services  
Agency (current)  
Jun. 2020 Outside Director of the Board, MCHC (current)

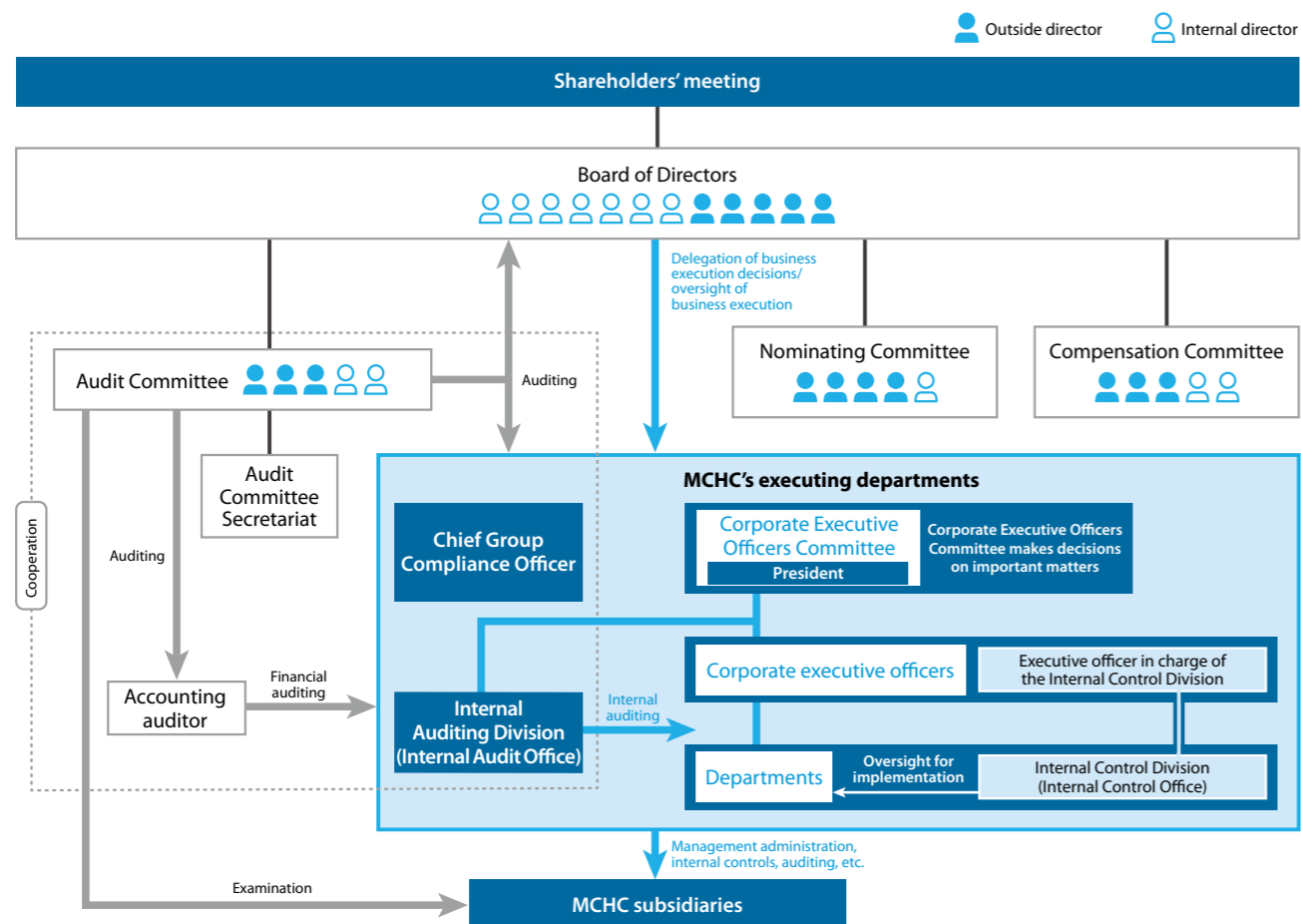
# Corporate Governance

Mitsubishi Chemical Holdings Corporation (MCHC) aims to contribute to the sustainable development of people, society, and the Earth, in addition to solving environmental and social issues through corporate activities for the realization of KAITEKI.

With our eyes on these objectives, we are focusing on establishing a better corporate governance structure by improving management transparency through proper disclosure and dialogue with stakeholders, while enhancing both the soundness and efficiency of management.

## Corporate governance structure for sound management and greater efficiency (As of June 24, 2020)

MCHC is a company with a nominating committee, etc. As such, we are enhancing our supervision functions and speedy decision-making for greater management agility with the aim of improving the transparency and fairness of our management. Under this governance system, the Board of Directors and the three committees (Nominating, Audit, and Compensation Committees) oversee business management while the corporate executive officers are responsible for making decisions and operating our business.



## Corporate governance history

Category	June 2013	June 2014	June 2015	June 2016	June 2019
Initiatives	Appointment and inauguration of an outside director	Appointment and inauguration of a foreign director	Appointment and inauguration of a female director Transition to a company with a nominating committee, etc.	Increase the number of outside directors	Increase the number of female directors
Medium- to long-term targets (including those already achieved)	Strengthen management supervision functions	Increase diversity of the Board of Directors	Increase diversity of the Board of Directors Improve management transparency and fairness as well as management supervision functions	Strengthen management supervision functions	Increase diversity of the Board of Directors

## Roles of the Board of Directors

The Board of Directors determines basic management policies, such as medium-term business strategies and annual budgets.

As a general rule, corporate executive officers are entrusted with the responsibility of executing operations in accordance with these basic policies, excluding matters that must be legally resolved by the Board of Directors. The Board of Directors primarily supervises the execution of duties by the corporate executive officers.

## Framework and roles of the committees (As of June 24, 2020)

	Nominating Committee	Audit Committee	Compensation Committee
<b>Chairperson</b>	Outside director	Internal director (full-time)	Outside director
<b>Composition (including chairperson)</b>	Outside directors - 4 Internal director - 1	Outside directors - 3 Internal directors (full-time) - 2	Outside directors - 3 Internal directors - 2
<b>Purpose</b>	The Nominating Committee nominates candidates for directors and corporate executive officers as well as potential successors for the presidents of the major directly owned subsidiaries that are not listed companies (Mitsubishi Chemical Corporation, Mitsubishi Tanabe Pharma Corporation, and Life Science Institute, Inc.).	The Audit Committee audits the execution of duties by corporate executive officers and directors and reviews the Group's internal control systems, etc.	The Compensation Committee determines the amount of remuneration to be paid to individual directors and corporate executive officers as well as to the presidents of the major directly owned subsidiaries that are not listed companies (Mitsubishi Chemical, Mitsubishi Tanabe Pharma, and Life Science Institute).
<b>Activities in FY2019</b>	The Committee met 6 times in total. Reports were presented on matters such as succession plans, executive appointments based on these plans, and appointments of representatives of major subsidiaries. Discussions were also held on methods for evaluating CEO performance and the standards for appointing CEOs (including qualifications, abilities, and experience).	The Committee met 13 times in total. The areas of focus for the previous fiscal year were the adequacy and effectiveness of the internal control system and the progress of the medium-term management plan APTSIS 20. Based on the audit plan, the Committee carried out audits on the execution of duties by directors and corporate executive officers, conducted inspections on the directly owned subsidiaries and exchanged opinions with the accounting auditor.	The Committee met 7 times in total to discuss the standard remuneration to be paid to the executives and to review the performance-linked remuneration.

## Corporate executive officers

The corporate executive officers decide on and implement the operational execution based on basic management policies developed by the Board.

Regarding important matters in the management of the MCHC Group, deliberations are made at the Corporate Executive Officers Committee, which is a council formed of corporate executive officers. In addition to determining the division of duties of each corporate executive officer for other matters, appropriate and efficient decision-making is made possible by clarifying the decision-making authority of the corporate executive officer in charge.

## Corporate Executive Officers Committee

The Corporate Executive Officers Committee is composed of all corporate executive officers. It deliberates and decides on important matters concerning the management of MCHC and the MCHC Group, and also monitors the Group's business based on basic management policies.

## Audit system (trilateral audits)

The Audit Committee cooperates with the internal audit departments and the accounting auditor to enhance the trilateral audits (conducted by the Audit Committee, accounting auditor, and the internal audit departments).

The Committee holds discussions in advance with the Internal Audit Office on the internal audit plans made by the office and has regular meetings with the office to exchange opinions and receive information on the results of internal audits and other issues.

The Committee also cooperates closely with the accounting auditor. It receives reports on the audit process, plans, progress status on audit work, and the results of audits, and exchanges information and opinions with the auditor.

### Diversity of directors

The Board of Directors decides on the MCHC Group's basic management policies and supervises the execution of business in an appropriate manner. The Board of Directors consists of diverse directors with a high level of expertise.

	Management experience	Finance and accounting	Science technology, IT and production	Risk management	Business strategies and marketing	Laws and regulations, etc.	Globality and diversity
Yoshimitsu Kobayashi	●		●				●
Hitoshi Ochi ◆	●		●		●		
Hidefumi Date ◆		●		●			●
Ken Fujiwara ◆				●		●	●
Glenn H. Fredrickson			●		●		●
Shigeru Kobayashi	●			●	●		
Hiroshi Katayama				●		●	
Hideko Kunii			●		●		●
Takayuki Hashimoto	●				●		●
Chikatomo Hodo	●		●				●
Kiyomi Kikuchi				●		●	●
Tatsumi Yamada		●		●			●

(Notes) 1 Each director is expected to have up to three fields of expertise as set above.  
2 In order to enhance the supervisory function, a majority of the Board of Directors are non-executive directors. (Directors indicated with the symbol ◆ act in an executive function.)

### Policies on the nomination of director candidates

The Nominating Committee shall appoint a potential director who meets the following criteria:

- Has a high level of expertise, profound insights into relevant fields, and can make decisions independently and fairly, which are qualities that are required in fulfilling duties as a director of a company with a nominating committee, etc.
- Has high ethical standards and a law-abiding spirit.
- Is healthy enough to fulfill the responsibilities of a director.
- For outside directors, they meet the independence criteria set separately and are able to devote sufficient time to fulfill their duties. In addition, the Committee shall ensure diversity among outside directors.

### Standards for independence of outside directors

The Company shall elect those as outside directors who do not fall under any of the following and are capable of overseeing the Company's management from a fair and neutral standpoint, free of any conflicts of interest with general shareholders.

#### 1. Related party of the Company

- (1) A person engaged in execution of operation of the Group (executive director, corporate executive officer, executive officer, manager, employee, partner, etc.; the same shall apply hereafter.)
- (2) A person who has been engaged in execution of operation of the MCHC Group in the past 10 years.

#### 2. Major shareholder

A person who directly or indirectly holds 10% or more of the MCHC's total voting rights or a person engaged in execution of operation of a company that directly or indirectly holds 10% or more of the Company's total voting rights.

#### 3. Major business partner

- (1) A person engaged in execution of operation of a company\*1 whose major business partner includes MCHC and group operating companies (Mitsubishi Chemical, Mitsubishi Tanabe Pharma, Life Science Institute, and Nippon Sanso Holdings; the same shall apply hereafter.)
- (2) A person engaged in execution of operation of a major business partner\*2 of the Company and group operating companies.

#### 4. Accounting auditor

Accounting auditor of the MCHC Group or an employee thereof

#### 5. Transaction as an individual

A person who receives money and other financial benefits of ¥10 million or more per year from the Company or group operating companies.

#### 6. Donation

A person who receives a donation or financial assistance of ¥10 million or more per year from the Company or group operating companies or a person engaged in execution of operation of a company that receives a donation or financial assistance of ¥10 million or more per year from the Company or group operating companies.

#### 7. Reciprocal assumption of the position of director

A person engaged in execution of operation of a company that has elected any of the directors and employees of the MCHC Group as its director.

#### 8. Close relatives, etc.

- (1) Close relatives, etc. of a person engaged in execution of important operations of the MCHC Group (spouse, relatives within the second degree of relationship or any person who shares the same livelihood; the same shall apply hereafter.)
- (2) Close relatives, etc. of any person who meets the definition of items 3 through 7 above.

\*1 If the said business partner receives from the Company and group operating companies an amount equivalent to 2% or more of its annual consolidated net sales in the latest fiscal year, this company shall be considered as the one whose major business partner includes the Company.

\*2 If the Company and group operating companies receive from the said business partner an amount equivalent to 2% or more of the Company's annual consolidated net sales in the latest fiscal year or the said business partner loans to the MCHC Group an amount equivalent to 2% or more of the Company's total consolidated assets, the said business partner shall be considered as a major business partner of the Company.

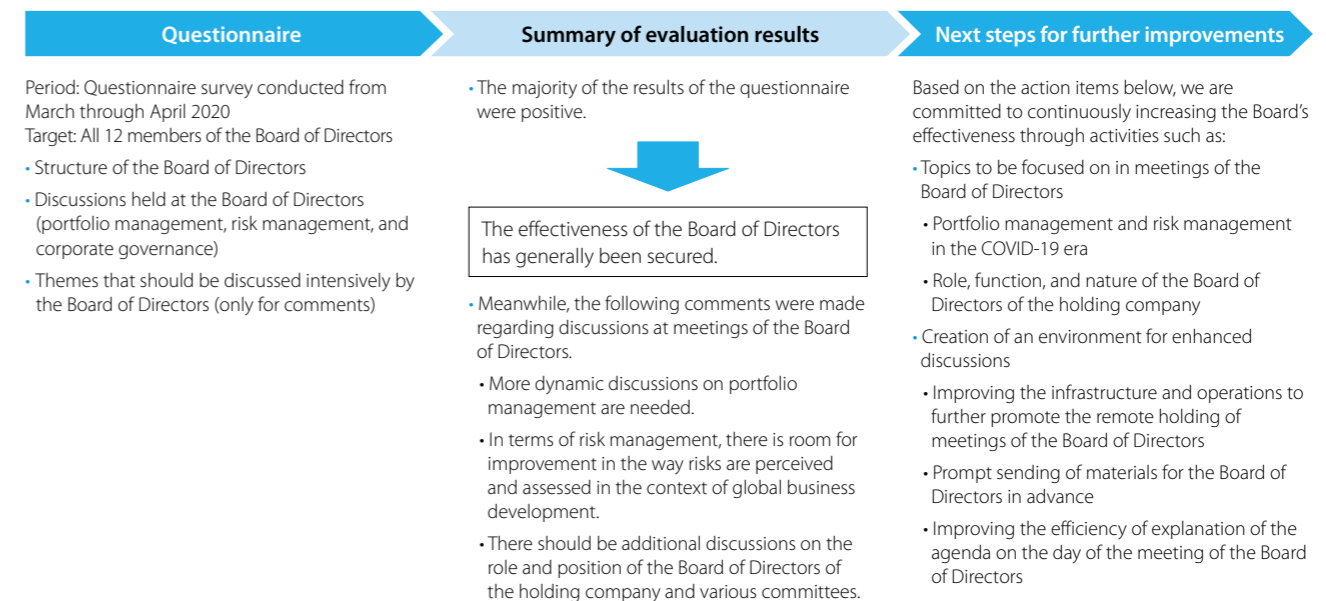
\*3 For requirements 3 through 7, these include cases where the requirements have been met in the past three years.

### Main agenda items discussed at the Board of Directors' meeting during FY2019

Main agenda reported at the Board of Directors' meeting	Review of the meaningfulness of strategic shareholdings
Formulation of KAITEKI Vision 30	Outcomes of engagement activities with institutional investors
Discussions on converting a listed subsidiary into a wholly owned subsidiary	Effectiveness of internal control system
Governance structure of listed subsidiaries	Budgeting and planning of investments for the next fiscal year
Business monitoring	

### FY2019 assessment of the Board's effectiveness

The annual evaluation exercise was facilitated by questionnaires which all the Board members participated in, and its outcomes were discussed at the Board meeting. Based on the discussion, the chairperson evaluated the effectiveness of the Board.



### Assessment of the CEO

The Nominating Committee assesses the performance of the CEO from multiple perspectives using indices (see page 7) based on the three axes of KAITEKI Management (MOS, MOT, and MOE), and also discusses the appropriateness of the continuation of duties by the CEO, using metrics such as 360-degree feedback. The Nominating Committee provides feedback on the results of discussions to the individuals involved to improve the quality of management.

**Director remuneration**

**Policy on deciding remuneration for directors and officers**

The remuneration system for directors, and that for corporate executive officers shall be different. Remuneration is determined by the Compensation Committee based on the following concepts.

**Basic policy for deciding remuneration for directors**

- In view of supervising and auditing our management from an independent and objective standpoint, we have only established basic remuneration (fixed remuneration).
- In order to secure human resources suitable for fulfilling our responsibilities as a director, the level of remuneration will be determined by taking into account trends in other companies, expected roles, and functionals, etc.

(Note) For a director concurrently serving as a corporate executive officer, the remuneration for a corporate executive officer shall apply.

**Basic policy for deciding remuneration for corporate executive officers**

- The remuneration system shall strongly encourage the integrated practice of the three axes of KAITEKI Management (MOS: Management of Sustainability, MOT: Management of Technology, and MOE: Management of Economics) in an aim to realize KAITEKI as the Group's vision.
- The remuneration system shall effectively function as an incentive to promote improvements in short- and medium-term performance as well as sustainable corporate and shareholder value.
- The level of remuneration shall be competitive in order to ensure the retention and acquisition of excellent management personnel to drive the Group's sustainable growth.
- A fair and reasonable remuneration determination process shall be implemented to ensure accountability to all stakeholders, including shareholders, customers, and employees.

**Composition of the remuneration of corporate executive officers**

In light of the basic policy, the remuneration of corporate executive officers was reviewed in fiscal 2019, and from fiscal 2020, we have decided to increase the ratio of performance-linked remuneration and stock-based remuneration for corporate executive officers to more effective ratios, and have introduced a new restricted stock remuneration plan. We have also decided to add an individual evaluation (non-financial evaluation) to the cash bonus evaluation.

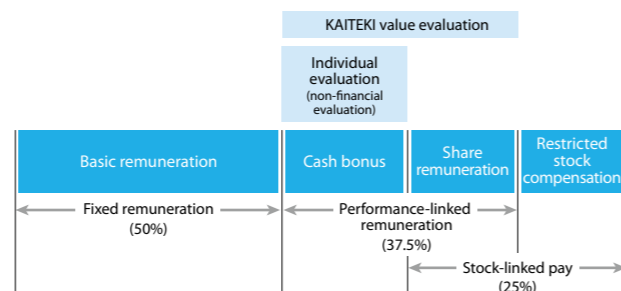
**Remuneration level**

The remuneration level for corporate executive officers is set at a competitive level and an appropriate remuneration

composition ratio every year by the Compensation Committee, using data from an external specialist organization's survey on executive remuneration for each position and responsibility and after conducting a comparative evaluation of remuneration levels and the linkage with performance for other companies of the same size in terms of domestic sales.

Performance-linked remuneration consists of a cash bonus and stock remuneration, and is designed to motivate management to maintain a balance between short-, medium-, and long-term performance and improvement in corporate and shareholder value.

The remuneration composition ratio for fiscal 2020 for the president was 50% for basic remuneration, 25% for performance-linked remuneration as a cash bonus (standard amount), 12.5% for performance-linked remuneration as stock remuneration (standard amount), and 12.5% for restricted stock (base amount). Remuneration is set for other corporate executive officers in the same manner as the president, with a higher percentage of variable remuneration for higher positions.



(Note) The remuneration composition ratio is calculated based on the standard amount (amount paid if 100% of the target is achieved with respect to performance-linked remuneration).

**How performance-linked remuneration is determined**

The Compensation Committee deliberates and decides on performance-linked remuneration based on the following formula.

**Cash bonus**

In principle, the amount paid varies between 0% and 200% of the standard amount set for each position, depending on the status of achievement of annual targets (KAITEKI value evaluation) and individual evaluation in the three management axes of KAITEKI Management.

$$\text{Cash bonus payment for each individual} = \text{Standard amount by position} \times \text{KAITEKI value evaluation (0\% to 200\%)} \times \text{Individual evaluation (\pm 20\%)}$$

Remuneration composition		Overview
Fixed remuneration	Basic remuneration	Basic remuneration for the performance of duties, set according to the role and responsibility of each corporate executive officer (such as their role and whether they have representative rights)
Variable remuneration	Performance-linked remuneration	Cash bonus Cash is paid each fiscal year based on the KAITEKI value evaluation and individual evaluation (including the status of achievement of goals in the medium- to long-term management plan and demonstration of leadership).
		Share remuneration Points are awarded according to the KAITEKI value evaluation each fiscal year, and common shares of the Company equivalent to the number of accumulated points are provided upon retirement.
	Restricted stock compensation Remuneration to further promote the creation and enhancement of medium- to long-term sustainable corporate value and the sharing of value with shareholders. Restricted stock equivalent to a standard amount determined by position are issued each fiscal year and the restrictions on transfer will be lifted upon retirement.	

**Share compensation**

This is a framework in which common shares of the Company are distributed through the Board Incentive Plan (BIP) trust. Points are awarded every year depending on the status of achievement of annual targets (KAITEKI value evaluation). Common shares of the Company and dividends from those common shares equivalent to the number of points accumulated are then provided to corporate executive officers at the time of retirement.

$$\text{Number of points granted to individuals} = \text{Base points by position} \times \text{KAITEKI value evaluation (0\% to 200\%)}$$

**KAITEKI value evaluation**

The remuneration system is designed to make employees strongly aware of KAITEKI Management as a means of achieving KAITEKI, the Company's vision by using the management indices of MOS, MOT, and MOE in the KAITEKI Management program promoted by the Company as the evaluation basis for performance-linked remuneration.

The specific evaluation indices and evaluation ratios for KAITEKI value evaluation are as follows.

Indices	Details	Ratio
MOS Indices	Indices related to matters such as the reduction of global environmental impact, contribution to health and medical care, contribution to social issues, compliance, and prevention of accidents and fires	10%
MOT Indices	Indices related to R&D efficiency, technological advantages, and consistency with social needs	10%
MOE Indices	Indices related to matters such as core operating income, ROE, ROIC, and free cash flow	80%

The KAITEKI value evaluation is based on the achievement of target values for each fiscal year, which are determined after deliberation by the Corporate Executive Officers Meeting and verified as appropriate by the Compensation Committee.

The Compensation Committee also works with the Nominating Committee to confirm the fairness and reasonableness of the level of achievement compared to the targets declared at the beginning of the relevant fiscal year.

**Individual evaluation**

The targets for the president are determined at the start of the fiscal year for evaluation, after deliberation by the Compensation Committee and Nominating Committee regarding the targets declared by the president. The evaluation is deliberated and determined by the Compensation Committee and Nominating Committee at the end of the fiscal year for evaluation, based on a self-evaluation by the president.

Targets for corporate executive officers other than the president are determined at the start of the fiscal year for evaluation through interviews with the president and each corporate executive officer, and are deliberated and approved by the Compensation Committee. The evaluation is determined through interviews with the president and corporate executive officer at the end of the fiscal year under review, subject to deliberation and approval by the Compensation Committee. The Compensation Committee works together with the Nominating Committee to confirm the fairness and reasonableness of the targets and evaluation of each corporate executive officer.

**Return of remuneration**

As necessary, the Company may utilize other temporary remuneration or benefits, after separate discussions by the Compensation Committee. In the event of a serious case of misconduct or violation by a director or corporate executive officer, the Company may request that the director or corporate executive officer in question forfeit the beneficial interest in the executive officer's remuneration (based on a malus clause) or return the remuneration (clawback).

**Total amount of executive remuneration**

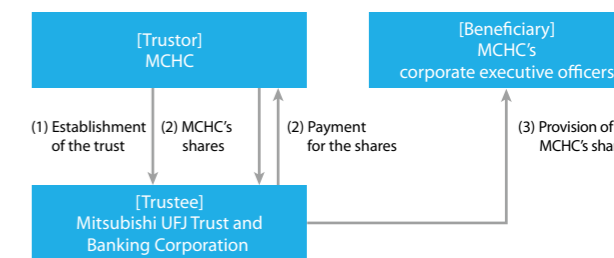
The total amount of remuneration by executive category for fiscal 2019 is as follows.

Category	No. of persons	Amount of remuneration paid, etc. (Millions of yen)		
		Basic remuneration	Performance remuneration	Total
Directors (inside)	6	212	15	227
Directors (outside)	7	71	—	71
Corporate executive officers	7	287	91	378
Sum total	20	570	106	676

- (Notes) 1 The total amount of remuneration, etc. MCHC and its subsidiaries paid to officers is shown as the amount of remuneration, etc. paid above.  
 2 The amount of remuneration, etc. the Company paid is ¥296 million to thirteen directors (of which, ¥71 million to seven outside directors) and ¥371 million to seven corporate executive officers.  
 3 The Company remunerates directors who concurrently serve as Corporate Executive Officers for their services as corporate executive officers.  
 4 Performance remuneration to directors (inside) is stock remuneration with a BIP trust paid to directors who concurrently served as corporate executive officers in the previous fiscal year as performance remuneration at the time of standing as corporate executive officers.  
 5 Performance remuneration to corporate executive officers is remuneration paid by the Company based on cash bonus and stock remuneration with a BIP trust.

**Board Incentive Plan (BIP) trust**

Under this incentive plan set for five consecutive fiscal years (including the three fiscal years beginning with the fiscal year ended March 31, 2019 and ending with the fiscal year ending March 31, 2021) corresponding to the period of the Company's medium-term management plan, corporate executive officers will be given points according to their titles and achievement level for the fiscal year targets and the targets set in the medium-term management plan. This is an incentive plan under which the Company's shares and dividends generated from the Company's shares that are equivalent to the number of accumulated points calculated after the retirement of the corporate executive officer are provided as executive remuneration.





**Message from  
an Outside Director of the Board**

The focus of my mission is to create a business group where employees can engage in rewarding activities while maximizing both profits and social well-being

**Chikatomo Hodo**

Outside Director of the Board

**Q1** It's been a year since your appointment as an outside director. Has your view of the overall operation of the MCHC Group changed over the past year?

I look at the Group's various innovative businesses and I have a positive outlook for our future society.

As a business consultant who had been involved with the operation of various enterprises, including the competitors and clients of Mitsubishi Chemical Holdings Corporation, I was aware of the diverse nature of our Group's businesses. Now, being a part of it has made me understand its true diversity and the potential of its products and services within society. This ranges from the materials it produces for essential industrial and social infrastructure, to its innovation in the field of science, with its outstanding research and production of performance chemicals, pharmaceuticals, and healthcare solutions.

**Q2** What do you think of your role and expected responsibilities as an outside director?

With KAITEKI guiding us, our task is to support portfolio transformation and ESG activities.

With a view to enhance the medium- to long-term corporate value, I believe my role is to monitor the operation as objectively as possible, and to keep Mitsubishi Chemical Holdings' stakeholders and shareholders engaged. By drawing on my wealth of experience, I will outline two ways they can do this.

Firstly, Mitsubishi Chemical Holdings should further accelerate its portfolio transformation which is an important role of a holding company. It has already focused on creating synergy between businesses based on its original concept called KAITEKI. The medium- to long-term basic management strategy KAITEKI Vision 30 (KV30) is expected to spearhead their efforts to address challenges faced by the international community, and enable portfolio transformation that can help create sustainability. While these long-term transformation objectives should be encouraged, there is a tendency for investors to view businesses that are too diversified in a negative light. This is called conglomerate discount. I am therefore determined to turn this mindset into a conglomerate premium. Mitsubishi Chemical Holdings is a business group whose operations have brought significant benefits to society. My role is to maximize the potential of the Group and continue its valuable contribution into the future. It is a challenging but extremely rewarding job.

During my 30-year professional career as a consultant, I have not only been involved in a range of transformations at businesses and government organizations but have also given lectures at universities. By leveraging this prior knowledge, as well as my experience interacting with influential leaders in and outside of Japan, I aim to offer multifaceted support to help create a mechanism of open innovation and develop an ecosystem. I will also leverage my global networks to facilitate the utilization of digital technologies that are essential for a successful transformation.

Secondly, Mitsubishi Chemical Holdings should strive to achieve ESG goals, an important index to evaluate companies in recent years, and also to strengthen measures for profitability. It has become one of the first companies to adopt a company with a nominating committee, etc., and is focused on businesses that contribute to environmental and social objectives through KAITEKI Management. In fact, with KV30 recognizing the importance of achieving a circular economy as one of its pillars, the Group holds a leadership position in ESG. However, while many Japanese companies traditionally consider the needs of diverse stakeholders, my concern is that they are less vigorous in improving profitability such as ROI and ROIC. Without earnings, there would be no investment in human resources and technologies that are essential for future environmental and social performance. On the other hand, COVID-19 has made employee retention and supply chain collaboration more important than ever. What the current situation indicates is that priorities differ in both ESG and revenue terms, depending on which time scale is considered, and that there is no clear answer. My mission as a member of the MCHC Group is to identify the best possible investment balance and help it achieve growth by addressing social challenges.

**Q3** How effective do you think Board meetings are in ensuring your supervisory responsibility?

With the provision of information before meetings, the Board is well informed and active in discussions.

I feel that sufficient information is provided regularly from the Corporate Strategy Division to outside directors in advance of Board meetings. At these meetings, we have made important decisions, including the one to acquire 100% ownership of Mitsubishi Tanabe Pharma Corporation last year. The officer in charge and the Corporate Strategy Division shared the information prior to Board discussions. Even when there are differences in opinions, I believe that the Board has managed to arrive at conclusions through a professional and healthy process of discussion. One thing I would desire is the opportunity for outside directors to meet exclusively to discuss certain preselected topics, even though a liaison meeting led by outside directors is held every month. I believe this would allow us to

express deeper and more objective thoughts, and I am going to propose such meetings to be arranged in the near future.

**Q4** What challenges do you think the MCHC Group will face in the future?

We encourage the Group to further disseminate information that contributes to improving global sustainability.

In the short term, it will face the consequences of COVID-19. The pandemic has already affected the Group's performance, while their market and industry structures are also likely to change in the longer term, requiring wide-ranging discussions about its impact.

Since my appointment, I have felt the MCHC Group has relatively low social recognition. While many people expect businesses to address global social challenges such as the SDGs, the Group, unfortunately, is not one of the first companies that potential recruits think of when it comes to this issue. This will cause the degradation of human resources and R&D skills, leading to a loss of opportunities. To prevent this from happening, it is imperative to ensure a thorough implementation of the human resources system reforms and global management as set out in KV30.

During my previous employment, I took part in various activities to improve employees' engagement. I am now planning to improve the MCHC Group's human resources systems and processes, while understanding the motivation of its approximately 70,000 employees throughout the world. At the same time, I would like to encourage the Group to disseminate information on how excited they are to provide new innovative solutions for social issues.



**Message from the Chairperson**

We will provide expert solutions that can help achieve a sustainable society in order to increase corporate and shareholder value

**Yoshimitsu Kobayashi**

Chairperson

**Overview of the Board of Directors**

As the Board of Directors of a company with a nominating committee, etc., we are responsible for developing basic business policies and supervising the overall operation of the business. During fiscal 2019, the Board had a total of 11 meetings. At the meeting held in September, we spent a long time discussing our medium- to long-term basic management strategy KAITEKI Vision 30, which visualizes what the Mitsubishi Chemical Holdings (MCHC) Group should look like in 2030 considering the Earth, society, and people by backcasting from our vision of society in 2050. During our meeting in November, active discussions were exchanged about the plan to acquire 100% ownership of Mitsubishi Tanabe Pharma Corporation.

**Situations surrounding the MCHC Group**

The COVID-19 pandemic has brought significant changes not only to society and the economy but also to the way we live and work. The need to coexist with the virus by adopting practices such as reducing physical contact and maintaining social distancing, is making digital technologies more vital than ever. In Japan, however, we face the urgent need to accelerate digital transformation. The rapid rise in telework due to the pandemic, highlighted how far behind we were in this field compared with other countries.

On the other hand, physical contact is a necessary part of a healthy and comfortable life. In areas such as healthcare, nursing care, entertainment, and sports, physical contact with

people and objects is essential. As a leading manufacturer, our group deals directly with these related objects at production and research sites, and through the provision of products and services in the Performance Products, Industrial Materials (Chemicals and Industrial Gases) and Health Care domains, we help people lead a comfortable and fulfilling life. With regard to the current pandemic, we offer a wide range of durable physical products to help prevent infection. This includes plastic gowns and face guards designed for healthcare professionals, water-soluble laundry bags to be used at healthcare facilities, and transparent acrylic panels that can be installed as partitions at reception counters. We will continue to provide cutting-edge solutions that can help address a variety of pressing social challenges.

**Our efforts to realize KAITEKI**

The current COVID-19 crisis is expected to accelerate the existing trend to invest in ESG. More and more people will expect businesses to contribute to wider society, which will ultimately transform the way businesses are valued.

As we move forward with our next medium-term management plan in fiscal 2020, the Board of Directors faces an important task of transforming our portfolio in order to respond to the current and post-pandemic situations. As chairman, my mission is to proactively lead discussions so that outside directors can perform to their full potential. Although the future remains uncertain, we will continue our efforts to increase corporate and shareholder value in order to achieve KAITEKI.

**Outside directors' major activities and attendance at Board of Directors' and Committee meetings**

Name	Status of activities	Attendance at Board of Directors and other meetings (FY2019)		
		Meeting	Attended	Attendance Rate
Taigi Ito	During the Board of Directors' meetings, he provided input on such matters as finance and accounting as well as risk management, drawing on his experience and profound insight as a certified public accountant. At the Audit Committee, he fulfilled his assigned duties as an outside member of the Audit Committee in terms of conducting audits based on audit plans, focusing on matters such as the development and operations of the internal control system, and intensive auditing regarding the progress of the medium-term management plan <i>APTSIS 20</i> during the fiscal year under review. At the Compensation Committee, he led meetings as its chair with respect to major agenda items such as the levels of compensation for corporate executive officers and the proportion of performance-linked remuneration, and otherwise fulfilled his assigned duties in part by reporting outcomes of discussions to the Board of Directors.	Board of Directors' meetings	11/11	100%
		Audit Committee meetings	13/13	100%
		Compensation Committee meetings	7/7	100%
Hideko Kunii	During the Board of Directors' meetings, she provided input on matters such as women's empowerment, science technology, and IT, drawing on her profound insight in diversity promotion as well as her extensive experience in company management and her expertise in the information processing domain. As a member of the Nominating Committee, she fulfilled her assigned duties by providing appropriate input regarding major agenda items for the fiscal year under review such as senior management turnover and recruiting requirements and assessments for CEO. At the Audit Committee, she appropriately fulfilled her assigned duties as an outside member of the Committee in terms of conducting audits based on audit plans, focusing on matters such as the development and operations of the internal control system, and intensive auditing regarding the progress of <i>APTSIS 20</i> during the fiscal year under review.	Board of Directors' meetings	11/11	100%
		Nominating Committee meetings	6/6	100%
		Audit Committee meetings	13/13	100%
Takayuki Hashimoto	During Board of Directors' meetings, he provided input mainly in relation to global management, business portfolio strategy, and risk management, drawing on his extensive experience in company management and profound insight in digital business. At the Nominating Committee, he led meetings as its chair with respect to major agenda items such as senior management turnover and recruiting requirements and assessments for CEO, and otherwise fulfilled his assigned duties in part by reporting outcomes of discussions to the Board of Directors. As a member of the Compensation Committee, he executed his duties by providing appropriate input regarding major agenda items for the fiscal year under review such as the levels of compensation for corporate executive officers and the proportion of performance-linked remuneration.	Board of Directors' meetings	11/11	100%
		Nominating Committee meetings	6/6	100%
		Compensation Committee meetings	4/5	80%
Chikatomo Hodo	During the Board of Directors' meetings, he provided input on such matters as global management, functions of a pure holding company, and business models for enhanced corporate value, drawing on his extensive experience in company management and profound insight in management knowhow. As a member of the Nominating Committee, he fulfilled his assigned duties by providing appropriate input regarding major agenda items for the fiscal year under review such as senior management turnover and recruiting requirements and assessments for CEO. As a member of the Compensation Committee, he executed his duties by providing appropriate input regarding major agenda items for the fiscal year under review such as the levels of compensation for corporate executive officers and the proportion of performance-linked remuneration.	Board of Directors' meetings	7/7	100%
		Nominating Committee meetings	5/5	100%
		Compensation Committee meetings	5/5	100%
Kiyomi Kikuchi	During the Board of Directors' meetings, she provided input on such matters as the functions and responsibilities of the Board of Directors, legal risk assessments in individual cases, compliance matters, drawing on her experience and profound insight as a lawyer. As a member of the Nominating Committee, she fulfilled her assigned duties by providing appropriate input regarding major agenda items for the fiscal year under review such as senior management turnover and recruiting requirements and assessments for CEO. At the Audit Committee, she appropriately fulfilled her assigned duties as an outside member of the Committee in terms of conducting audits based on audit plans, focusing on matters such as the development and operations of the internal control system, and intensive auditing regarding progress of <i>APTSIS 20</i> during the fiscal year under review.	Board of Directors' meetings	7/7	100%
		Nominating Committee meetings	5/5	100%
		Audit Committee meetings	10/10	100%

**Outside Director Liaison Committee**

Apart from the Board of Directors' meetings, the Outside Director Liaison Committee holds a monthly meeting, which is attended by outside directors, the chairman of the Board of Directors and the president of the Company, to share important management information and exchange frank opinions on management issues. In particular, it ensures that the outside directors are able to fully exercise their expertise and insight.

**Training**

Outside directors are constantly briefed on the MCHC Group's business and organizations and are regularly given the opportunity to visit the Group's business locations in Japan and abroad and to discuss with the management team. Internal directors are also given opportunities to develop the qualities required of directors through training sessions on compliance and internal control and a range of seminars held by external organizations.



# Risk Management

The Mitsubishi Chemical Holdings (MCHC) Group defines risks as “potential events that could, during the course of corporate activities, undermine public trust or damage the corporate value of the MCHC Group.” We recognize, analyze, and evaluate risks, and prevent the materialization of significant risks. We take measures to minimize the personal, economic, and social damage arising if such risks materialize.

## Charter of Corporate Behavior

The MCHC Group Charter of Corporate Behavior, consisting of 13 chapters, explicitly declares that we act with sound ethics and good common sense in every aspect of our corporate activities. It also stipulates that we share the fundamental behavioral principles for sustainable development, our approach to major issues for contributing to the realization of KAITEKI, and the basic ideas on and initiatives for the realization of KAITEKI, with our business partners and others.

### MCHC Group Charter of Corporate Behavior

01 Awareness and Responsibility	08 Fair Business Practices
02 Accountability and Transparency	09 Customer Satisfaction
03 Legal Compliance and Fairness, Equitability, and Integrity	10 Information Management
04 Valuing Stakeholders	11 Science and Technology
05 Respecting Human Rights	12 Community Involvement
06 Employment and Labor	13 Shared Standards
07 Environment and Safety	

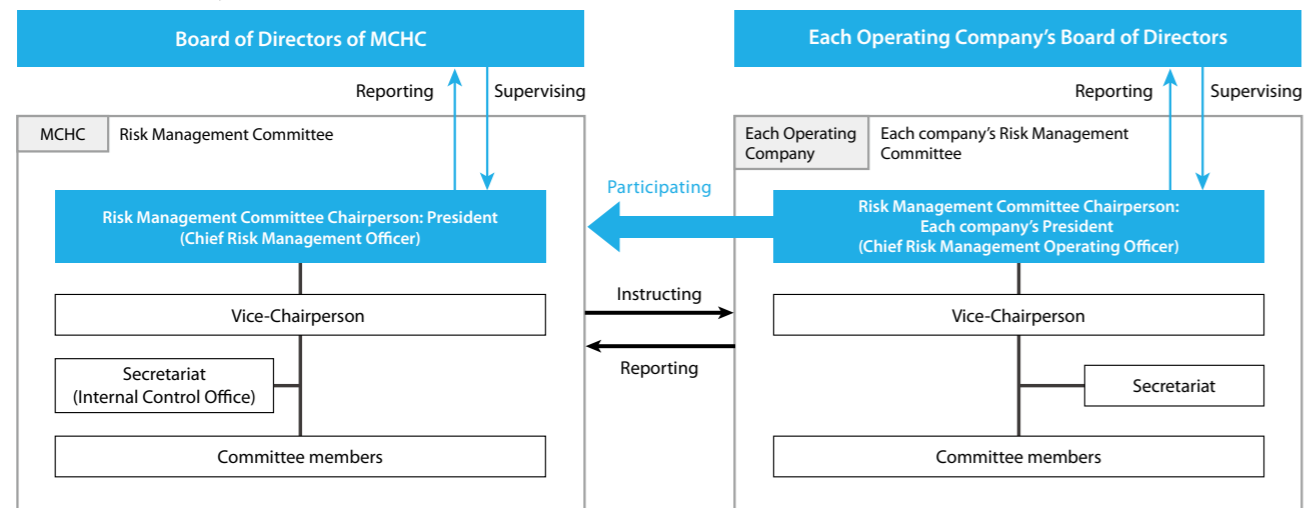
## Risk management system

The MCHC Group is engaged in corporate activities with the objective of improving corporate value. These activities are related to social conditions, the global environment, and various other externalities, and they involve potential risks.

We have in place a risk management system whereby the MCHC President is responsible for the entire risk management across the Group, in accordance with the MCHC Group Risk Management Basic Rules. The status of the management of significant risks and risk management policies that affect the entire Group are deliberated on and decided by the MCHC’s Risk Management Committee. Such deliberations and decisions are reported to the Board of Directors as needed.

The presidents of operating companies are responsible for establishing each company’s risk management system and conducting management through each Risk Management Committee. As part of our risk management system, we recognize the importance of fostering an awareness of risk management among executives, managers and employees in general. For this reason, all individuals are expected to be involved in risk management from their own standpoints.

### Risk management system conceptual diagram



### Risk management process



## Measures against major risks

The MCHC Group has categorized the following risks as high priority. In recognition of these risks, we strive to avoid the occurrence of such risks and minimize damage when they do occur.

### Accidents, work injuries, and large-scale natural disasters

As a safety measure to prevent any accidents at each operating site, we enhance the quality of training for operators for maintaining appropriate operations and safe facilities. In the event of accidents, we analyze the cause, plan countermeasures, and verify the effectiveness of these countermeasures. We also strive toward advance prevention and recurrence prevention of accidents by sharing technical and operational measures among Group companies. In preparation for large-scale natural disasters, we conduct special training customized based on the conditions for the head offices, branches, and offices of each operating company to minimize damages and to secure business continuity under such an event.

### Compliance

In order to instill compliance within the Group, we have taken comprehensive necessary actions such as preparing the Group Charter of Corporate Behavior and rules and standards, distributing a compliance guidebook, providing training and seminars, implementing regular audits, as well as operating and maintaining a compliance hotline. We also strengthen compliance at overseas operations, by adjusting codes of conduct and implementation rules in accordance with the rules, regulations, and social norms of the country.

### Information security

MCHC has developed the Group Information Security Policy, in order to protect information assets and to maintain corporate value as a whole. Also, we continuously reinforce information security capabilities at our global business sites. We are also promoting awareness of strict compliance with the Group Information Security Policy among all employees by providing special training, including practical drills in response to targeted attack mails or other training via an e-learning system.

### Subsidiary governance

MCHC clarifies the responsibilities of corporate organizations and improves systematic approaches to reduce overall Group risks in the governance of subsidiaries in Japan and overseas. For example, in order to mitigate risks arising from laws and systems specific to the countries in which we operate, we have collected and disseminated cases of significant accidents and violation of laws in each country to raise awareness of those risks at overseas Group companies. Furthermore, in preparation for political or other changes in such countries, we have established a system of communication between the local area, the operating companies, and the Company to ensure awareness of governance issues.

## Case studies of addressing the material issues

### Mitigating environmental risks associated with plant effluent leakage

The MCHC Group promotes initiatives to effectively use water and improve the quality of water in its business activities in order to conserve water resources. Mitsubishi Chemical Corporation mitigates the risk of plant effluent containing pollutants in excess of standards by operating its wastewater treatment facilities appropriately. Furthermore, the company has installed sensors to detect and shut off abnormal wastewater at an early stage and a monitoring system to ensure thorough management as

precautions. At some plant sites, drains and septic tanks have been consolidated to reduce the number of areas where such risks emerge. Facilities have also been remodeled to prevent plant effluent from being mixed with rainwater in preparation for the torrential rains like those that have been occurring frequently in recent years. Mitsubishi Chemical is working to achieve zero environmental problems throughout the company through such measures.

The Group's Materiality  
- Water

## Measures against future risks

The MCHC Group is also addressing future risks by planning a medium- to long-term strategy.

### Climate change

While the chemical industry is an industry with high GHG emissions, it can also contribute to the reduction of GHGs through its products. There is a risk that future earnings may be affected if we are unable to comply with customer requests for products such as automobiles and lighting fixtures, for which environmental standards and energy efficiency are important. For this reason, the Group is developing products that contribute to combating climate change by setting quantitative targets for the provision of products and services that help to reduce GHG emissions.

### Digital technologies

Digital technologies represented by AI and IoT show potential to create dramatic changes in the chemical industry. The Group could face the risk of losing its competitive advantage in the market if it does not properly adjust to the new digital era. Under the new structure, we apply AI and IoT in process control, product quality inspection, automation of analysis, and the development of new materials and medicines in order to maintain and acquire a competitive position in the market.

## Our response to COVID-19

The MCHC Group puts priority on the safety and health of its employees and their families and its business partners. We are making efforts to ensure stable production while taking every measure possible to prevent the spread of COVID-19.

The Mitsubishi Chemical Group established an emergency headquarters and took the necessary infection prevention measures according to each region and business location in February 2020. To ensure the continuity of production in order to fulfill its social responsibility as an integrated chemical manufacturer. The Mitsubishi Tanabe Pharma Group has established a Crisis Management Division based on its Crisis Management Guidelines. It has established a system to ensure the continuity of production and distribution of pharmaceuticals, their quality and safety, and a stable supply of high-quality pharmaceuticals. The Taiyo Nippon Sanso (currently Nippon Sanso Holdings) Group has ensured that all regional business continuity plan (BCP) response units around the world are familiar with the routes and rules for reporting to the BCP response unit at headquarters. There have been no problems with production and supply systems in Japan and overseas, and the group has continued to operate as normal. The Life Science InstituteD Group established an emergency headquarters and utilizes telework whenever possible, based on the nature and characteristics of the work of each department.

The adoption of new lifestyles has been proposed by a national panel of experts considering the response to COVID-19 in Japan, based on the assumption that it will take some time until the health, safety, and security of people can be sufficiently ensured through the establishment of treatments and the development of a vaccine going forward. The Group is creating guidelines for work styles, including new lifestyles, such as encouraging telework and ensuring social distance in accordance with the "Prevention of COVID-19 and Strengthening of Health Management for Workers in Businesses which are Required Continuation Under the Emergency" released by the Ministry of Health, Labour and Welfare and the "Guidelines for Preventing the Spread of Novel Coronavirus Disease (COVID-19) in Manufacturing Workplaces" and "Guidelines for Preventing the Spread of Novel Coronavirus Disease (COVID-19) in Offices" released by the Japan Business Federation. The MCHC Group will continue its efforts to contribute to overcoming the COVID-19 crisis by providing products that can help prevent infection in recognition of its social responsibility as a provider of a wide range of materials and medical products.

COVID-19 is expected to continue to have an impact on the business of the MCHC Group for the time being, and a review of medium- to long-term business development plans is being considered as well (see pages 19 to 24).

## Compliance

For the Mitsubishi Chemical Holdings (MCHC) Group, the word "compliance" is a broad term covering corporate ethics and general social norms, not only basic adherence to laws.

We regard compliance as one of the most important management issues for ensuring that we continue to exist as a company and be trusted by the public. Accordingly, we take various measures to instill a culture of compliance throughout the entire Group.

### Compliance promotion structure

The Chief Group Compliance Officer (Group CCO) is appointed by the Board of Directors, and the Internal Control Office supports the Group CCO, acting as a secretariat for compliance matters.

The secretariat prepares standard training tools, organizes training courses, and has established hotlines and educational system for overseas Group companies to support the Group's activities. It seeks to ensure compliance in accordance with local conditions through Regional Headquarters (RHQ) established in the US, Europe, and China. Each operating company has its own Compliance Promotion Committee as well as an Internal Control Department that serves as secretariat. They operate hotline systems and implement training courses and seminars, business audits and compliance awareness surveys based on the MCHC Group Compliance Promotion Rules.

If an actual or potential compliance violation is found, the department with issues will report and consult with the CCO of each company and the Group CCO, receive guidance and directions, and take appropriate corrective actions and measures to prevent recurrence.

### Hotline systems

Hotline systems are managed and operated with the Group, operating companies' Internal Control Departments, and external lawyers serving as contact points. In fiscal 2019, 142 cases were reported via the hotline systems. We respond to reported issues through our investigation teams, which are headed by the managers of the Internal Control Departments. Corrective measures are taken promptly in line with the relevant regulations under the direction of the CCO.

### Measures and results in FY2019

In fiscal 2019, we commissioned an external agency to survey employees' awareness of compliance within the Group in Japan in order to continuously monitor the spread of compliance awareness.

At the same time, we have quantified the responses to questions related to matters such as individual awareness and behavior and the workplace climate as a compliance improvement awareness index and incorporated it into our MOS Indices.

We have conducted various training programs, hotline management, and awareness surveys overseas, and confirmed an increased awareness of compliance among employees.

The compliance departments will continue sharing information between Japan, the US, Europe, China, and other parts of Asia, and will promote compliance as a Group through this network.

## Case studies of addressing the material issues

### Compliance training

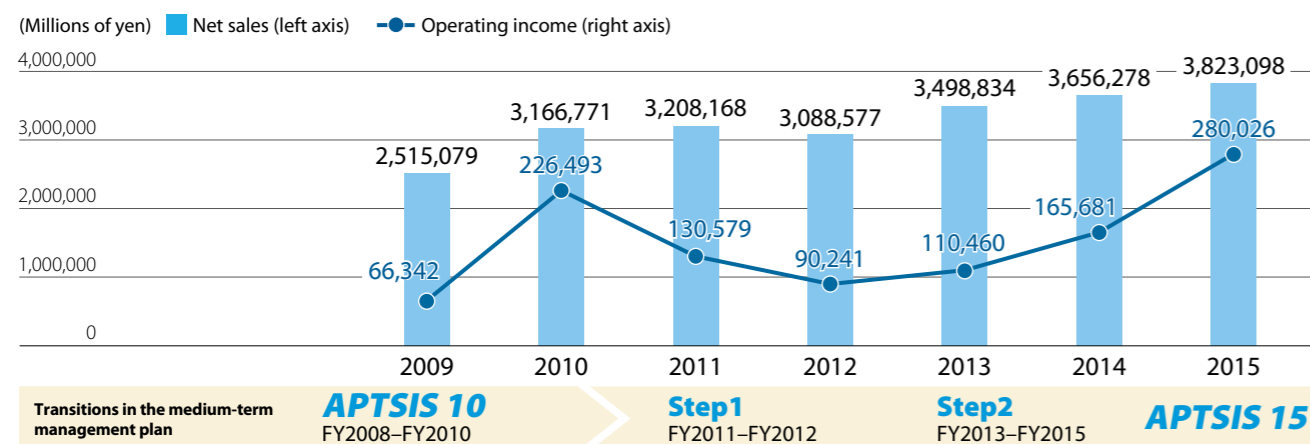
In the Group, we have conducted compliance training in Japan and overseas for all officers and employees based on hierarchy. We provide a variety of learning settings, including lecture-style training for large groups and discussion-style training for small groups to enhance the effectiveness of such training.



Compliance training at Mitsubishi Chemical (Thailand)

J-GAAP (FY2009–FY2015)

	2009	2010	2011	2012	2013	2014	2015
Millions of yen							
<b>For the year</b>							
Net sales	2,515,079	3,166,771	3,208,168	3,088,577	3,498,834	3,656,278	3,823,098
Operating income	66,342	226,493	130,579	90,241	110,460	165,681	280,026
Income (loss) before income taxes and minority interests in consolidated subsidiaries	43,311	169,552	127,474	82,900	116,594	165,621	198,248
Net income (loss) attributable to owners of the parent	12,833	83,581	35,486	18,596	32,248	60,859	46,444
Total comprehensive income	37,513	86,742	64,199	94,900	134,016	173,692	7,695
Capital expenditures	119,025	117,806	116,145	132,221	133,339	165,057	176,508
Depreciation and amortization	129,574	148,697	145,695	129,549	131,571	151,253	180,374
R&D expenditures	136,863	130,825	138,545	134,723	134,260	132,217	138,364
Net cash provided by (used in) operating activities	116,073	288,853	217,954	206,504	177,027	329,776	388,663
Net cash provided by (used in) investing activities	(327,006)	(101,064)	(63,404)	(169,758)	(159,789)	(277,223)	(202,796)
Net cash provided by (used in) financing activities	94,437	(149,493)	(164,146)	(26,250)	(8,307)	(2,061)	(156,957)
<b>At year-end</b>							
Total assets	3,355,097	3,294,014	3,173,970	3,307,758	3,479,359	4,323,038	4,061,572
Property, plant and equipment	1,167,073	1,088,369	1,032,738	1,061,551	1,118,050	1,498,146	1,390,727
Short-term and long-term debt	1,454,126	1,304,589	1,164,128	1,198,799	1,258,186	1,603,595	1,465,752
Total net assets	1,032,865	1,114,003	1,144,954	1,203,316	1,314,870	1,588,601	1,554,528
<b>Per share</b>							
Yen							
Net income (loss) - basic	9.32	58.72	24.06	12.61	21.89	41.40	31.70
Net assets	490.99	514.30	522.77	553.54	611.95	669.77	636.43
Cash dividends	8.00	10.00	10.00	12.00	12.00	13.00	15.00
<b>Key indicators</b>							
Return on assets (ROA) (%)	1.4	5.1	3.9	2.6	3.4	4.2	4.7
Return on equity (ROE) (%)	1.9	11.6	4.6	2.3	3.7	6.4	4.8
Shareholders' equity ratio (%)	20.0	23.0	24.2	24.6	25.8	22.6	22.9
<b>Other</b>							
Number of employees	53,907	53,882	53,979	55,131	56,031	68,263	68,988



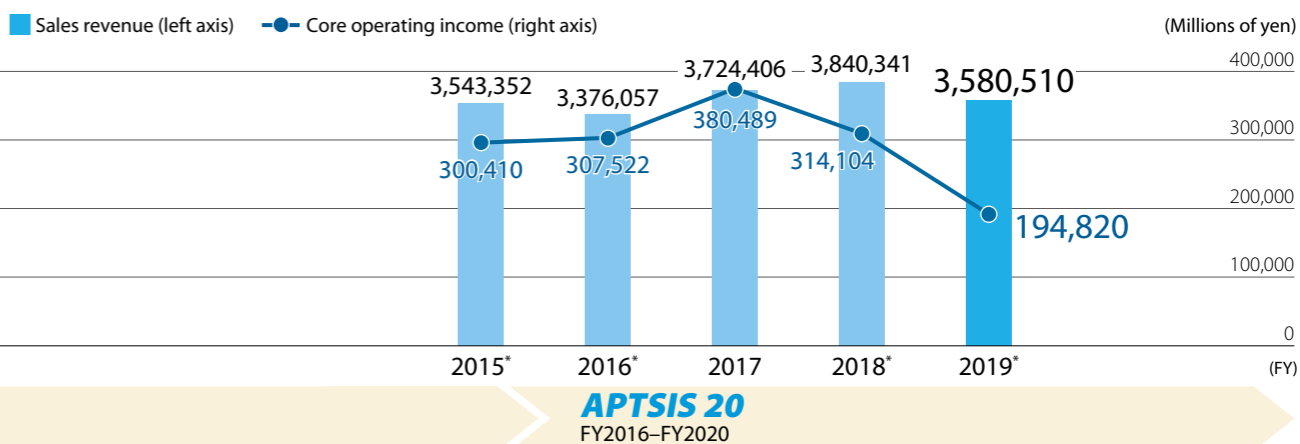
(Notes) 1 In this report, the fiscal year refers to the period beginning April 1 and ending March 31 of the following year. Fiscal 2019 refers to the year ended March 31, 2020.  
2 US dollar amounts are converted from yen at the rate of ¥109.0 = US \$1.00.  
3 Return on assets (ROA) (%) is calculated by dividing income before tax by the average of the beginning and ending balances of total assets.

With the start of the medium-term management plan APTSIS 20, we have adopted the International Financial Reporting Standards (IFRS) from fiscal 2016. Core operating income is calculated as operating income (loss) excluding certain gains and expenses attributable to non-recurring factors (gains and losses incurred by business withdrawal and contraction, etc.) as defined under IFRS. We disclose core operating income as our unique gains/losses incurred by staged gains/losses, considering the comparability with the operating income of J-GAAP.

International Financial Reporting Standards (IFRS FY2015–FY2019)

Figures for years indicated with (\*) do not include results from discontinued operations.

	2015*	2016*	2017	2018*	2019*	Increase or decrease (%)	2019
Millions of yen							
Thousands of US dollars							
<b>For the year</b>							
Sales revenue	3,543,352	3,376,057	3,724,406	3,840,341	3,580,510	(6.77%)	32,848,716
Core operating income	300,410	307,522	380,489	314,104	194,820	(37.98%)	1,787,339
Income before taxes	252,791	258,343	344,077	284,846	122,003	(57.17%)	1,119,294
Net income attributable to owners of the parent	51,358	156,259	211,788	169,530	54,077	(68.10%)	496,119
Total comprehensive income	34,302	226,493	297,476	205,898	475	(99.77%)	4,358
Capital expenditures	213,134	206,482	225,189	231,742	240,390	3.73%	2,205,413
Depreciation and amortization	182,656	174,040	178,895	199,332	239,824	20.31%	2,200,220
R&D expenditures	126,782	126,290	138,833	142,822	133,368	(6.62%)	1,223,560
Net cash provided by (used in) operating activities	299,612	396,643	397,940	415,575	452,003	–	4,146,817
Net cash provided by (used in) investment activities	(234,078)	(289,056)	(335,933)	(895,068)	(87,563)	–	(803,330)
Net cash provided by (used in) financing activities	(40,945)	1,411	(150,592)	519,062	(450,523)	–	(4,133,239)
<b>At year-end</b>							
Total assets	4,223,774	4,463,547	4,701,415	5,572,508	5,132,149	(7.90%)	47,083,936
Property, plant and equipment	1,403,437	1,431,681	1,433,509	1,683,354	1,742,216	3.50%	15,983,633
Interest-bearing debt	1,579,575	1,693,742	1,606,123	2,246,751	2,388,060	6.29%	21,908,807
Equity attributable to owners of the parent	972,197	1,091,398	1,285,750	1,377,947	1,170,222	(15.07%)	10,735,982
<b>Per share</b>							
Yen							
US dollars							
Basic earnings per share	35.06	106.73	147.14	119.22	38.08	(68.06%)	0.3
Equity attributable to owners of the parent	663.71	758.30	893.26	970.46	824.07	(15.08%)	7.6
Cash dividends	15.00	20.00	32.00	40.00	32.00	(20.00%)	0.3
<b>Key indicators</b>							
Return on assets (ROA) (%)	5.9	5.9	7.5	5.5	2.3	(3.2pt)	–
Return on equity (ROE) (%)	5.2	15.1	17.8	12.7	4.2	(8.5pt)	–
Ratio of core operating income to sales revenue (ROS) (%)	8.5	9.1	10.2	8.2	5.4	(2.8pt)	–
Net debt-to-equity ratio (times)	1.17	1.06	0.89	1.26	1.79	–	–
Ratio of equity attributable to owners of the parent (%)	23.0	24.5	27.3	24.7	22.8	(1.9pt)	–
<b>Other</b>							
Number of employees	68,988	69,291	69,230	72,020	69,609	(3.35%)	–

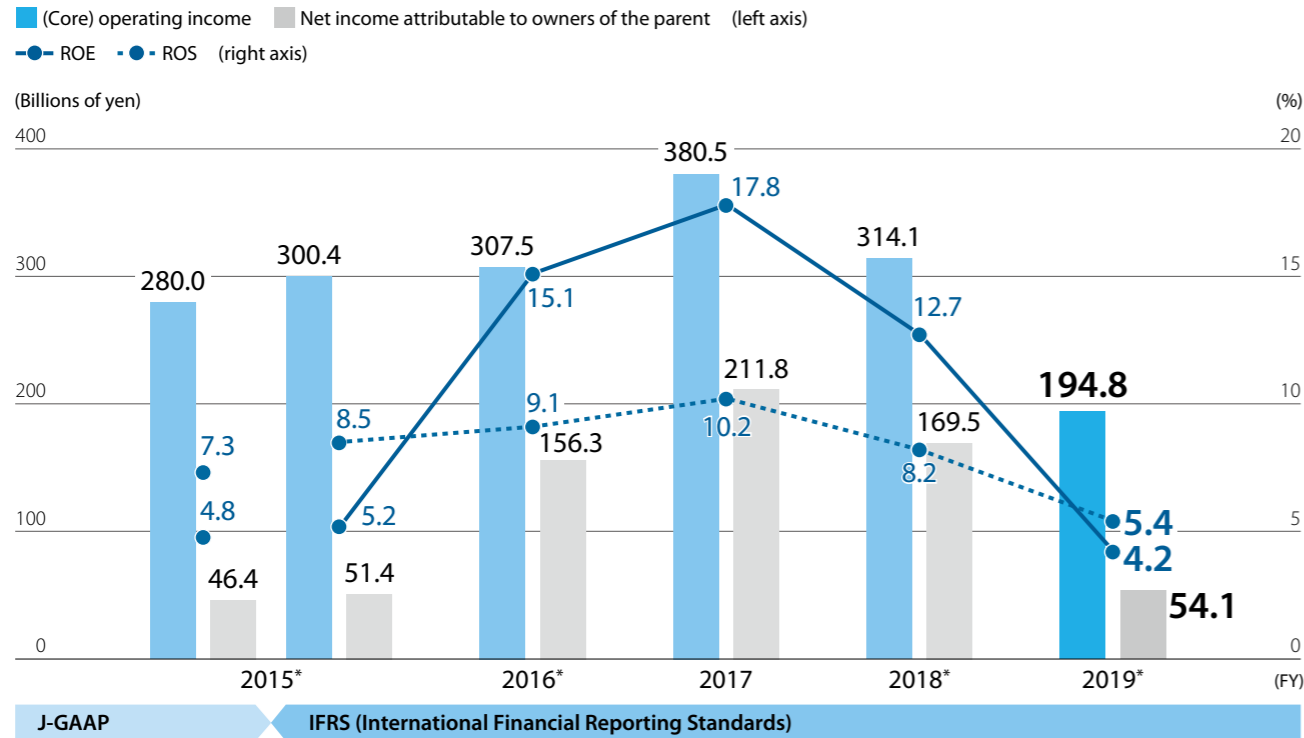


(Notes) 4 Return on equity (ROE) (%) is calculated by dividing net income attributable to owners of the parent by the average of the beginning and ending balances of equity attributable to owners of the parent.  
5 When non-recurring depreciation on non-current assets is recorded, the amount is included in depreciation and amortization.

# Financial Indicators

(Note) Figures for years indicated with (\*) do not include results from discontinued operations.

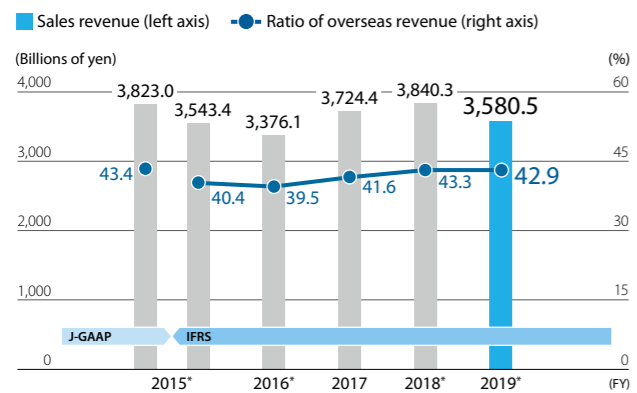
## Net income and ROS/ROE



We implemented business portfolio reforms under the previous medium-term management plan (for fiscal 2011 to fiscal 2015) and the present plan, *APTSIS 20*, launched in fiscal 2016. As a result, we stabilized sales revenue in the Industrial Materials domain and increased sales volumes mainly in the Performance Products domain. In fiscal 2017, we set new records for both core operating income and net income attributable to owners of the parent.

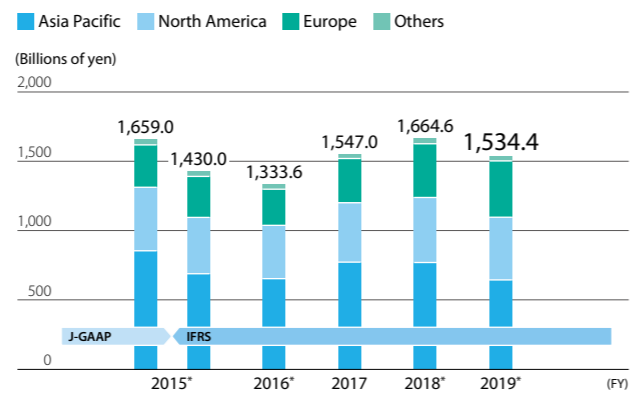
During fiscal 2019, economic activity was suppressed by the impact of the COVID-19 pandemic starting from the fourth quarter, in addition to weak demand mainly for semiconductors and automotive applications due to factors including the prolonged trade friction between the US and China. Under these circumstances, core operating income dropped by ¥119.3 billion (38.0%) to ¥194.8 billion and ROS fell to 5.4%, down 2.8 points year on year. Net income attributable to owners of the parent declined ¥115.4 billion (68.1%), to ¥54.1 billion, and ROE also decreased to 4.2%, down 8.5 points year on year.

## Sales revenue and ratio of overseas revenue



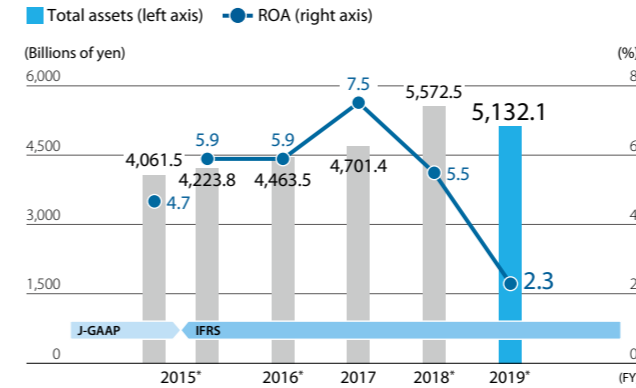
Sales revenue decreased by ¥119.3 billion (6.8%) year on year, as a result of factors including a decline in market prices in the Industrial Materials domain and a decline in sales volume in the Performance Products domain, against a backdrop of weak demand. The ratio of overseas revenue dropped to 42.9%, down 0.5 points year on year.

## Overseas revenue by region



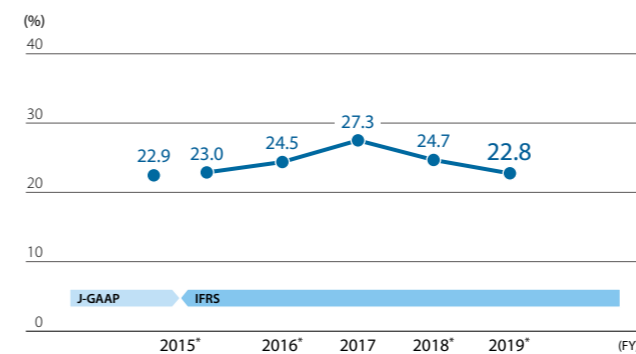
Overseas revenue was down year on year due to factors including a decline in the market for MMA monomers in the MMA business in Europe, the US, and Asia, as well as the impact of exchange rate differences due to the strong yen, despite growth from the acquisitions of an industrial gas business in Europe and the US.

## Total assets and ROA



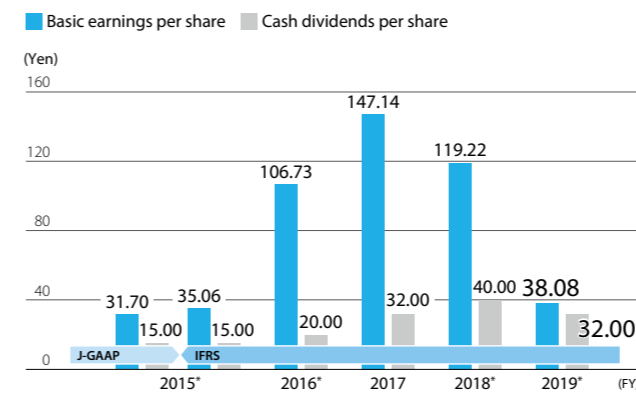
Total assets amounted to ¥5,132.1 billion. Although property, plant and equipment increased as a result of the adoption of IFRS 16 Leases, there was a decrease of ¥440.4 billion year on year due to efforts to reduce cash and cash equivalents and a decrease in trade receivables resulting from the fact that the end of the previous fiscal year fell on a holiday. ROA was 2.3%, down 3.2 points year on year.

## Ratio of equity attributable to owners of the parent



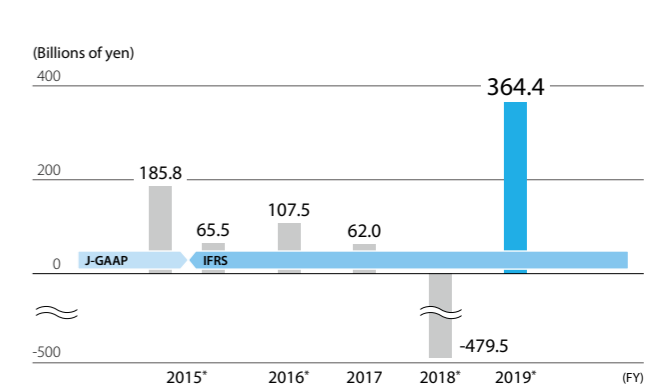
Equity attributable to owners of the parent decreased ¥207.7 billion year on year to ¥1,170.2 billion. Consequently, the ratio of equity attributable to owners of the parent decreased 1.9 points year on year to 22.8%.

## Basic earnings per share and cash dividends per share



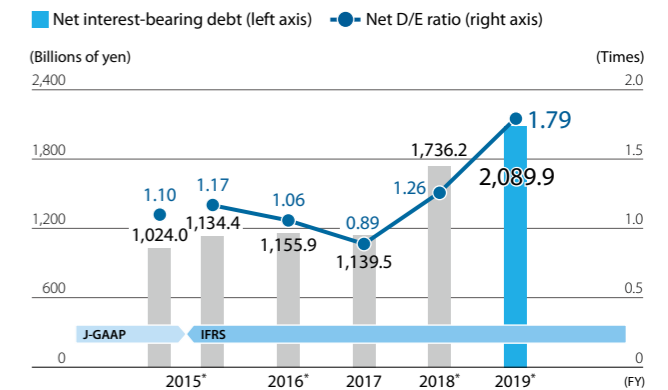
Basic earnings per share amounted to ¥38.08 during fiscal 2019. The full-year cash dividend per share is based on an overall consideration of our financial positions and future business conditions. The full-year cash dividend per share has regrettably been decreased by ¥8 per share year on year to ¥32 per share, due to a decrease in net income attributable to owners of the parent caused by factors including the spread of COVID-19.

## Free cash flow



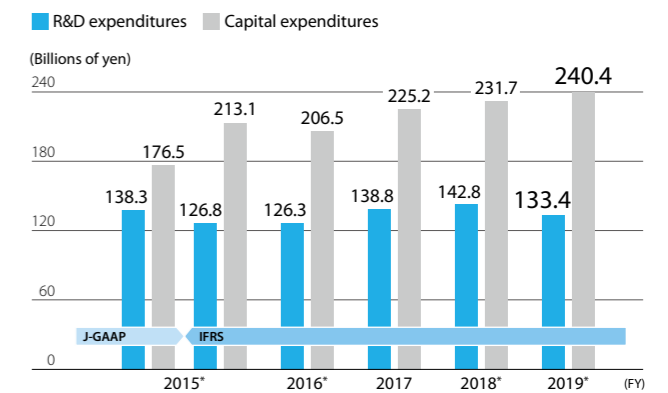
During fiscal 2019, net cash flows from operating activities was ¥452.0 billion, mainly due to a decrease in working capital as a result of falling raw material prices. In cash flows from investing activities, ¥677.6 billion was spent on industrial gas business acquisitions in Europe and the US in fiscal 2018. Despite significant fixed asset acquisitions of ¥236.1 billion, there was an outflow of only ¥87.6 billion due to a reduction in cash on hand. Accordingly, free cash flow was ¥364.4 billion.

## Net interest-bearing debt and net D/E ratio



Net interest-bearing debt rose to ¥2,089.9 billion, up ¥353.7 billion year on year, owing to the conversion of Mitsubishi Tanabe Pharma Corporation into a wholly owned subsidiary. In addition, the net debt-to-equity ratio deteriorated by 0.53 and increased from the end of the previous fiscal year to 1.79 times. We aim to improve this ratio to 1.0 times or below, and remain agile and flexible in response to financial fluctuations as COVID-19 spreads.

## R&D expenditures and capital expenditures

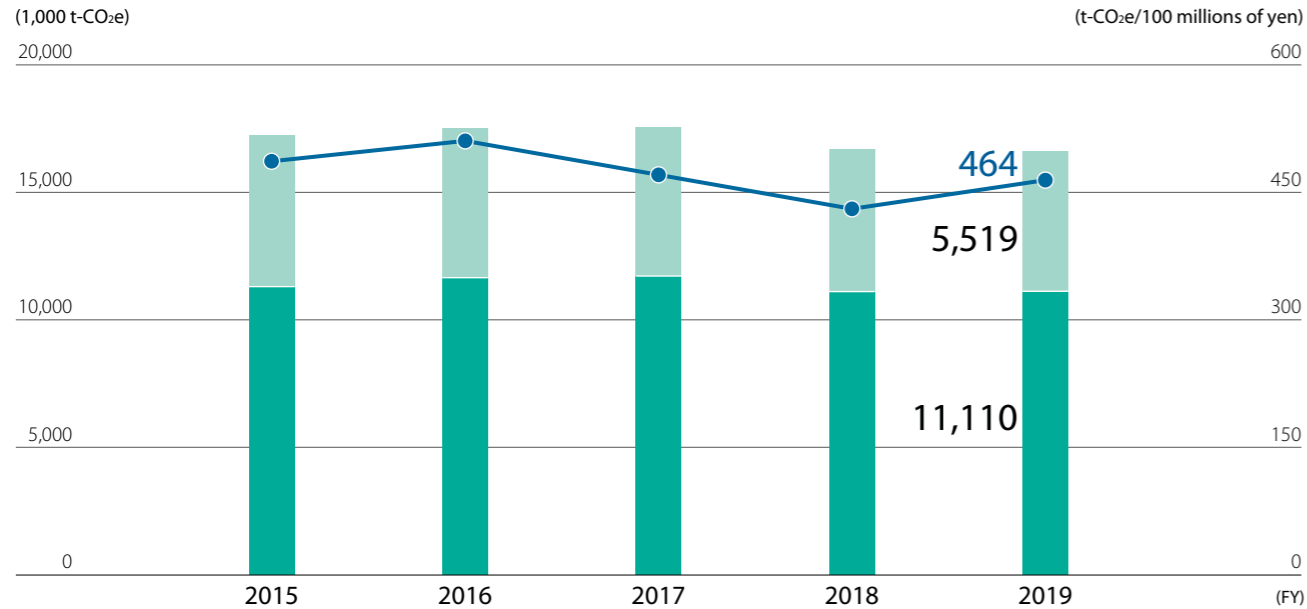


R&D expenditures were ¥133.4 billion, as we continued to focus on refining existing technologies and developing new technologies. Capital expenditures increased to ¥240.4 billion, up ¥8.7 billion year on year, due to the expansion of production facilities, mainly in the Performance Products domain.

# Non-Financial Indicators

## GHG emissions

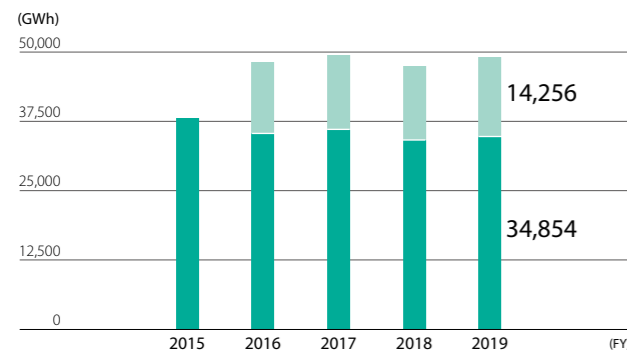
■ Japan ■ Outside Japan (left axis) ● Per unit of revenue (right axis)



Along with the formulation of the medium- to long-term basic management strategy KAITEKI Vision 30 (KV30), we retrospectively reviewed the boundaries for the indicators in line with the range of activities. The fiscal 2019 emissions have been assured by a third party based on the revised boundary. In fiscal 2019, our GHG emissions (Scope 1 + Scope 2) were nearly flat year on year at 16,629 thousand t-CO<sub>2</sub>e, partly due to the acquisition of large businesses, despite repeated emission reduction activities. GHG reduction is viewed as one of the most important social issues under KV30. In addition to contributing to the reduction of emissions through our products and services, we are considering and working to further accelerate the reduction of GHG emissions from business activities including production.

## Energy consumption

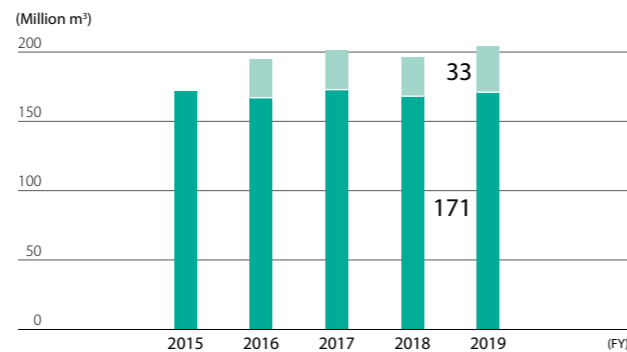
■ Japan ■ Outside Japan



The boundaries were expanded to include global activities as well from fiscal 2016. Along with the formulation of KV30, we retrospectively reviewed the boundaries for the indicators in line with the range of activities, and the fiscal 2019 consumption has been assured by a third party based on the revised boundary. Our energy consumption was nearly flat year on year in fiscal 2019 thanks to energy conservation activities through the installation of equipment, despite the acquisition of large businesses. Because improving production efficiency by implementing energy-saving activities and stabilizing process operations is directly linked to GHG reductions, we will continue to reduce energy consumption as an important initiative to realize KV30.

## Water withdrawal (excluding seawater)

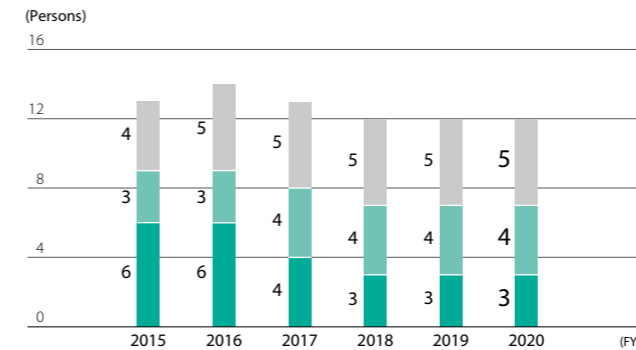
■ Japan ■ Outside Japan



The boundaries were expanded to include global activities as well from fiscal 2016. Along with the formulation of KV30, we retrospectively reviewed the boundaries for the indicators in line with the range of activities, and the fiscal 2019 water withdrawal has been assured by a third party based on the revised boundary. Alleviating global water supply concerns is viewed as one of the most important social issues under KV30. We will continue to promote effective use of water resources and reduction of water intake to ensure that our use of water resources does not place a significant burden on the region.

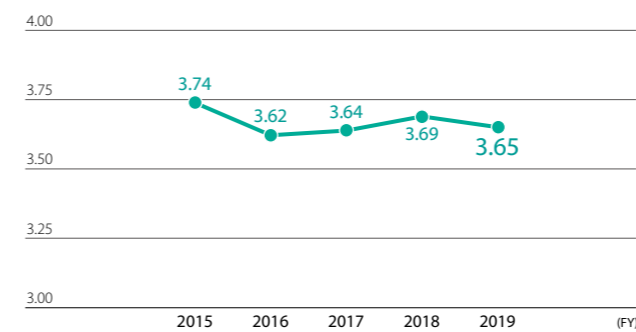
## Number of directors and outside directors

■ Directors (executive) ■ Directors (non-executive) ■ Independent (outside) directors



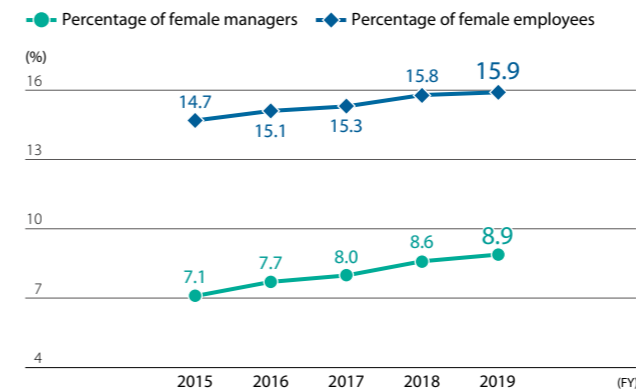
Mitsubishi Chemical Holdings Corporation transitioned to a company with nominating committee, etc., in June 2015.

## Employee satisfaction



The level of employee satisfaction fell 0.04 points from the previous fiscal year to 3.65. We will foster health and productivity management and work style reforms to further raise the level of satisfaction.

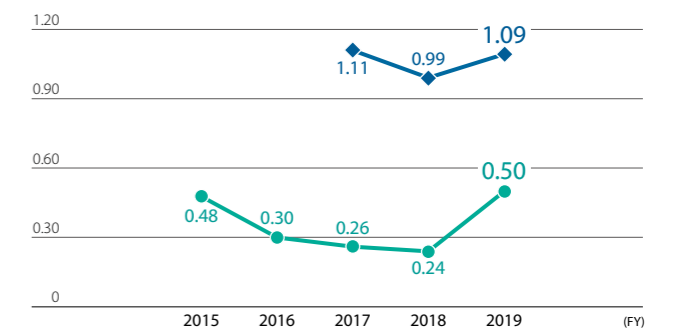
## Percentage of female employees and percentage of female managers\*



The percentage of female employees increased by 0.1 points to 15.9% from the previous fiscal year while the percentage of female managers was 8.9%, up 0.3 points from the previous fiscal year. We are continuing to implement measures for the empowerment of women. \* For the scope of data aggregation, see page 189.

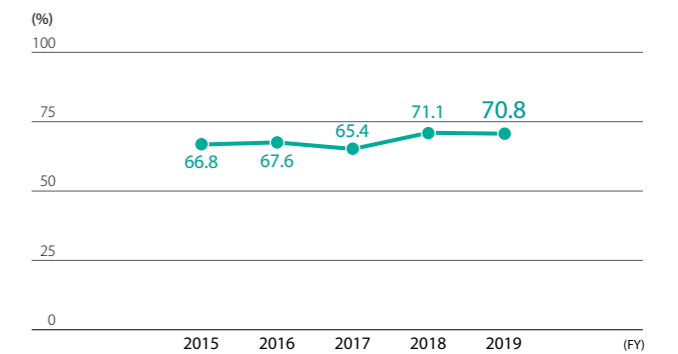
## Lost-time injury frequency rate (LTIFR)

● Japan ● Global



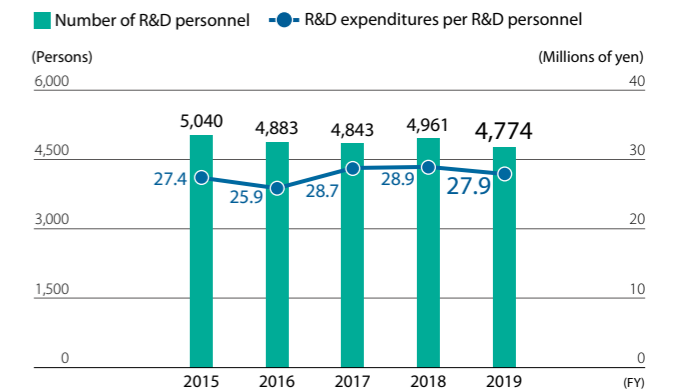
The LTIFR in Japan was 0.50, a deterioration from the previous fiscal year. Meanwhile, the global LTIFR, for which data started to be gathered and calculated in fiscal 2017, was 1.09. Although we have been working to improve the LTIFR at overseas business locations, the rate is still high compared to the rate in Japan. We will strive to reduce the LTIFR by stepping up efforts to prevent occupational accidents through measures such as ensuring compliance with basic behavioral and operational rules for safety, sharing information on occupational accidents through a database, and undertaking risk assessments.

## Paid leave utilization rate\*



The paid leave utilization rate was much the same as the previous fiscal year. We will continue to implement measures aimed at achieving a work-life balance. \* For the scope of data aggregation, see page 189.

## Number of R&D personnel and R&D expenditures per R&D personnel



For fiscal 2019, the number of R&D personnel decreased by 187 persons from the previous fiscal year to 4,774 persons. R&D expenditures per R&D personnel remained at the same level as the previous fiscal year, ¥27.9 million. (Note) IFRS basis since fiscal 2016

## Basic Policy on Shareholder Returns

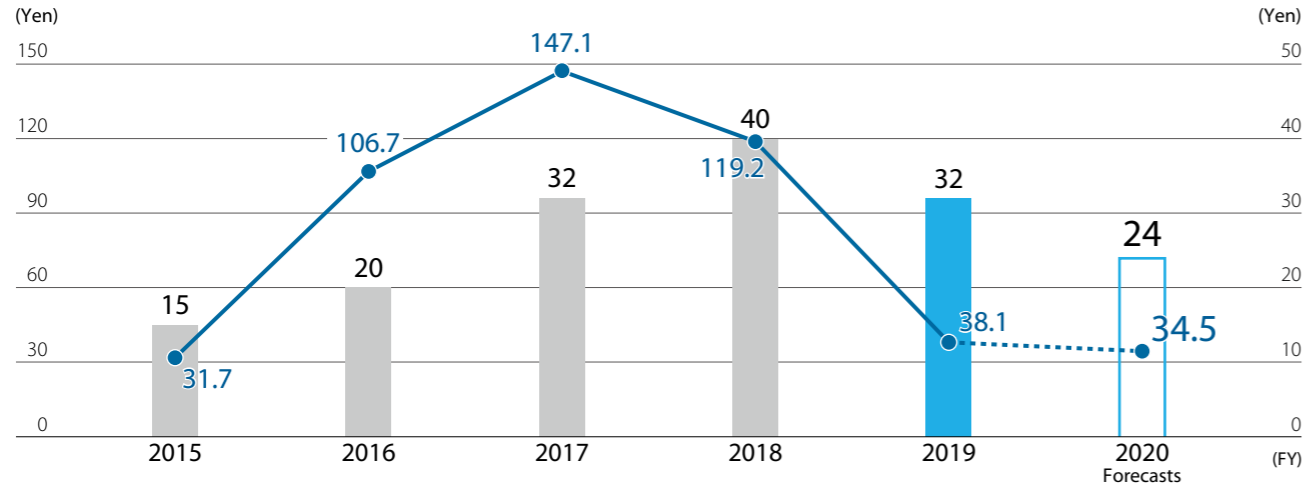
The Mitsubishi Chemical Holdings Corporation aims to improve shareholder value by enhancing corporate value. We consider achieving a balance between growth investment and improving our financial position in our dividend policy.

Targeting a medium-term consolidated payout ratio of 30%

Paying stable dividends

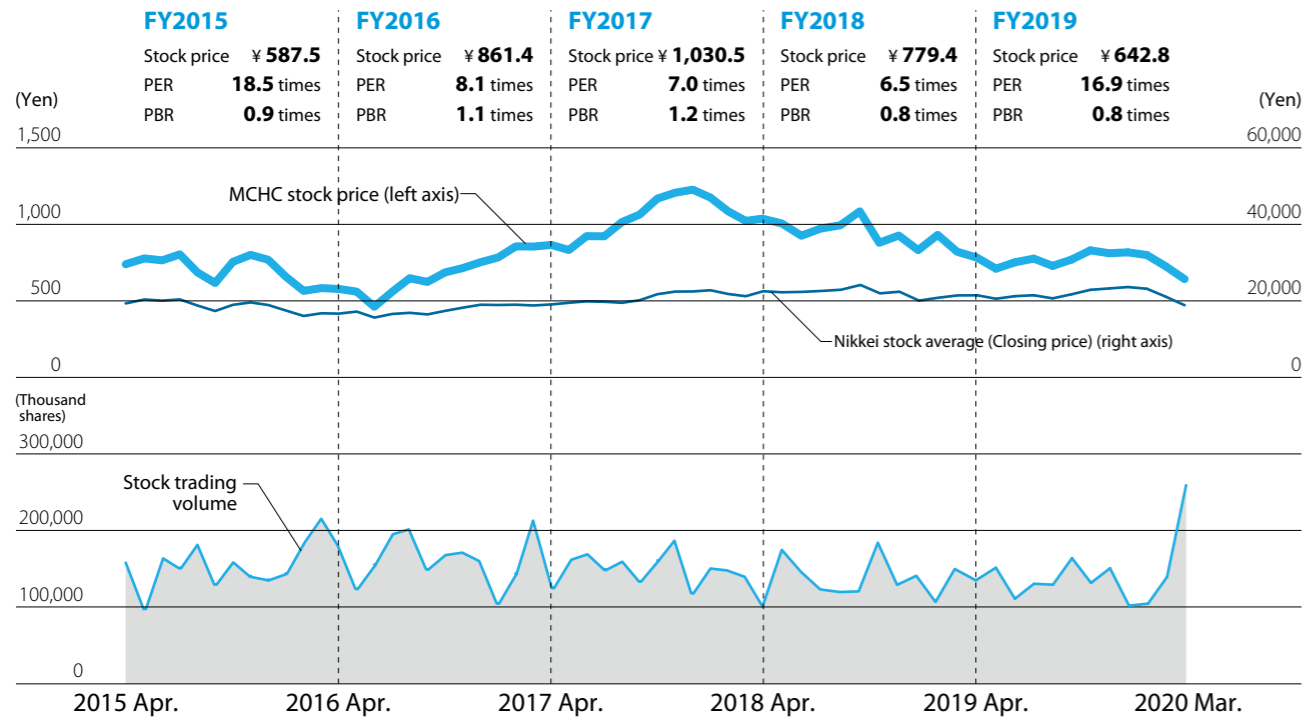
### Basic earnings per share and cash dividends per share

● Basic earnings per share (left axis) ■ Cash dividends per share (right axis)



J-GAAP IFRS (International Financial Reporting Standards)

### Stock price and stock trading volume



J-GAAP IFRS (International Financial Reporting Standards)

Stock price: As of March 31  
PER: Share price as of March 31/Basic earnings per share (Net income (loss)-basic per share in the J-GAAP)  
PBR: Share price as of March 31/Equity attributable to owners of the parent per share (Net assets per share in the J-GAAP)

### Shareholder information (As of March 31, 2020)

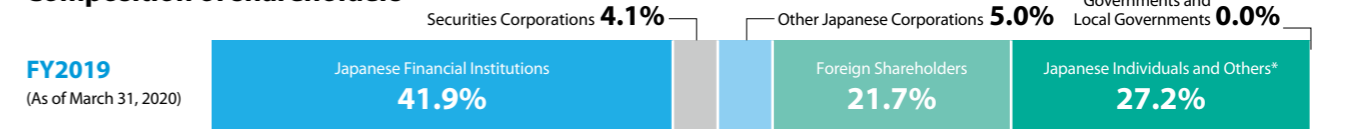
Securities code	4188 (First Section of the Tokyo Stock Exchange)
Shares per unit	100
Authorized shares	6,000,000,000
Outstanding shares	1,506,288,107
Number of shareholders	261,886

### Major shareholders

Name	Number of shares (Thousands)	Percentage (%)
The Master Trust Bank of Japan, Ltd. (Trust account)	112,930	7.9
Japan Trustee Services Bank, Ltd. (Trust account)	82,784	5.8
Meiji Yasuda Life Insurance Company	64,389	4.5
Nippon Life Insurance Company	42,509	3.0
Japan Trustee Services Bank, Ltd. (Trust account 7)	29,952	2.1
Japan Trustee Services Bank, Ltd. (Trust account 4)	27,571	1.9
Japan Trustee Services Bank, Ltd. (Trust account 5)	26,663	1.9
JPMorgan Chase Bank 385151	22,304	1.6
MUFG Bank, Ltd.	20,553	1.4
SMBC Nikko Securities Inc.	20,141	1.4

(Notes) 1 In addition to the above, Mitsubishi Chemical Holdings holds 83,046 thousand shares as treasury stocks, but these shares are non-voting pursuant to the provisions of Article 308, Paragraph 2 of the Companies Act.  
2 Equity investment ratios are calculated to the exclusion of the treasury stock (83,046 thousand shares).  
3 In addition to the above, equity investments of MUFG Bank, Ltd. in Mitsubishi Chemical Holdings include 2,375 thousand shares of stock (representing the equity investment ratio of 0.2%) held in the name of "The Nomura Trust and Banking Co., Ltd. (Retirement Benefit Trust MUFG Bank Account)" over which MUFG Bank, Ltd. retains the right to issue instructions regarding the exercise of the relevant voting right.

### Composition of shareholders



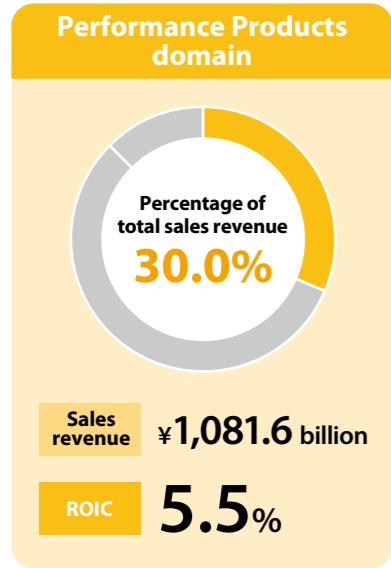
\* Shares held by the Group as treasury stock are included in "Japanese Individuals and Others."

### FY2019 IR Report

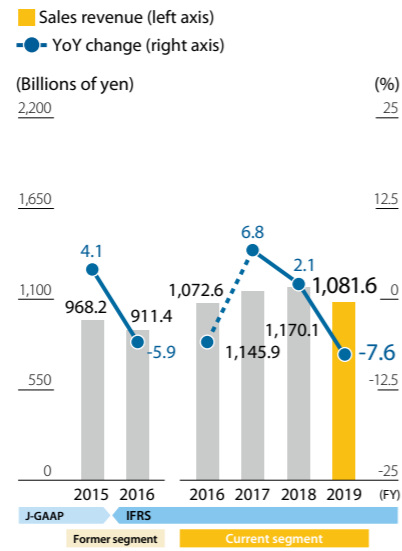
Mitsubishi Chemical Holdings engages in active and constructive dialogs with shareholders, customers, and other stakeholders through various opportunities and aims to cooperate for realization of KAITEKI by sharing issues and goals. In dialogs with shareholders and investors, we will ensure appropriate disclosures so as to gain the trust of our shareholders and encourage the long-term holding of our shares. We also intend to engage in active dialogs with shareholders and reflect such dialogs in our corporate activities.

Activities	Description
<b>1 General Meeting of Shareholders</b>	Held on June 24, 2020
IR briefings (large meetings)	2 sessions, May: IR Day, Feb.: Business briefing Materials are available on the website (in Japanese and English)
Top management's dialogue with investors	Small meetings (Jun., Dec.), Visits to investors Overseas roadshows (2 times)
<b>2 For domestic and overseas institutional investors, analysts</b>	Conference call, following the financial results announcement Audio data available on the website (in Japanese and English)
Participation in conferences held by securities firms	3 sessions (3 sessions in Japan)
Visits to operating sites	One session, Sep: Fukuoka area plant tour
Other IR activities	Individual meetings following the financial results announcement and small meetings on specific subjects
<b>3 For individual investors</b>	IR briefings
	5 sessions for approximately 2,000 attendees (including those in the online sessions and in briefings by the CEO and CFO)

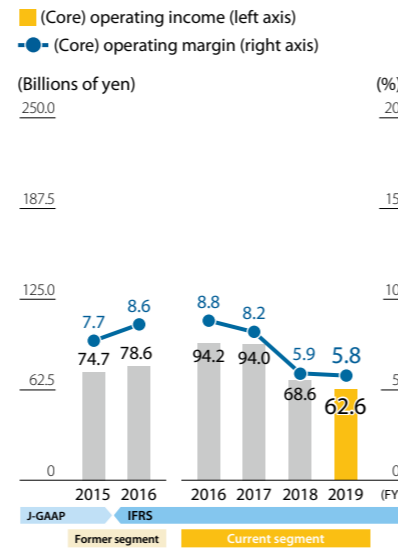
(Notes)  
 1 Figures for fiscal 2016 do not include results from discontinued operations.  
 2 Figures for fiscal 2019 do not include results from discontinued operations and have been adjusted to reflect changes in the scope of certain segments.  
 3 Former segment results posted in fiscal 2015 and fiscal 2016 before reportable segments were reorganized are presented for reference purposes only.  
 4 Current segment results in fiscal 2016 for year-on-year changes in sales revenue and ROA are presented for reference purposes only.  
 5 ROA was calculated as core operating income divided by the fiscal year average of total assets.



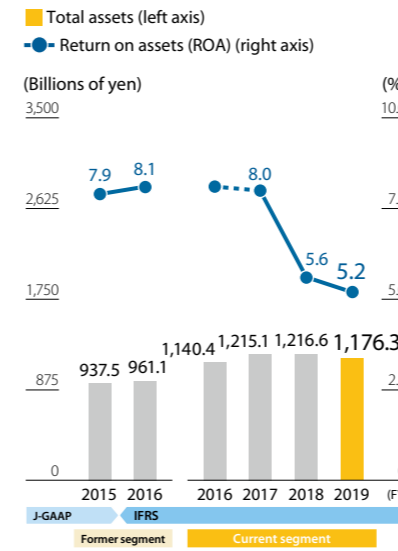
Sales revenue and YoY change



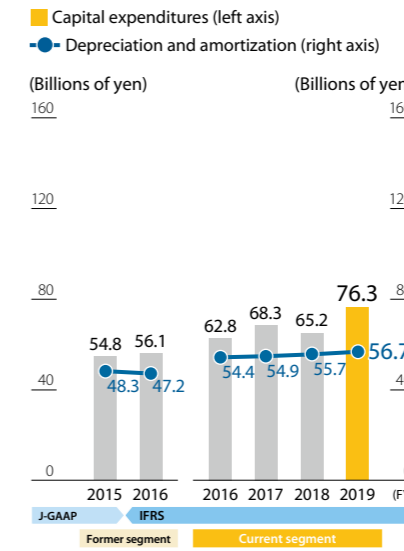
(Core) operating income and margin



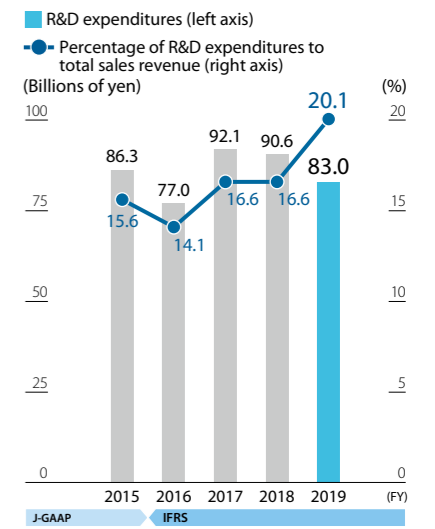
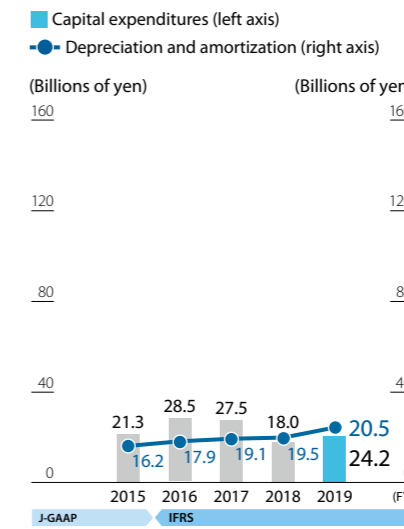
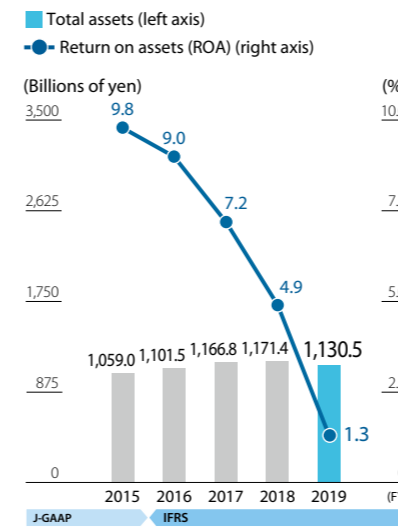
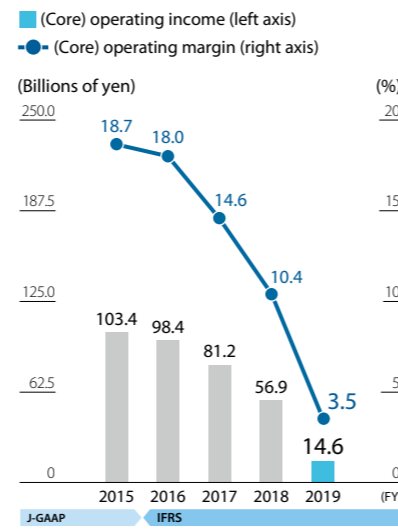
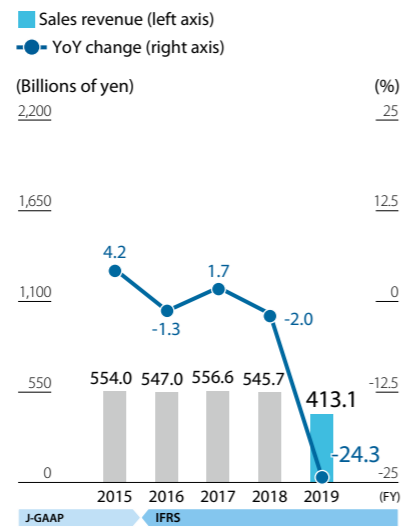
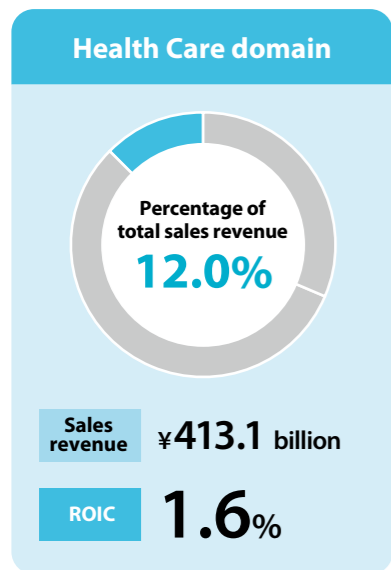
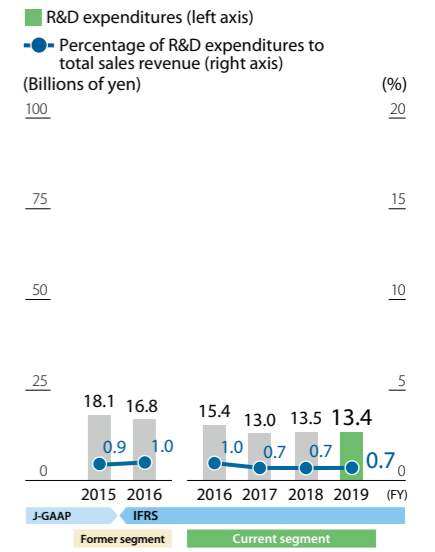
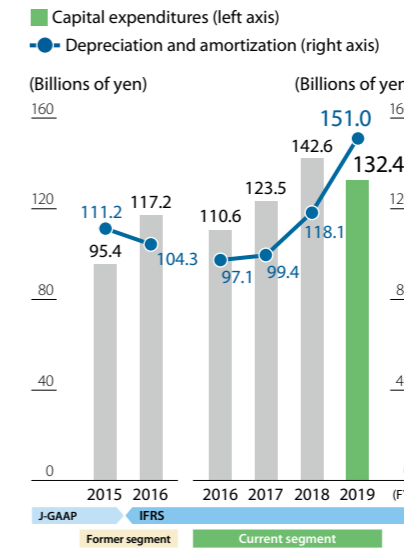
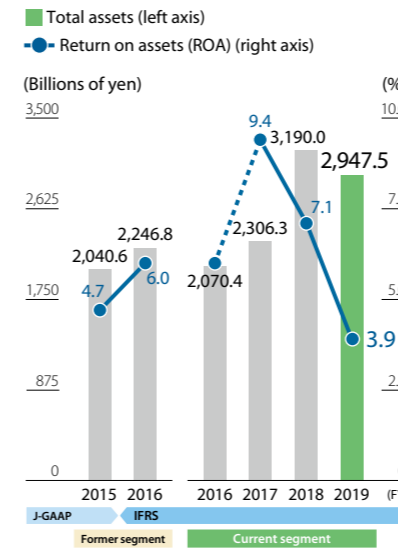
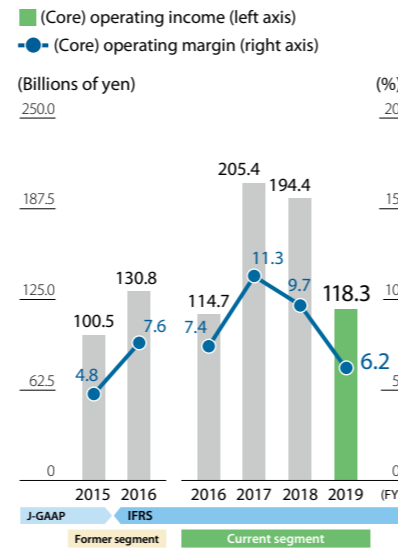
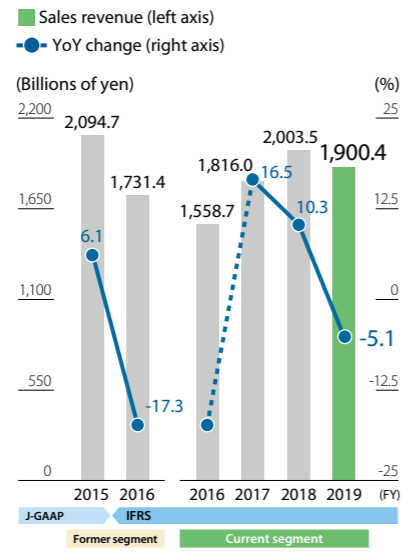
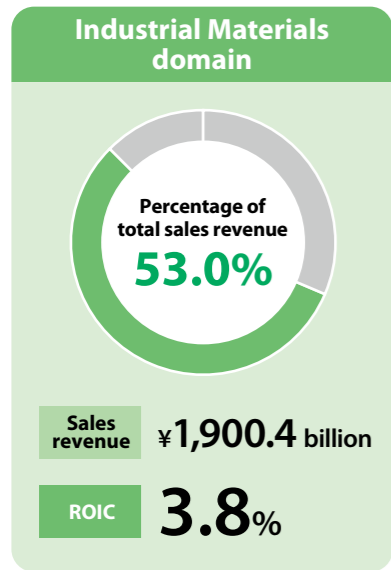
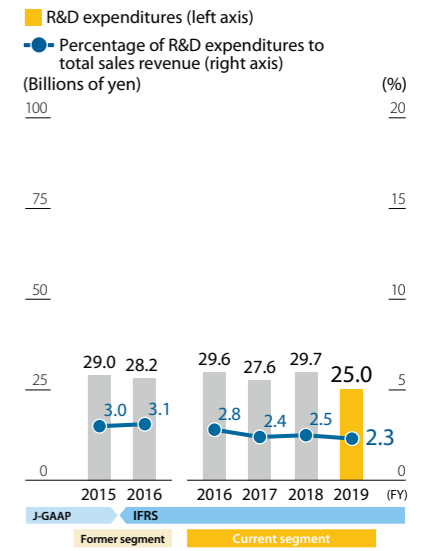
Total assets and ROA



Capital expenditures and depreciation and amortization



R&D expenditures and percentage of total sales revenue



# FY2019 Financial Results by Business Segment

## Performance Products domain

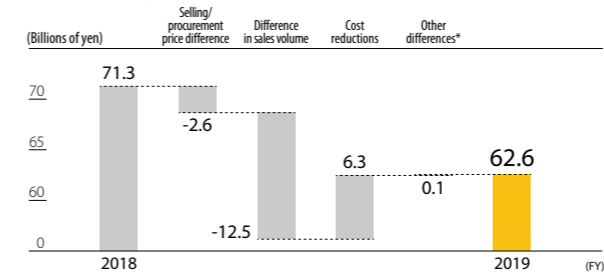
### Performance Products segment

In fiscal 2019, this segment posted sales revenue of ¥1,081.6 billion, a decrease of ¥73.9 billion year on year, reflecting sales revenue declines in both sub-segments. In the Functional Products sub-segment, sales revenue was down due to decreased sales volume of high-performance engineering plastics supplied by the Advanced Moldings and Composites business amid sluggish demand for semiconductor and automotive applications. This more than offset increased sales volume in the Environment and Living Solutions business. In the Performance Chemicals subsegment, the decrease in sales revenue reflected deteriorating market conditions following favorable conditions in fiscal 2018, despite the Advanced Polymers business posting higher sales volume of phenol and polycarbonate chain materials and eliminating disruptions caused by scheduled maintenance and repairs by completing them in the previous fiscal year.

On the profit front, core operating income totaled ¥62.6 billion, down ¥8.7 billion compared with the previous fiscal year. The decrease was mainly the result of the aforementioned decline in sales volume of high-performance engineering plastics as well as deteriorating conditions in the phenol-polycarbonate chain materials market.

### Performance Products segment

#### Factors underlying YoY change in core operating income



\* Includes differences in inventory valuation and gains/losses on equity method investments

## Industrial Materials domain

### Chemicals segment

In the Chemicals segment, sales revenue amounted to ¥1,057.1 billion, down ¥218.8 billion year on year. By subsegment, sales revenue decreased in the MMA sub-segment mainly due to weakening demand and deteriorating conditions in the market for MMA monomer. In the Petrochemicals sub-segment, declining prices of raw materials passed on as lower sales prices pushed down sales revenue, despite an increase in sales volume due to shortened periods of scheduled maintenance and repairs of ethylene production facility. In the Carbon Products sub-segment, sales revenue was down as a result of decreased sales volume of needle coke along with lower sales prices resulting from declining raw material prices.

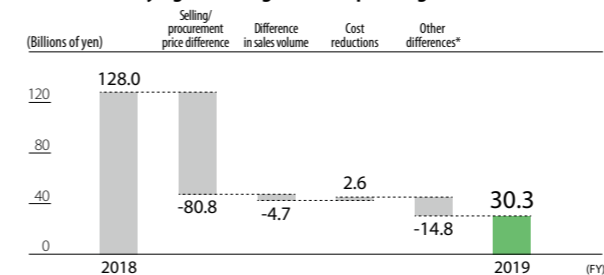
Meanwhile, core operating income fell ¥97.7 billion year on year to ¥30.3 billion. This was mainly a result of the deteriorating conditions in the MMA monomer market, despite the increased sales volume of petrochemicals following the shortening of scheduled maintenance and repairs of facilities.

### Industrial Gases segment

In fiscal 2019, this segment posted sales revenue of ¥843.3 billion, up ¥110.5 billion, and core operating income of ¥88.0 billion, an increase of ¥24.7 billion year on year. Both results reflected contributions from business acquired in Europe and the United States in the second half of the previous fiscal year.

### Chemicals segment

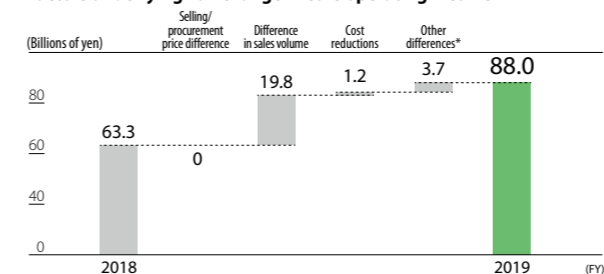
#### Factors underlying YoY change in core operating income



\* Includes differences in inventory valuation and gains/losses on equity method investments

### Industrial Gases segment

#### Factors underlying YoY change in core operating income



\* Includes differences in inventory valuation and gains/losses on equity method investments

## Health Care domain

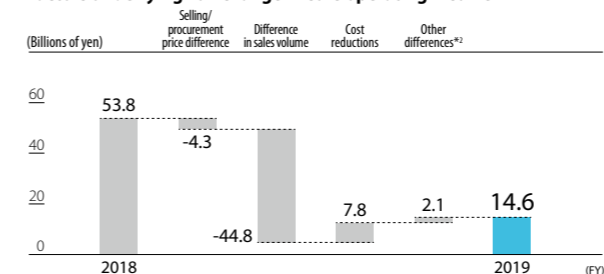
### Health Care segment

In fiscal 2019, this segment posted sales revenue of ¥413.1 billion, a decrease of ¥49.5 billion, and core operating income of ¥14.6 billion, down ¥39.2 billion year on year. These decreases were mainly due to falling royalty revenue, which more than offset higher sales of mainstay ethical pharmaceuticals in Japan.

With respect to royalty revenue, Novartis Pharma AG filed for arbitration against Mitsubishi Tanabe Pharma Corporation in February 2019, claiming no obligation to pay a portion of royalties on sales of *Gilenya*, a treatment for multiple sclerosis. Therefore, these royalties were excluded from sales revenue, in accordance with International Financial Reporting Standard 15 Revenue from Contracts with Customers, since the arbitration proceedings continued into fiscal 2019.

### Health Care segment

#### Factors underlying YoY change in core operating income\*1



\*1 The factors above do not include results from LSI Medience Corporation, which was removed from the scope of consolidation in 2019

\*2 Includes differences in inventory valuation and gains/losses on equity method investments

Functional Products		
Information, Electronics and Displays	Optical films, display- and semiconductor-related products	
High Performance Films	Food packaging materials, industrial-use films, medical and sanitary films	
Environment and Living Solutions	Aqua solutions, ion-exchange resins, separator and aqua chemicals, agricultural and infrastructure solutions	
Advanced Moldings and Composites	High-performance engineering plastics, carbon fiber and composite materials, alumina fibers, functional moldings and composites, fibers and textiles	
Performance Chemicals		
Advanced Polymers	Performance polymers, phenol and polycarbonate, polybutylene terephthalate, sustainable polymers	
High Performance Chemicals	Coating materials, epoxy resins, resin additives, inorganic chemicals, food ingredients	
New Energy	Lithium-ion battery materials, LED materials, scintillator GaN substrate	
Chemicals		
MMA	MMA and PMMA	
Petrochemicals	Basic petrochemicals and basic chemical derivatives, polyolefins	
Carbon Products	Coke, carbon materials, carbon black, synthetic rubber	
Industrial Gases		
Industrial Gases	Industrial gases, industrial gas-related equipment and facilities	
Health Care		
Pharmaceuticals	Pharmaceuticals	
Life Science	Capsules and pharmaceutical processing equipment (PPE)*, active pharmaceutical ingredients and intermediates	

\* The capsules and PPE businesses were transferred to the High Performance Chemicals Business Domain of Mitsubishi Chemical Corporation in July 2020.



# Performance Products Domain

In its Performance Products domain, the Mitsubishi Chemical Holdings Group is targeting five growing markets with a diverse range of products and solutions, and applying its advanced technologies to differentiate and improve product performance.



**Optical Films business**  
• We have a strong market position in Japan and can provide solutions for various optical applications.

**High Performance Films business**  
• We provide technological capabilities for adding various functions to films, such as gas-barrier, porous, and multilayer films.

**High-Performance Engineering Plastics business**  
• We operate a global network of facilities capable of handling a broad range of operations from plastic production to molding and processing.

**Carbon Fiber and Composite Materials business**  
• This business can leverage a vertically integrated value chain spanning from carbon fibers to intermediate base materials and composite materials.

**Optical Films business**  
• We must respond to greater than expected short-term changes in market demand.

**High Performance Films business**  
• The operations of this business are concentrated mainly in Japan.

**High-Performance Engineering Plastics business**  
• This business is particularly vulnerable to social, economic, and foreign exchange risks in various regions of the world.

**Carbon Fiber and Composite Materials business**  
• This business mainly sells products outside Japan, exposing it to foreign exchange risks.

**Optical Films business**  
• Market demand for high-performance and high-precision optical films is growing.

**High Performance Films business**  
• As a group, we are able to offer high-performance products to markets outside Japan.

**High-Performance Engineering Plastics business**  
• Demand is rising for engineering plastics from the aircraft, semiconductor, and medical equipment industries.

**Carbon Fiber and Composite Materials business**  
• These materials are increasingly in demand for use as automobile parts, wind turbine blades, and pressure vessel materials.

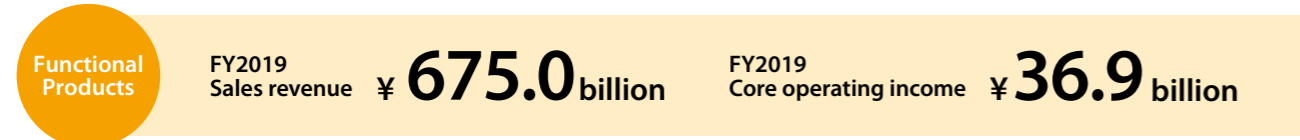
**Optical Films business**  
• The optical film market is shrinking due to disruptive innovations.

**High Performance Films business**  
• Demand for these films in Japan is forecast to decline over the medium term.

**High-Performance Engineering Plastics business**  
• The market is shrinking with the growing adoption of 3D printers and other new technologies.

**Carbon Fiber and Composite Materials business**  
• Competition is intensifying as manufacturers of these materials in emerging countries improve product quality.

## Financial results and main products



**Information, Electronics and Displays**  
Optical films, displays and semiconductor-related products

**Optical films:** We supply optical films for displays, including polyester films, optical clear adhesive sheets, and polyvinyl alcohol films, while promptly meeting increasingly advanced specifications and requirements in growing global markets.

**Display- and semiconductor-related products and services:** With a focus on creating new value tailored to customers' needs, we also offer a wide range of materials for displays as well as semiconductor precision cleaning services.

**Environment and Living Solutions**  
Aqua solutions, ion-exchange resins, separator and aqua chemicals, agricultural and infrastructure solutions

**Aqua solutions:** We supply essential products for drinking water and wastewater treatment, including water treatment chemicals, membrane filters, and ion-exchange resins, while aiming to develop solutions for global water shortages and pollution.

**Agricultural solutions:** We also provide various materials including highly durable and functional plastic sheets for greenhouses, and services for vegetable plant systems which ensure year-round cultivation of high-quality vegetables.

**Advanced Polymers**  
Performance polymers, phenol and polycarbonate, polybutylene terephthalate, sustainable polymers

**Performance polymers:** We help our customers innovate by supplying a broad range of products for medical and industrial use as well as for consumer goods, including thermoplastic elastomers, performance polyolefins, and polyvinyl chloride compounds.

**Phenol and polycarbonate:** Operating globally with a leading market share in Asia, we supply phenol and polycarbonate by integrating its proprietary manufacturing processes with polymer design and compound technologies.

**New Energy**  
Lithium-ion battery materials, phosphors, scintillators, GaN substrates

**Lithium-ion battery materials:** This business manufactures electrolytes and anode materials for electric vehicle lithium-ion batteries according to the latest customer specifications, leveraging its global supply network and technical expertise spanning from material development to safety assessments.

**Phosphors, scintillators, GaN substrates:** We provide phosphors for fluorescent backlights and LEDs, and scintillators for security devices and medical diagnostic equipment, such as CT scanners. We also develop gallium nitride (GaN) substrates equipped in lasers and other high-performance devices.

**High Performance Films**  
Food packaging materials, industrial-use films, medical and sanitary films

**High-performance films:** We optimally combine our polymer design, molding, surface treatment, and composite material technologies to produce films with added functions, such as gas-barrier properties, weather resistance, moisture permeability, and easy-to-unseal functions. Our films are used in a wide range of industries, including the food packaging and medical products industries.

**Advanced Moldings and Composites**  
High-performance engineering plastics, carbon fiber and composite materials, alumina fibers, functional moldings and composites, fibers and textiles

**High-performance engineering plastics:** As a leading global manufacturer of high-performance engineering plastics, we provide products to the industrial machinery, automotive, aircraft, and medical equipment industries.

**Carbon fiber and composite materials:** We have established a world-leading integrated product chain spanning from polyacrylonitrile- and pitch-based carbon fibers to intermediate materials and molded products made from such fibers.

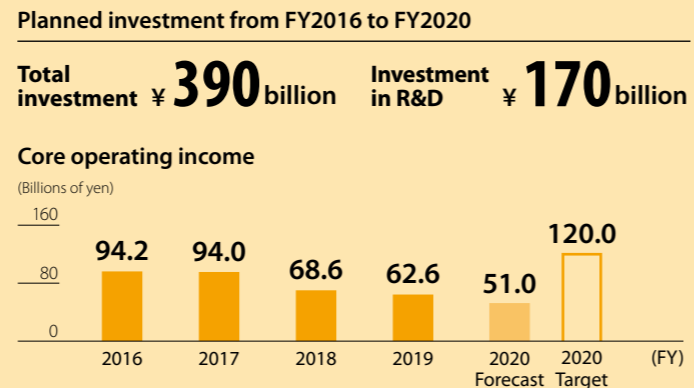
**High Performance Chemicals**  
Coating materials, epoxy resins, resin additives, inorganic chemicals, food ingredients

**Coating materials:** Applying advanced technologies for combining, mixing, and evaluating chemical ingredients, we offer environmentally conscious value-added coating materials used in a variety of products, including paint, ink, adhesives, hair care products, and resists for semiconductors.

**Food ingredients:** We also supply food ingredients ranging from vitamin E to food emulsifiers such as sugar ester—for which we have secured a leading global market share—and are expanding this business beyond the food industry to the pharmaceuticals and cosmetics industries.

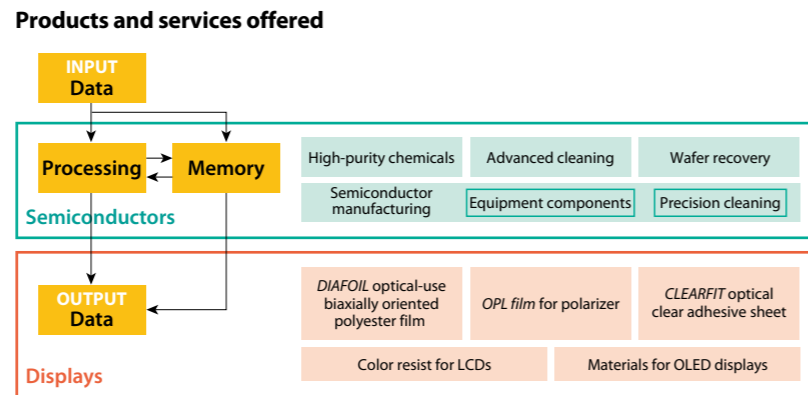
# APTSIS 20

- Policies**
- Provide high-performance products and solutions on a global scale by accelerating growth through cooperation and integration
- Key strategies**
- Expand businesses offering high-performance and high-value-added products and solutions
  - Accelerate global development
  - Enhance innovation through business integration
  - Achieve profitability of New Energy businesses at an early stage



## Strategy for expanding the Information, Electronics and Displays business

This business has been developing display-use optical films, color resist for LCDs, optical components for OLED displays, as well as products and services for semiconductor manufacturing. We are working to expand this business by tailoring products and services to the diverse needs of customers that seek more advanced information processing technologies.



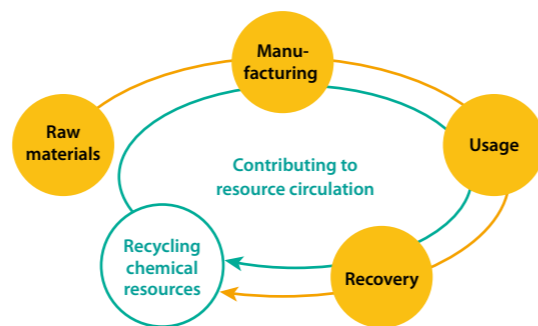
## Strategy for expanding the Advanced Moldings and Composites business

This business supplies high-performance engineering plastics, carbon fiber components, and composite materials for a wide range of industrial applications in the automobile, aerospace, building construction, and medical device industries. We are aiming to expand the business globally by adding more value to its products. Toward that end, Mitsubishi Chemical Corporation began constructing a new carbon fiber sheet molding compound production facility in Italy with a view to supply carbon fiber reinforced plastic components to luxury car manufacturers in Europe.



Mitsubishi Chemical's carbon fiber reinforced plastic is used for the roof of the Audi RS5 Coupé Carbon Edition. Photos courtesy of Audi AG

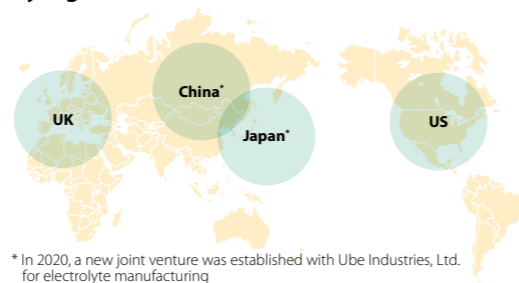
The company is also actively pursuing M&A in order to expand its value chain and bolster its position in strategic markets. Accordingly, it acquired a German prepreg manufacturer in 2020, thereby expanding its prepreg production network to Europe in addition to Japan and the US, and is accelerating its expansion of composite material production of automobile and aircraft secondary structural components. Mitsubishi Chemical has also been acquiring chemical recycling companies in an effort to facilitate the circulation of chemical resources by integrating raw materials recycling into manufacturing operations.



## Strategy for expanding the New Energy business

We manufacture and supply highly differentiated lithium-ion battery electrolytes and anode materials that meet stringent safety requirements in the auto industry, and are widely used by electric vehicle manufacturers today. Building on that success, the New Energy business is working to quickly develop innovative and profitable products that can help customers use energy more efficiently. To expand this business over the long term and bolster its international competitiveness, we are increasing production capacity at our manufacturing plants around the world while strengthening our global supply network.

### Electrolyte manufacturing subsidiaries by region



## Focus

### New organizations established to promote semiconductor-related products for solid business foundation

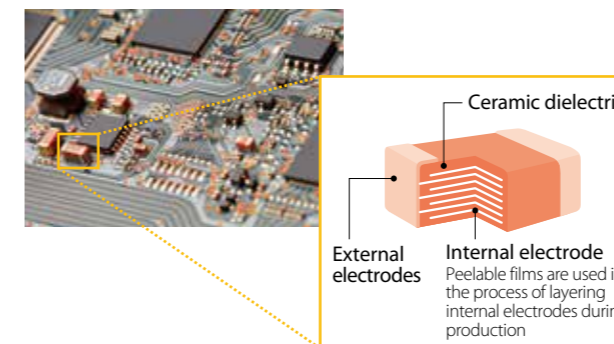
With the widespread use of AI and IoT in recent years, and backed by the shift in the auto industry to connected, autonomous, shared, and electrified (CASE) vehicles, the semiconductor market has been growing substantially and is expected to expand even further in the future. In tandem with this trend, market demand for peelable polyester films is projected to rise dramatically in the future, particularly for their use in production of multilayer ceramic capacitors and other semiconductor devices. Until now, demand has mainly been driven by the use of polyester films in mainstay optical applications.

Recognizing this opportunity, Mitsubishi Chemical has begun constructing a new polyester film manufacturing facility

in Indonesia. Boasting annual production capacity of 25,000 tons, the new plant is scheduled for completion around the end of 2021. Furthermore, in April 2020, the company set up a centralized headquarters to oversee semiconductor-related products and services in the Information, Electronics and Displays business for the purpose of more quickly offering solutions to semiconductor manufacturers around the world. It also created a new organization to uniformly promote these solutions globally under a single brand. On this momentum, Mitsubishi Chemical is working to establish a solid foundation for its semiconductor-related products business and raise its presence in the industry.

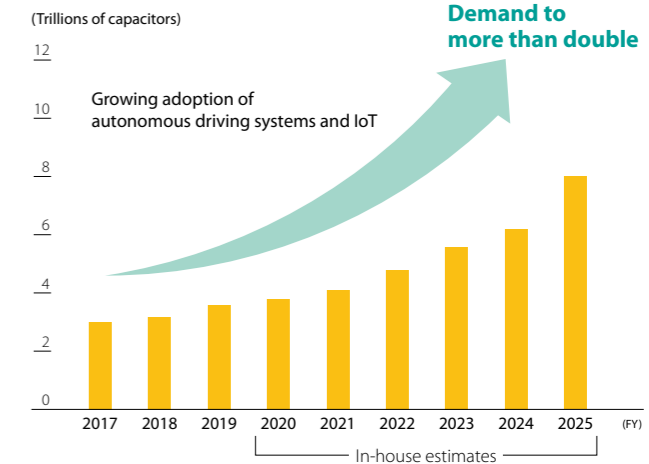
### Multilayer ceramic capacitors

Essential components for electrical circuits of devices



Over 700 are used in a single smartphone

### Projected market demand for multilayer ceramic capacitors



## Solutions for environmental and social issues

### Helping to reduce food loss and save resources with high-performance barrier films

Mitsubishi Chemical's *DIAMIRON* co-extruded multilayer film and *Soarnol* of ethylene vinyl alcohol copolymer gas-barrier film are used as food packaging materials. Featuring outstanding barrier properties, the products preserve the freshness and quality of food for relatively long periods of time. In Japan, market demand for food packaging materials has been on the rise amid a shift to individually packed products and problems associated with food loss, which have reflected changing lifestyles in recent years. In response, Mitsubishi Chemical intends to provide a wide range of food packaging materials, including biodegradable multilayer barrier films that are friendly to the environment.

### Soarnol used to produce a mayonnaise container

Layer	Material	Function
Outer layer	Low-density polyethylene	Enables container flexibility and prevents moisture and electrostatic
Recyclable layer	Recyclable material	Allows product recycling
Adhesive layer	Adhesive resin	Bonds the outer and barrier layers
Barrier layer	Ethylene vinyl alcohol copolymer	Forms an oxygen barrier and enables container molding
Adhesive layer	Adhesive resin	Bonds the inner and barrier layers
Inner layer	Low-density polyethylene	Enables container flexibility and prevents moisture and electrostatic

# Industrial Materials Domain

In its Industrial Materials domain, the Mitsubishi Chemical Holdings (MCHC) Group strives to increase the use of renewable resources while providing products and technologies that meet the current needs of growing industries and markets.

**MMA business**  
• We use three manufacturing methods and hold the top share of the global MMA market.

**Petrochemicals business**  
• We have amassed advanced technologies across a broad product chain ranging from basic petrochemicals to derivatives.

**Carbon Products business**  
• We possess exceptional coking coal blending technologies and coke quality management technologies.

**Industrial Gases business**  
• As a group, we hold the top share of Japan's industrial gases market and can supply these gases to markets around the world.

Strengths  
**S**

Weaknesses  
**W**

**MMA business**  
• Our international operations have enough capacity to meet growing global demand.

**Petrochemicals business**  
• This business can leverage technology license agreements and proprietary catalysts in growing markets around the world.

**Carbon Products business**  
• We can tap into growing demand for coke as crude steel production expands in developing countries such as India.

**Industrial Gases business**  
• As a group, we can take advantage of growing investment opportunities around the world and rising demand for gas applications in the electronics and medical device industries.

Opportunities  
**O**

Threats  
**T**

**MMA business**  
• Earnings in this business fluctuate according to raw material prices and global market conditions.

**Petrochemicals business**  
• This business is sensitive to changing prices of crude oil and other commodities.

**Carbon Products business**  
• Earnings in this business fluctuate depending on coking coal prices.

**Industrial Gases business**  
• Business earnings in Japan are impacted by electricity costs.

**MMA business**  
• Our products face competition from alternative materials.

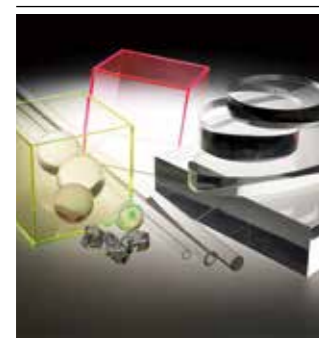
**Petrochemicals business**  
• Competition in Japan has intensified due to greater than expected imports of petrochemicals derived from US shale and Chinese coal.

**Carbon Products business**  
• Demand for coke could decline as steel manufacturers consolidate their blast furnaces as part of restructuring.

**Industrial Gases business**  
• Our international competitors have become larger following mergers of major European and American gas companies.

## Financial results and main products

**MMA** FY2019 Sales revenue **¥276.4 billion** FY2019 Core operating income **¥24.3 billion**



### Methyl methacrylate (MMA) and polymethyl methacrylate (PMMA)

**MMA:** Our production capacity of this organic compound accounts for about 40% of total global capacity. We produce this through three methods\* using different raw materials, and are pursuing advancements in its manufacturing processes while leveraging cost competitiveness and access to raw materials through a global supply chain.

\* The acetone cyanohydrin (ACH) method, C4 direct oxidation process, and Mitsubishi Chemical Corporation's new ethylene method called Alpha technology.

**PMMA:** We manufacture this thermoplastic, which boasts excellent transparency, weather-resistance, and formability, for a wide range of products, particularly acrylic sheets for signs, display cases and aquarium tanks. It is also used in auto parts, optical components, consumer electronics components, and plastic optical fibers.

**Carbon Products** FY2019 Sales revenue **¥246.3 billion** FY2019 Core operating income **¥8.1 billion**



### Coke, carbon materials, carbon black, and synthetic rubber

**Coke:** Coke is an essential material for the global steel industry, and the coal tar produced in its manufacturing process is also used as a raw material for many types of products. We procure coal from a number of countries and blend it with 60 to 70 types of raw materials to produce coke of various quality grades.

**Carbon black:** Carbon black is used to make many common goods, such as tires, printing ink, and rubber coloring. We apply strict quality controls at every stage of the carbon black manufacturing process, from raw material processing to finished product inspections.

**Petrochemicals** FY2019 Sales revenue **¥534.4 billion** FY2019 Core operating loss **¥2.1 billion**



### Basic petrochemicals and basic chemical derivatives, polyolefins

**Basic petrochemicals and basic chemical derivatives:** This business supplies olefins, including ethylene and propylene, and aromatics, such as benzene and toluene. It also sells terephthalic acid and various derivatives from ethylene, propylene and C4. The MCHC Group operates two ethylene plants in Japan, one in Ibaraki Prefecture owned by Mitsubishi Chemical, and another in Okayama Prefecture owned by Asahi Kasei Mitsubishi Chemical Ethylene Corporation, a 50:50 joint venture company between Mitsubishi Chemical and Asahi Kasei Corporation.

**Polyolefins:** Applying our proprietary catalyst and process technologies, this business supplies high-quality and high-performance polyethylene and polypropylene materials, which are used to manufacture a diverse range of products spanning from auto parts and electrical wires to medical equipment and food packaging. As a global supplier of these high-performance materials, we are expanding this business into growing industries around the world, including the auto industry.

**Industrial Gases** FY2019 Sales revenue **¥843.3 billion** FY2019 Core operating income **¥88.0 billion**



### Industrial gases and related equipment and facilities

**Industrial gases:** Having secured the top share (40%) of Japan's market for industrial gases, which includes oxygen, nitrogen and argon, we are working to expand this business in other major markets of the world, particularly in North America, Europe, Asia, and Oceania.

**Industrial gas-related equipment and facilities:** Building on a long history of achievements, such as constructing Japan's first air separation units in 1935, we have earned a strong reputation around the world as a manufacturer of industrial gas-related equipment and facilities, including space-simulation chambers and liquid helium equipment.

# APTSIS 20

**Policies**

- Stabilize earnings by improving cost competitiveness
- Accelerate growth and increase presence in the global market

**Key strategies**

- Enhance cost competitiveness
- Accelerate global expansion of the MMA and Industrial Gases businesses
- Restructure businesses

**Planned investment from FY2016 to FY2020**

**Total investment** ¥1,280 billion    **Investment in R&D** ¥80 billion

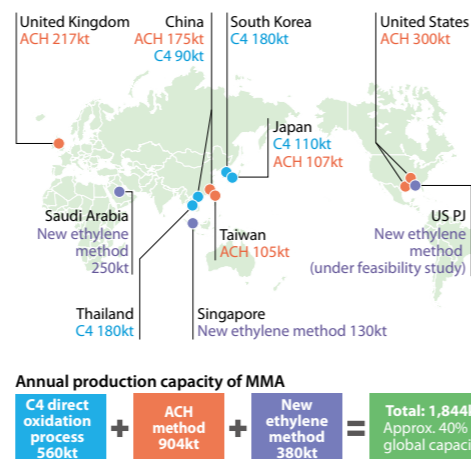
**Core operating income** (Billions of yen)

FY	2016	2017	2018	2019	2020 Forecast	2020 Target
Income	114.7	205.4	194.4	118.3	96.0	225.0

## Strategy for expanding the MMA business

With about 40% of global production capacity for MMA, we are working to maintain our overwhelming competitive advantage as the leading global supplier by optimizing manufacturing processes, and to expand globally by boosting production capacity. Global expansion is being driven by one of our operating companies Mitsubishi Chemical, the world's only supplier capable of producing MMA through three different methods: the ACH method, C4 direct oxidation process, and its own new ethylene method called Alpha technology. It carries out highly advanced global supply chain management utilizing digitalization to promptly monitor supply and demand in every region of the world, as well as market trends, raw material availability, and costs incurred for each manufacturing method. It is also applying digitalization to optimize manufacturing processes and maintain a competitive edge in the global market while securing stable earnings.

### Leveraging a dependable global supply network

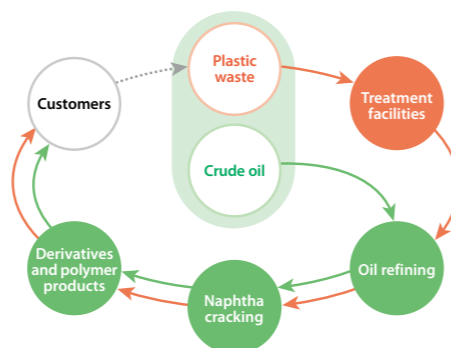


## Strategy for improving competitiveness in the Petrochemicals business

We have carried out major structural reforms in the Petrochemicals business, such as consolidating its naphtha cracking operations and withdrawing from unprofitable businesses. Building on this progress, we are now proceeding to upgrade manufacturing facilities and optimize production systems as a means to improve competitiveness and maximize earnings going forward.

As part of these efforts, Mitsubishi Chemical and ENEOS Corporation (former JXTG Nippon Oil & Energy Corporation) are currently studying chemical recycling technologies to reuse plastic waste as raw materials for oil refining and petrochemical production. Toward that end, in November 2019, it formed a 50:50 joint venture company in the city of Kashima, Ibaraki Prefecture, through a limited liability partnership with JXTG Nippon Oil & Energy Corporation (currently ENEOS Corporation), thereby promoting cooperation between Japan's oil refinery and petrochemical industries. Both partners will aim to boost their international competitiveness by converting plastic waste into raw materials for gasoline and other fuels and using these raw materials more efficiently in production processes, and optimizing the production of petrochemical products.

### Envisioned plastic waste recycling process



## Strategy for improving competitiveness in the Carbon Products business

Excluding steel producers, Mitsubishi Chemical is one of the largest coke manufacturers in the world, and provides a dependable supply of coke to a wide range of steel makers in Japan and around the globe. To improve its international competitiveness and maximize earnings, the company is making continuous efforts to add more value to its coke byproducts.

## Focus

### Industrial Gases segment Group company takes a major step forward with shift to a holding company structure

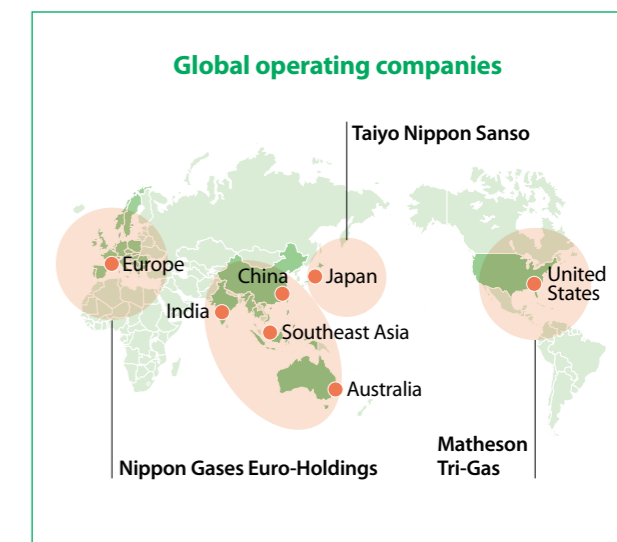
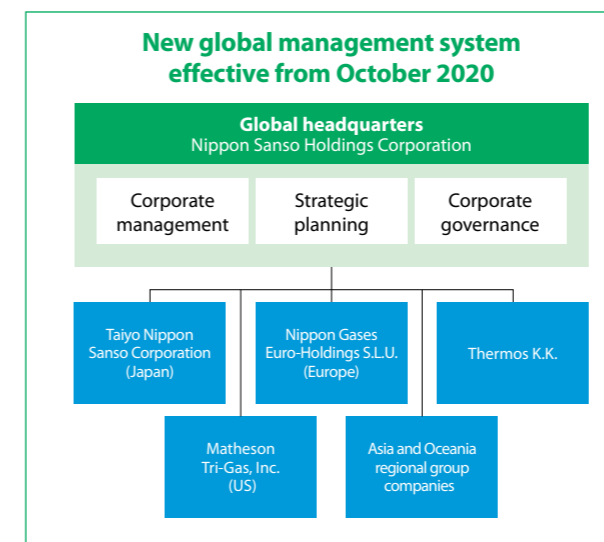
Amid a growing concentration of companies in the industrial gas industry, Nippon Sanso Holdings Corporation has been aiming to solidify its position by globalizing its operations, which is a basic policy of its medium-term management plan, Ortus Stage 2, launched in April 2017. Accordingly, the company acquired part of the European operations of Praxair, Inc., a US-based industrial gas supplier, in December 2018, and set up a global supply network covering four operating regions: Japan, the US, Europe, and Asia and Oceania.

To build on this momentum against the backdrop of changing geopolitical and economic trends, the company's management recognized the need to leverage the collective capabilities of the group led by Nippon Sanso Holdings, and

boost its competitiveness against major players in the global industrial gas market. Therefore, from October 2020, it was decided to shift to a holdings company structure and changed the name to Nippon Sanso Holdings, and create a more competitive group operating structure.

Through this shift, the company will allocate authority among its operating companies in each of the aforementioned regions, and clarify responsibilities for business execution to speed up management decision-making. It also plans to strategically distribute operational resources and formulate strategies for the group as a whole while stepping up corporate governance and improving its risk management system.

### Shifting to a new global management system



## Solutions for environmental and social issues

### Creating more employee-friendly workplaces by reducing stressful and physically demanding work

Mitsubishi Chemical practices sound management based on the principles of the MCHC Group's KAITEKI Health and Productivity Management. Accordingly, the company has been taking steps to make its workplaces more motivating and dynamic for its diverse employees with a view to raise productivity and promote innovation. For example, measures to reduce stressful and physically demanding work were initiated in fiscal 2019 along with other priority initiatives based on over 2,000 ideas and suggestions collected from employees working at factories and other workplaces throughout the company. While requests to reduce heavy physical labor had been technically difficult to realize in the past, the company has begun adopting AI, IoT, robotics, and other new technologies to solve these issues and make it easier for all employees to participate in the workplace.



Powered exoskeletons are being considered as a way to reduce physically demanding work



# Health Care Domain

In its Health Care domain, the Mitsubishi Chemical Holdings Group not only works to provide treatments for diseases but also products and services that help people around the world live longer and healthier lives.

### Pharmaceuticals business

- We have advanced drug discovery and IKUYAKU (drug fostering and evolution) capabilities.
- We have established a solid presence in priority drug markets, particularly drugs for immuno-inflammatory diseases.

### Life Science business

- Our products target a wide range of applications spanning from sick care to healthcare.
- We have outstanding product development and technological capabilities in regenerative medicine.

Strengths

S

Weaknesses

W

Opportunities

O

Threats

T

### Pharmaceuticals business

- Needs in the healthcare and medical sectors are diversifying.
- The aging of populations in many countries is driving up demand for healthcare.

### Life Science business

- Big data is increasingly being used for healthcare and medical ICT.
- Governments are promoting public health and serious disease prevention to control spiraling healthcare costs.
- People are growing more aware of personal health management, including self-medication.

### Pharmaceuticals business

- Our expansion into global markets has been relatively slow, particularly in North America.

### Life Science business

- We must further diversify our products and services to meet a broad range of customer needs.

### Pharmaceuticals business

- Discovering new drugs is increasingly challenging and stricter drug approval processes result in higher R&D costs.
- Governments are taking various measures to control healthcare expenditures.

### Life Science business

- Economic incentives are lacking for healthcare businesses and services.

## Financial results and main products



FY2019 Sales revenue ¥ **413.1 billion**

FY2019 Core operating income ¥ **14.6 billion**

(Figures do not include results from discontinued operations.)

## Pharmaceuticals business

**Drugs for immuno-inflammatory diseases:** Mitsubishi Tanabe Pharma Corporation has held the No. 1 share in Japan's drug market for immuno-inflammatory diseases by maximizing the respective benefits provided by three products: *REMICADE* (for inflammatory autoimmune diseases such as rheumatoid arthritis), *Simponi* (for rheumatoid arthritis and ulcerative colitis), and *Stelara* (for Crohn's disease, ulcerative colitis, and other indications). Through its leading product, *REMICADE*, in particular, we have secured a steady sales stream and dependable reputation among medical professionals.



REMICADE Simponi Stelara

**Drugs for diabetes and kidney diseases:** Mitsubishi Tanabe Pharma has developed three drugs: *TENELIA*—the first type 2 diabetes mellitus drug developed in Japan—as well as *CANAGLU* and *CANALIA*, and we are working to establish a solid presence in this field by collecting clinical results and expanding sales channels for these three drugs.



TENELIA CANAGLU CANALIA

**Drugs for central nervous system disorders:** Mitsubishi Tanabe Pharma has been obtaining approval for *RADICUT* (*RADICAVA* in the US) as a treatment for amyotrophic lateral sclerosis (ALS) in countries around the world, starting with Japan in June 2015, followed by South Korea, the US, Canada, Switzerland, China, and Indonesia. Evidence has shown that the drug is effective in removing free radicals remaining in the body, thereby protecting motor neurons from damage caused by resultant oxidative stress. This slows the decline of physical functioning and progress of muscle atrophy in ALS patients. The drug is an intravenous infusion, but we are currently developing an oral suspension.



RADICUT

**Vaccines:** Mitsubishi Tanabe Pharma jointly established a company to produce vaccines, BIKEN Co., Ltd., with Osaka University's Research Institute for Microbial Diseases. Since commencing operations in September 2017, the joint venture has been producing in-demand vaccines and helping stabilize the supply of vaccines. We aim to increase total vaccine production capacity by 20 to 30% in the future.



Influenza vaccine TETRABIK Varicella vaccine

## Life Science business

**Next-generation healthcare:** One of our operating companies, Life Science Institute, Ltd., has initiated clinical trials of a formulation (development code CL2020) for treating acute myocardial infarction, ischemic stroke, epidermolysis bullosa, and spinal cord injury based on Multilineage-differentiating stress enduring cells (Muse cells) which were discovered by Professor Mari Dezawa's group at Tohoku University. Meanwhile, our Group's Tonomachi Cell Processing Center obtained a license for manufacturing of regenerative medicine products in August 2019, and is making preparations to launch products to the market.



Muse cells

**Healthcare and medical ICT:** In Japan, the population is aging rapidly and rural areas have increasingly less access to medical care. To address these issues, we are striving to improve the quality of medical care through new products and services. For example, it has been applying digitalization to develop diagnostic support systems that can lessen the workloads of medical doctors, and is currently promoting Open Shared Business (OSB)\* to develop AI-based diagnostic imaging systems.

\* OSB (Open Shared Business) is the original framework of Mitsubishi Chemical Holdings Corporation for working with organizations outside the Group. We promote collaboration in both R&D and business and build a distinctive value chain by using the OSB framework.



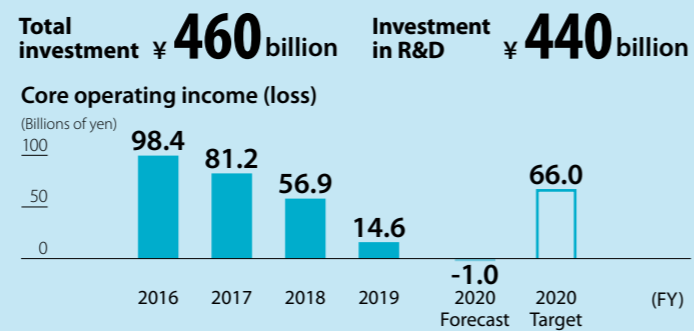
**Pharmaceutical development solutions:** Our Life Science business manufactures active pharmaceutical ingredients and intermediates. It has also manufactured high-quality, high-performance hard-shelled capsules, including the world's first hypromellose capsules made from plant-derived materials. The business has also applied its capsule manufacturing technology and expertise to supply pharmaceutical processing equipment (PPE). (The capsules and PPE businesses were transferred to the High Performance Chemicals Business Domain of Mitsubishi Chemical Corporation in July 2020.)



# APTSIS 20

- Policies**
- Enable global growth of the Pharmaceutical business
  - Establish and improve the healthcare and medical business utilizing ICT and regenerative medical products
- Key strategies**
- Accelerate expansion of the Pharmaceutical business globally, particularly in the US.
  - Strengthen drug discovery capabilities
  - Bolster IKUYAKU (drug fostering and evolution) and marketing to maximize the value of new drugs and priority products
  - Expand the healthcare and medical business utilizing ICT
  - Expand the regenerative medicine business
  - Improve profitability and global expansion of the business for pharmaceutical capsules

### Planned investment from FY2016 to FY2020



## Growth strategies in the Pharmaceutical business

Mitsubishi Tanabe Pharma has set forth four challenges for achieving its goals in its medium-term management plan, Open Up the Future, which ends in March 2021. One of these challenges is maximizing pipeline value. As part of these efforts, the company filed for approval of Vadadustat (generic name) for the treatment of renal anemia in Japan and entered into a licensing agreement for the introduction of Inebilizumab (generic name) for the treatment of optic neuromyelitis-related diseases in fiscal 2019.

On a global level, Mitsubishi Tanabe Pharma revised its development plan in the United States based on the results of a Phase 3 clinical trial of a plant-derived virus-like particle (VLP) vaccine (development code MT-2271) for the prevention of seasonal influenza. The company has confirmed a certain level of efficacy in comparison with a placebo and a control (vaccine grown in chicken eggs). Considering the merits of the plant-derived VLP platform technology, it is investigating the development of a seasonal influenza vaccine with an adjuvant\* to further improve the efficacy of the vaccine compared to the current formulation.

\* An adjuvant is a substance used in combination with a vaccine to enhance or supplement the effectiveness of pharmaceuticals, and it can be expected to improve immunogenicity.

## Growth strategies in the Life Science business

### Developing Muse cell-based products in response to unmet medical needs

One of our operating companies, Life Science Institute, is developing a Muse cell-based formulation (development code CL2020), which is a regenerative medicine product, with the aim of becoming a truly unique healthcare solutions company.

Muse cells were discovered by Professor Mari Dezawa's group at Tohoku University in 2010. These pluripotent stem cells have the capacity to differentiate into a range of human cells. Muse cells are considered as non-tumorigenic, and they naturally exist in the connective tissue of the human body. Moreover, they do not need to be induced to differentiate into target cells, and can be simply administered intravenously to accumulate and engraft injured tissues for repair.

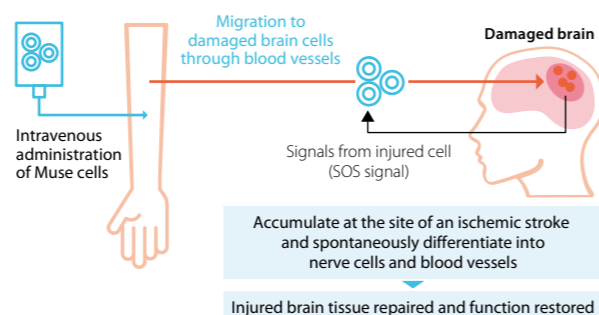
Life Science Institute is currently conducting clinical trials on CL2020 as a treatment for acute myocardial infarction, ischemic stroke, epidermolysis bullosa, and spinal cord injury. Of these

### Four objectives for creating future possibilities

1 Maximize pipeline value	<b>Late-stage development target</b> <b>10 drug discoveries</b> 5-year cumulative R&D investment ¥400 billion	FY2019 results Started late-stage development of 9 candidates
2 Strengthen IKUYAKU (drug fostering and evolution) and marketing	<b>Japan sales revenue target</b> <b>¥300 billion</b> Sales ratio of new drugs and priority products target <b>75%</b>	FY2019 results ¥313.9 billion 74.6%
3 Accelerate expansion in the US	<b>US sales revenue target</b> <b>¥40 billion</b> <b>Export RADICAVA to more countries</b> Strategic investment from FY2019 to FY2023 <b>¥300 billion</b>	FY2019 results ¥23.1 billion RADICAVA approved in 6 countries
4 Raise productivity	<b>Reduction of the cost of sales and SG&amp;A expense reduction target</b> <b>¥30 billion</b> <b>Maximum workforce target</b> <b>5,000</b>	FY2019 results ¥32 billion reduction Workforce cut to 4,782 employees
<b>FY2020 targets</b> Sales revenue of ¥430 billion Core operating income of ¥60 billion		
<b>FY2020 forecasts</b> Sales revenue of ¥383.5 billion Core operating income of ¥10 billion		

clinical trials, the exploratory clinical trial for acute myocardial infarction and the clinical trial for ischemic stroke have met expectations in terms of preliminary results.

The company aims to commercialize CL2020 as soon as possible in order to meet the expectations of the many patients and their families who have expressed interest in it.



## Focus

### Applying digitalization in healthcare

As a group, we have established a unique healthcare platform that leverages chemistry, biotechnology, and digital technologies. We have also introduced AI to streamline and improve operations.

### Shift from treatment to prevention and disease avoidance

The focus of the Japanese government's healthcare policy has shifted from treatment to prevention and disease avoidance. There is also a growing awareness of the importance of health management by individuals. For the lifestyle-related disease of diabetes, prevention of an increase in severity is a pressing issue in order to avoid rising medical expenses.

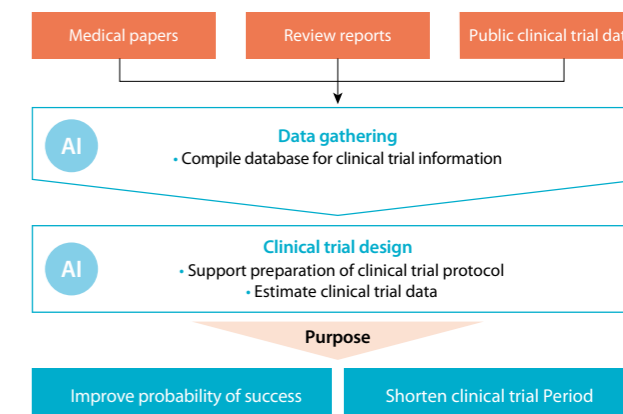
The TOMOCO diabetes care app developed by Mitsubishi Tanabe Pharma in collaboration with Habitus Care Inc. encourages daily recording of diet, exercise, medication, and blood glucose levels, and follows up with a plan of action developed by an instructor. In doing so, the app supports efforts to prevent diabetes from becoming more severe by encouraging behavior change in addition to medical care.



### Operational streamlining and improvements by IKUYAKU (drug fostering and evolution) and marketing

Clinical trials are an important process that determines the success or failure of new drug development. They aim to verify the efficacy and safety of new drug candidates. This is why clinical trials require elaborate implementation plans, as well as

considerable time and know-how based on the knowledge and experience of skilled human resources. Mitsubishi Tanabe Pharma is working together with Hitachi, Ltd., to combine AI that supports information and data collection and AI that supports clinical trial design. The companies have confirmed that it is possible to reduce the time required to collect information by approximately 70% compared to conventional work that relies on the know-how of skilled personnel. Together, we will continue to work toward reducing the time and cost of new drug development and improving the probability of success.



Mitsubishi Tanabe Pharma's marketing teams are working to improve the efficiency of operations through the establishment of a system that accumulates and analyzes data on activities such as the history of physician visits and the details of inquiries from physicians, derives efficient patterns for sales activities, and automatically sends papers and other content of interest to physicians via email.

## Solutions for environmental and social issues

### Development of a VLP vaccine for COVID-19

Medicago Inc., a subsidiary of Mitsubishi Tanabe Pharma, began Phase 1 clinical trials of a plant-derived VLP vaccine for COVID-19 in July 2020. The company is committed to steadily advancing the development of the vaccine so that, if approved, it can be delivered to the public as soon as possible in order to contribute to the prevention of COVID-19, an urgent public health issue.



## Consolidated Financial Summary

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries  
Years ended March 31

	IFRS					
	Millions of yen					
	April 2015 (Transition date)	2016	2017	2018	2019	2020
<b>For the Year:</b>						
Sales revenue	¥ —	¥3,543,352	¥3,376,057	¥3,724,406	¥3,840,341	¥3,580,510
Income before taxes	—	252,791	258,343	344,077	284,846	122,003
Net income	—	104,858	216,515	276,362	216,729	86,560
Net income attributable to owners of the parent	—	51,358	156,259	211,788	169,530	54,077
Total comprehensive income	—	34,302	226,493	297,476	205,898	475
Total comprehensive income attributable to owners of the parent	—	253	165,709	233,619	161,655	(6,664)
Net cash provided by (used in) operating activities	—	299,612	396,643	397,940	415,575	452,003
Net cash provided by (used in) investing activities	—	(234,078)	(289,056)	(335,933)	(895,068)	(87,563)
Net cash provided by (used in) financing activities	—	(40,945)	1,411	(150,592)	519,062	(450,523)
Cash and cash equivalent at end of period	252,749	267,148	363,510	277,624	321,541	228,211
<b>At Year-End:</b>						
Equity attributable to owners of the parent	993,011	972,197	1,091,398	1,285,750	1,377,947	1,170,222
Total assets	4,368,998	4,223,774	4,463,547	4,701,415	5,572,508	5,132,149
Yen						
<b>Per Share:</b>						
Equity attributable to owners of the parent	¥677.98	¥663.71	¥758.30	¥893.26	¥970.46	¥824.07
Net income attributable to owners of the parent — Basic	—	35.06	106.73	147.14	119.22	38.08
Net income attributable to owners of the parent — Diluted	—	35.03	105.95	136.06	110.05	35.21
<b>Ratios:</b>						
Ratio of equity attributable to owners of the parent (%)	22.7	23.0	24.5	27.3	24.7	22.8
Ratio of earnings attributable to owners of the parent (ROE) (%)	—	5.2	15.1	17.8	12.7	4.2
Price earnings ratio (Times)	—	16.8	8.1	7.0	6.5	16.9
<b>Other:</b>						
Number of employees (People)	68,263	68,988	69,291	69,230	72,020	69,609
Temporary employees (People)	6,101	6,967	6,878	7,428	7,558	6,753

Notes: 1. The consolidated financial statements have been prepared in keeping with International Financial Reporting Standards ("IFRS") since the fiscal year, ended March 31, 2017.  
2. Sales revenues do not include consumption taxes.  
3. In the fiscal year ended March 31, 2017, the Company classified terephthalic acid operations in India and China as discontinued. The Company accordingly presents sales revenue and income before taxes for the fiscal years ended March 31, 2016, and 2017, as amounts for continuing operations after excluding discontinued operations.  
4. The company has classified the businesses of LSI Medience Corporation (LSIM) and its subsidiaries and affiliate as discontinued operations for the year ended March 31, 2020, based on the exchange all of its shares in LSIM. Therefore, figures for the previous fiscal year have been restated.

	Japan GAAP			
	Millions of yen			
	2014	2015	2016	2017
<b>For the Year:</b>				
Net sales	¥ 3,498,834	¥3,656,278	¥3,823,098	¥3,432,398
Ordinary income	103,092	163,059	270,616	258,073
Net income attributable to owners of the parent	32,248	60,859	46,444	113,237
Total comprehensive income	134,016	173,692	7,695	205,319
Net cash provided by operating activities	177,027	329,776	388,663	333,150
Net cash used in investing activities	(159,789)	(277,223)	(202,796)	(264,566)
Net cash provided by (used in) financing activities	(8,307)	(2,061)	(156,957)	40,123
Cash and cash equivalent at end of period	179,556	243,055	263,770	360,012
<b>At Year-End:</b>				
Total net assets	1,314,870	1,588,601	1,554,528	1,608,324
Total assets	3,479,359	4,323,038	4,061,572	4,295,260
Yen				
<b>Per Share:</b>				
Net assets	¥611.95	¥669.77	¥636.43	¥691.18
Net income attributable to owners of the parent —Basic	21.89	41.40	31.70	77.35
Net income attributable to owners of the parent —Diluted	21.45	41.37	31.68	76.78
<b>Ratios:</b>				
Shareholders' equity ratio (%)	25.8	22.6	22.9	23.2
Return on equity (ROE) (%)	3.7	6.4	4.8	11.8
Price earnings ratio (Times)	19.5	16.8	18.5	11.1
<b>Other:</b>				
Number of employees (People)	56,031	68,263	68,988	69,291
(Temporary employees in parentheses) (People)	(5,208)	(6,101)	(6,967)	(6,878)

Notes: 1. The consolidated financial statements for the fiscal year ended March 31, 2017, are based on Japanese standards, and have not been audited pursuant to Paragraph 1 of Article 193-2 of the Financial Instruments and Exchange Act.  
2. Sales revenues do not include consumption taxes.

## Segment Information

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries  
Years ended/as of March 31

The Overview of Reporting Segments is detailed in Note 4 (Segment Information).

REPORTING SEGMENT	Sales revenue		Core Operating Income (Loss)	
	Millions of yen		Millions of yen	
	2019	2020	2019	2020
Performance Products	¥1,155,496	¥ 1,081,612	¥ 71,338	¥ 62,668
Chemicals	1,275,973	1,057,054	127,950	30,265
Industrial Gases	732,837	843,340	63,323	87,973
Health Care	462,563	413,140	53,782	14,638
Others	213,472	185,364	7,932	12,319
Subtotal	3,840,341	3,580,510	324,325	207,863
Elimination and corporate	—	—	(10,221)	(13,043)
Total	¥3,840,341	¥3,580,510	¥314,104	¥194,820

\* Inter-segment revenue and transfers are not included.

REPORTING SEGMENT	Total assets		Depreciation and Amortization	
	Millions of yen		Millions of yen	
	2019	2020	2019	2020
Performance Products	¥1,213,619	¥ 1,176,280	¥ 54,838	¥ 56,725
Chemicals	1,343,146	1,121,561	60,386	64,809
Industrial Gases	1,849,857	1,825,927	58,554	86,164
Health Care	1,171,411	1,130,496	16,274	20,469
Others	1,002,178	916,415	3,273	6,259
Subtotal	6,580,211	6,170,679	193,325	234,426
Adjustments	(1,007,703)	(1,038,530)	2,732	4,186
Total	¥5,572,508	¥5,132,149	¥196,057	¥ 238,612

REPORTING SEGMENT	Capital Expenditures		R&D Expenditures	
	Millions of yen		Millions of yen	
	2019	2020	2019	2020
Performance Products	¥ 64,768	¥ 76,344	¥ 29,655	¥ 25,021
Chemicals	71,043	57,598	10,053	10,002
Industrial Gases	72,056	74,748	3,494	3,390
Health Care	17,985	24,240	90,613	83,003
Others	3,729	3,130	273	230
Subtotal	229,581	236,060	134,088	121,646
Adjustments	2,161	4,330	9,748	11,722
Total	¥231,742	¥240,390	¥142,822	¥133,368

REPORTING SEGMENT	Employees	
	Number	
	2019	2020
Performance Products	23,950	23,713
Chemicals	8,168	8,245
Industrial Gases	19,229	19,719
Health Care	11,989	8,800
Others	7,857	8,235
Subtotal	71,193	68,712
Corporate	827	897
Total	72,020	69,609

GEOGRAPHIC SEGMENT	Net Sales	
	Millions of yen	
	2019	2020
Japan	¥ 2,678,735	¥ 2,367,811
Overseas	1,244,709	1,212,699
Total	¥ 3,923,444	¥ 3,580,510

GEOGRAPHIC SEGMENT	Core Operating Income (Loss)	
	Millions of yen	
	2019	2020
Japan	¥ 165,395	¥ 99,492
Overseas	151,792	95,328
Total	¥ 317,187	¥194,820

OVERSEAS SALES	Millions of yen	
	2019	2020
	Overseas sales	¥1,664,575
Overseas sales as a percentage of consolidated net sales	42.4%	42.9%



Results of operations

Sales revenue and core operating income

In the fiscal year ended March 31, 2020, business conditions remained adverse for the Mitsubishi Chemical Holdings (MCHC) Group. One key factor was that demand stagnated, particularly for semiconductor and automotive applications, amid prolonged US-China trade friction. Another was that the COVID-19 pandemic in the fourth quarter constrained economic activity around the globe.

It was against this backdrop that consolidated sales revenue for the term decreased ¥259.8 billion from a year earlier, to ¥3,580.5 billion. Core operating income dropped ¥119.3 billion, to ¥194.8 billion. Operating income declined ¥150.5 billion, to ¥144.3 billion. This was due mainly to impairment charges on non-recurring expenses in the Health Care domain. The ratio of core operating income to sales revenue was 5.4%, from 8.2% in the previous term.

In keeping with an exchange of all of its shares in LSI Medience Corporation, the Group classified the businesses of that consolidated subsidiary and its subsidiaries and affiliate as discontinued operations. In the fiscal year ended March 31, 2020, the Group accordingly classified earnings related to those businesses as discontinued operations in comparison with the previous fiscal year.

Results by segment

Performance Products segment (Functional Products and Performance Chemicals)

Sales revenue decreased ¥73.9 billion, to ¥1,081.6 billion. Core operating income was down ¥8.7 billion, to ¥62.6 billion.

In the Functional Products sub-segment, sales revenue declined despite higher sales volumes in environment and living solutions. The drop reflected lackluster demand, principally in semiconductor and automotive applications and

lower sales volumes in high-performance engineering plastics and other products for advanced moldings and composites.

Sales revenue was down in the Performance Chemicals sub-segment. This reflected a downturn in what was a favorable market in the first half of the previous fiscal year for phenol-polycarbonate chain materials in advanced polymers. This situation offset the impact of higher sales volumes in the absence of the previous fiscal year's scheduled maintenance and repairs.

Core operating income in this segment declined owing to a downturn in the market for phenol-polycarbonate chain materials in advanced polymers and lower sales volumes in high-performance engineering plastics and other products for advanced moldings and composites.

Chemicals segment (MMA, Petrochemicals and Carbon Products)

Sales revenue decreased ¥218.8 billion, to ¥1,057.1 billion. Core operating income was down ¥97.7 billion, to ¥30.3 billion.

In the MMA sub-segment, sales revenue was down amid weaker demand and a downturn in MMA monomer and other markets.

In the Petrochemicals sub-segment, while sales volumes increased because of a smaller impact from scheduled maintenance and repairs at the ethylene production facility, prices declined owing mainly to lower raw materials costs and other factors.

In the Carbon Products sub-segment, sales revenue was down, reflecting lower coke prices as a result of reduced raw material costs as well as because of decreased needle coke sales volumes.

Core operating income decreased owing mainly to the downturn in MMA monomer and other markets. This was despite higher sales volumes stemming from the lower impact of the scheduled maintenance and repairs in petrochemicals.

Industrial Gas segment (Industrial Gases)

Sales revenue rose ¥110.5 billion, to ¥843.3 billion. Core operating income was up ¥24.7 billion, to ¥88.0 billion.

In Industrial Gases, sales revenue and core operating income increased after including the performances of European and US businesses acquired in the second half of the previous fiscal year.

Health Care segment (Pharmaceuticals and Life Science)

Sales revenue declined ¥49.5 billion, to ¥413.1 billion. Core operating income was down ¥39.2 billion, to ¥14.6 billion.

In Pharmaceuticals, sales revenue and core operating income decreased. This was primarily attributable to lower royalty revenues and despite higher sales volumes in mainly priority products in domestic ethical pharmaceuticals. Some royalty revenue from Novartis Pharma AG for *Gilenya*, a treatment agent for multiple sclerosis, has not been recognized as sales revenue in accordance with IFRS 15 Revenue from Contracts with Customers due to the start of arbitration proceedings since February 2019. Due to the ongoing proceedings, sales revenue has not been recognized and decreased in the fiscal year under review.

Others

Sales revenue decreased ¥28.1 billion, to ¥185.4 billion. Core operating income rose ¥4.4 billion, to ¥12.3 billion.

Non-recurring items and operating income

In the fiscal year ended March 31, 2020, non-recurring items recorded a loss of ¥50.5 billion, representing an increase in loss of ¥31.2 billion compared to the previous fiscal year. The key factor was an impairment loss related to the healthcare business.

Operating income for the fiscal year under review was accordingly ¥144.3 billion, down ¥150.5 billion.

Financial income/Expenses and income before taxes

Financial income was ¥7.2 billion, down ¥3.0 billion, owing largely to lower interest and dividend income.

Financial expenses were ¥29.5 billion, up ¥9.4 billion from a year earlier. This reflected the impact of ¥3.7 billion in foreign exchange losses and higher interest expense associated with increased interest-bearing debt related to the acquisition of businesses for the Industrial Gases segment in Europe and the United States.

Income before taxes thus dropped ¥162.8 billion, to ¥122.0 billion.

Income taxes and net income

Income taxes in the fiscal year under review was ¥52.3 billion, down ¥18.2 billion, owing largely to lower income before taxes.

The effective tax rate after applying tax-effect accounting was 42.9%, whose difference from the statutory rate was 12.3 points.

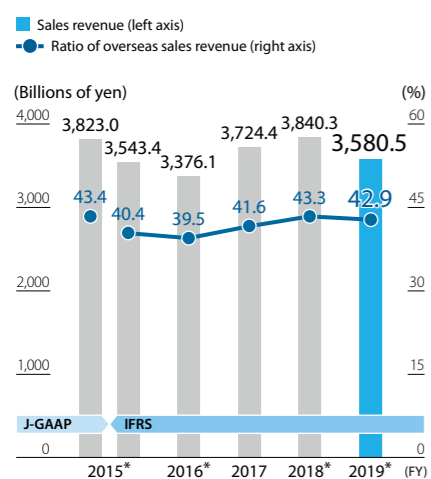
As a result of these factors, net income dropped ¥130.1 billion, to ¥86.6 billion. Net income attributable to owners of the parent was ¥54.1 billion, down ¥115.4 billion.

R&D expenditures

MCHC Group companies maintain independent R&D programs and collaborate closely with each other by sharing technology and market information, conducting joint research, and undertaking and outsourcing R&D. They are also working proactively with businesses outside the Group to refine and develop technologies.

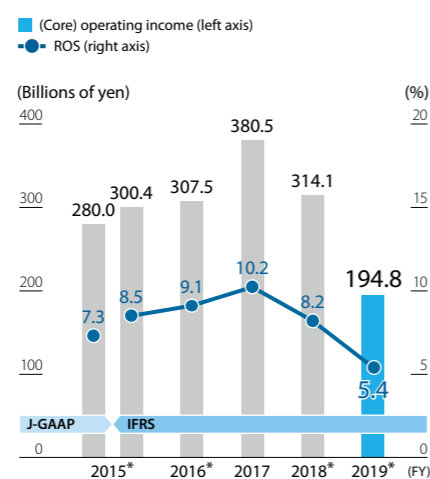
The Group has 4,774 R&D employees. R&D expenditures totaled ¥133.4 billion in the fiscal year under review.

Sales revenue and ratio of overseas revenue

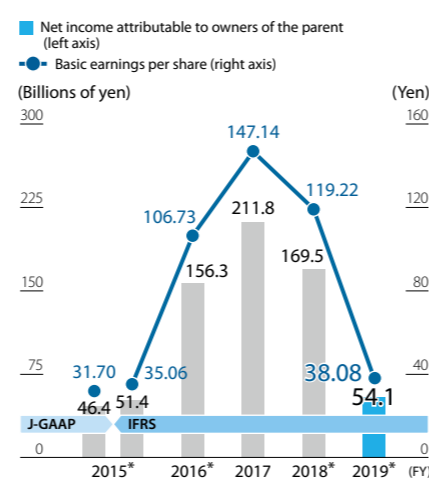


(Note) Figures for years indicated with (\*) do not include results from discontinued operations.

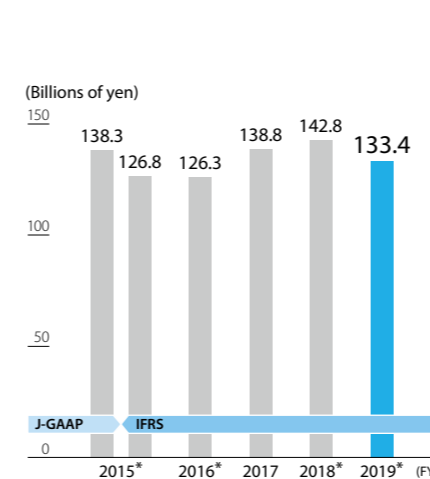
(Core) operating income and ROS



Net income attributable to owners of the parent and basic earnings per share

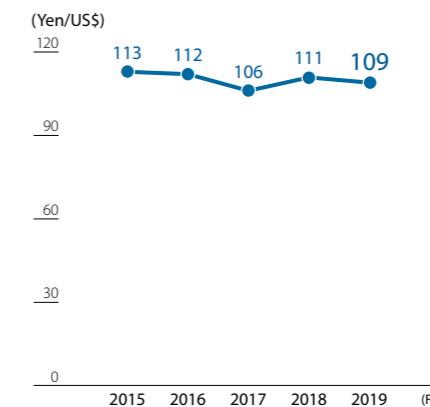


R&D expenditures

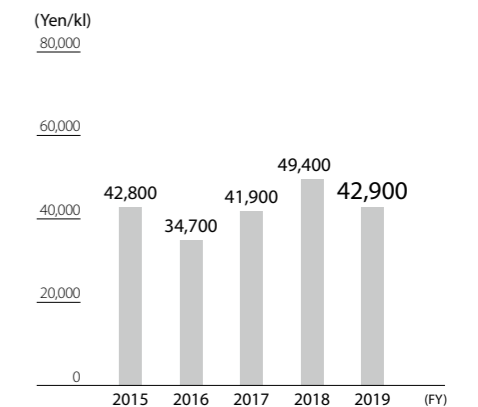


Reference

Foreign exchange (Exchange rate at each fiscal year-end)



Domestic naphtha average price of each fiscal year



### Sources and funds and liquidity

Under the medium-term management plan *APTSIS 20*, the MCHC Group has set out the basic policy of "Aim to become a corporate group with a high-growth and high-profit business structure through the Performance Products, Industrial Materials and Health Care domains." It has also set basic management indicators comprising core operating income, ROS (ratio of core operating income to sales revenue), net income attributable to owners of the parent, ROE (return on equity attributable to owners of the parent) and net debt-to-equity ratio. We seek to improve corporate value while maintaining an appropriate balance between investing in growth businesses, enhancing shareholder returns and strengthening our financial position.

The MCHC Group funds working capital and capital expenditures largely by drawing on internal reserves, loans and bonds. The Group deployed a cash management system to employ its funds efficiently and cut financial expenses. Going forward, management will pursue Group-wide improvements in capital efficiency by consolidating Group fund procurement and management functions.

### Financial position

At March 31, 2020, total assets were ¥5,132.1 billion, down ¥440.4 billion from a year earlier. The decline was despite an increase in property, plant and equipment associated with the adoption of IFRS 16 Leases, and reflected efforts to constrain cash and cash equivalents and a decrease in trade receivables, as the previous term ended on a holiday.

Total liabilities were ¥3,681.3 billion, up ¥134.7 billion, primarily because of a rise in lease liabilities with the adoption of IFRS 16.

Total equity at year-end was ¥1,450.8 billion, down ¥575.1 billion. Key factors were decreases in non-controlling interests and in additional paid-in capital in line with Mitsubishi Tanabe Pharma Corporation becoming a wholly owned subsidiary and a reduction in foreign currency translation differences of overseas subsidiaries. As a result of these factors, the ratio of equity attributable to owners of the parent was down 1.9 points, to 22.8%.

The net D/E ratio was up 0.53, to 1.79.

The balance of main account items at March 31, 2020, and details of increases and decreases are as follows.

#### Assets

##### Trade receivables

Trade receivables dropped ¥156.6 billion, to ¥698.5 billion.

##### Inventories

Inventories decreased ¥16.5 billion, to ¥606.5 billion.

##### Property, plant and equipment and intangible assets

Property, plant and equipment and intangible assets increased ¥700.0 million, to ¥2,252.8 billion.

#### Liabilities

##### Interest-bearing debt

Interest-bearing debt was ¥2,388.1 billion, up ¥141.3 billion, owing mainly to a ¥100.6 billion increase in lease liabilities on the day that the Company adopted IFRS 16.

#### Equity

##### Retained earnings

Retained earnings decreased ¥2.6 billion, to ¥1,071.3 billion. This was despite an net increase in net income attributable to owners of the parent, and reflected a decrease due to dividend payments.

### Cash flows

#### Net cash provided by (used in) operating activities

Net cash provided by operating activities in the fiscal year ended March 31, 2020 was ¥452.0 billion, up ¥36.4 billion from a year earlier, owing mainly to posting of income before taxes and depreciation and a decrease in working capital from a drop in raw materials costs.

#### Net cash provided by (used in) investing activities

Net cash used in investing activities was ¥87.6 billion, down ¥807.5 billion. This was primarily despite ¥236.1 billion in acquisitions of property, plant and equipment and intangible assets, and reflected the impact of divesting fund investments.

#### Net cash provided by (used in) financing activities

Net cash used in financing activities was ¥450.5 billion, up ¥969.6 billion from a year earlier. This was despite borrowings and bonds to fund spending of ¥398.1 billion to acquire additional shares in Mitsubishi Tanabe Pharma and ¥87.9 billion in expenditures for dividend payments, and reflected repayments from free cash flow and constraining cash and cash equivalents, resulting in inflows from increases in borrowings, bonds, and other interest-bearing debt remaining at ¥37.3 billion.

As a result of these factors, cash and cash equivalents at the end of the period were ¥228.2 billion, down ¥93.3 billion from a year earlier.

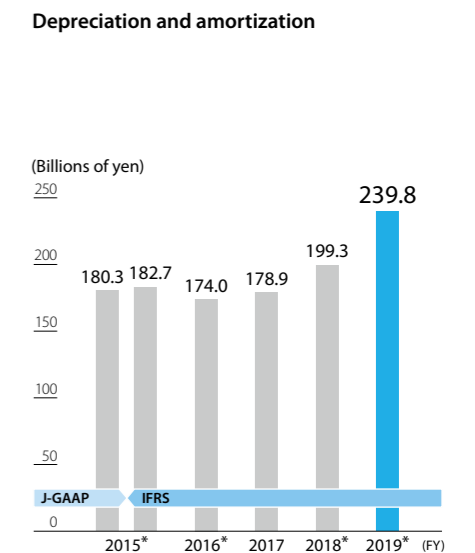
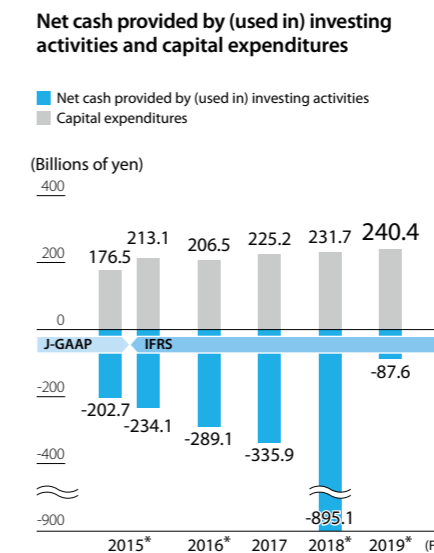
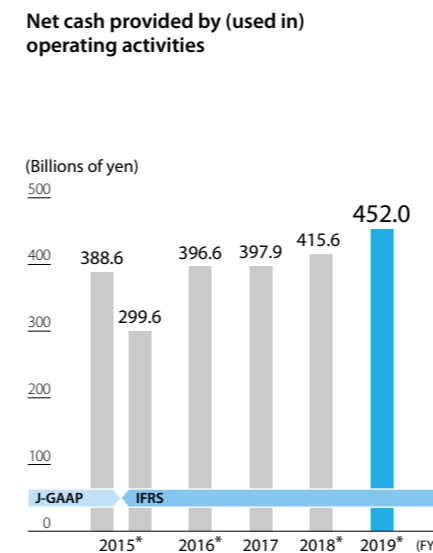
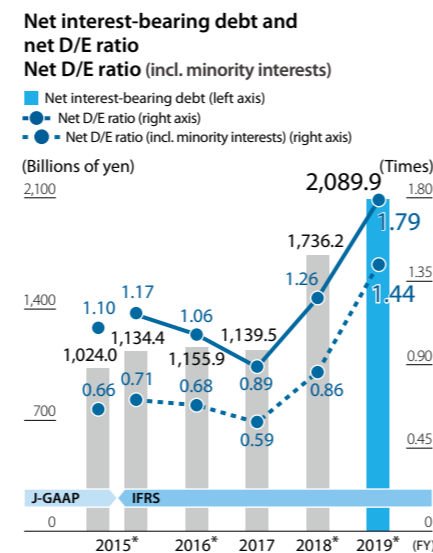
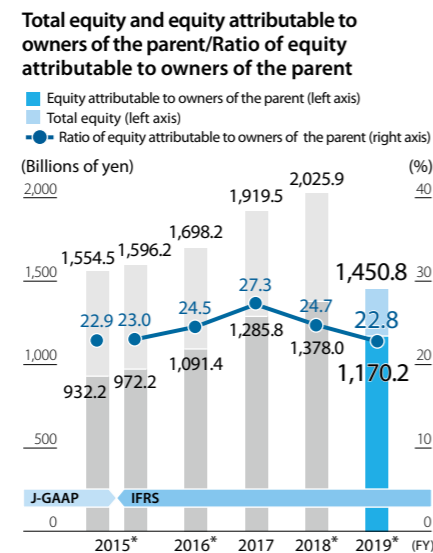
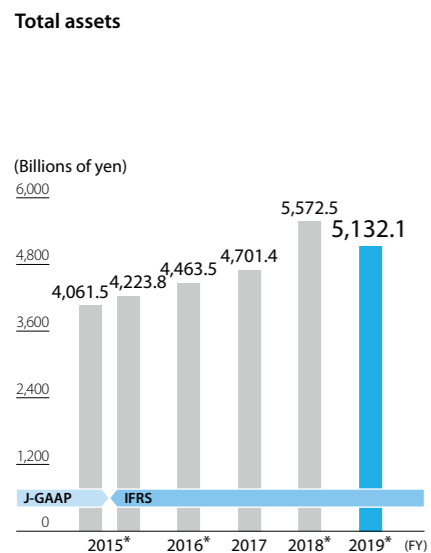
### Capital expenditures

Capital expenditures for the fiscal year ended March 31, 2020 were ¥240.4 billion, up ¥8.7 billion from a year earlier. These expenditures were largely applied to the construction of new

facilities or the expansion and renewal of existing facilities, and rationalization investments in other facilities.

Key expansions in the Performance Products segment included Mitsubishi Chemical Corporation's capacity increase for polyvinyl alcohol film production facilities and consolidated subsidiary Noltex LLC's boost in capacity for ethylene vinyl alcohol copolymer resin. In the Chemicals segment, Japan Polypropylene Corporation constructed new production facilities.

In the Industrial Gases segment, the Group set up new air separator facilities in China. In the Health Care segment, Medicago Inc. installed vaccine production facilities.



(Note) Figures for years indicated with (\*) do not include results from discontinued operations.

## Business Risks

The MCHC Group (“the Group”) faces the following key risks, which could adversely affect its operating results and financial position. This section contains forward-looking statements based on information deemed relevant at March 31, 2020. The business risks presented are not all-encompassing. In recognition of exposure to risks such as those detailed below, the Group conducts risk assessments once a year. Based on these assessments, risk management systems are established and revised in consideration of the risks faced by specific businesses. In this manner, the Group is working to prevent the risks from occurring and minimize the impacts of such risks be realized.

### 1. Overcoming the COVID-19 Pandemic and its Risks

The COVID-19 pandemic has hit the world hard by causing a significant decline in economic activity. The MCHC Group responded to the Japanese government’s emergency declaration and requests from local governments by acting as needed at business sites to prevent infections and safeguard the health of employees, their families, and customers.

In principle, we have prohibited all office employees from going to work in locations that the declaration encompasses. These people either telework or take time off at home. We have endeavored to keep plants and other facilities running by functioning with skeleton crews, staggering working hours, and stepping up efforts to prevent infections, such as by mandating mask usage.

At all business sites, we have banned conferences, meetings, and dinners related to work, and as well as domestic and overseas business trips. We have also forbidden employees from attending or participating in events, seminars, or other heavily attended gatherings.

We set up protocols and channels for employees and their families to report to us if they suspect they are infected with COVID-19. We also produced and disseminated guidelines on self-isolation periods at home and prerequisites for resuming work.

In the Health Care business, we requested medical representatives to refrain from visiting existing or prospective customer institutions. We also strengthened IT systems so these people can deliver information online when visits are impossible.

We will encourage teleworking and social distancing among our people and formulate and share new work practice guidelines. These will be in keeping with requests from the Ministry of Health, Labour and Welfare to prevent workplace infections and strengthen health management. They will also reflect Japan Business Federation guidelines on preventing infections at manufacturing sites and in office. The ministry drew on the lifestyle recommendations of an advisory panel that the Japanese government set up to help ensure the people’s health, safety, and security in view of how long it might take to establish COVID-19 treatment methods and develop vaccines. In keeping with our social responsibilities as a materials and medical products supplier, we will keep providing products that help prevent infections and overcome the pandemic.

It remains difficult to predict when the COVID-19 pandemic will abate. Nonetheless, MCHC has produced the following results forecast for the fiscal year ending March 31, 2021, that assumes that performances should recover from the third quarter and factors in the exposure of each business to the pandemic.

#### (1) Performance Products Domain (Performance Products Segment)

In the Functional Products subsegment, we expect earnings to decline ¥16.8 billion owing to lower sales in the automotive, construction, and information electronics sectors. In the Performance Chemicals subsegment, we project a ¥12.8 billion drop in earnings owing to lower automotive materials sales and worsening inventory valuation differences as a result of fluctuating raw materials prices for polycarbonate resins.

We accordingly expect Performance Products Domain core operating income to decrease ¥29.6 billion owing to the COVID-19 pandemic.

#### (2) Industrial Materials Domain (Chemicals and Industrial Gases Segments)

In the Chemicals segment, lower methyl methacrylate sales revenues primarily in Asia, should cut earnings by ¥9.9 billion. A ¥15.9 billion earnings reduction would come from inventory valuation difference amid a decline in raw material prices in the petrochemical business, with a decrease in coke and carbon materials sales revenues in the carbon business decreasing earnings another ¥7.9 billion. Industrial Gases segment earnings should fall ¥10.6 billion amid lower sales revenues.

The downside core operating income impact of the pandemic on the Industrial Materials Domain should thus be ¥44.3 billion.

#### (3) Health Care Domain (Health Care Segment)

In the Health Care domain, we forecast a core operating income decline of ¥4.6 billion because the COVID-19 pandemic has constrained medical consultations.

Total core operating income should drop ¥78.5 billion owing to the impact of the pandemic. For the year ending March 31, 2021, the Group forecasts sales revenue of ¥3,334 billion, core operating income of ¥140 billion, operating income of ¥137 billion, income before taxes of ¥114 billion, net income of ¥77 billion, and net income attributable to owners of the parent of ¥49 billion. Factors affecting these forecasts would include the timing of the COVID-19 pandemic abatement in Japan and overseas, domestic and foreign demand and product market

conditions. They also encompass the prices of fuels and materials, including crude oil and naphtha, as well as of utilities, procurement volume, foreign exchange rates, and related laws and regulations.

If there is a delay in the pandemic abating, earnings would likely be even lower, depending on how long it takes. While the Group has taken steps to prevent infections, as described earlier, there is a risk that earnings would plunge in the unlikely event of a workplace infection cluster or other development necessitating an operational halt.

## 2. Other Risks

Key risks other than the impact of the COVID-19 pandemic include the following.

### (a) Performance Products Domain (Performance Products Segment)

These products must satisfy high-quality and performance requirements, and the Group must develop and supply them at the appropriate times to meet market needs. Group business results (“results”) may be adversely affected if market needs change far more than the Group envisages, or if the Group is unable to ensure the timely supply of products that meet market needs, including issues with the availability of raw materials. If supply is interrupted for raw materials that can only be procured from certain areas or specific suppliers, then this could adversely affect results.

The Group outsources production of most information and electronics-related materials to other Asian manufacturers, so disasters or other issues with those facilities could disrupt the supply structure, adversely affecting results. Specifically, film and sheet products rely greatly on demand for liquid crystal display (LCD) panels, so drastic fluctuations in demand for LCD panels could adversely affect results.

### (b) Industrial Materials Domain (Chemicals Segment and Industrial Gases Segment)

In this area, MCHC consumes large volumes of naphtha and other raw materials, and uses considerable amounts of electricity and steam in production processes. For those reasons, drastic fluctuations in the costs of naphtha, fuels, and other resources owing to changes in crude oil prices; the demand and supply balance for raw fuels or naphtha; or the impact of foreign exchange rates could adversely affect results if MCHC is not fully able to adjust its product prices, or if there are delays in such adjustments. MCHC relies on suppliers from certain areas for its raw fuels, and an inability to secure required fuels at the right times could adversely affect results. A worldwide recession or increased production capacity among rivals could adversely affect results if it becomes impossible to maintain the product demand and supply balance or MCHC is unable to generate revenues and earnings or reach goals that are commensurate with its capital expenditures.

MCHC relies heavily on certain business partners for some products in the Industrial Materials domain. For example, the coke business depends greatly on specific steelmakers, so if the steel output of those companies declines, such as because of dramatic fluctuations in the demand and supply of raw steel, the performances of such business partners could adversely affect MCHC’s results.

### (c) Health Care Domain (Health Care Segment)

The results of the pharmaceuticals business are subject to the Group being unable to reach revenue and earnings targets by adequately expanding sales volumes of existing treatments or rationalizing operations in response to lower prices from periodic revisions in National Health Insurance prices of pharmaceuticals. Results are also subject to government policies in each country to constrain medical expenditures.

In general, lead times for drug research and development are far longer than in other industries, whereas the percentage of drugs receiving approval is not high. It is therefore difficult to produce accurate forecasts for the certainty or timing of commercialization. Results are thus subject to drugs not being commercialized as planned. Even where drugs are commercialized, results are subject to sales volumes being lower because of intensified competition with rival offerings, volumes declining on reports of new side effects when usage of these drugs becomes broad-based, generic drugs are commercialized after patents expire, or when approval is withdrawn.

Following its decision not to seek approval in the United States for MT-2271, a plant-based Virus Like Particle (VLP) vaccine for seasonal influenza, the Group posted an impairment loss of ¥24.1 billion on intangible assets (in-process research and development expenses) related to that vaccine for the year ended March 31, 2020. This factor should not significantly affect performance for the year ending March 31, 2021.

We undertake activities on commission in such fields as joint research and development, product derivations and introductions, manufacturing, and sales. Changes in or cancellations of contracts with business partner, operating downturns or business policy changes among business partners, or delays or slowdowns in pharmaceutical supplies from these enterprises could affect business results.

In the pharmaceutical intermediates and active pharmaceutical ingredients business and the capsules for pharmaceutical products, results are subject to lower sales volumes of customers’ pharmaceuticals following revisions in National Health Insurance prices or patent expiries on customer products.

### (d) Service Business

The Group includes companies offering engineering and logistics services. Those companies secure some external orders. Significant fluctuations in demand within and outside the Group, or in market conditions worldwide, could adversely affect results.

#### (e) Overall Operations

The Group's broad overseas activities include exporting products and manufacturing around the world. In addition to pandemics, risks in countries or regions relating to Group businesses, notably of conflicts, terrorism, civil wars, riots, demonstrations, deteriorating security, and other international geopolitical problems, unforeseeable issues with regulations, taxation, working conditions, customs, and other country risks, large-scale natural disasters, difficulties hiring and retaining employees, inadequate supplies from utilities or other infrastructural shortfalls, changes in the economic and financial climates, or other risks impacting specific countries or regions could adversely affect results.

#### (f) Interest-Bearing Debt

The Group aims to balance its growth and innovation strategies with efforts to enhance its financial position. MCHC's results could be adversely affected in a situation where interest payments on interest-bearing debt rises, such as because interest-bearing debt increases, interest rates rise, or MCHC's credit rating declines owing to fluctuating Group performances. Results could also be adversely affected if it becomes essential to procure funds to upgrade facilities and the Group must obtain financing at unfavorable terms.

#### (g) Acquisitions, Mergers, or Restructuring

Results could be adversely affected if mergers, acquisitions, or joint ventures created in Japan or abroad to expand scale or overhaul MCHC's business portfolio fail to deliver anticipated synergies or other benefits, or if the Group's financial burden thereby increases or, if after mergers or acquisitions, the Group encounters new debt or other issues that it did not initially envisage. Other factors that could adversely affect results include reorganizations as part of business selection and concentration initiatives, through which MCHC withdraws from unprofitable businesses or liquidates affiliates.

#### (h) Deferred Tax Assets

##### Recoverability of Deferred Tax Assets

While incurring tax losses in previous fiscal years, the Group recognizes deferred tax assets only if likely able to offset future taxable income based on future taxable income forecasts as described in Note 3. Significant Accounting Policies 7. Income Taxes, in the Consolidated Financial Statements. This amount stood at ¥74 billion as of March 31, 2020, so the assessment of the recoverability of deferred tax assets is material in accounting estimates.

Key assumptions entailing management judgments shape future business plans that are the basis for future taxable income. Significant assumptions are primarily forecasts for sales revenue growth and market trend projections for raw material prices. Although management deems its assumptions reasonable, they could be affected by future uncertain fluctuations in economic conditions. If future taxable income differs from forecasts and assumptions, the recoverability of deferred tax assets could differ.

#### (i) Valuation of Securities

##### Fair Values of Financial Instruments

The Group mainly classifies stocks and investments as equity financial assets measured at fair value mainly through other comprehensive income. Assessments are based on unadjusted published prices or reasonably available inputs in active markets as described in Note 36. Financial Instruments 8. Fair Value of Financial Instruments, in the Consolidated Financial Statements. Calculations incorporate appropriate valuation techniques, such as comparable peer analyses.

Authorized officials approve these assessment methods, and management considers them reasonable. Nonetheless, but changes in such preconditions as observable market information and the financial positions of issuers could cause fair values to change, affecting other comprehensive income and the financial position.

#### (j) Impairment of Fixed Assets

##### Impairment of Non-Financial Assets

The Group conducts impairment tests on property, plant and equipment, goodwill, and intangible assets in accordance with Note 3. Significant Accounting Policies. 14. Impairment of Assets, in the Consolidated Financial Statements. When conducting these tests, the Group makes decisions about indications of impairment and about recognizing impairment losses and determines the value in use and fair value estimates.

The significant assumptions in measuring value in use of goodwill are estimates, discount rates, and growth rates for future cash flows under five-year business plans. The main factors shaping future cash flows are sales volume expansion and market growth rates.

The significant assumptions in measuring the usage value of intangible assets (in-process research and development) related to technology are prospects for obtaining regulatory approval of sales and post-launch sales forecasts and discount rates.

Management considers its judgments and assessments reasonable, although they are subject to fluctuations in future economic conditions that it has not envisaged. If assumptions change, calculations of recoverable

amount could differ. As of the date of submitting these business risks, there were no events necessitating a review of estimates.

In the year ended March 31, 2020, the Group posted impairment losses on intangible assets (in-process research and development) relating to technologies of Medicago Inc., which Mitsubishi Tanabe Pharma Corporation acquired, and goodwill on the pharmaceutical formulation materials business. For details of impairment losses, see Note 16 Impairment Losses in the Consolidated Financial Statements.

#### (k) Pension and Severance Plans

The measurement of defined benefit obligation is through actuarial calculations, and assumptions include discount rates and other estimates.

Management considers its assumptions reasonable, although changes in retirement benefit obligations and expenses owing to changes in the fair value of pension assets, as well as changes in the interest rate climate and the retirement benefits and pension systems could affect business performance and the financial position.

#### (l) Impact of Inventory Valuations

The Group states inventory assets principally at cost based on the weighted average method. Declines in the costs of naphtha or raw materials during the fiscal period could detract from earnings by affecting relatively expensive inventories at the start of a term, thereby increasing the cost of sales. Earnings would conversely rise if fuel costs rose during the fiscal period. Changes in fuel costs could therefore affect results. Any book value write-down based on lower profitability could adversely affect results.

#### (m) Changes in Foreign Exchange Rates

The Group endeavors to minimize the short-term impact of fluctuations in foreign currency transactions, primarily for exports and imports, notably by using forward foreign exchange contracts. Changes in exchange rates in the short, medium, and long terms may affect results.

The Group engages in production and sales in Asia, Europe, North America, and other locations overseas. It translates sales, expenses, assets, and other items denominated in foreign currencies in such regions into yen in its consolidated financial statements. Even if the foreign currency valuations of such items remain unchanged, the yen equivalents could change after conversion from other currencies, so foreign exchange rate fluctuations could affect the Group's results and financial position.

#### (n) Laws and Regulations

The Group's operations are subject to related laws and regulations in Japan and abroad. Such laws and regulations may govern security and safety, the environment and chemical substances, pharmaceutical safety policies, and other areas relating to Group operations.

The Group maintains voluntary rules that are stricter than legal provisions while pursuing thorough compliance to satisfy laws and regulations in engaging in business activities. Dramatic changes in laws and regulations or strengthened legislation could further restrict the Group's activities or increase its costs. Furthermore, should the Group violate laws or regulations, it could be ordered to halt operations at plants, and trust from society could be lost. All these factors have the possibility of influencing results.

When exporting products, for example, the Group must comply with the Foreign Exchange and Foreign Trade Act. The Group established a secure export control program, provides employee education through e-learning and training, and takes other measures to prevent legal and regulatory infringements. If an officer or employee of the Group nevertheless violates laws and regulations, the resulting fines, administrative dispositions (prohibitions on exports or cancellations of comprehensive permits), or stricter regulations could affect the Group's business progress and results.

#### (o) Product Liability

The Group manufactures and sells products that conform with standards as ISO 9001, the international standard for quality management systems. The Group endeavors to prevent product liability problems from arising when launching products or improving quality by previously evaluating such liability risks. The Group cannot guarantee, however, that all of its products will be free of defects. It therefore has product liability insurance to cover possible accidents. Regardless, product defects that could cause major product liability exposure with damages exceeding the range of such insurance could adversely affect results.

#### (p) Accidents and Disasters

The Group regularly inspects its plants and otherwise endeavors to prevent accidents at facilities. It cannot, however, completely prevent or mitigate accidents at such facilities, nor natural disasters such as earthquakes. Accidents that damage property, cause human suffering or loss of life, or create environmental pollution could adversely impact production activities and reduce social trust in the Group, thereby adversely affecting results. Natural disasters that damage property, cause human suffering or loss of life, or significantly damage or functionally degrade the social infrastructure and chronically affect the Group's activities could affect results.

The Group has prepared for these emergencies by establishing an information gathering system based on business continuity plans, through which it is endeavoring to maintain core businesses while restoring operations as swiftly as possible.

**(q) Information Management**

The Group strictly manages corporate and personal information in its possession. Problems resulting from leaks of such information could decrease competitiveness or reduce social trust in the Group, which may adversely affect results. Although the Group has taken various measures to safeguard against cyber attacks, if problems were to arise with the plant control systems of business sites, it would take steps that include adjusting production volumes to maintain safety, which could adversely affect results.

**(r) Research and Development**

The Group deems research and development as pivotal to supporting sustainable corporate growth, and has long undertaken solid R&D. It intends to deploy resources in a planned and sustainably stable manner from long-term perspectives. Results could be adversely affected, however, if the fruits of R&D are far less than anticipated.

**(s) Intellectual Property**

The Group takes ample precautions to avoid violating the intellectual property of third parties. Nonetheless, injunctions or damages claims by third parties on the basis of patent or other infringements could adversely affect results.

**(t) Climate Change and Other Environmental Issues**

Companies face increasing pressure to disclose such risks as global warming and environmental issues as financial information. The Group engages in environmental management companywide, and has expressed its support for the recommendations of the Task Force on Climate-related Financial Disclosures.

Impositions of carbon taxes and such greenhouse gas emission regulations as the emissions trading systems in countries in which the Group operates could affect business performance. Increases in natural disasters stemming from climate change and water resource shortages owing to droughts could affect Group manufacturing sites.

**(u) Litigation**

The Group maintains various businesses. In engaging in business, or in reorganizing or restructuring operations, the Group could face litigation from business partners or other third parties relating to intellectual property or the Group's products. It is impossible to predict or assess the results of such lawsuits, which could adversely affect results.

Some royalty revenue from Novartis Pharma AG for *Gilenya* multiple sclerosis treatment has not been recognized as sales revenue in accordance with IFRS 15 Revenue from Contracts with Customers, as arbitration proceedings are underway between the Group and that company, which has questioned the validity of a license agreement, and the royalty revenue does not meet a revenue recognition requirement, which is that parties to the contract have approved it and are committed to fulfilling their respective obligations.

**Consolidated Statement of Income**

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries  
Years ended March 31

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
<b>Continuing operations:</b>		
Sales revenue (Notes 4 and 7)	¥ 3,840,341	¥ 3,580,510
Cost of sales	(2,765,813)	(2,593,247)
Gross profit	1,074,528	987,263
Selling, general and administrative expenses	(776,927)	(800,572)
Other operating income (Note 10)	21,311	27,571
Other operating expenses (Note 10)	(50,977)	(83,373)
Share of profit of associates and joint ventures (Note 4)	26,817	13,396
Operating income (Note 4)	294,752	144,285
Financial income (Note 11)	10,226	7,206
Financial expenses (Note 11)	(20,132)	(29,488)
Income before taxes	284,846	122,003
Income taxes (Note 12)	(70,589)	(52,335)
Net income from continuing operations	214,257	69,668
<b>Discontinued operations:</b>		
Net income from discontinued operations (Note 6)	2,472	16,892
Net income	¥ 216,729	¥ 86,560
<b>Net income attributable to:</b>		
Owners of the parent	¥ 169,530	¥ 54,077
Non-controlling interests	47,199	32,483
Net income	¥ 216,729	¥ 86,560
<b>Earnings per share:</b>		
		(Yen)
Basic earnings per share attributable to owners of the parent (Note 13)		
Continuing operations	¥ 117.49	¥ 26.19
Discontinued operations	1.73	11.89
Total	¥ 119.22	¥ 38.08
Diluted earnings per share attributable to owners of the parent (Note 13)		
Continuing operations	¥ 108.45	¥ 24.27
Discontinued operations	1.60	10.94
Total	¥ 110.05	¥ 35.21

The accompanying notes are an integral part of these consolidated financial statements.

## Consolidated Statement of Comprehensive Income

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries  
Years ended March 31

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
<b>Net income</b>	¥216,729	¥ 86,560
<b>Other comprehensive income:</b>		
Items that will not be reclassified to profit or loss:		
Net gain (loss) on revaluation of financial assets measured at fair value (Note 26)	4,743	(15,912)
Remeasurements of defined benefit pensions plans (Note 26)	(4,482)	(735)
Share of other comprehensive income (loss) of associates and joint ventures for using the equity method (Note 26)	107	(183)
Total items that will not be reclassified to profit or loss	368	(16,830)
Items that may be subsequently reclassified to profit or loss		
Exchange differences on translation of foreign operations (Note 26)	(5,751)	(63,517)
Net gain (loss) on derivatives designated as cash flow hedges (Note 26)	(3,152)	36
Share of other comprehensive income (loss) of associates and joint ventures for using the equity method (Note 26)	(2,296)	(5,774)
Total items that may be subsequently reclassified to profit or loss	(11,199)	(69,255)
Total other comprehensive income (net of tax)	(10,831)	(86,085)
<b>Total comprehensive income</b>	¥205,898	¥ 475
<b>Total comprehensive income attributable to:</b>		
Owners of the parent	¥161,655	¥(6,664)
Non-controlling interests	44,243	7,139

The accompanying notes are an integral part of these consolidated financial statements.

## Consolidated Statement of Financial Position

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries

Assets	Millions of yen	
	March 31, 2019	March 31, 2020
<b>Current assets:</b>		
Cash and cash equivalents (Note 22)	¥ 321,541	¥ 228,211
Trade receivables (Note 21)	855,107	698,516
Inventories (Note 20)	623,049	606,505
Other financial assets (Note 18)	248,262	117,628
Other current assets (Note 19)	76,072	90,140
Subtotal	2,124,031	1,741,000
Assets held for sale (Note 23)	17,810	8,281
Total current assets	2,141,841	1,749,281
<b>Non-current assets:</b>		
Property, plant and equipment (Note 15)	1,683,354	1,742,216
Goodwill (Note 14)	648,806	616,769
Intangible assets (Note 14)	568,787	510,575
Investments accounted for using the equity method (Note 17)	183,067	169,958
Other financial assets (Note 18)	228,571	226,488
Other non-current assets (Note 19)	33,573	42,813
Deferred tax assets (Note 12)	84,509	74,049
Total non-current assets	3,430,667	3,382,868
<b>Total assets (Note 4)</b>	¥5,572,508	¥5,132,149

The accompanying notes are an integral part of these consolidated financial statements.

		Millions of yen	
		March 31, 2019	March 31, 2020
<b>Liabilities and Equity</b>			
<b>Liabilities</b>	<b>Current liabilities:</b>		
	Trade payables (Note 35)	¥ 492,404	¥ 398,061
	Bonds and borrowings (Note 30)	1,108,643	727,307
	Income tax payable	31,768	19,287
	Other financial liabilities (Note 32)	222,377	359,540
	Provisions (Note 29)	8,296	7,968
	Other current liabilities (Note 34)	138,089	122,575
	Subtotal	2,001,577	1,634,738
	Liabilities directly associated with assets held for sale (Note 23)	11,723	1,761
	Total current liabilities	2,013,300	1,636,499
	<b>Non-current liabilities:</b>		
	Bonds and borrowings (Note 30)	1,138,108	1,555,947
	Other financial liabilities (Note 32)	26,755	88,533
	Retirement benefit liabilities (Note 28)	120,816	125,611
	Provisions (Note 29)	28,294	31,893
	Other non-current liabilities (Note 34)	41,971	80,840
	Deferred tax liabilities (Note 12)	177,410	161,997
	Total non-current liabilities	1,533,354	2,044,821
	<b>Total liabilities</b>	3,546,654	3,681,320
<b>Equity</b>	Common stock: (Note 24)	50,000	50,000
	Additional paid-in capital (Note 24)	321,477	176,715
	Treasury stock (Note 24)	(63,560)	(63,485)
	Retained earnings (Note 24)	1,073,873	1,071,260
	Other components of equity (Note 24)	(3,843)	(64,268)
	Equity attributable to owners of the parent	1,377,947	1,170,222
	Non-controlling interests	647,907	280,607
	<b>Total equity</b>	2,025,854	1,450,829
	<b>Total liabilities and equity</b>	¥5,572,508	¥5,132,149

The accompanying notes are an integral part of these consolidated financial statements.

## Consolidated Statement of Changes in Equity

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries

Year ended March 31, 2019

		Millions of yen							
		Common stock	Additional paid-in capital	Treasury stock	Retained earnings				
Balance at April 1, 2018		¥50,000	¥ 321,111	¥ (43,569)	¥956,946				
Cumulative effects of changes in accounting policies		—	—	—	(85)				
Restated balance at April 1, 2018		50,000	321,111	(43,569)	956,861				
Net income		—	—	—	169,530				
Other comprehensive income (Note 26)		—	—	—	—				
Total comprehensive income		—	—	—	169,530				
Purchase of treasury stock (Note 24)		—	—	(20,033)	—				
Disposal of treasury stock (Note 24)		—	(39)	42	—				
Cash dividends (Note 25)		—	—	—	(52,867)				
Share-based payment transactions (Note 27)		—	609	—	—				
Share-based payment transactions of subsidiaries (Note 27)		—	—	—	—				
Changes in interests in subsidiaries		—	(204)	—	—				
Business combinations or business divestitures		—	—	—	—				
Changes in scope of consolidation		—	—	—	(24)				
Transfer from other components of equity to retained earnings		—	—	—	373				
Transfer from other components of equity to non-financial assets, etc.		—	—	—	—				
Total transactions with owners		—	366	(19,991)	(52,518)				
Balance at March 31, 2019		¥50,000	¥321,477	¥(63,560)	¥1,073,873				
		Other components of equity							
		Net gain (loss) on revaluation of financial assets measured at fair value	Remeasurements of defined benefit pensions plans	Exchange differences on translation of foreign operations	Net gain (loss) on derivatives designated as cash flow hedges	Total	Equity attributable to owners of the parent	Non-controlling interests	Total equity
Balance at April 1, 2018		¥51,544	¥ —	¥(50,455)	¥173	¥1,262	¥1,285,750	¥633,740	¥1,919,490
Cumulative effects of changes in accounting policies		—	—	—	—	—	(85)	(61)	(146)
Restated balance at April 1, 2018		51,544	—	(50,455)	173	1,262	1,285,665	633,679	1,919,344
Net income		—	—	—	—	—	169,530	47,199	216,729
Other comprehensive income (Note 26)		4,152	(3,823)	(5,075)	(3,129)	(7,875)	(7,875)	(2,956)	(10,831)
Total comprehensive income		4,152	(3,823)	(5,075)	(3,129)	(7,875)	161,655	44,243	205,898
Purchase of treasury stock (Note 24)		—	—	—	—	—	(20,033)	—	(20,033)
Disposal of treasury stock (Note 24)		—	—	—	—	—	3	—	3
Cash dividends (Note 25)		—	—	—	—	—	(52,867)	(38,025)	(90,892)
Share-based payment transactions (Note 27)		—	—	—	—	—	609	—	609
Share-based payment transactions of subsidiaries (Note 27)		—	—	—	—	—	—	25	25
Changes in interests in subsidiaries		—	—	—	—	—	(204)	5,796	5,592
Business combinations or business divestitures		—	—	—	—	—	—	2,265	2,265
Changes in scope of consolidation		—	—	—	—	—	(24)	(76)	(100)
Transfer from other components of equity to retained earnings		(4,196)	3,823	—	—	(373)	—	—	—
Transfer from other components of equity to non-financial assets, etc.		—	—	—	3,143	3,143	3,143	—	3,143
Total transactions with owners		(4,196)	3,823	—	3,143	2,770	(69,373)	(30,015)	(99,388)
Balance at March 31, 2019		¥51,500	¥ —	¥(55,530)	¥187	¥(3,843)	¥1,377,947	¥647,907	¥2,025,854

Year ended March 31, 2020

	Millions of yen			
	Common stock	Additional paid-in capital	Treasury stock	Retained earnings
Balance at April 1, 2019	¥50,000	¥ 321,477	¥ (63,560)	¥1,073,873
Net income	—	—	—	54,077
Other comprehensive income (Note 26)	—	—	—	—
Total comprehensive income	—	—	—	54,077
Purchase of treasury stock (Note 24)	—	—	(27)	—
Disposal of treasury stock (Note 24)	—	(100)	102	—
Cash dividends (Note 25)	—	—	—	(56,804)
Share-based payment transactions (Note 27)	—	194	—	—
Share-based payment transactions of subsidiaries (Note 27)	—	—	—	—
Changes in interests in subsidiaries (Note 24)	—	(146,638)	—	—
Business combinations or business divestitures	—	1,782	—	—
Changes in scope of consolidation	—	—	—	430
Transfer from other components of equity to retained earnings	—	—	—	(316)
Total transactions with owners	—	(144,762)	75	(56,690)
Balance at March 31, 2020	¥50,000	¥176,715	¥(63,485)	¥1,071,260

Other components of equity

	Net gain (loss) on revaluation of financial assets measured at fair value	Remeasurements of defined benefit pensions plans	Exchange differences on translation of foreign operations	Net gain (loss) on derivatives designated as cash flow hedges	Total	Equity attributable to owners of the parent	Non-controlling interests	Total equity
Balance at April 1, 2019	¥51,500	¥ —	¥(55,530)	¥187	¥(3,843)	¥1,377,947	¥647,907	¥2,025,854
Net income	—	—	—	—	—	54,077	32,483	86,560
Other comprehensive income (Note 26)	(11,737)	(1,744)	(47,243)	(17)	(60,741)	(60,741)	(25,344)	(86,085)
Total comprehensive income	(11,737)	(1,744)	(47,243)	(17)	(60,741)	(6,664)	7,139	475
Purchase of treasury stock (Note 24)	—	—	—	—	—	(27)	—	(27)
Disposal of treasury stock (Note 24)	—	—	—	—	—	2	—	2
Cash dividends (Note 25)	—	—	—	—	—	(56,804)	(31,111)	(87,915)
Share-based payment transactions (Note 27)	—	—	—	—	—	194	—	194
Share-based payment transactions of subsidiaries (Note 27)	—	—	—	—	—	—	(14)	(14)
Changes in interests in subsidiaries (Note 24)	—	—	—	—	—	(146,638)	(347,666)	(494,304)
Business combinations or business divestitures	—	—	—	—	—	1,782	3,737	5,519
Changes in scope of consolidation	—	—	—	—	—	430	615	1,045
Transfer from other components of equity to retained earnings	(1,428)	1,744	—	—	316	—	—	—
Total transactions with owners	(1,428)	1,744	—	—	316	(201,061)	(374,439)	(575,500)
Balance at March 31, 2020	¥38,335	¥ —	¥(102,773)	¥170	¥(64,268)	¥1,170,222	¥280,607	¥1,450,829

The accompanying notes are an integral part of these consolidated financial statements.

## Consolidated Statement of Cash Flows

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries

Millions of yen

	Year ended March 31, 2019	Year ended March 31, 2020
<b>Cash flows from operating activities:</b>		
Income before taxes	¥284,846	¥122,003
Income before taxes from discontinued operations	3,210	25,585
Depreciation and amortization	199,332	239,824
Share of profit of associates and joint ventures	(26,850)	(13,401)
Impairment loss	17,340	48,647
Loss on sales and retirement of property, plant and equipment	13,824	15,797
Loss on sales of shares of subsidiaries and associates	34	1,567
Provision for loss on business liquidation	5,169	—
Gain on share exchanges	—	(23,922)
Gain on sales of non-current assets	(3,839)	(8,533)
Gain on reversal of impairment loss	—	(1,720)
Gain on sales of shares of subsidiaries and associates	(7,546)	(530)
Interest and dividend income	(9,627)	(6,886)
Interest expense	18,868	24,515
(Increase) decrease in trade receivables	25,149	122,281
(Increase) decrease in inventories	(13,193)	7,139
Increase (decrease) in trade payables	(20,090)	(79,540)
Increase (decrease) in retirement benefit assets and liabilities, net	(1,324)	(719)
Others	8,261	34,960
Subtotal	493,564	507,067
Interest received	4,816	3,040
Dividends received	27,781	25,310
Interest paid	(18,114)	(21,847)
Income tax (paid) received, net	(92,472)	(61,567)
Net cash provided by (used in) operating activities	415,575	452,003
<b>Cash flows from investing activities:</b>		
Purchase of property, plant and equipment	(225,740)	(223,478)
Proceeds from sales of property, plant and equipment	7,170	14,995
Purchase of intangible assets	(4,839)	(12,601)
Purchase of other financial assets	(453,070)	(348,240)
Proceeds from sales/redemption of other financial assets	438,748	453,694
Purchase of investments in subsidiaries	(655,629)	(5,490)
Proceeds from sales of investments in subsidiaries	16,619	2,836
Proceeds from loss of control due to share exchange (Note 6)	—	14,432
Payments for transfer of businesses	(50,900)	(3,000)
Net (increase) decrease in time deposits	31,581	25,236
Others	992	(5,947)
Net cash provided by (used in) investing activities	(895,068)	(87,563)
<b>Cash flows from financing activities:</b>		
Net increase (decrease) in short-term borrowings	428,298	(330,088)
Net increase (decrease) in commercial papers	44,000	2,000
Proceeds from long-term borrowings	213,182	490,580
Repayment of long-term borrowings	(122,954)	(183,865)
Proceeds from issuance of bonds	132,036	149,185
Redemption of bonds	(65,000)	(60,000)
Repayment of lease liabilities	(3,893)	(30,555)
Net (increase) decrease in treasury stock	(20,030)	(25)
Dividends paid to owners of the parent	(52,867)	(56,804)
Dividends paid to non-controlling interests	(38,011)	(31,070)
Proceeds from stock issuance to non-controlling interests	6,548	3
Payment for acquisition of subsidiaries' interests from non-controlling interests	(1,418)	(399,834)
Others	(829)	(50)
Net cash provided in (used in) financing activities	519,062	(450,523)



Effect of exchange rate changes on cash and cash equivalents	6,207	(10,184)
Net increase (decrease) in cash and cash equivalents	45,776	(96,267)
Cash and cash equivalents at the beginning of the period	277,624	321,541
Net increase (decrease) in cash and cash equivalents resulting from transfer to assets held for sale	(1,899)	2,103
Net increase (decrease) in cash and cash equivalents resulting from change in scope of consolidation	40	834
Cash and cash equivalents at the end of the period (Note 22)	¥321,541	¥228,211

The accompanying notes are an integral part of these consolidated financial statements.

## Notes to Consolidated Financial Statements

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries

### Note 1

#### Reporting Entity

Mitsubishi Chemical Holdings Corporation (the "Company") is a corporation domiciled in Japan, whose shares are listed on the First Section of the Tokyo Stock Exchange. The registered address of its Head Office is presented on its website (<https://www.mitsubishichem-hd.co.jp/>). The Company's Consolidated Financial Statements for the year ended March 31, 2020 comprise those of the Company, its subsidiaries and associates, and interests under joint arrangements (collectively, the "Group"). The Group's three principal domains are Performance Products, Industrial Materials, and Health Care. Further details are presented in Note 4 Segment Information.

### Note 2

#### Basis of Presentation 1. Compliance with IFRS

The accompanying consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board. The provisions of Article 93 of the Ordinance on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements apply, as the Company meets the requirements for a "Specified Company applying Designated International Financial Reporting Standards" prescribed in Article 1-2 of said ordinance.

#### 2. Approval of Consolidated Financial Statements

The Group's consolidated financial statements were approved on June 24, 2020, by Hitoshi Ochi, Representative Corporate Executive Officer, President and Chief Executive Officer, and Hidefumi Date, Managing Corporate Executive Officer and Chief Financial Officer.

#### 3. Basis of Measurement

The consolidated financial statements are prepared on a historical cost basis, except for certain financial instruments measured at fair value presented in Note 3 Significant Accounting Policies.

#### 4. Presentation Currency

The consolidated financial statements are presented in Japanese yen, which is the Company's functional currency, rounded to the nearest million yen.

#### 5. Use of Judgments, Estimates and Assumptions

Management has made a number of judgments, estimates and assumptions relating to the application of accounting policies, reporting of revenues and expenses and assets and liabilities in the preparation of these consolidated financial statements in accordance with IFRS. Actual results may differ from these estimates.

Estimates and underlying assumptions are continually evaluated. The effect of changes to accounting estimates is recognized in the reporting period in which the revision was made and in future periods.

Information regarding judgments, estimates, and assumptions used in applying accounting policies that could materially affect the Company's consolidated financial statements is included in the following notes:

- Impairment of Non-Financial Assets (Note 14, Goodwill and Intangible Assets, Note 15, Property, Plant and Equipment and Note 16, Impairment Losses)
- Recoverability of Deferred Tax Assets (Note 12, Income Taxes)
- Measurement of Defined Benefit Obligations (Note 28, Retirement Benefits)
- Fair Value of Financial Instruments (Note 36, Financial Instruments)

Significant assumptions used in making estimates for the year ended March 31, 2020 include the following.

(Assumptions relating to impacts of COVID-19 pandemic)  
The COVID-19 pandemic that originated in China and spread rapidly around the world in March 2020, particularly in Europe and the United States, has suppressed economic activity and depressed demand.

While the outlook is unclear, management has estimated future taxable income for assessing deferred tax assets and future cash flows from goodwill impairment tests, etc., on the assumption, based on information available at the end of the year ended March 31, 2020, that the pandemic's impact will continue in the next fiscal year.

## 6. Newly Applied Standards and Interpretations

Main standards and interpretations newly applied by the Group from the year ended March 31, 2020, are as follows.

Standard and Interpretation	Overview of Introduction or Revision
IFRS 16 Leases	Accounting standards and disclosure methods for leases have been revised. Specifically, under a single lessee accounting model, right-of-use assets and lease liabilities for leases with terms exceeding 12 months are recorded in the financial statements, in principle.

When transferring the right to control the use of assets specified in lease contracts in exchange for consideration over a certain period, the Group recognizes lease transactions and the right-of-use assets and lease liabilities as of the lease commencement dates. Determining whether an arrangement is, or contains, a lease is based on the substance of an arrangement regardless of whether it takes the legal form of a lease.

Lease liabilities are measured as the discounted present value of unsettled portions of lease payments at the lease commencement date. Right-of-use assets are initially measured by adjusting initial direct costs, prepaid lease fees, and other charges for lease liabilities, adding costs for the obligation to restore to original condition and other requirements based on lease contracts.

Lease payments are allocated to the repayment portion of the net financial expenses and lease liabilities so that the amount produces a constant periodic rate of interest with respect to the remaining balance of the lease liability, with financial expenses being recognized in profit or loss.

Right-of-use assets are depreciated over their service lives where ownership of the underlying assets transfer to the lessees by the end of lease periods or where the costs of right-of-use assets reflect the exercise of purchase options. In other cases, assets are depreciated systematically over the shorter of service lives or lease periods.

For leases ending within 12 months or whose underlying assets are of low value, related lease payments are systematically recognized as costs for lease periods.

As a result of the adoption of IFRS 16, the carrying amount of the Group's lease-related assets increased by ¥100.2 billion, and lease liabilities increased by ¥100.6 billion as of the date of initial application.

The Company applied a method to recognize the cumulative impact of adopting this standard on the date of initial application, recognized as a transitional measure, although there was no cumulative impact on the adoption date.

In adopting IFRS 16, the Company did not review whether or not contracts are, or contain leases as of the adoption date, and adopted a method, recognized as a transitional measure, in which it maintained assessments based on IAS 17 Leases and the IFRIC 4 Determining Whether an Arrangement Contains a Lease.

Under IAS 17, the Group classified lease contracts as finance leases when substantially all risks and economic value associated with the ownership of leased assets were transferred. The Group otherwise classified these contracts as operating leases. Under IFRS 16, lease assets and lease liabilities are recognized based on the substance of transaction without classifying them.

For leases classified as finance leases under IAS 17, the carrying amount of right-of-use assets and lease liabilities is calculated as the carrying amount of the lease assets and lease liabilities measured based on IAS 17 immediately before the date of initial application.

For leases classified as operating leases under IAS 17, lease liabilities as of the date of initial application are measured at the present value, calculated by discounting total remaining lease payments using the lessees incremental borrowing rate. For right-of-use assets, lease liabilities are measured by adjusting for prepaid and accrued lease payments.

The Group applied the following methods recognized as transitional measures in adopting IFRS 16 for leases classified as operating leases under IAS 17.

- As an alternative to impairment reviews, right-of-use assets are adjusted by any provision for onerous contract amounts under IAS 37 Provisions, Contingent Liabilities, and Contingent Assets immediately before the date of initial application.
- Recognition exemptions for right-of-use assets and lease liabilities apply to leases with lease terms of 12 months or less.
- Exclude initial direct costs from measurements of right-of-use assets on the date of initial

- application.
- Use hindsight when determining the lease term if the contract includes extension or termination options.

When measuring lease liabilities, the Group discounts lease payments using the incremental borrowing rate as of the date of initial application. The weighted average incremental borrowing rate applied is 1.981%.

A reconciliation between total future minimum payment lease payments for non-cancelable operating leases at the end of the previous fiscal year and lease liabilities as of the date of initial application is as follows:

	Millions of yen
Total future minimum lease payments for non-cancelable operating leases as of March 31, 2019	¥ 48,720
Total future minimum lease payments for non-cancelable operating leases as of March 31, 2019 (after discounting by the incremental borrowing interest rate as of April 1, 2019)	45,194
Finance lease obligations as of March 31, 2019	16,329
Short-term leases or leases of low value assets for which liabilities are not recognized	(6,181)
Extension options that are reasonably likely to be exercised and termination options that are reasonably unlikely to be exercised	61,601
Lease liabilities as of April 1, 2019	116,943

## 7. New Standards and Interpretations Not Yet Applied

As of the reporting date, the Group did not apply new standards or interpretations issued by the approval date for the Consolidated Financial Statements, as their application was not mandatory and would not have materially affected the Consolidated Financial Statements.

### Note 3

#### Significant Accounting Policies

##### 1. Basis of Consolidation

###### (1) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group has control over an entity if it has exposure or rights to variable returns from its involvement with the investee and has the ability to affect those returns through its influence over the investee.

In preparing its consolidated financial statements, the Company based the financial statements of each Group company prepared as of the same closing date based on common Group accounting policies. Subsidiaries' financial statements are adjusted, if necessary, when their accounting policies differ from those of the Group.

The Group consolidates entities from the date on which it acquires control until the date on which it loses control.

All intergroup balances, outstanding receivables and obligations, unrealized gains and losses are eliminated on consolidation.

A change in ownership interest of a consolidated subsidiary, without a loss of control, is accounted for as an equity transaction. Differences between adjusted non-controlling interest amounts and fair value are recognized directly as equity attributable to owners of the parent.

In the event of a loss of control, the Group measures and recognizes any remaining investments at fair value. Any gain or loss arising from a loss of control is recognized in profit or loss.

Non-controlling interests in a subsidiary's net assets are recognized separately from those under the Group's control. The comprehensive income of consolidated subsidiaries is attributed to owners of the parent and non-controlling interests even if this results in the non-controlling interests having a deficit balance.

###### (2) Associates

Associates are entities in which the Group has significant influence over the financial and operational policies but does not have control or joint control. Normally, the Group is assumed to be able to exercise significant influence when it holds 20% to 50% ownership. Other factors considered in assessing whether or not the Group can exercise significant influence include sending any of its officers being on the Board of Directors. In such cases, the Group may be considered to be able to exercise significant influence over an associate even if its investment accounts for less than 20% of voting rights.

The Group accounts for investments in associates under the equity method. Such investments are recognized at cost upon acquisition. After acquisition, the Group's share of net assets of associates is adjusted and recorded in the consolidated statement of

financial position.

The consolidated financial statements reflect the Group's share of earnings in associates. If amounts recognized in other comprehensive income of associates change, the Group's share with respect to those changes is also recognized in other comprehensive income.

The Group's consolidated financial statements have been adjusted to eliminate its share in unrealized gains and losses arising from transactions between it and associates.

Associates prepare their financial statements for the same reporting period as the Group, adjusting their accounting policies to align with those of the Group.

In the event that the Group loses significant control over an associate, it assesses and recognizes the remaining investment at fair value as of the day on which it lost such influence. Gains and losses arising from the loss of significant influence are recognized in profit or loss.

In preparing the consolidated financial statements, the requirements of local laws and shareholder agreements made it effectively impossible to match reporting dates of all associates to that of the Group. For certain associates for which it was impracticable to provisionally settle accounts on the Group's reporting date owing to business or other factors, the Group uses relevant provisional financial statements for the period ending December 31. Significant transactions or events between the reporting dates of those associates and the consolidated closing date are reflected in the consolidated financial statements.

### (3) Joint Arrangements

A joint arrangement is an arrangement in which unanimous consensus from the parties that have joint control of decision-making over related activities is required.

A joint venture is a joint agreement through which parties with joint control over an arrangement have rights to the net assets of an arrangement.

The Group uses the equity method to account for its equity interests in joint ventures.

A joint operation is one in which parties with joint control of an arrangement have rights to assets and obligations for liabilities relating to the joint arrangement.

If the Group holds an interest in a joint operation, the Group recognizes assets, liabilities, revenues and expenses generated from joint operating activities only to the extent of its interest. Inter-company transactions among the Group's companies as well as receivable and payable balances and unrealized gains and losses arising from such transactions are eliminated.

The principal joint operation is The Saudi Methacrylates Company, in which the Group and Saudi Arabia have a 50-50 interest. That company manufactures methyl methacrylate monomer, acrylic resin, and other offerings.

## 2. Business Combinations

The Group uses the acquisition method to account for business combinations. If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts and adjusts the amounts in a measurement period that does not exceed one year from the acquisition date.

The Group measures the cost of an acquisition as the aggregate of the consideration transferred, measured at acquisition-date fair value and the amount of any non-controlling interest in the acquiree.

For each business combination, the Group measures components of non-controlling interests in the acquiree at fair value or the amounts of non-controlling interests in the acquiree's identifiable net assets.

The Group accounts for acquisition-related costs as expenses in the periods in which such costs are incurred.

When the Group acquires a business, the Group classifies or designates the identifiable assets acquired and liabilities assumed on the basis of the contractual terms, economic conditions and other pertinent conditions as they exist at the acquisition date. In principle, the Group generally measures the identifiable assets acquired and the liabilities assumed at their acquisition-date fair values.

If a business combination is achieved in stages, the Group reassesses the equity of the acquiree before acquisition of control at fair value on the acquisition date, and recognizes the resulting gain or loss in profit or loss. The Group accounts for the equity interest of the acquiree booked in other comprehensive income before the acquisition on

the same basis as would be required if the Group had disposed directly of the previously held equity interest.

Goodwill is measured as the difference by which total value recognized as transferred consideration and non-controlling interests exceeds the net value of identifiable assets acquired and liabilities assumed.

If the total amount recognized as transferred consideration and non-controlling interests is less than net amount of identifiable assets acquired and liabilities assumed, the Group recognizes the difference as profit or loss.

After initial recognition, the Group does not amortize goodwill acquired through a business combination, but records goodwill at cost less any accumulated impairment loss. The Group conducts impairment tests annually or when there are signs of impairment.

## 3. Foreign Currency Translations

The consolidated financial statements of the Group are presented in Japanese yen, which is the Company's functional currency.

In addition, each company in the Group determines its individual functional currency and measures transactions using these functional currencies.

Foreign currency denominated transactions are translated into functional currencies at spot exchange rates as of the transaction dates or at similar rates.

Foreign currency monetary assets and liabilities are translated into the functional currency using the spot exchange rate on the date of end of the consolidated reporting period. Exchange differences arising from translations or settlement are recognized in profit or loss. However, exchange differences arising from financial instruments designated as hedging instruments of net investments in foreign operations (foreign subsidiaries, etc.), financial assets measured through other comprehensive income and cash flow hedges are recognized in other comprehensive income.

The Group translates assets and liabilities of foreign operations using the spot exchange rate at the end of the reporting period, and revenue and expenses using the spot exchange rate on the transaction date or an approximate rate in Japanese yen, respectively. The Group accounts for any exchange differences arising in such retranslation in other comprehensive income.

On the disposal of a foreign operation, accumulated exchange differences related to the foreign operation are recognized in profit or loss in the corresponding period of disposal.

## 4. Sales Revenue

The Group recognizes sales revenue based on the following five-step model in amounts reflecting the Group's anticipated entitlements in exchange for goods or services transferred to customers.

- Step 1: Identify the contract(s) with a customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to performance obligations in the contract
- Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation

The Group offers an array of products and services to domestic and foreign customers through its business activities. The Group operates in four business areas centered on four operating companies. They are Mitsubishi Chemical Corporation, Mitsubishi Tanabe Pharma Corporation, Life Science Institute, Inc., and Taiyo Nippon Sanso Corporation. The business segments are Performance Products, Chemicals, Industrial Gases, and Health Care.

Regarding product sales in these businesses, once customers gain control over delivered products and it is determined that the performance obligations are met, sales revenue is recognized upon product delivery.

Sales revenue is measured at the amount of consideration promised in contracts with customers, net of discounts, rebates and returns.

Considerations in product sales contracts are generally collected within one year after control of products transfers to customer, and do not include significant financial elements.

#### 5. Government Grants

Government grants are recognized at fair value when there is reasonable assurance that the Group will comply with grant terms and that the grant will be received.

Government grants related to income are recognized as income on a systematic basis over the periods in which the Group recognizes as expenses the related costs for which the grants are intended to compensate.

Government grants relating to assets are deducted from asset acquisition costs.

#### 6. Borrowing Costs

The Group capitalizes borrowing costs that are directly attributable to the acquisition, construction or production of assets that require considerable time before use as intended or sale as part of the cost of that asset. The Group recognizes all other borrowing costs as expenses in periods incurred.

#### 7. Income Taxes

The Group calculates current tax liabilities or assets for the current and prior periods as amounts that it expects to pay to or recover from taxation authorities. The Group uses tax rates and tax laws enacted or substantively enacted by the end of a reporting period to determine tax amounts.

The Group uses the asset and liability method to record deferred taxes for differences between carrying amounts of assets or liabilities on the accounts at the end of the reporting period and the tax basis (temporary differences).

In principle, the Group recognizes deferred tax liabilities for all future taxable temporary differences. Deferred tax assets are recognized to the extent that it is probably that taxable income will be available against which deductible temporary differences and for tax credits and tax loss carryforwards can be used.

As exceptions, however, the Group does not recognize deferred tax assets or deferred tax liabilities for the following temporary differences:

- The initial recognition of goodwill
- The initial recognition of assets or liabilities in transactions that are not business combinations and do not affect profits in the accounts at the time of transactions or taxable profits or losses.
- Deductible temporary differences arising from investments in subsidiaries and associates, and interests in joint ventures to the extent that it is probable that the timing of the reversal of the temporary difference in the foreseeable future and it is not probable that future taxable profits will be available against which they can be utilized.
- Taxable temporary differences arising from investments in subsidiaries and associates, and interests in joint ventures to the extent that the timing of the reversal of the temporary difference is controlled and that it is probable the temporary difference will not reverse in the foreseeable future.

The Group reviews the carrying amount of deferred tax assets and liabilities (including unrecognized deferred tax assets) at the end of each reporting period. The Group calculates deferred tax and liabilities based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period, estimating tax rates at the time assets materialize or liabilities are settled.

#### 8. Earnings per Share

The Company calculates basic earnings per share by dividing the net income attributable to ordinary shareholders by the weighted average number of ordinary shares, adjusted for treasury stock during that period. The Company calculates diluted earnings per share by adjusting the effects of all potentially dilutive shares.

#### 9. Cash and Cash Equivalents

Cash and cash equivalents comprise cash on hand, demand deposits, and short-term investments that are readily convertible to cash, which are subject to insignificant risks of changes in value, and whose maturities are three months or less from the date of acquisition.

#### 10. Inventories

The cost of inventories comprises all purchase costs, processing costs, and all costs incurred in bringing the inventories to their present location and condition. Inventories are measured at the lower of acquisition cost and net realizable value. The Company mainly uses the weighted average cost formula to calculate costs. The

Company calculates net realizable value by deducting the estimated selling price in the ordinary course of business from the estimated costs required to make a sale.

#### 11. Assets Held for Sale and Discontinued Operations

The Company classifies a non-current asset (or disposal group) as held for sale if its carrying amount is expected to be recovered principally through a sale transaction rather than through continuing use. This applies only if the asset (or disposal group) is available for immediate sale in its present condition and a sale is highly probable within one year. The Company measures a non-current asset (or disposal group) classified as held for sale at the lower of the carrying amount and fair value, less the cost to sell.

The Group does not depreciate or amortize property, plant or equipment or intangible assets classified as held for sale.

Discontinued operations include units that have been disposed of or are classified as held for sale. The Group recognizes an operation as discontinued if it is a Group business and is scheduled for disposal.

#### 12. Property, Plant and Equipment

The Group applies the cost model to measure property, plant and equipment.

The Group carries property, plant and equipment at acquisition cost less accumulated depreciation and accumulated impairment losses.

The acquisition cost includes direct costs of acquisition, estimated costs of dismantlement, removal and restoration, and borrowing costs that satisfy capitalization criteria.

Except for land, property, plant and equipment, less the residual value at the end of the reporting term, is depreciated using the straight-line method.

Depreciation is computed over the following estimated useful lives for the following major classes of assets:

Buildings and structures	3 to 50 years
Machinery, equipment and vehicles	2 to 22 years
Tools, furniture and fixtures	2 to 25 years

#### 13. Intangible Assets

The Group uses the cost model to measure intangible assets.

Intangible assets are stated at acquisition cost less accumulated amortization and impairment losses.

Separately acquired intangible assets are initially recognized at cost. The acquisition cost of an intangible asset acquired in a business combination is measured at fair value at the acquisition date.

Expenditure on an internally generated intangible asset is recognized as an expense when it is incurred, excluding development expenditures that satisfy the criteria for capitalization.

The Group amortizes intangible assets with finite useful lives on a straight-line basis over their useful lives. It tests intangible assets when there are indications of impairment. Amortization periods and methods for intangible assets with finite useful lives are reviewed at year-end. Any changes are applied to the future as changes in accounting estimates.

Amortization is over the following estimated useful lives for the following major classes of intangible assets:

Technology-related intangible assets	4 to 20 years
Customer-related intangible assets	5 to 30 years
Software	3 to 5 years

The Group does not amortize intangible assets with indefinite useful lives, and conducts impairment tests individually or by cash-generating unit (or groups of cash-generating units) annually, and whenever there are indications of impairment.

#### 14. Impairment of Assets

##### (1) Impairment of Non-Financial Assets

The Group assesses whether indications of asset impairment exist at the end of each reporting period. If there are such indications and annual impairment testing is necessary, the Group estimates recoverable amounts, which are the higher amount of

fair value less costs of disposal and value in use. If a recoverable amount of an asset cannot be estimated, the Group estimates the recoverable amount of each cash-generating unit or group of cash-generating units of the asset class. If the carrying amount of an asset exceeds its recoverable amount, the Group recognizes an impairment loss and reduces the carrying amount of the asset to its recoverable amount. In measuring value in use, the Group determines the present value of cash flow projections, discounted by pre-tax rates reflecting current market assessments of the time value of money and risks specific to the asset. The Group estimates cash flow projections using a business plan for five years or less, in principle. Cash flow projections beyond the business plan period use long-term-average growth rates according to individual circumstances.

The Group uses an appropriate valuation model supported by an available fair value index to measure fair value less costs of disposal.

The Group allocates goodwill after acquisition dates to individual or groups of cash generating units expected to benefit from corporate combination synergies.

For goodwill, intangible assets with indefinite useful lives and intangible assets not yet available for use, the Group tests for impairment annually and when there are indications of impairment.

#### (2) Reversal of Impairment Loss

For assets other than goodwill, at the end of each reporting period the Group evaluates whether assumptions used to measure recoverable amounts have changed for impairment losses recognized in prior periods and if there are indications that such losses have decreased or disappeared.

If such indications exist, the Group reverses impairment losses if recoverable amounts exceed the Group's carrying amounts of assets or cash-generating units. Any reversal is limited to the lower of the estimated recoverable amount or the carrying value that would have been determined, net of accumulated depreciation, had no impairment loss been recognized in prior periods.

Impairment loss reversals are recognized in profit or loss.

Goodwill impairment losses are not reversed.

#### 15. Leases

Year ended March 31, 2019

A lease contract is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of a leased asset to the Group. An operating lease is a lease other than a finance lease.

In finance lease transactions, leased assets and lease obligations are recognized in the consolidated statement of financial position at the lower of the fair value of the leased property or the present value of the minimum lease payments, each determined at the inception of the lease. Lease payments are apportioned between the financial cost and reduction of lease obligations based on the interest method. Financial costs are recognized in profit or loss. Leased assets are depreciated on a straight-line basis over the useful lives or lease term, whichever is shorter.

In operating lease transactions, lease payments are recognized as an expense in the Consolidated Statement of Income on a straight-line basis over the lease terms. Variable lease is charged as expenses in the period when they are incurred.

Determining whether an arrangement is, or contains, a lease is based on the substance of the arrangement regardless of whether it takes the legal form of a lease.

Year ended March 31, 2020

When transferring the right to control the use of assets specified in lease contracts in exchange for consideration over a certain period, the Group recognizes lease transactions and the right-of-use assets and lease liabilities as of the commencement date of the lease. Determining whether an arrangement is, or contains, a lease is based on the substance of an arrangement regardless of whether it takes the legal form of a lease.

Lease liabilities are measured as the discounted present value of unsettled portions of lease payments at the lease commencement date. Right-of-use assets are initially measured by adjusting initial direct costs, prepaid lease fees, and other charges for lease liabilities, adding costs for the obligation to restore to original condition and other requirements based on lease contracts.

Lease payments are allocated to the repayment portion of the net financial expenses and lease liabilities so the amount produces a constant periodic rate of interest on the remaining balance of the lease liability, with financial expenses being recognized in profit or loss.

Right-of-use assets are depreciated over their service lives where ownership of the

underlying assets transfer to the lessees by the end of lease periods or where the costs of right-of-use assets reflect the exercise of purchase options. In other cases, assets are depreciated systematically over the shorter of service lives or lease periods.

For leases ending within 12 months or leases for which the underlying asset is of low value, related lease payments are systematically recognized as costs over the lease periods.

#### 16. Provisions

A provision is recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and the amount of the obligation can be estimated reliably.

Where the effect of the time value of money is material, the provision is measured at the present value of the expenditures expected to be required to settle obligations. The discount rate used in measuring the present value is a pre-tax rate that reflects current market assessments of the time value of money and risks inherent in the liability.

#### 17. Retirement Benefits

The Group operates a defined benefit plan and defined contribution plan as employee retirement benefit plans.

The Group uses the projected unit credit method to determine the present value of its defined benefit obligations and the related current and past service costs for each plan.

The rate used to discount post-employment benefit obligations is determined by referring to market yields at the end of the reporting period on high quality corporate bonds.

The fair value of any plan assets is deducted from the present value of the defined benefit obligation in determining the amount of the net defined benefit liabilities or assets of defined benefit plans.

Remeasurements of liabilities and assets associated with defined benefit retirement plans are recognized in other comprehensive income in the period incurred and immediately reflected in retained earnings. Prior service costs are recognized as expenses in the periods incurred.

The Group recognizes contributions payable to defined contribution plans as expenses at the time of contribution.

#### 18. Capital

##### (1) Ordinary Shares

The Company allocated the issue price of ordinary shares between common stock and additional paid-in capital.

##### (2) Treasury Shares

Acquired treasury stock is recognized at cost and deducted from equity, while the difference between the carrying value of treasury stock and its value at the time of sale is recognized in additional paid-in capital.

#### 19. Share-Based Payment

The Company and some subsidiaries employ equity-settled share-based compensation plans.

Under such plans, services received are measured at fair value as of the date capital financial instruments are granted. If granted capital financial instruments are immediately determined, all services received on the grant date is recognized as expenses, that amount being recognized as an increase in equity. If granted capital financial instruments are determined after a certain period of time, they are recognized as expenses over the vesting period from the date granted, that amount being recognized as an increase in equity.

#### 20. Financial Instruments

##### (1) Financial Assets (Except Derivatives)

###### (i) Initial Recognition and Measurement

The Group initially recognizes trade receivables at the date of occurrence. The Group initially recognizes all other financial assets on the transaction dates on which the Group becomes a contract party.

Financial assets are classified as financial assets measured at fair value through profit or loss or other comprehensive income and financial assets measured at amortized cost. The Group determines classifications at initial recognition.

Debt financial instruments are classified as financial assets measured at amortized

cost if both of the following conditions are met.

- Financial assets are based on a business model where the aim is to hold financial assets to recover contractual cash flows
- Contractual terms of financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on principal amounts outstanding

Debt financial instruments meeting the following conditions and measured at fair value are classified as financial assets measured at fair value through other comprehensive income. Otherwise, they are classified as financial assets measured at fair value through profit or loss.

- Financial assets are based on a business model where the aim is to hold financial assets to collect contractual cash flows and sell assets
- Contractual terms of financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on principal amounts outstanding

Equity instruments other than those for trading purpose are designated as measured at fair value through profit or loss or as measured at fair value through other comprehensive income. Such designations are applied subsequently on a consistent basis.

Except for financial assets measured at fair value through profit or loss, financial instruments are measured at fair value plus transaction costs attributable directly to them.

(ii) Subsequent Measurements

After initial recognition, financial assets are measured based on the following classifications:

(a) Financial Assets Measured at Amortized Cost

Financial assets measured at amortized cost are measured at amortized cost using the effective interest method.

(b) Other Financial Assets

Financial assets other than those measured at amortized cost are measured at fair value.

Changes in the fair value of financial assets measured at fair value are recognized in profit or loss or in other comprehensive income.

Changes in the fair value of equity instruments designated as measured at fair value through other comprehensive income are recognized in other comprehensive income and the amount in other comprehensive income is transferred to retained earnings when equity instruments are derecognized or when the fair value of equity instruments declines significantly.

(iii) Derecognition

The Group derecognizes a financial asset only when the contractual rights to the cash flows from the financial asset expire or when the Group transfers the financial asset and the substantially all the risks and rewards of ownership of the financial asset are transferred.

If the Group neither transfers nor retains substantially all the risks and rewards of ownership of a transferred asset and retains control of the transferred asset, the Group recognizes the residual interest in the transferred asset and the associated liability to be payable to the extent of the Group's continuing involvement.

(iv) Impairment

At each closing date, the Group assesses whether the credit risk on a financial asset or a financial asset group measured at amortized cost or a financial guarantee contract has increased significantly since initially recognizing the impairment of a financial asset or financial guarantee contract.

If, at the closing date, the credit risk of a financial asset or a financial asset group has not increased significantly since initial recognition, the Group measures the loss allowance for that financial asset at an amount equal to 12-month expected credit losses. However, the Group recognizes the expected credit losses of trade receivables over the remaining period from the initial recognition.

If a credit risk has increased significantly since initial recognition, the Group recognizes an expected credit loss over the remaining period as a loss allowance.

The Group assesses whether the credit risk has increased significantly using the change in the risk of default, and assesses whether the default risk has changed mainly using delinquent (past due information).

The Group measures a credit loss using the discounted present value of the difference between the contractual amount receivable and the estimate amount

receivable based on the past credit loss.

(2) Financial Liabilities (Except Derivatives)

(i) Initial Recognition and Measurement

Financial liabilities are classified into financial liabilities measured at fair value through profit or loss and financial liabilities measured at amortized cost. The Group determines classifications at initial recognition.

Although all financial liabilities are measured at fair value at initial recognition, financial liabilities measured at amortized cost are measured at cost after deducting, from the fair value, transaction costs that are directly attributable to the financial liabilities.

(ii) Subsequent Measurement

After initial recognition, financial liabilities are measured based on classifications as follows:

(a) Financial Liabilities Measured at Fair Value through Profit or Loss

Financial liabilities measured at fair value through profit or loss are measured at fair value. After initial recognition, portions of changes in fair value attributed to the change in credit risk of the Group are recognized in other comprehensive income, and the balance is recognized in profit or loss.

(b) Financial Liabilities Measured at Amortized Cost

After initial recognition, financial liabilities measured at amortized cost are measured at amortized cost using the effective interest method. Amortization under the effective interest method and gains or losses on derecognition is recognized in profit or loss.

(iii) Derecognition

Financial liabilities are derecognized when the obligation is discharged, canceled or expired, or when they are exchanged with substantially different terms or their terms are modified substantially.

(3) Complex Financial Instruments

The Group measures and initially recognizes hybrid financial instrument liabilities at the fair value of similar liabilities that do not have equity conversion options. Equity is measured and initially recognized at fair value after deducting the fair value of the liabilities of complex financial instruments overall. Direct transaction costs are allocated according to initial carrying amount ratio of liabilities and equity. After initial recognition, complex financial instruments liabilities are measured at amortized cost using the effective interest method. The Company does not remeasure complex financial instrument equity after initial recognition.

(4) Offsetting of Financial Instruments

Financial assets and financial liabilities are offset and presented as a net amount in the consolidated statement of financial position only when there is a legally enforceable right to set off the recognized amounts and the Group intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

(5) Derivatives and Hedge Accounting

The Group uses derivatives, including forward foreign exchange contracts and interest rate swap contracts, to hedge foreign exchange and interest rate risks. These derivatives are initially measured at fair value when contracts are entered into and are subsequently remeasured at fair value.

Changes in the fair value of derivatives are recognized in profit or loss, although gains or losses on hedging instruments relating to the effective portions of cash flow hedges and hedges of net investments in foreign operations are recognized in other comprehensive income.

At the inception of hedging relationships, the Group formally designates and documents relationships to which hedge accounting applies and the objectives and strategies of risk management for undertaking the hedges. The documentation includes identifying hedging instruments, the hedged items or transactions, the nature of the risks being hedged and how the hedging instrument effectiveness (including its analysis of the sources of hedge ineffectiveness and how it determines the hedge ratio) is assessed in offsetting the exposure to changes in hedged item fair value or cash flows attributable to hedged risks. When designating a hedging relationship and on an ongoing basis, the Group analyses whether a derivative used to a hedge transaction is effective to offset the change in the fair value or the cash flow of a hedged item. The Group specifically

determines that a hedge is effective when the economic relationship between the hedged item and the hedging instrument is offset.

Hedges that meet the requirements for hedge accounting are classified in the following categories and accounted for in accordance with IFRS 9 “Financial Instruments”.

(a) Fair Value Hedges

Changes in the fair value of derivatives are recognized in profit or loss. For changes in the fair value of hedged items attributable to the hedged risks, carrying amounts of hedged items are adjusted, with changes recognized in profit or loss.

(b) Cash Flow Hedges

The effective portion of gains or losses on hedging instruments is recognized in other comprehensive income, while the ineffective portion is recognized immediately in profit or loss.

Hedging instrument amounts recognized in other comprehensive income are reclassified to profit or loss when the transactions of the hedged items affect profit or loss. Where hedged items result in the recognition of non-financial assets or liabilities, the amounts recognized in other comprehensive income are accounted for as adjustments to the original carrying amount of non-financial assets or liabilities.

When forecast transactions are no longer expected to occur, any related cumulative gain or loss that has been recognized in equity as other comprehensive income is reclassified to profit or loss. When hedging instruments expire, are sold, terminated or exercised without the replacement or rollover of other hedging instruments, or when the hedge designation is revoked due to change in the risk management objective, accumulated amounts that have been recognized in other comprehensive income continue to be recognized in other comprehensive income until the forecast transactions occur.

(c) Hedges of Net Investments in Foreign Operations

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. The effective portion of gains or losses on hedging instruments is recognized in other comprehensive income. The ineffective portion is recognized in profit or loss. At the time of the disposal of the foreign operations, any related cumulative gain or loss recognized in equity as other comprehensive income is reclassified to profit or loss.

(6) Fair Value of Financial Instruments

The fair value of financial instruments that are traded in active financial markets at the fiscal year-end refers to quoted prices or dealer quotations.

If there is no active market, the fair value of financial instruments is determined referring to appropriate valuation models or prices presented by related financial institutions.

Note 4

Segment Information

1. Overview of Reporting Segments

The Group’s reporting segments are the components for which separate financial information is available, and the Board of Directors regularly assesses this information in deciding how to allocate resources and evaluate results. No operating segments or components have been aggregated in preparing the reporting segment information.

The Group operates in four business areas centered on four operating companies. They are Mitsubishi Chemical Corporation, Mitsubishi Tanabe Pharma Corporation, Life Science Institute, Inc., and Taiyo Nippon Sanso Corporation. The business segments are Performance Products, Chemicals, Industrial Gases, and Health Care.

The businesses in each reporting segment are as follows:

Business Domains	Business Segments	Sub Business Segments		
		Businesses		
Performance Products	Performance Products	Functional Products	Information, Electronics & Displays	Optical Films, Displays, and Semiconductor-Related Products
			High Performance Films	Packaging and Industrial Films
			Environment and Living Solutions	Aqua and Separator Solutions, Infrastructure Solutions, and Agricultural Materials
			Advanced Moldings and Composites	High-Performance Engineering Plastics, Fibers and Textiles, Carbon Fiber and Composite Materials, Functional Moldings and Composites, Alumina Fibers Light and Metal Products
	Performance chemicals	Advanced Polymers	Performance and Engineering Polymers and Sustainable Resources	
		High Performance Chemicals	Performance Chemicals and Materials and Food Ingredients	
		New energy	Lithium Ion Battery Materials and Energy Transduction Materials	
Industrial Materials	Chemicals	MMA	MMA	MMA
		Petrochemicals	Petrochemicals	Basic Petrochemicals, Polyolefins, and Basic Chemical Derivatives
		Carbon Products	Carbon Products	Carbon Products
	Industrial Gases			Industrial Gases
Health Care	Health Care			Ethical Pharmaceuticals
				Life Science

Accounting policies for reportable segments are identical to those Group accounting policies stated in Note 3, Significant Accounting Policies. Inter-segment sales and transfers are based mainly on prevailing market prices.

In keeping with an exchange of all of its shares in LSI Medience Corporation, the Company classified the businesses of that consolidated subsidiary and its subsidiaries and affiliate as discontinued operations. Segment revenues and operating results for the years ended March 31, 2019 and 2020, present the amounts from continuing operations, excluding those of discontinued operations. Details of discontinued operations are described in Note 6, Discontinued Operations.

## 2. Revenues and Operating Results for the Group's Reporting Segments

The Group evaluates results based on segment profits.

Year ended March 31, 2019

	REPORTING SEGMENT					Others (Note 1)	Subtotal	Adjustments (Note 2)	Consolidated
	Performance Products	Chemicals	Industrial Gases	Health Care	Total				
Sales revenue									
External revenue	¥1,155,496	¥1,275,973	¥732,837	¥ 462,563	¥3,626,869	¥213,472	¥3,840,341	¥ —	¥3,840,341
Inter-segment revenue	65,137	63,778	7,504	705	137,124	131,812	268,936	(268,936)	—
Total	¥1,220,633	¥1,339,751	¥740,341	¥ 463,268	¥3,763,993	¥345,284	¥4,109,277	¥ (268,936)	¥3,840,341
Segment profit (loss)									
Core operating income (Note 3)	¥ 71,338	¥ 127,950	¥ 63,323	¥ 53,782	¥ 316,393	¥ 7,932	¥ 324,325	¥ (10,221)	¥ 314,104
Segment assets	1,213,619	1,343,146	1,849,857	1,171,411	5,578,033	1,002,178	6,580,211	(1,007,703)	5,572,508
Other items									
Depreciation and amortization	54,838	60,386	58,554	16,274	190,052	3,273	193,325	2,732	196,057
Share of profit of investments accounted for using the equity method	8,189	14,692	3,836	(21)	26,696	82	26,778	—	26,778
Investments accounted for using the equity method	62,524	68,182	34,318	16,536	181,560	1,507	183,067	—	183,067
Capital expenditures	64,768	71,043	72,056	17,985	225,852	3,729	229,581	2,161	231,742

Notes:

- The Others category consists of businesses not included in reporting segments and mainly includes engineering, transportation, and warehousing operations.
- The segment profit (loss) adjustment includes corporate costs of ¥(10,189) million not allocated to reporting segments and inter-segment eliminations of ¥(32) million. Corporate costs include expenditures on basin testing, research, and other activities not allocated to reporting segments. The segment assets adjustment includes corporate assets of ¥95,968 million not allocated to reporting segments and inter-segment eliminations of ¥(1,103,671) million. Corporate assets include financial assets not allocated to reporting segments.
- Segment profit (loss) is Operating profit in accordance with IFRS after excluding earnings from non-recurring factors, such as losses from business withdrawals and downsizings, representing core operating income.

Year ended March 31, 2020

	REPORTING SEGMENT					Others (Note 1)	Subtotal	Adjustments (Note 2)	Consolidated
	Performance Products	Chemicals	Industrial Gases	Health Care	Total				
Sales revenue									
External revenue	¥1,081,612	¥1,057,054	¥843,340	¥ 413,140	¥3,395,146	¥ 185,364	¥3,580,510	¥ —	¥3,580,510
Inter-segment revenue	63,116	47,875	6,900	603	118,494	183,336	301,830	(301,830)	—
Total	¥1,144,728	¥1,104,929	¥850,240	¥ 413,743	¥3,513,640	¥ 368,700	¥3,882,340	¥ (301,830)	¥3,580,510
Segment profit (loss)									
Core operating income (Note 3)	¥ 62,668	¥ 30,265	¥ 87,973	¥ 14,638	¥ 195,544	¥ 12,319	¥ 207,863	¥ (13,043)	¥ 194,820
Segment assets	1,176,280	1,121,561	1,825,927	1,130,496	5,254,264	916,415	6,170,679	(1,038,530)	5,132,149
Other items									
Depreciation and amortization	56,725	64,809	86,164	20,469	228,167	6,259	234,426	4,186	238,612
Share of profit of investments accounted for using the equity method	4,733	4,964	3,569	8	13,274	158	13,432	—	13,432
Investments accounted for using the equity method	59,460	60,832	31,949	16,145	168,386	1,572	169,958	—	169,958
Capital expenditures	76,344	57,598	74,748	24,240	232,930	3,130	236,060	4,330	240,390

Notes:

- The Others category consists of businesses not included in reporting segments and mainly includes engineering, transportation, and warehousing operations.
- The segment profit (loss) adjustment includes corporate costs of ¥(13,060) million not allocated to reporting segments and inter-segment eliminations of ¥17 million. Corporate costs include expenditures on basic testing, research, and other activities not allocated to reporting segments. The segment assets adjustment includes corporate assets of ¥84,412 million not allocated to reporting segments and inter-segment eliminations of ¥(1,122,942) million. Corporate assets include financial assets not allocated to reporting segments. Intersegment elimination transactions mainly comprise cash management system-based loan eliminations.
- Segment profit (loss) is Operating profit in accordance with IFRS after excluding earnings from non-recurring factors, such as losses from business withdrawals and downsizings, representing core operating income.
- From the first quarter of the year ended March 31, 2020, the Company reviewed segments for some businesses and consolidated subsidiaries and changed its method of allocating some common expenses. The Company used new classifications to present segment information for the previous year.

Adjustments to income before tax from segment operating results are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Segment operating results	¥314,104	¥194,820
Gain on sales of property, plant and equipment	2,507	7,902
Reversal of impairment loss	—	1,720
Gain on sales of shares of subsidiaries and associates	7,538	523
Impairment loss (Note)	(11,775)	(43,916)
Loss on sales and disposal of fixed assets	(8,542)	(9,900)
Early retirement program expenses	(931)	(2,008)
Loss on sales of subsidiaries and associates	(34)	(1,512)
Provision for loss on business liquidation	(5,169)	—
Others	(2,946)	(3,344)
Operating income	294,752	144,285
Financial income	10,226	7,206
Financial expenses	(20,132)	(29,488)
Income before taxes	¥284,846	¥122,003

Note: See Note 16 Impairment Losses for details.

## 3. Geographic Information

The breakdown of external sales revenue and non-current assets is as follows:

External sales revenue

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Japan	¥2,175,766	¥2,046,147
Asia and Oceania	770,445	645,049
(China)	(292,023)	(246,220)
North America	468,874	453,750
Europe	389,681	405,719
Others	35,575	29,845
Total	¥3,840,341	¥3,580,510

Note: Sales revenue is classified by country or region according to the locations of sales destinations.

Non-current assets

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Japan	¥1,219,668	¥1,230,218
Asia and Oceania	425,233	417,522
North America	460,392	459,990
Europe	786,908	757,228
Others	16,929	12,086
Total	¥2,909,130	¥2,877,044

Note: Non-current assets are based on the locations of the assets and do not include financial instruments, deferred tax assets and retirement benefit asset.

## 4. Information about Major Customers

This information has been omitted because no external customers account for more than 10% of sales revenue.



Note 5

Business Combinations

Year ended March 31, 2019

1. Taiyo Nippon Sanso Corporation acquisition of European business of Plaxair of the United States

Consolidated subsidiary Taiyo Nippon Sanso Corporation acquired the European business of Plaxair, Inc., of the United States on December 3, 2018, through subsidiary Nippon Gases Euro-Holding S.L.U. and other entities.

(1) Overview of business combination

1. Names and business descriptions of acquired companies

Name : Praxair Espana S.L.U. and 36 other entities  
Description of business: Praxair's European operations, including industrial gas businesses in Germany, Spain, Portugal, Italy, Norway, Denmark, Sweden, Netherlands, and Belgium, carbon dioxide businesses in the United Kingdom, Ireland, Netherlands, and France, and helium-related businesses

2. Main reason for business combination

Taiyo Nippon Sanso Corporation aims to enhance its global competitiveness amid an ongoing industry reorganization and solidify its position by pursuing a long-term business vision of generating ¥1 trillion in sales revenue, an operating margin of 10%, and a return on capital employed of more than 10%, deriving more than half of its sales revenues from overseas markets. The acquisition is a major step toward materializing that vision, and also represents a solid, strategically significant investment opportunity.

Europe's industrial gas market ranks second only to North America's, and features a stable competitive climate. Acquiring businesses with market shares in areas that it had yet to tap enable the company to make strong progress in globalizing. While acquiring highly profitable businesses of a certain scale and network (including manufacturing units), it also secures talented people, including top management, and business platforms. Under such business foundations, Taiyo Nippon Sanso Corporation will cultivate products, including by drawing on offerings that are compatible with environmental regulations, while pursuing a policy of strengthening the Group's cross-functional capabilities, including by expanding marketing to global enterprises.

3. Acquisition date

December 3, 2018

4. Method for gaining control of acquired company

Acquisition of shares for cash

5. Percentage of voting rights acquired

100%

(2) Fair value of consideration transferred

	Millions of yen
	Acquisition date (December 3, 2018)
Cash	¥635,847
Cost of the acquisition	¥635,847

(3) Assets acquired, liabilities assumed, non-controlling interests, and goodwill

	Millions of yen
	Acquisition date (December 3, 2018)
Current assets:	
Cash and cash equivalents	¥ 4,354
Trade receivables	32,664
Inventories	8,368
Others	3,681
Non-current assets:	

Property, plant and equipment (Note 1)	190,561
Intangible assets (Note 1)	208,301
Investments accounted for using the equity method	5,998
Others	4,196
Acquired assets	458,123
Current liabilities:	
Trade payables	23,882
Other financial liabilities	13,593
Others	12,254
Non-current liabilities:	
Retirement benefit liabilities	6,942
Deferred tax liabilities	72,444
Others	1,297
Liabilities assumed	130,412
Net assets acquired and liabilities assumed	327,711
Non-controlling interests	2,265
Goodwill (Note 2)	310,401

Notes

- Composition of property, plant and equipment and intangible assets  
Property, plant and equipment mainly comprised ¥136,460 million in machinery, equipment, and vehicles. Intangible assets of ¥203,900 million were mainly for customers.
- Goodwill  
Goodwill mainly comprises anticipated synergies and excess earnings capabilities arising from acquisition that do not match specific recognition criteria. Goodwill is not deductible for tax purposes.

(4) Acquisition-related expenses

Acquisition-related costs were ¥6,722 million, of which ¥2,695 million in selling, general and administrative expenses and ¥548 million in financial expenses were included in the Consolidated Statement of Income for the year ended March 31, 2019. The Consolidated Statement of Financial Position for the year included ¥(771) million in bonds and borrowings in current liabilities and ¥(2,708) million in bonds and borrowings in non-current liabilities. Acquisition-related expenses in the Consolidated Statement of Financial Position were costs of bond issue expenses and debt origination costs from obtaining to acquisition funds deducted from fair value at the time of initial recognition of the bonds and borrowings during the year ended March 31, 2019 that were not posted as financial expenses at the end of the period.

(5) Impact on Group business results

The Consolidated Statement of Income for the year ended March 31, 2019 included sales revenue of ¥55,101 million and net income of ¥6,167 million that the acquired company generated subsequent to the acquisition date.

If the business combination were on April 1, 2018, the start of the year ended March 31, 2019, the Group's pro forma sales revenue would have been ¥4,040,646 million, with net income of ¥226,781 million. The pro forma information has not been audited.

2. Acquisition of hydrogen and carbon monoxide business and related business assets in United States by Matheson Tri-Gas

Through Matheson Tri-Gas, Inc., a wholly owned subsidiary of consolidated subsidiary Taiyo Nippon Sanso Corporation acquired a portion of the hydrogen and carbon monoxide (HyCO) business and related U.S. assets of Linde Gas North America LLC.

(1) Overview of business combination

1. Name of counterparty company and description of business

Name : Linde Gas North America LLC  
Description of business: Portion of HyCO business (see note) of Linde Gas North America LLC in the United States

Note: Large-scale supply of hydrogen and carbon monoxide derived from natural gas and other sources with steam reforming and other apparatuses through pipelines to petroleum refining and petrochemical industries

2. Main reason for business combination

Under the Ortus Stage 2 medium-term management plan, Taiyo Nippon Sanso Corporation aims to strategically expand in the gas technology area through mergers and acquisitions, and explored fully entering the HyCO business from the perspective of bolstering its product lineup to strengthen its proposal capabilities. The acquisition will enable the company to materialize that goal, generating the following envisaged benefits for the Taiyo Nippon Sanso Group.

- (i) Secure stable medium- and long-term earnings from on-site supplies of hydrogen and carbon monoxide
- (ii) Secure human and technological resources to streamline HyCO business operations
- (iii) Strengthening proposal capabilities for new on-site demand (including oil refining and petrochemicals) in the United States

3. Acquisition date: February 27, 2019

4. Method for gaining control of acquired company

A portion of the HyCO business of Linde Gas North America LLC in the United States and related U.S. business assets was acquired for cash by consolidated subsidiary Matheson Tri-Gas, Inc.

(2) Fair value of consideration transferred

	Millions of yen
	Acquisition date (February 27, 2019)
Cash	¥46,133
Cost of the acquisition	¥46,133

(3) Assets acquired, liabilities assumed, and goodwill

	Millions of yen
	Acquisition date (February 27, 2019)
Current assets	¥ 215
Non-current assets:	
Property, plant and equipment (Note 1)	31,387
Intangible assets (Note 1)	7,852
Acquired assets	39,454
Non-current liabilities	498
Liabilities assumed	498
Net assets acquired and liabilities assumed	38,956
Goodwill (Note 2)	7,177

Although this acquisition was accounted for on a provisional basis in the previous fiscal year, initial accounting for the business combination was completed in the second quarter of the year ended March 31, 2020. The Company accordingly adjusted provisional amounts above. The impact of the revisions is immaterial.

Notes:

1. Composition of property, plant and equipment and intangible assets  
Property, plant and equipment mainly comprised ¥31,361 million in machinery, equipment and vehicles.  
Intangible assets of ¥7,852 million were mainly customer-related intangible assets.
2. Goodwill  
Goodwill mainly comprises anticipated synergies and excess earnings capabilities arising from acquisition that do not match specific recognition criteria. Goodwill is tax deductible for fixed periods.

(4) Acquisition related expenses

Acquisition-related expenses were ¥149 million and were included in selling, general and administrative expenses in the Consolidated Statement of Income for the year ended March 31, 2019.

(5) Impact on Group business results

If the business combination were on April 1, 2018, the start of the year ended March 31, 2019, the Group's pro forma sales revenue would have been ¥3,933,102 million, with net income of ¥219,046 million. The pro forma information has not been audited.

Year ended March 31, 2020

There were no significant business combinations in the year ended March 31, 2020.

Note 6

Discontinued Operations

1. Outline of Discontinued Operations

On May 14, 2019, Life Science Institute, Inc.(LSII), a consolidated subsidiary in the Health Care segment, came to an agreement on a strategic capital partnership with PHC Holdings Corporation (PHCHD), which engages in the health care business in Japan and overseas. In this agreement, it was determined that LSII would exchange all of its shares in LSI Medience Corporation (LSIM) for a part of PHCHD shares. On August 1, LSII completed the planned share exchange. In fiscal 2019, the company accordingly classified the earnings related to LSIM and its subsidiaries and affiliate and gains on the share exchange discontinued operations. Figures for the previous fiscal year have been restated, with the discontinued operations presented separately.

2. Profit or Loss from Discontinued Operations

Details of net income from discontinued operations in the Consolidated Statement of Income are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Revenue (Note 1)	¥83,304	¥52,754
Cost	(80,094)	(27,169)
Income from discontinued operations before taxes	¥ 3,210	¥25,585
Income taxes (Note 2)	(738)	(8,693)
Net income from discontinued operations	¥ 2,472	¥16,892

Notes:

1. In the fiscal year ended March 31, 2020, this included ¥23,922 million from a gain on share exchanges.
2. In the fiscal year ended March 31, 2020, this included ¥(8,117) million from income taxes related to gain on share exchanges.

3. Cash Flows from Discontinued Operations

Cash flows from discontinued operations included in the Consolidated Statement of Cash Flows are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Cash flows from operating activities	¥5,197	¥ 2,886
Cash flows from investing activities	(2,512)	12,608
Cash flows from financing activities	(173)	(994)
Total	¥2,512	¥ 14,500

4. Supplementary Information Relating to Cash Flows

The net assets and liabilities of LSI Medience Corporation and its subsidiaries excluded as of the date of the share exchange in connection with the share exchange and shares included for PHC Holdings Corporation are as follows:

	Share exchange date (August 1, 2019)
Cash and cash equivalents (Note)	¥ 753
Net amount of assets other than cash and cash equivalents and shares accepted	28,232
Liabilities (Note)	(52,957)

Note:

In keeping with the loss of control of LSI Medience Corporation and its subsidiaries, the net of ¥(753) million of cash and cash equivalents held by LSI Medience Corporation and its subsidiaries and proceeds from collections of loans to LSI Medience Corporation and its subsidiaries of ¥15,185 million is presented in the Consolidated Statement of Cash Flows as ¥14,432 million in proceeds from loss of control due to share exchange in Cash flows from investing activities.

**Note 7**

**Sales Revenue**

(1) Disaggregation of sales revenue

The Group operates in four business areas centered on four operating companies. They are Mitsubishi Chemical Corporation, Mitsubishi Tanabe Pharma Corporation, Life Science Institute, Inc., and Taiyo Nippon Sanso Corporation. The business segments are Performance Products, Chemicals, Industrial Gases, and Health Care. Progress reports on enhancing overseas sales ratios as a key operational measure go regularly to the Board of Directors. The relationship between geographic and segment revenue described in Note 4 Segment Information is as follows.

In keeping with Taiyo Nippon Sanso Corporation's acquisition of European operations in the previous fiscal year, the Company revised its geographic classification from countries to regions owing to an increase in the proportion of sales revenues in Europe. The Company accordingly reclassified the Japan, United States, China, and Others categories used in the previous fiscal year as Japan, Asia and Oceania, North America, Europe, and Others. China is internally disaggregated within Asia and Oceania in keeping with its importance. Sales revenue for the previous fiscal year is based on the revised classifications.

Year ended March 31, 2019

	Millions of yen						
	Japan	Asia and Oceania (China)	North America	Europe	Others	Total	
Performance Products	¥ 585,187	¥233,643	¥ (96,954)	¥164,741	¥157,877	¥14,048	¥1,155,496
Chemicals	771,327	317,074	(110,702)	80,325	91,616	15,631	1,275,973
Industrial Gases	369,033	124,597	(22,128)	178,035	59,324	1,848	732,837
Health Care	322,576	27,062	(7,767)	42,736	67,567	2,622	462,563
Others	127,643	68,069	(54,472)	3,037	13,297	1,426	213,472
<b>Total</b>	<b>¥2,175,766</b>	<b>¥770,445</b>	<b>¥(292,023)</b>	<b>¥468,874</b>	<b>¥389,681</b>	<b>¥35,575</b>	<b>¥3,840,341</b>

Notes:

1. Amounts are shown as sales revenue from external customers.
2. Sales revenue is mostly recognized from contracts with customers. Sales revenue recognized from other sources is immaterial.

Year ended March 31, 2020

	Millions of yen						
	Japan	Asia and Oceania (China)	North America	Europe	Others	Total	
Performance Products	¥ 554,891	¥208,030	¥ (91,758)	¥159,769	¥147,847	¥11,075	¥1,081,612
Chemicals	684,145	237,233	(91,894)	65,439	54,836	15,401	1,057,054
Industrial Gases	361,317	120,368	(18,306)	190,100	170,307	1,248	843,340
Health Care	329,264	26,702	(6,968)	35,596	19,852	1,726	413,140
Others	116,530	52,716	(37,294)	2,846	12,877	395	185,364
<b>Total</b>	<b>¥2,046,147</b>	<b>¥645,049</b>	<b>¥(246,220)</b>	<b>¥453,750</b>	<b>¥405,719</b>	<b>¥29,845</b>	<b>¥3,580,510</b>

Notes:

1. Amounts are shown as sales revenue from external customers.
2. Sales revenue is mostly recognized from contracts with customers. Sales revenue recognized from other sources is immaterial.

**Performance Products Segment**

This segment encompasses the functional products business (information, electronics and displays, high-performance films, environment and living solutions, and advanced moldings and composites) and the performance chemical business (advanced polymers, high-performance chemicals, and new energy). We sell to domestic and overseas customers.

Once customers gain control over products, when products are delivered to customer-designated locations, the legal title and physical possession of products and significant risks associated with product possession and rewards have been transferred, and we accordingly determine at that stage that we have satisfied our performance obligations and

recognize sales revenue. Sales revenue from selling these products is measured at transaction prices relating to agreements with customers.

Sales revenue is measured at the amount of consideration promised in contracts with customers, net of discounts, rebates and returns. Rebates and other estimates use the most frequent techniques based on experience. Sales revenue is recognized only to the extent of no possibility of a significant reversal. Considerations in product sales contracts are generally collected within one year after control of products transfers to customer, and do not include significant financial elements.

**Chemicals Segment**

In the Chemicals segment, we conduct the MMA, petrochemicals, and carbon products businesses, and sell to domestic and overseas customers.

Upon satisfying performance obligations in selling products in these businesses, calculations of transaction prices and payment terms are identical to those of the Performance Products segment.

**Industrial Gases Segment**

In this segment, our gas business serves the steel, chemical and electronics industries. We manufacture such household items as stainless steel thermoses. We sell to domestic and overseas customers.

Upon satisfying performance obligations in selling products in these businesses, calculations of transaction prices and payment terms are identical to those of the Performance Products segment.

**Health Care Segment**

Here, we engage in the ethical pharmaceuticals business (researching and developing and manufacturing ethical pharmaceuticals) and the life science business (manufacturing of capsules and pharmaceutical processing equipment, active pharmaceutical ingredients and intermediates), selling to domestic and foreign customers.

Upon fulfilling performance obligations in selling products in these businesses, calculations of transaction prices and payment terms are identical to those of the Performance Products segment.

Royalty income generated in the Health Care business is from contracts in which the Group has permitted third parties to produce or sell products or use technology. One-off contract payments are recognized as sales revenue when performance obligations are met at certain points. If such obligations are not met, the transaction is recorded as deferred sales revenue and recognized as sales revenue over a certain period as obligations are met. Milestone payments are recognized only to the extent that significant returns are unlikely after reaching contractual milestones. Running royalties are measured based on contractor sales calculations, etc., and sales revenue is recognized as sales occur. Royalty income is generally received within one year of establishing contractual rights, and does not include significant financing components.

With regard to royalty revenue and other income, consolidated subsidiary Mitsubishi Tanabe Pharma Corporation received a petition for arbitration from Novartis Pharma AG ("Novartis") of Switzerland in February 2019. Novartis claimed that some provisions of a license agreement entered into in 1997 ("Agreement") were invalid and that Novartis had no obligation to pay some royalties. Mitsubishi Tanabe Pharma Corporation claimed the right to receive all royalties payable under the Agreement, and will appropriately pursue this right through arbitration.

Due to arbitration proceedings, the Company decided not to recognize sales revenue in accordance with IFRS 15 for some royalty revenue. Since arbitration proceedings remain ongoing, some sales revenue was not recognized as revenue for some royalties in the year ended March 31, 2020.

The portion for which this revenue is not recognized has been posted to other non-current liabilities, and the cumulative amount will be recognized at the end of arbitration.

(2) Contract balance

Receivables from contracts with customers, contract assets, and liabilities are as follows:

	Millions of yen		
	As of April 1, 2018	Year ended March 31, 2019	Year ended March 31, 2020
Receivables arising from contracts with customers	¥851,576	¥850,802	¥706,659
Contract assets	7,893	12,562	11,873
Contract liabilities	16,582	16,234	23,158

The Group mainly posts contract assets for compensation from work in progress and posts contract liabilities for advance payments from customers and for deferred sales revenue.

Of sales revenue recognized in the years ended March 31, 2019 and 2020, ¥10,227 million and ¥9,245 million, respectively, were included in contract liabilities at the start of the terms. Sales revenue recognized from performance obligations satisfied during the two years was ¥63,960 million and ¥16,950 million, respectively. There were no significant changes in outstanding contract assets and liabilities.

(3) Transaction price allocated to the remaining performance obligations

Total transaction price allocated to the remaining performance obligations and sales revenue recognition periods were as follows. Transactions with estimated contract terms of less than one year are excluded.

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Due within one year	¥15,443	¥28,903
Due after one year	26,317	19,507
Total	¥41,760	¥48,410

(4) Assets recognized from costs to obtain or fulfill contracts with customers

In the years ended March 31, 2019 and 2020, no assets were recognized from the costs to obtain or fulfill contracts with customers. As a practical expedient, costs are recognized as expenses when incurred if the amortization period of the asset to be recognized is one year or less.

Note 8

**Employee Benefit Expenses** The breakdown of employee benefit expenses is as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Wages and salaries	¥ 552,558	¥ 562,253
Retirement benefit costs	30,249	31,333
Total	¥ 582,807	¥ 593,586

Note: Remuneration for key executives is excluded. Remuneration to major executives is as described in Note 38 Related Parties.

Note 9

**Research and Development Expenses** Research and development expenses recognized in the years ended March 31, 2019 and 2020 were ¥142,822 million and ¥133,368 million, respectively.

Note 10

**Other Operating Income and Other Operating Expenses** The breakdown of other operating income is as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Gain on sales of property, plant and equipment	¥ 2,783	¥ 8,533
Insurance income	936	2,529
Rent income	2,269	2,079
Subsidy income	61	2,006
Reversal of impairment loss	—	1,720
Gain on sales of shares of subsidiaries and associates	7,546	530
Others	7,716	10,174
Total	¥ 21,311	¥ 27,571

The breakdown of other operating expenses is as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Impairment loss	¥ 17,340	¥ 48,647
Loss on sales and disposal of fixed assets	13,776	15,793
Loss on reduction of fixed assets	57	1,988
Loss on sales of shares of subsidiaries and associates	34	1,567
Provision for loss on business liquidation	5,169	—
Others	14,601	15,368
Total	¥ 50,977	¥ 83,373

The provision for loss on business liquidation is as described in Note 23 Assets Held for Sale.

See Note 16 Impairment Losses for details.

Note 11

Financial Income and Financial Expenses

The breakdown of financial income is as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Financial income		
Interest income		
Financial assets measured at amortized cost	¥4,429	¥2,699
Dividend income		
Financial assets measured at fair value through other comprehensive income	5,192	4,187
Foreign exchange gains	360	—
Others	245	320
Total	¥10,226	¥7,206

The breakdown of financial expenses is as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Financial expenses		
Interest expenses		
Financial liabilities measured at amortized cost	¥18,863	¥24,515
Foreign exchange losses	—	3,661
Others	1,269	1,312
Total	¥20,132	¥29,488

Note 12

Income Taxes

1. Deferred Tax Assets and Liabilities

As of March 31, 2019 and 2020, significant components of deferred tax assets and liabilities are as follows:

Year ended March 31, 2019

	Millions of yen				
	April 1, 2018	Amounts recognized in profit or loss	Amounts recognized in other comprehensive income	Others (Note)	March 31, 2019
Deferred tax assets:					
Tax loss carryforwards	¥ 57,423	¥ 6,392	¥ —	¥ 254	¥ 64,069
Net defined benefit liabilities	31,130	(1,741)	1,631	1,842	32,862
Property, plant and equipment	15,477	1,641	—	120	17,238
Employees' bonuses	15,138	(369)	—	46	14,815
Inventory	7,006	3,530	—	57	10,593
Employees' paid leave	6,887	582	—	676	8,145
Others	50,981	5,136	1,383	(708)	56,792
Total	¥ 184,042	¥15,171	¥ 3,014	¥ 2,287	¥ 204,514
Deferred tax liabilities:					
Valuation of assets	¥ (81,690)	¥ 4,641	—	¥(67,737)	¥(144,786)
Property, plant and equipment	(50,070)	(13,697)	—	(10,415)	(74,182)
Securities and other investments	(35,700)	—	(2,397)	3,789	(34,308)
Retained earnings of foreign subsidiaries	(13,910)	(4,186)	—	—	(18,096)
Others	(23,546)	(3,717)	(303)	1,523	(26,043)
Total	¥(204,916)	¥(16,959)	¥ (2,700)	¥(72,840)	¥(297,415)
Net deferred tax assets	¥ (20,874)	¥ (1,788)	¥ 314	¥(70,553)	¥ (92,901)

Year ended March 31, 2020

	Millions of yen				
	April 1, 2019	Amounts recognized in profit or loss	Amounts recognized in other comprehensive income	Others (Note)	March 31, 2020
Deferred tax assets:					
Tax loss carryforwards	¥ 64,069	¥(10,830)	¥ —	¥ (289)	¥ 52,950
Net defined benefit liabilities	32,862	(733)	569	(1,979)	30,719
Property, plant and equipment	17,238	1,486	—	14	18,738
Employees' bonuses	14,815	(1,834)	—	(522)	12,459
Inventory	10,593	(483)	—	(42)	10,068
Employees' paid leave	8,145	188	—	(379)	7,954
Others	56,792	7,090	122	330	64,334
Total	¥ 204,514	¥ (5,116)	¥ 691	¥ (2,867)	¥ 197,222
Deferred tax liabilities:					
Valuation of assets	¥(144,786)	¥13,164	—	¥ 5,063	¥(126,559)
Property, plant and equipment	(74,182)	(3,949)	—	1,583	(76,548)
Securities and other investments	(34,308)	(8,117)	5,978	1,876	(34,571)
Retained earnings of foreign subsidiaries	(18,096)	3,266	—	(18)	(14,848)
Others	(26,043)	(7,093)	(1)	493	(32,644)
Total	¥(297,415)	¥ (2,729)	¥ 5,977	¥ 8,997	¥(285,170)
Net deferred tax assets	¥ (92,901)	¥ (7,845)	¥ 6,668	¥ 6,130	¥ (87,948)

Notes:

- Others include exchange differences on translation of foreign operations and changes owing to business combinations, etc.
- Amount recognized in profit or loss includes ¥8,117 million in income taxes related to share exchange gains.

In recognizing deferred tax assets, the Group considers whether it can use all or part of future deductible temporary differences or unused tax loss carryforwards with respect to expected future taxable income. In evaluating the recoverability of deferred tax assets, the Group considers the planned reversal of deferred tax liabilities, expected future taxable income, and tax planning. In addition, future taxable income estimates are based on future business plans. The primary assumptions are prospects for revenue growth and market trends for raw material prices. Management expects to recover recognized deferred tax assets in keeping with the forecasts for future taxable income when past taxable income levels and deferred tax assets can be deductible. Although management deems its assumptions reasonable, they could be affected by future uncertain fluctuations in economic conditions. If future taxable income differs from forecasts and assumptions, the recoverability of deferred tax assets could differ.

Future deductible temporary differences and unused tax loss carryforwards (on an income basis), not recognized as deferred tax assets are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Future deductible temporary differences	¥106,112	¥112,005
Unused tax loss carryforwards	374,604	392,703
Unused tax credit carryforwards	25,095	28,458

Unrecognized deferred tax assets corresponding to the above are as follows.

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Future deductible temporary differences	¥30,172	¥32,543
Unused tax loss carryforwards	58,308	63,884
Unused tax credit carryforwards	6,365	6,879

The breakdowns of tax loss carryforwards not recognized as deferred tax assets (on an income basis) by expiration date are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Tax loss carry forwards:		
Due within one year	¥ 65,918	¥ 8,543
Due after one year and not later than five years	51,169	85,155
Due after five years and not later than 10 years	93,829	124,571
Due after 10 years and not later than 20 years	95,568	89,591
Indefinite	68,120	84,843
Total	¥374,604	¥392,703

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Unused tax credit carryforwards		
Due within one year	¥ 83	¥ 744
Due after one year and not later than five years	8,811	8,852
Due after five years and not later than 10 years	—	—
Due after 10 years and not later than 20 years	—	—
Indefinite	16,201	18,862
Total	¥25,095	¥28,458

As of March 31, 2019 and 2020, total temporary differences related to undistributed earnings of subsidiaries for which deferred tax liabilities were not recognized were ¥1,142,046 million and ¥1,306,312 million, respectively.

The Group does not recognize deferred tax liabilities related to temporary differences when it can control the timing of the reversal of the temporary differences and it is highly probable that temporary differences will not be reversed in the foreseeable future.

## 2. Income Taxes

The breakdown of income taxes is as follows:

Income taxes relating to discontinued operations are disclosed in Note 6 Discontinued Operations.

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Income taxes	¥68,886	¥53,139
Deferred income taxes	1,703	(804)
Total	¥70,589	¥52,335

## 3. Effective Tax Rate Reconciliation Schedule

The Company is principally subject to corporate taxes, resident taxes and business taxes. The statutory effective tax rate that is the base for these taxes was 30.6% in the years ended March 31, 2019 and 2020. For overseas subsidiaries, local corporate income taxes are imposed.

A reconciliation of the statutory tax rates to the effective tax rates for the years ended March 31, 2019 and 2020, was as follows:

	Year ended March 31, 2019	Year ended March 31, 2020
Statutory tax rate	30.6%	30.6%
Unrecognized deferred tax assets	(0.6)	17.1
Goodwill impairment	—	4.1
Permanent differences	1.8	3.1
Foreign taxes	1.0	3.0
Difference of statutory tax rate in overseas subsidiaries	(5.1)	(6.4)
Share of profit of investments accounted for using the equity method	(2.8)	(3.3)
Tax credits for research and development costs	(1.9)	(2.8)
Tax effect on undistributed earnings	1.4	(2.7)
Others	0.4	0.2
Effective tax rate	24.8%	42.9%

Note 13

Per Share Information

The bases for calculating basic and diluted earnings per share attributable to owners of the parent were as follows:

1. Basic Earnings per Share

	Year ended March 31, 2019	Year ended March 31, 2020
(Millions of yen)		
Net income used to calculate basic earnings per share:		
Net income from continuing operations attributable to owners of the parent	¥167,063	¥ 37,186
Net income from discontinued operations attributable to owners of the parent	2,467	16,891
Net income attributable to owners of the parent	¥169,530	¥ 54,077
(Thousands of shares)		
Average number of ordinary shares during period	1,422,018	1,419,982
(Yen)		
Basic earnings per share attributable to owners of the parent:		
Continuing operations	¥117.49	¥ 26.19
Discontinued operations	1.73	11.89
Basic earnings per share attributable to owners of the parent	¥119.22	¥ 38.08

2. Diluted Earnings per Share

	Year ended March 31, 2019	Year ended March 31, 2020
(Millions of yen)		
Net income used to calculate diluted earnings per share:		
Net income from continuing operations used to calculate basic earnings per share	¥167,063	¥ 37,186
Adjustment	285	285
Net income from continuing operations used to calculate diluted earnings per share	¥167,348	¥ 37,471
Net income from discontinued operations used to calculate diluted earnings per share	2,467	16,891
Net income used to calculate diluted earnings per share	¥169,815	¥ 54,362
(Thousands of shares)		
Average number of diluted ordinary shares during period:		
Average number of ordinary shares during period	1,422,018	1,419,982
Impact of potentially dilutive ordinary shares		
Convertible bond-type bonds with subscription rights to shares	119,685	122,565
Subscription rights to shares	1,388	1,568
Average number of diluted ordinary shares during period	1,543,091	1,544,115
(Yen)		
Diluted earnings per share attributable to owners of the parent:		
Continuing operations	¥108.45	¥ 24.27
Discontinued operations	1.60	10.94
Diluted earnings per share attributable to owners of the parent	¥110.05	¥ 35.21

Note:  
In the calculation of basic and diluted net income per share attributable to owners of the parent, the Company stocks held by Board Incentive Plan trust are included in shares of treasury stock deducted in calculating the average number of shares during the period.

Note 14

Goodwill and Intangible Assets

1. Schedule of Goodwill and Intangible Assets

The acquisition cost, accumulated amortization, accumulated impairment losses and carrying amount of goodwill and intangible assets were as follows:

Year ended March 31, 2019

Acquisition cost

	Millions of yen					
	Goodwill	Intangible assets				Total
		Technology-related intangible assets	Customer-related intangible assets	Software	Other	
Balance as of April 1, 2018	¥324,201	¥282,798	¥112,842	¥76,414	¥63,136	¥535,190
Acquisitions	—	3,192	7,127	7,922	3,149	21,390
Acquisitions through business combinations	334,121	1,688	216,914	2,470	511	221,583
Sale or disposal	—	(4,061)	(2)	(6,981)	(1,790)	(12,834)
Transfers	—	(14)	—	(3)	9	(8)
Exchange differences on translation of foreign operations	(9,516)	8,010	(4,431)	(311)	1,161	4,429
Balance as of March 31, 2019	¥648,806	¥291,613	¥332,450	¥79,511	¥66,176	¥769,750

Accumulated amortization, accumulated impairment losses

	Millions of yen					
	Goodwill	Intangible assets				Total
		Technology-related intangible assets	Customer-related intangible assets	Software	Other	
Balance as of April 1, 2018	¥—	¥55,449	¥33,221	¥57,014	¥34,355	¥180,039
Amortization	—	7,422	10,595	7,805	4,012	29,834
Impairment losses	—	383	—	165	63	611
Sale or disposal	—	(3,696)	—	(6,808)	(1,755)	(12,259)
Exchange differences on translation of foreign operations	—	1,728	407	(294)	897	2,738
Balance as of March 31, 2019	¥—	¥61,286	¥44,223	¥57,882	¥37,572	¥200,963

Carrying amount

	Millions of yen					
	Goodwill	Intangible assets				Total
		Technology-related intangible assets	Customer-related intangible assets	Software	Other	
Balance as of April 1, 2018	¥324,201	¥227,349	¥79,621	¥19,400	¥28,781	¥355,151
Balance as of March 31, 2019	¥648,806	¥230,327	¥288,227	¥21,629	¥28,604	¥568,787

Year ended March 31, 2020

Acquisition cost

	Millions of yen					
	Goodwill	Intangible assets				Total
		Technology-related intangible assets	Customer-related intangible assets	Software	Other	
Balance as of April 1, 2019	¥648,806	¥291,613	¥332,450	¥79,511	¥66,176	¥769,750
Acquisitions	—	6,347	—	5,985	4,644	16,976
Acquisitions through business combinations	7,992	144	5,353	35	(278)	5,254
Sale or disposal	(268)	(25,524)	(14)	(6,918)	(9,221)	(41,677)
Transfers	(546)	—	831	(245)	(2)	584
Exchange differences on translation of foreign operations	(22,941)	(27,661)	(12,572)	(5,351)	(1,596)	(47,180)
Balance as of March 31, 2020	¥633,043	¥244,919	¥326,048	¥73,017	¥59,723	¥703,707

Accumulated amortization, accumulated impairment losses

	Intangible assets					Millions of yen
	Goodwill	Technology-related intangible assets	Customer-related intangible assets	Software	Other	Total
	Balance as of April 1, 2019	¥ —	¥61,286	¥44,223	¥57,882	¥37,572
Amortization	—	7,227	16,606	6,947	3,169	33,949
Impairment losses	16,274	24,102	83	53	22	24,260
Sale or disposal	—	(25,610)	—	(3,693)	(7,992)	(37,295)
Exchange differences on translation of foreign operations	—	(22,302)	(1,269)	(4,441)	(733)	(28,745)
Balance as of March 31, 2020	¥ 16,274	¥44,703	¥59,643	¥56,748	¥32,038	¥193,132

Carrying amount

	Intangible assets					Millions of yen
	Goodwill	Technology-related intangible assets	Customer-related intangible assets	Software	Other	Total
	Balance as of April 1, 2019	¥648,806	¥230,327	¥288,227	¥21,629	¥28,604
Balance as of March 31, 2020	¥616,769	¥200,216	¥266,405	¥16,269	¥27,685	¥510,575

There were no material internally generated assets in the years ended March 31, 2019 and 2020.

The amortization of intangible assets is included in Cost of sales, Selling, general and administrative expenses and Net income from discontinued operations in the Consolidated Statement of Income.

## 2. Significant Intangible Assets

Significant intangible assets in the Consolidated Statement of Financial Position include technology-related intangible assets that the Company obtained in acquiring Mitsubishi Rayon Co., Ltd. (now Mitsubishi Chemical Corporation), in March 2010. The carrying amounts of these intangible assets were ¥18,254 million as of March 31, 2019 and ¥15,532 million as of March 31, 2020. The remaining amortization periods were 5 to 9 years.

The carrying amount of technology-related intangible assets of Medicago Inc., which Mitsubishi Tanabe Pharma Corporation acquired in September 2013, was ¥25,967 million in the year ended March 31, 2019, and classified as intangible assets with indefinite useful lives. In the fiscal year ended March 31, 2020, the carrying amount of such intangible assets was fully impaired, and stated in Note 16 Impairment Losses.

The carrying amounts of customer-related intangible assets of Taiyo Nippon Sanso Corporation, which the Company acquired in November 2014, were ¥28,187 million as of March 31, 2019, and ¥26,083 million as of March 31, 2020. The remaining amortization periods were 8 to 13 years.

The carrying amounts of technology-related intangible assets of NeuroDerm Ltd. which Mitsubishi Tanabe Pharma Corporation acquired in October 2017, were ¥134,076 million as of March 31, 2019 and ¥131,467 million as of March 31, 2020. This item is classified as intangible assets with indefinite useful lives.

The carrying amount of customer-related intangible assets of European businesses which Taiyo Nippon Sanso Corporation acquired in December 2018, were ¥194,267 million as of March 31, 2019 and ¥186,453 million as of March 31, 2020. The remaining amortization periods were mainly 28 years.

## 3. Intangible Assets with Indefinite Useful Lives

The carrying amount of intangible assets with indefinite useful lives was ¥192,381 million at March 31, 2019. The main item was in-process research and development expenses recognized when Mitsubishi Tanabe Pharma Corporation acquired Medicago Inc. in 2013 and

NeuroDerm Ltd. in 2017 (both in the Health Care segment), included in Technology-related intangible assets. At March 31, 2020, the carrying amount of intangible assets with indefinite useful lives was ¥168,180 million. The main item was in-process research and development expenses related to NeuroDerm. Given that the assets are at the research and development stage, have yet to obtain marketing approval from regulatory authorities, and cannot be in use, the assets are classified as intangible assets with indefinite useful lives.

Intangible assets with indefinite useful lives are subject to impairment testing at certain times every year, regardless of whether there are indications of impairment.

In impairment tests, recoverable amounts of intangible assets are measured by their value in use.

In calculating value in use, the Company uses estimates of future cash flows based on management-approved business plans. The business plans are based on experience and external information. Except on justifiable grounds, the plans are, in principle, for up to five years, the significant assumptions being the prospects for obtaining regulatory approval for sales, post-launch sales forecasts, and discount rates.

The Company used a pretax weighted average cost of capital of 5.5% to 14.8% in the year ended March 31, 2019, and 7.7% to 13.0% in the year ended March 31, 2020. The discount rates for in-process research and development expenses related to NeuroDerm were 14.8% and 13.0% in years ended March 31, 2019 and 2020, respectively.

Although management deems these assumptions reasonable, they are subject to uncertain fluctuations in future economic conditions. If assumptions change, calculations of recoverable amount may differ.

Impairment losses recognized for intangible assets with indefinite useful lives are as stated in Note 16 Impairment Losses.

## 4. Goodwill

The carrying amounts of goodwill allocated to cash-generating units (groups of cash-generating units) are as follows:

Reporting segment	Cash-Generating Unit (Groups of Cash-Generating Units)	Millions of yen	
		March 31, 2019	March 31, 2020
Performance Products	High performance engineering plastics	¥ 21,029	¥ 25,497
	Other	37,036	36,024
	Total	¥ 58,065	¥ 61,701
Chemicals	MMA	¥ 36,813	¥ 36,813
	Other	2,887	2,859
	Total	¥ 39,700	¥ 39,672
Industrial Gases	Industrial gases	¥459,013	¥441,805
Health Care	Ethical Pharmaceuticals	¥ 59,246	¥ 57,303
	Pharmaceutical formulation materials	32,626	16,288
	Other	156	—
	Total	¥ 92,028	¥ 73,591
Total		¥648,806	¥616,769

The recoverable amount of goodwill in cash-generating units and groups of cash generating units is measured by the value in use.

The value in use is based on a management-approved five-year plan reflecting past experience and external source of information. After considering future uncertainties after the five-year period, the Company assumed a zero growth rate, with value equaling cash flows in the fifth year. Estimated future cash flows are shaped largely by sales volume expansions and market growth rates. While management has determined that its main assumptions are reasonable, they are subject to uncertain changes in economic conditions, and calculations of recoverable amounts could differ if assumptions change.



The discount rates used for measuring recoverable amounts are as follows:

Reporting segment	Cash-Generating Unit (Groups of Cash-Generating Units)	March 31, 2019	March 31, 2020
Performance Products	High performance engineering plastics	8.1%	7.5%
Chemicals	MMA	7.7%	5.9%
Industrial Gases	Industrial gases	7.7%	5.9%
Health Care	Ethical pharmaceuticals	5.5%	7.7%
	Pharmaceutical formulation materials	6.5%	7.2%

It was possible that the recoverable amount of goodwill allocated to pharmaceutical formulation materials would equal the carrying amount if the discount rate rose 1.9% in the previous fiscal year. In the year ended March 31, 2020, the Company recorded impairment losses because recoverable amounts were less than carrying amounts. See Note 16 Impairment Losses for details.

## Note 15

**Property, Plant and Equipment** The acquisition cost, accumulated depreciation, accumulated impairment losses and carrying amount of property, plant and equipment were as follows:

### 1. Schedule of property, plant and equipment

Year ended March 31, 2019

Acquisition cost

	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2018	¥1,082,503	¥2,950,161	¥317,268	¥283,707	¥149,428	¥4,783,067
Acquisitions (Note 1)	31,620	184,832	23,936	1,992	(11,923)	230,457
Acquisitions through business combinations	12,259	171,121	29,263	9,923	8,451	231,017
Sale or disposal	(16,081)	(71,148)	(12,196)	(2,349)	(913)	(102,687)
Transfers (Note 2)	(2,338)	(2,867)	(1,671)	(482)	(12,894)	(20,252)
Exchange differences on translation of foreign operations	(3,038)	(978)	189	(2,680)	707	(5,800)
Balance as of March 31, 2019	¥1,104,925	¥3,231,121	¥356,789	¥290,111	¥132,856	¥5,115,802

Accumulated depreciation, accumulated impairment losses

	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2018	¥745,969	¥2,350,556	¥243,400	¥7,891	¥1,742	¥3,349,558
Depreciation	25,906	125,004	18,507	—	—	169,417
Impairment losses	6,958	4,418	415	2,283	2,655	16,729
Sale or disposal	(13,906)	(66,379)	(11,416)	(377)	(219)	(92,297)
Transfers (Note 2)	(1,599)	(4,111)	(1,626)	(6)	281	(7,061)
Exchange differences on translation of foreign operations	(3,555)	123	834	(422)	(878)	(3,898)
Balance as of March 31, 2019	¥759,773	¥2,409,611	¥250,114	¥9,369	¥3,581	¥3,432,448

Notes:

- In addition to the increase in the construction in progress account from new acquisitions, the net amount, including figures in parentheses for transfer amounts is shown for each tangible fixed asset.
- Transfers include a transfer to assets held for sale.

Carrying amount

	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2018	¥336,534	¥599,605	¥73,868	¥275,816	¥147,686	¥1,433,509
Balance as of March 31, 2019	¥345,152	¥821,510	¥106,675	¥280,742	¥129,275	¥1,683,354

Year ended March 31, 2020

Acquisition cost

	Millions of yen					
	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2019	¥1,104,925	¥3,231,121	¥356,789	¥290,111	¥132,856	¥5,115,802
Adjustment due to applying IFRS 16	62,633	14,501	9,744	7,851	—	94,729
Adjusted balance as of April 1, 2019	1,167,558	3,245,622	366,533	297,962	132,856	5,210,531
Acquisitions (Note 1)	46,563	166,556	24,266	2,523	17,287	257,195
Acquisitions through business combinations	1,148	1,029	158	300	14	2,649
Sale or disposal	(46,642)	(55,342)	(39,081)	(4,690)	(1,239)	(146,994)
Transfers (Note 2)	(12,898)	(2,504)	(404)	(6,149)	(15,894)	(37,849)
Exchange differences on translation of foreign operations	(1,680)	(40,585)	(10,768)	(1,445)	(119)	(54,597)
Balance as of March 31, 2020	¥1,154,049	¥3,314,776	¥340,704	¥288,501	¥132,905	¥5,230,935

Accumulated depreciation, accumulated impairment losses

	Millions of yen					
	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2019	¥759,773	¥2,409,611	¥250,114	¥9,369	¥3,581	¥3,432,448
Adjustment due to applying IFRS 16	—	—	—	—	—	—
Adjusted balance as of April 1, 2019	759,773	2,409,611	250,114	9,369	3,581	3,432,448
Depreciation	41,889	142,127	20,695	1,164	—	205,875
Impairment losses	2,500	4,725	760	4	124	8,113
Sale or disposal	(29,656)	(52,245)	(32,218)	(440)	(3)	(114,562)
Transfers (Note 2)	(14,424)	(775)	(158)	—	—	(15,357)
Exchange differences on translation of foreign operations	(3,108)	(18,432)	(4,043)	(2,092)	(123)	(27,798)
Balance as of March 31, 2020	¥756,974	¥2,485,011	¥235,150	¥8,005	¥3,579	¥3,488,719

Notes:

- In addition to the increase in the construction in progress account from new acquisitions, the net amount including figures in parentheses for transfer amounts is shown for each tangible fixed asset.
- Transfers include a transfer to assets held for sale.

Carrying amount

	Millions of yen					
	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Total
Balance as of April 1, 2019	¥407,785	¥836,011	¥116,419	¥288,593	¥129,275	¥1,778,083
Balance as of March 31, 2020	¥397,075	¥829,765	¥105,554	¥280,496	¥129,326	¥1,742,216

Right-of-use assets increased ¥18,211 million in the year ended March 31, 2020.

Depreciation of property, plant and equipment is included in Cost of sales and Selling, general and administrative expenses and Net income from discontinued operations in the Consolidated Statement of Income.

Expenditure on construction work in progress for property, plant and equipment is included in construction in progress.

## 2. Right-of-use assets (lease assets)

The carrying amounts of leased assets included in property, plant and equipment were as follows:

	Millions of yen
	As of March 31, 2019
Buildings and structures	¥1,221
Machinery and vehicles	3,557
Tools, furniture and fixtures	3,529
Total	¥8,307

The carrying amounts of right-of-use assets included in property, plant and equipment are as follows:

	Millions of yen
	As of March 31, 2020
Buildings and structures	¥57,565
Machinery and vehicles	16,716
Tools, furniture and fixtures	11,837
Land	6,681
Total	¥92,799

## Note 16

### Impairment Losses

In principle, the Group determines its cash-generating units considering operational, production processes, regions, and other factors based on business units. The Group tests idle assets individually to recognize impairment losses.

Impairment losses and gain on reversal of impairment loss in the years ended March 31, 2019 and 2020, are included in Other operating income and Other operating expenses, respectively, in the Consolidated Statement of Income.

Impairment losses

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Property, plant and equipment		
Buildings and structures	¥ 6,958	¥ 2,500
Machinery and vehicles	4,418	4,725
Tools, furniture and fixtures	415	760
Land	2,283	4
Construction in progress	2,655	124
Total of property, plant and equipment	¥16,729	¥8,113
Goodwill	—	16,274
Intangible assets (Note)	611	24,260
Total impairment losses	¥17,340	¥48,647

Note: The impairment loss on intangible assets with indefinite useful lives was ¥24,069 million.

Gain on reversal of impairment loss

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Property, plant and equipment		
Land	¥ —	¥1,720
Total gain on reversal of impairment loss	¥ —	¥1,720

The main assets for which impairment losses were recognized are as follows:

Year ended March 31, 2019

Use	Location	Category	Reporting segment	Impairment loss
Pharmaceuticals research facilities	Mitsubishi Tanabe Pharma Corporation's Toda Office (Toda, Saitama Prefecture)	Buildings and land, etc.	Health Care	¥5,271 million

#### Composition of Impairment Losses

##### Pharmaceuticals research facilities

¥5,271 million (including ¥3,537 million in buildings and structures, ¥1,720 million in land, and ¥14 million in others)

Consolidated subsidiary Mitsubishi Tanabe Pharma Corporation decided to close its Toda Office in line with a research bases reorganization. Because of the likelihood of the property, plant and equipment of the office becoming idle owing to the closure, its book value has been reduced to the recoverable amount. The recoverable amount is measured at ¥4,062 million, representing the fair value, less disposal costs based on the appraised property value. The fair value hierarchy is Level 3.

For such assets, a real estate sales contract was concluded in the year ended March 31, 2020, and its recoverable amount is expected to increase. A reversal of impairment loss of ¥1,720 million (¥1,720 million on land) is thus recorded in Other operating income in the Consolidated Statement of Income.

Year ended March 31, 2020

##### Goodwill

Millions of yen		
Main details	Reporting segment	Impairment loss
Goodwill on pharmaceutical formulation materials	Health Care	¥16,274

Management expects profitability in the pharmaceutical formulation materials business of the Health Care segment to decrease owing to a deteriorating business climate and reviews of plans based on prevailing circumstances. The Company thus lowered the carrying amount of goodwill related to the pharmaceutical formulation materials business to the recoverable amount of ¥16,288 million.

The recoverable amount is measured using value in use. The cash flow forecast underpinning value in use is based on experience and external information sources, and is based on a management-approved five-year business plan that reflects management's assessment of future business trends.

The significant assumptions used to calculate the value in use are the growth and discount rates. Taking into account uncertainties subsequent to the five-year plan, management assumes that the growth rate will be zero, with cash flows remaining the same as in the fifth year. The Company used a pretax weighted average cost of capital of 7.2% in the year ended March 31, 2020 (6.5% in the previous year) for cash-generating units.

Under the assumptions above, if the discount rate used to calculate the value in use increases 0.5%, the impairment loss would rise ¥3,371 million.

##### Intangible Assets

Millions of yen				
Use	Location	Category	Reporting segment	Impairment loss
Development of virus-like particle vaccines for seasonal flu	Medicago Inc. (headquartered in Quebec, Canada)	Intangible assets related to technology (in-process R&D expenses)	Health Care	¥24,069

The Company reduced the overall carrying amount of intangible assets related to technology (in-process R&D expenses) owing to Medicago's decision to stop U.S. development of a virus-like particle vaccine (MT-2271) for seasonal flu.

The recoverable amount is based on value in use, which is zero.

#### Note 17

##### Individually Insignificant Investments Accounted for Using Equity Method

The carrying amounts of individually insignificant investments in joint ventures accounted for using the equity method are as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Carrying amounts of investments in joint ventures	¥92,615	¥84,956

Equity in earnings of joint ventures accounted for using the equity method for total comprehensive income is as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Share of profit from continuing operations using equity method	¥14,186	¥5,099
Share of profit from discontinued operations using equity method	33	5
Share of other comprehensive income using equity method	(1,180)	(3,146)
Share of total shareholders' equity in total comprehensive income	¥13,039	¥1,958

Carrying amounts of individually insignificant investments in associates accounted for using the equity method are as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Carrying amounts of investments in associates	¥90,452	¥85,002

Equity in earnings of associates accounted for using the equity method for total comprehensive income is as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Share of profit from continuing operations using equity method	¥12,631	¥8,297
Share of other comprehensive income using equity method	(1,009)	(2,811)
Share of total shareholders' equity in total comprehensive income	¥11,622	¥5,486

**Note 18**

**Other Financial Assets**

The breakdown of other financial assets is as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Stocks and investments	¥192,413	¥192,481
Bonds	30,000	50,000
Accounts receivable	41,507	32,553
Time deposits	36,560	10,738
Certificate of deposits	129,500	5,000
Other	48,403	55,380
Allowance for doubtful accounts	(1,550)	(2,036)
Total	¥476,833	¥344,116
Current assets	¥248,262	¥117,628
Non-current assets	228,571	226,488
Total	¥476,833	¥344,116

Stocks and investments are classified mainly as equity financial assets measured at fair value through other comprehensive income. Bonds, accounts receivable, time deposits and certificate of deposits are classified as financial assets measured mainly at amortized cost.

The major issues and fair values of equity financial assets measured at fair value through other comprehensive income are as follows:

As of March 31, 2019

Company name	Millions of yen
SUZUKEN CO., LTD.	¥9,924
TOHO HOLDINGS CO., LTD.	9,873
Alfresa Holdings Corporation	7,011
MEDIPAL HOLDINGS CORPORATION	5,591
JFE Holdings Corporation	4,833
Tosoh Corporation	3,834
Mitsubishi UFJ Financial Group, Inc.	3,481
Daicel Corporation	3,085
KOATSU GAS KOGYO CO., LTD.	2,862
Mitsubishi Research Institute, Inc.	2,790

As of March 31, 2020

Company name	Millions of yen
TOHO HOLDINGS CO., LTD.	¥8,101
Alfresa Holdings Corporation	4,482
MEDIPAL HOLDINGS CORPORATION	4,289
SUZUKEN CO., LTD.	3,774
IBIDEN CO., LTD.	3,145
Mitsubishi Research Institute, Inc.	2,744
Tosoh Corporation	2,742
KOATSU GAS KOGYO CO., LTD.	2,427
Shin-Etsu Chemical Co., Ltd.	2,167
Mitsubishi UFJ Financial Group, Inc.	2,142

As well as the assets above, the Group holds financial assets measured at fair value through other comprehensive income for which quoted prices in active markets are unavailable, mainly comprising stocks related to the Chemicals, Health Care and Industrial Gases product segments.

Investments in Chemicals -related stocks were ¥64,579 million as of March 31, 2019, and ¥62,128 million as of March 31, 2020. Investments in Health Care-related stocks were ¥6,659 million as of March 31, 2019, and ¥43,929 million as of March 31, 2020. Investments in Industrial Gases-related stocks amounted to ¥9,295 million as of March 31, 2019, and ¥7,864 million as of March 31, 2020.

As stocks are held mainly to maintain and strengthen business and collaborative ties and financial transactions, they are designated as equity financial assets measured at fair value through other comprehensive income.

The Company endeavors to enhance the efficiency and effective use of its assets by selling (derecognizing) equity financial assets measured at fair value through other comprehensive income. Fair values upon sales and cumulative gains or losses (before tax) on sales are as follows. Cumulative gains or losses (after tax) recognized in other components of equity are transferred to retained earnings at the time of sale.

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Fair value	¥15,148	¥13,117
Cumulative gains or losses	7,989	2,668

Dividend income from equity financial assets measured at fair value through other comprehensive income is as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Derecognized financial assets	¥ 287	¥ 134
Financial assets held at year-end	4,910	4,053

**Note 19**

**Other Assets**

The breakdown of other assets is as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2019
Net defined benefit assets	¥25,390	¥35,329
Prepaid expenses	28,318	34,916
Accrued income tax	31,510	23,840
Advance payment	7,258	7,522
Other	17,169	31,346
Total	¥109,645	¥132,953
Current assets	76,072	90,140
Non-current assets	33,573	42,813
Total	¥109,645	¥132,953

**Note 20**

**Inventory**

The breakdown of inventory is as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Finished goods	¥365,278	¥356,999
Raw materials and supplies	177,863	175,083
Work in process	79,908	74,423
Total	¥623,049	¥606,505

Inventories measured at net realizable value as of March 31, 2019 and 2020 were ¥96,463 million and ¥80,516 million, respectively.

In the years ended March 31, 2019 and 2020, write-downs of inventories recognized as expenses were ¥7,483 million and ¥7,523 million, respectively.

#### Note 21

**Trade Receivables** The breakdown of trade receivables is as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Accounts receivable	¥863,364	¥706,659
Allowance for doubtful accounts	(8,257)	(8,143)
Total	¥855,107	¥698,516

Trade receivables are classified as financial assets measured at amortized cost.

#### Note 22

**Cash and Cash Equivalents** The breakdown of cash and cash equivalents is as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Cash and deposits	¥219,968	¥207,640
Short-term investments	101,573	20,571
Total	¥321,541	¥228,211

#### Note 23

**Assets Held for Sale** The breakdowns of assets held for sale and directly related liabilities are as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Assets held for sale:		
Cash and cash equivalents	¥ 2,152	¥ 49
Trade receivables	5,165	660
Inventories	7,359	1,029
Property, plant and equipment	1,782	6,047
Other financial assets	532	83
Others	820	413
Total	¥17,810	¥8,281
Liabilities related directly to assets held for sale:		
Trade payables	¥ 2,090	¥ 102
Other financial liabilities	3,563	152
Provision	5,169	—
Others	901	1,507
Total	¥ 11,723	¥ 1,761

Year ended March 31, 2019

Assets held for sale and directly related liabilities as of March 31, 2019, were primarily the recording media and other global businesses of the Verbatim Group, as subsidiary of Mitsubishi Chemical Media Co., Ltd. (MCM), a consolidated subsidiary of the Group in the performance products segment, and covered sales of assets related to those businesses of MCM.

Assets held for sale and liabilities related directly to them are classified as held for sale based on a resolution of the Corporate Executive Officers Committee on March 28, 2019, to strengthen portfolio management. The fair value is based on the price negotiated with the buyer. The hierarchy is Level 3.

Of the difference between the fair value (expected selling price) after deducting selling costs and the book value, the estimated loss exceeding the book value of non-current assets is posted as a provision for loss on business liquidation.

On June 14, 2019, MCM entered into a transfer agreement relating to the above business with CMC Magnetics Corporation of Taiwan.

As of March 31, 2019, the amount of other components of equity relating to assets held for sale was ¥(528) million.

Year ended March 31, 2020

Assets held for sale and directly related liabilities directly as of March 31, 2020, stemmed mainly from the conclusion of a real estate sales agreement for the Toda Office of Mitsubishi Tanabe Pharma Corporation, a consolidated subsidiary of the Company in the Health Care segment.

Assets held for sales relating the Toda Office is measured at the carrying amount because the fair value after deducting the sale cost (projected sale value) exceeds the carrying amount. The assets were divested on April 24, 2020.

As of March 31, 2020, other components of equity related to assets held for sale were immaterial.

#### Note 24

##### Capital

##### 1. Common stock and Treasury Stock

Number of shares authorized and issued is as follows:

	Thousands of shares	
	Year ended March 31, 2019	Year ended March 31, 2020
Number of shares authorized	6,000,000	6,000,000
Number of shares issued:		
At the beginning of the period	1,506,288	1,506,288
Increase (decrease)	—	—
At the end of the period	1,506,288	1,506,288

The Company's shares are ordinary shares without par value. The shares issued were fully paid.

Changes in the number of shares of treasury stock during the year are as follows:

	Thousands of shares	
	Year ended March 31, 2019	Year ended March 31, 2020
At the beginning of the period	66,902	86,402
Increase (note 1)	19,584	35
Decrease (note 2)	(84)	(207)
At the end of the period	86,402	86,230

Notes:

1. An increase in the number of shares of treasury stock in the year ended March 31, 2019, was due to the acquisition of 19,549,000 shares through a resolution of the Board of Directors and the purchase of 35,000 shares of less than one unit.

An increase in the number of shares of treasury stock in the year ended March 31, 2020, was due to the purchase of 35,000 shares of less than one unit.

2. A decrease in the number of shares of treasury stock in the year ended March 31, 2019, was due to the payment of 71,000 shares through the exercise of stock options, 9,000 shares from the Board Incentive Plan trust, and the sale of 3,000 shares of less than one unit.

A decrease in the number of shares of treasury stock in the year ended March 31, 2020, was due to the payment of 103,000 shares through the exercise of stock options, 101,000 shares from the Board Incentive Plan trust, and the sale of 2,000 shares of less than one unit.

3. Company stocks held by the Board Incentive Plan trust are included.

March 31, 2019: 3,285,000 shares and March 31, 2020: 3,184,000 shares

##### 2. Additional paid-in capital and Retained Earnings

Additional paid-in capital comprises amounts arising from capital transactions that are not included in common stock. The main component is legal capital surplus and other capital surplus. Retained earnings comprise legal retained earnings and other retained earnings.

The Japanese Company Law mandates that at least half of paid-in capital be appropriated as common stock and the rest be appropriated as a legal reserve within the legal capital surplus. Under that law, the legal capital surplus can be incorporated in common stock by resolution at a shareholders' meeting.

Amounts classified as equity elements at the time of issuance of convertible bond type bonds with stock acquisition rights are included in other capital surplus as a capital element of compound financial products.

That law requires that 10% of the surplus appropriated for dividends be retained until the total amount of the legal capital surplus and legal retained earnings reaches a quarter of the amount of common stock. The accumulated legal retained earnings can be appropriated for

deficit disposition, and legal retained earnings may be available for dividends by resolution at a shareholders' meeting.

### 3. Other Components of Equity

Other components of equity are as follows:

(Financial Assets Measured at Fair Value through Other Comprehensive Income)  
Unrealized gains on financial assets are measured at fair value through other comprehensive income.

(Remeasurement of Defined Benefit Pension Plans)

This remeasurement is for differences between actuarial assumptions at the beginning of the year and actual experience and the effects of changes in actuarial assumptions. This amount is recognized in other comprehensive income when it occurs and is immediately transferred from other components of equity to retained earnings.

(Exchange Differences on Translation of Foreign Operations)

These are the adjustments result from consolidating the financial statements of foreign operations, and the cumulative amount of effective portions of hedges from gains or losses on hedge instruments designated as net investment hedges.

(Effective Portion of Net Change in Fair Value of Cash Flow Hedges)

This is the cumulative amount of effective portions of hedges from gains or losses arising from changes in the fair value of hedging instruments relating to cash flow hedges.

### 4. Capital Transactions with Non-Controlling Interests

(Making Mitsubishi Tanabe Pharma Corporation a wholly owned subsidiary)

#### (1) Tender Offer

The Company implemented a tender offer as part of a series of transactions to acquire all of the shares of consolidated subsidiary Mitsubishi Tanabe Pharma Corporation (MTPC) from November 19, 2019, to January 7, 2020. The tender offer was completed, as the total number of the tendered shares was greater than the minimum number of shares to be purchased. The Company thereby acquired 197,355 thousand shares of MTPC's common stock for ¥396,684 million (excluding transaction costs) on January 15, 2020, lifting the Company's ownership of shares with voting rights from 56.4%, to 91.6%.

#### (2) Demand for Sale of Shares

On January 17, 2020, the Company notified MTPC that it would request non-controlling MTPC shareholders to sell all of their MTPC shares of common stock. That day, MTPC's Board of Directors resolved to approve of the demand. With the demand going into effect on March 2, 2020, the Company acquired 47,308,000 of these shares for ¥95,088 million (excluding transaction costs), with MTPC becoming a wholly owned subsidiary of the company.

The non-controlling interest (NCI) transaction associated with the acquisition of additional shares was accounted for as a capital transaction. The difference between the adjustment of NCI and the fair value of consideration and transaction costs is directly recognized as equity attributable to owners of the parent. The transaction outline is as follows.

Millions of yen	
Year ended March 31, 2020	
NCI carrying amount acquired	¥348,615
Consideration paid to NCI (Notes 1, 2, 3)	(493,271)
Decrease in equity attributable to owners of the parent	¥144,656

Notes:

- As of March 31, 2020, ¥95,433 million in payments had yet to be completed, and was deducted in calculating Payments for acquisition of subsidiaries' interests from non-controlling interests in the Consolidated Statement of Cash Flows.
- Payments for MTPC stock held by the MTPC Board Incentive Plan trust were deducted from the consideration paid to NCI.
- Consideration paid to NCI included transaction costs.

## Note 25

### Dividends

Dividends paid to shareholders are as follows:

#### Year ended March 31, 2019

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)	Amount per share (Yen)	Entitlement date	Effective date
May 16, 2018	Board of Directors	Common stock	¥24,470	¥17	March 31, 2018	June 5, 2018
November 1, 2018	Board of Directors	Common stock	¥28,463	¥20	September 30, 2018	December 4, 2018

Note: Total dividends from a resolution of the Board of Directors on November 1, 2018, included ¥66 million in dividends for the Company stock held by the Board Incentive Plan trust.

#### Year ended March 31, 2020

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)	Amount per share (Yen)	Entitlement date	Effective date
May 22, 2019	Board of Directors	Common stock	¥28,463	¥20	March 31, 2019	June 4, 2019
November 1, 2019	Board of Directors	Common stock	¥28,464	¥20	September 30, 2019	December 3, 2019

Note:

Total dividends from a resolution of the Board of Directors on May 22, 2019, and November 1, 2019, included ¥66 million and ¥57 million, respectively, in dividends for the Company stock held by the Board Incentive Plan trust (excluding shares equivalent to the accumulated number of points granted).

Dividends with a record date in the year ended March 31, 2020, with an effective date in the following fiscal year are as follows:

#### Year ended March 31, 2020

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)	Paid from	Amount per share (Yen)	Entitlement date	Effective date
May 26, 2020	Board of Directors	Common stock	¥17,079	Retained earnings	¥12	March 31, 2020	June 10, 2020

Note:

Total dividends included ¥34 million in dividends of for the Company stock held by the Board Incentive Plan trust (excluding shares equivalent to the accumulated number of points granted).

**Note 26**

**Other Comprehensive Income**

Changes in each item of other comprehensive income during the year are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Financial assets measured at fair value through other comprehensive income:		
Amounts arising during period	¥ 7,629	¥(21,955)
Tax effects	(2,886)	6,043
Net amount	¥ 4,743	¥(15,912)
Remeasurements of defined benefit pension plans:		
Amounts arising during period	¥ (6,227)	¥ (1,312)
Tax effects	1,745	577
Net amount	¥ (4,482)	¥ (735)
Exchange differences on translation of foreign operations:		
Amounts arising during period	¥ (6,848)	¥(64,738)
Reclassification adjustments	1,032	1,149
Tax effects	65	72
Net amount	¥ (5,751)	¥(63,517)
Effective portion of net change in fair value of cash flow hedges:		
Amounts arising during period	¥ (3,220)	¥ 129
Reclassification adjustments	(1,322)	(69)
Tax effects	1,390	(24)
Net amount	¥ (3,152)	¥ 36
Share of other comprehensive income (loss) of investments accounted for using equity method:		
Amounts arising during period	¥ (2,193)	¥ (5,966)
Reclassification adjustments	4	9
Net amount	¥ (2,189)	¥ (5,957)
Total other comprehensive income	¥ (10,831)	¥(86,085)

**Note 27**

**Share-based Payment**

**1. Stock Option System**

(1) Details of Equity-Settled Share-Based Compensation Plan

Based on a resolution of the Remuneration Committee, the Company issues share-based compensation stock options as a form of performance-related payment to its corporate executive officers (directors excluding outside directors until the year ended March 31, 2015. The same shall apply hereinafter) and executive officers who will share with shareholders not only the benefits due to a rise in the Company's stock price but also losses due to a decline in the stock price as an incentive to boost corporate performance and enhance medium- to long-term corporate value taking into consideration the Company's financial results for each fiscal year as well as the status of achieving of business targets by the corporate executive officers or executive officers (including those who have the retired) based on their degree of contribution, etc.

All stock options that the Company issues are equity-settled share-based compensation. There are no vesting conditions. The exercise period is principally 20 years from the date of grant, and is, in principle, effective for 5 years from the day after the first year after recipients lose their status as director, executive officer, executive, or corporate auditor of the Company and/or its subsidiaries.

In line with the deployment of a share-based compensation plan using the Board Incentive Plan trust, there will be no new share-based compensation stock option grants from the fiscal year ending March 2020.

(2) Changes in the Number of Stock Options

	Number of shares	
	Year ended March 31, 2019	Year ended March 31, 2020
Outstanding at the beginning of the period	921,300	1,028,500
Granted	178,500	—
Exercised	(71,300)	(103,400)
Forfeited	—	—
Expired	—	—
Outstanding at the end of the period	1,028,500	925,100
Exercisable at the end of the period	123,350	286,050

The exercise price for all stock options is ¥1 per share.

The weighted average share prices for exercised stock options were ¥967.8 and ¥772.4 in the years ended March 31, 2019 and 2020, respectively.

The weighted average remaining contractual years of stock options outstanding at year-end were 11.4 years and 10.1 years as of March 31, 2019 and 2020, respectively.

(3) Fair Value of Stock Options

The weighted average fair value of stock options granted in year ended March 31, 2019 as of the measurement date was ¥834.

The Company employs the Black-Scholes model to calculate the fair value of stock options, using the following assumptions.

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Share price	¥954.7	—
Share price volatility (note 1)	31.808%	—
Expected period (note 2)	3.98years	—
Expected dividends (note 3)	¥32 per share	—
Risk-free interest rate (note 4)	(0.102)%	—

Notes:

- For the year ended March 31, 2019, the calculation was based on the daily stock price for the previous 3.98 years.
- Using a period up to the expected average exercise time from the grant date.
- Based on the latest dividends for each fiscal year.
- The yield on Japanese government bonds for the expected period.

(4) Share-Based Compensation Expenses

Stock option-related expenses was ¥149 million in the year ended March 31, 2019 and was posted in Selling, general and administrative expenses in the Consolidated Statement of Income.

For stock options that do not have vesting conditions, bulk expenses are applied at the time of grant.

**2. Share-Based Compensation Plans using Board Incentive Plan Trusts of the Company and Mitsubishi Chemical Corporation**

(1) Details of Share-Based Compensation Plans

In the year ended March 31, 2019, the Company and Mitsubishi Chemical Corporation began offering performance-based share compensation plans ("the Plans") to executive officers and directors (excluding non-residents of Japan, the same applying hereafter) and the president & CEO of Mitsubishi Chemical Corporation and to directors and executives concurrently serving as executive officers (excluding nonresidents of Japan; executive officers and directors collectively referred to as executive officers below).

The Plans cover five consecutive fiscal years (initially, three through the fiscal year ending March 2021) that correspond to the period covered by the Company's medium-term management plan. Based on assessments of progress toward corporate performance

targets, each executive officer is granted a number of points each year according to that person's position. The Company stocks equivalent to accumulated points calculated after the retirements of executive officers (1 point = 1 share) are provided as executive remuneration.

The Plans employ the Board Incentive Plan trust. The Company and Mitsubishi Chemical Corporation contribute funds to acquire the Company stocks through the trust, which delivers the shares to executive officers.

The Plans are accounted for as equity-settled share-based compensation.

(2) Number of Points Granted during the Period and Weighted Average Fair Value of Points

The number of points granted during the period and weighted average fair value of points are as follows. The fair value on the day points were granted uses the share price on that day since the share price on the day of grant is a close approximation of fair value.

	Year ended March 31, 2019	Year ended March 31, 2020
Number of points granted during the period	464,540	197,008
Weighted average fair value of points (yen)	991	985

(3) Share-Based Compensation Expenses

Stock option-related expenses were ¥460 million and ¥194 million in the years ended March 31, 2019 and 2020, respectively. These expenses were presented within Selling, general and administrative expenses and Cost of sales in the Consolidated Statement of Income.

**3. Share-Based Compensation Plan using the Board Incentive Plan Trust of Mitsubishi Tanabe Pharma Corporation**

(1) Details of Share-based Compensation Plan

Mitsubishi Tanabe Pharma Corporation (MTPC), a consolidated subsidiary of the Company, has introduced a performance-based share compensation plan (hereinafter, "the plan") from the fiscal year ended March 31, 2018. The plan clarifies the linkage between remuneration of MTPC's board directors and executive officers (excluding non-residents of Japan and outside board directors; hereinafter "MTPC directors and executive officers") and the MTPC group's business performance. The objectives of introducing the plan are to provide incentives to MTPC directors and executive officers to strive for sustained growth of the MTPC group and enhance medium- to long-term corporate value, as well as raise management team morale. These objectives will be achieved by sharing with shareholders not only the benefits of rises in MTPC's share price but also the risk of share price decline.

MTPC has adopted a Board Incentive Plan (BIP) trust as the structure for the plan. Under the plan, MTPC shares are acquired through the trust using money contributed by MTPC as the source of funds. In accordance with "Rules relating to grant of shares" established by MTPC, from the date of commencement of the plan, points (1 point = 1 share) are granted to MTPC directors and executive officers each year on the final day of the fiscal year during the period in which the plan applies. Vesting conditions include the requirement that the recipient is a current office holder as an MTPC director or executive officer, and points are granted according to office held and the degree of achievement of performance targets. In principle, when MTPC directors and executive officers retire from office, by carrying out the prescribed beneficiary vesting procedures, they are able to receive shares of the Company, with the number of shares corresponding to the number of points granted.

The plan is accounted for as equity-settled share-based compensation.

In line with that entity's delisting on February 27, 2020, in March 2020 the Company revised its provisions for incorporating stock compensation in performance compensation for monetary benefits.

(2) Number of Points Granted during the Period and Weighted Average Fair Value of Points

The number of points granted during the period and weighted average fair value of points are as follows. The fair value on the day points were granted uses the share price on that day since the share price on the day of grant is a close approximation of fair value.

	Year ended March 31, 2019	Year ended March 31, 2020
Number of points granted during the period	11,975	4,749
Weighted average fair value of points (yen)	2,532	2,416

(3) Share-Based Compensation Expenses

Stock option-related expenses were ¥33 million and ¥14 million in the years ended March 31, 2019 and 2020, respectively. These expenses were presented within Selling, general and administrative expenses in the Consolidated Statement of Income.

**Note 28**

**Retirement Benefits** The Company's consolidated subsidiaries maintain lump-sum retirement and retirement benefit plans. The retirement benefit plans are defined benefit (fund- and contract-type) and defined contribution plans. Some consolidated subsidiaries also maintain welfare pension plans.

**1. Defined Benefit Plans**

The defined benefit plans of the Company's consolidated subsidiaries are mainly cash balance pension plans. Benefits under these plans are based on such conditions as years of service, points gained from results and contributions during employment. Investment yields are determined after taking into consideration the yields of 10-year national government bonds.

Cash balance pension plans are managed by corporate pension funds that are legally separated from the consolidated subsidiaries of the Company pursuant to Japan's Defined Benefit Corporate Pension Plan Act. Consolidated subsidiaries, or pension fund directors, and pension investment management institutions are legally required to accord top priority to plan participants, and must manage plan assets based on prescribed policies.

Contract-type cash balance plans are run in line with Bureau of Health and Welfare-approved pension provisions. The management and operation of reserve funds is through contracts with trust banks and other entrusted management institutions on the basis of duty of care and damages stipulations for trustees.

Funded cash balance pension plans are run by corporate pension funds. If fund directors neglect to faithfully discharge their duties concerning reserve management and operations, they assume liability for fund damages.

Defined benefit plan amounts in the Consolidated Statement of Financial Position are as follows:

	As of March 31, 2019	Millions of yen As of March 31, 2020
Present value of the defined benefit obligation	¥617,139	¥577,815
Fair value of the plan assets	(521,713)	(487,533)
Net defined benefit liabilities	¥ 95,426	¥ 90,282
Retirement benefit liabilities	¥120,816	¥125,611
Retirement benefit assets	(25,390)	(35,329)
Net defined benefit liabilities	¥ 95,426	¥ 90,282

For defined benefit plans, amounts recognized as expenses in the Consolidated Statement of Income are as follows:

	Year ended March 31, 2019	Millions of yen Year ended March 31, 2020
Current service cost	¥19,091	¥18,935
Prior service cost	31	301
Interest expense	4,477	3,887
Interest income	(3,913)	(3,901)
Total	¥19,686	¥19,222



Changes in the present value of the defined benefit obligation are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Outstanding at the beginning of the period	¥613,261	¥617,139
Current service cost	19,091	18,935
Interest expense	4,477	3,887
Remeasurements:		
Actuarial gains and losses arising from changes in demographic assumptions	41	(3,806)
Actuarial gains and losses arising from changes in financial assumptions	5,466	(605)
Other	1,349	(2,128)
Benefits paid	(37,797)	(35,268)
Prior service cost	31	301
Acquisitions through business combinations	12,817	204
Exchange differences on translation of foreign operations	(1,597)	(20,844)
Outstanding at the end of the period	¥617,139	¥577,815

Changes in the fair value of plan assets are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Outstanding at the beginning of the period	¥529,998	¥521,713
Interest income	3,913	3,901
Remeasurements:		
Return on plan assets	629	(7,851)
Contributions by the employer	13,563	13,694
Benefits paid	(32,429)	(29,092)
Acquisitions through business combinations	5,275	106
Exchange differences on translation of foreign operations	764	(14,938)
Outstanding at the end of the period	¥521,713	¥487,533

The principal actuarial assumptions used to calculate present values of defined benefit obligations are as follows:

	As of March 31, 2019	As of March 31, 2020
Discount rate	0.57%	0.60%

In the event of a 0.5% increase or decrease in the discount rate, the principal actuarial assumption, the impact on the present value of defined benefit obligation as of March 31, 2019 and 2020 would be as follows. This sensitivity analysis assumes that all actuarial assumptions other than that subject to analysis are held constant.

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Increase by 0.5%	¥(33,558)	¥(29,659)
Decrease by 0.5%	21,757	23,401

Note: The discount rate is determined by referring to yields on high-quality bonds with maturities similar to periods in which benefits are anticipated. The sensitivity analysis is therefore based on a minimum reasonable discount rate of 0%.

The fair value of plan assets are as follows:

As of March 31, 2019

	Millions of yen		
	Fair value with quoted prices in active markets	Fair value without quoted prices in active markets	Total
Cash and cash equivalents	¥ 15,601	¥ —	¥ 15,601
Equity instruments			
Domestic equities	37,550	—	37,550
Foreign equities	33,413	—	33,413
Other	—	101,119	101,119
Debt instruments			
Domestic bonds	8,766	—	8,766
Foreign bonds	25,256	—	25,256
Other	—	168,237	168,237
General accounts of life insurance companies	—	103,260	103,260
Other	—	28,511	28,511
Total	¥120,586	¥401,127	¥521,713

As of March 31, 2020

	Millions of yen		
	Fair value with quoted prices in active markets	Fair value without quoted prices in active markets	Total
Cash and cash equivalents	¥ 30,560	¥ —	¥ 30,560
Equity instruments			
Domestic equities	29,785	—	29,785
Foreign equities	13,901	—	13,901
Other	—	67,564	67,564
Debt instruments			
Domestic bonds	3,426	—	3,426
Foreign bonds	44,251	—	44,251
Other	—	162,899	162,899
General accounts of life insurance companies	—	104,747	104,747
Other	—	30,400	30,400
Total	¥121,923	¥365,610	¥487,533

The Company's consolidated subsidiaries secure the total investment returns required within an acceptable range of risk to sufficiently fund payments of pension benefits and lump-sum payments, and endeavor to minimize long-term contributions and amass financing for payments of benefits.

To achieve targeted rates of return, management sets percentages of policy assets based on medium- to long-term perspectives, reviewing them regularly, and endeavors to maximize returns in keeping with risk assumptions.

Standard and special contributions to defined benefit plans cover the expenses necessary to provide benefits.

In keeping with laws and regulations, the Company regularly recalculates pension financing to balance pension funding for the future. The recalculations review basal rates (including projected mortality, withdrawal, and interest rates) related to setting contributions, and validating premiums.

Scheduled contributions to plan assets for the year ending March 31, 2021 are ¥11,915 million.

The Company's consolidated subsidiaries may pay premium benefits to employees on retirement.

Some domestic consolidated subsidiaries have established retirement benefits trusts.

The weighted average durations of defined benefit plan obligations as of March 31, 2019 and 2020 were 10.8 years and 10.5 years, respectively.

## 2. Defined Contribution and Public Plans

Amounts recognized as expenses under defined contribution and public plans are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Defined contribution plan cost	¥ 8,451	¥ 9,556
Public plan cost	24,821	24,669

### Note 29

#### Provisions

The breakdowns and schedule of provisions are as follows:

Year ended March 31, 2019

	Millions of yen				
	Asset retirement obligations	Provision for litigation	Provision for environmental measures	Other	Total
As of April 1, 2018	¥16,703	¥8,571	¥3,466	¥9,435	¥38,175
Arising during the year	1,414	992	1,054	7,065	10,525
Interest cost associated with passage of time	557	12	—	57	626
Utilized	(146)	(1,974)	(1,462)	(5,665)	(9,247)
Unused amounts reversed	(139)	—	—	(2,672)	(2,811)
Exchange differences on translation of foreign operations	427	—	3	108	538
Other	(878)	—	—	(338)	(1,216)
As of March 31, 2019	¥17,938	¥7,601	¥3,061	¥7,990	¥36,590
Current liabilities	¥29	¥ —	¥ 841	¥7,426	¥ 8,296
Non-current liabilities	17,909	7,601	2,220	564	28,294
Total	¥17,938	¥7,601	¥3,061	¥7,990	¥36,590

Year ended March 31, 2020

	Millions of yen				
	Asset retirement obligations	Provision for litigation	Provision for environmental measures	Other	Total
As of April 1, 2019	¥17,938	¥7,601	¥3,061	¥7,990	¥36,590
Arising during the year	10,687	—	2,470	2,971	16,128
Interest cost associated with passage of time	235	11	—	12	258
Utilized	(35)	(818)	(1,481)	(1,959)	(4,293)
Unused amounts reversed	(5,400)	(98)	(5)	(2,684)	(8,187)
Exchange differences on translation of foreign operations	(554)	—	(1)	(58)	(613)
Other	(160)	—	29	109	(22)
As of March 31, 2020	¥22,711	¥6,696	¥4,073	¥6,381	¥39,861
Current liabilities	¥201	¥ —	¥2,060	¥5,707	¥ 7,968
Non-current liabilities	22,510	6,696	2,013	674	31,893
Total	¥22,711	¥6,696	¥4,073	¥6,381	¥39,861

#### Asset retirement obligations

The Company covers recovery obligations for the rental real estate of the Group by recording projected payments based on historical amounts. These expenses are expected to be paid after one year or more; however, they may be affected by future business plans.

#### Reserves for Possible Losses in Connection with Litigation

Reserves for possible losses in connection with litigation are set aside for payments to settle lawsuits and in preparation for payments that may arise in the future. The main provisions for loss on litigation are as follows:

##### (1) Reserve for Health Management Allowances for HIV Compensation

To provide for future payments of health management allowances in connection with a lawsuit for damages filed by plaintiffs infected with HIV, the consolidated subsidiary, Mitsubishi Tanabe Pharma Corporation (MTPC) has set aside an estimated amount for such future payments.

Based on a letter confirming a settlement concluded in March 1996, an amount equivalent to the present value of the estimated future expenditure based on the payments to date for AIDS patients who have reached a settlement is recognized.

##### (2) Reserve for Health Management Allowances for Sub-acute Myelo-Optical

##### Neuropathy (SMON) Compensation

MTPC has made a provision in the accompanying consolidated financial statements for the estimated future medical treatment payments to be made over the remaining lives of the parties entitled to such payments under the compromise settlement.

##### (3) Reserve for HCV Litigation

To provide for losses that may arise in the future from a settlement of lawsuits filed by plaintiffs infected with HCV (hepatitis C virus), MTPC has set aside an estimated amount for payments related to such settlement based on estimates of the number of people receiving relief and the amount of relief payments required under a law which stipulates

that relief be provided to people who contacted hepatitis C from specific fibrinogen products or specific coagulation factor IX products.

Reserve for environmental measures

The Company records estimated losses to cover future losses from construction and environmental remediation activities. These expenses are expected to be paid after one year or more; however, they may be affected by future business plans.

Note 30

Bonds and Borrowings

The breakdown of bonds and borrowings is as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Short-term borrowings	¥ 771,340	¥ 422,290
Current portion of long-term borrowings	180,873	155,532
Commercial paper	68,000	70,000
Current portion of bonds	60,000	55,000
Loans due to the transfer of trade receivables	24,322	21,586
Loans due to the transfer of trade receivables of subsidiaries	4,108	2,899
Bonds	392,065	486,823
Convertible bond-type bonds with subscription rights to shares	148,403	148,779
Long-term borrowings	597,640	920,345
Total	¥2,246,751	¥2,283,254
Current liabilities	¥1,108,643	¥ 727,307
Non-current liabilities	1,138,108	1,555,947
Total	¥2,246,751	¥2,283,254

Bonds and borrowings are classified as financial liabilities measured at amortized cost.

The average interest rates for short- and long-term borrowings as of March 31, 2019 were 0.736% and 1.585%, respectively.

The average interest rates for short- and long-term borrowings as of March 31, 2020 were 0.578% and 1.162%, respectively.

Repayment terms for long-term borrowings are from 2020 to 2059.

Loans due to the transfer of trade receivables are liabilities for transfers that do not meet the criteria for derecognition as financial assets.

Borrowings by consolidated subsidiaries from trade receivable transfers are liabilities related to transfers to consolidated subsidiaries.

The breakdown of bonds is as follows:

Note	Name of bond	Term	Interest rate	Millions of yen	
				As of March 31, 2019	As of March 31, 2020
1	2nd unsecured bond	2011-2021	1.204%	¥ 10,000	¥ 10,000
1	4th unsecured bond	2012-2019	0.556%	10,000	—
1	6th unsecured bond	2012-2019	0.665%	10,000	—
1	8th unsecured bond	2013-2020	0.948%	10,000	10,000
1	9th unsecured bond	2013-2023	1.226%	10,000	10,000
1	11th unsecured bond	2013-2020	0.604%	15,000	15,000
1	12th unsecured bond	2013-2023	0.918%	15,000	15,000
1	13th unsecured bond	2014-2019	0.319%	25,000	—
1	14th unsecured bond	2014-2021	0.482%	15,000	15,000
1	15th unsecured bond	2014-2024	0.800%	15,000	15,000
1	16th unsecured bond	2015-2022	0.433%	10,000	10,000
1	17th unsecured bond	2015-2025	0.755%	10,000	10,000
1	18th unsecured bond	2015-2020	0.281%	20,000	20,000
1	19th unsecured bond	2015-2022	0.476%	10,000	10,000
1	20th unsecured bond	2015-2025	0.711%	10,000	10,000
1	21st unsecured bond	2016-2021	0.120%	10,000	10,000
1	22nd unsecured bond	2016-2026	0.320%	10,000	10,000
1	23rd unsecured bond	2016-2036	0.850%	20,000	20,000
1	24th unsecured bond	2018-2028	0.370%	15,000	15,000
1	25th unsecured bond	2018-2038	0.890%	15,000	15,000
1	26th unsecured bond	2018-2028	0.410%	12,000	12,000
1	27th unsecured bond	2018-2038	1.000%	8,000	8,000
1	28th unsecured bond	2018-2048	1.380%	5,000	5,000
1	29th unsecured bond	2019-2029	0.330%	—	10,000
1	30th unsecured bond	2019-2039	0.830%	—	12,000
1	31st unsecured bond	2019-2049	1.214%	—	8,000
1	32nd unsecured bond	2020-2027	0.230%	—	20,000
1	33rd unsecured bond	2020-2030	0.280%	—	20,000
1	34th unsecured bond	2020-2040	0.690%	—	29,825
2	38th unsecured bond	2009-2019	2.020%	10,000	—
3	6th unsecured bond	2009-2019	1.940%	5,000	—
4	12th unsecured bond	2014-2021	0.558%	10,000	10,000
4	13th unsecured bond	2016-2021	0.140%	15,000	15,000
4	14th unsecured bond	2016-2026	0.390%	15,000	15,000
4	15th unsecured bond	2019-2024	0.130%	—	19,908
4	16th unsecured bond	2019-2026	0.190%	—	9,947
4	17th unsecured bond	2019-2029	0.300%	—	19,900
5	1st series deferrable interest and callable unsecured subordinated bonds	2019-2054	1.410%	99,153	99,323
6	2nd series deferrable interest and callable unsecured subordinated bonds	2019-2059	1.870%	7,912	7,920
	Subtotal			¥452,065	¥541,823
1	Zero coupon convertible bond-type bonds with subscription rights to shares due 2022	2017-2022	0.196%	74,561	74,707
1	Zero coupon convertible bond-type bonds with subscription rights to shares due 2024	2017-2024	0.312%	73,842	74,072
	Subtotal			148,403	148,779
	Total			¥600,468	¥690,602

Notes:

- These corporate bonds are issued by the Company.
- These corporate bonds are issued by Mitsubishi Chemical Corporation, a domestic consolidated subsidiary. As of March 28, 2016, the Company began managing the bonds because the company took over them based on the absorption-type company split.
- This corporate bond is issued by Mitsubishi Plastic, Inc. (now Mitsubishi Chemical Corporation), a domestic consolidated subsidiary. As of March 28, 2016, the Company began managing the bond because the company took over it based on the absorption-type company split.
- These corporate bonds are issued by Taiyo Nippon Sanso Corporation, a domestic consolidated subsidiary.
- These corporate bonds are issued by Taiyo Nippon Sanso Corporation, a domestic consolidated subsidiary. A fixed interest rate from the day following January 29, 2019 to January 29, 2024 and a variable interest rate from the day following January 29, 2024 (with a step-up in the interest rate scheduled for January 30, 2024).
- These corporate bonds are issued by Taiyo Nippon Sanso Corporation, a domestic consolidated subsidiary. A fixed interest rate from the day following January 29, 2019 to January 29, 2029 and a variable interest rate from the day following January 29, 2029 (with a step-up in the interest rate scheduled for January 30, 2029).

Assets pledged as collateral and collateralized obligations are as follows:  
Assets pledged as collateral

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Buildings and structures	¥ 6,248	¥ 6,291
Machinery and vehicles	11,979	11,590
Land	6,667	6,417
Other	763	773
Total	¥25,657	¥25,071

Collateralized obligations

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Trade payables	¥ 389	¥ 312
Short-term borrowings	49	46
Current portion of long-term borrowings	1,486	2,304
Long-term borrowings	6,882	6,088
Other	50	20
Total	¥ 8,856	¥ 8,770

#### Note 31

#### Changes in Liabilities Relating to Financing Activities

Changes in liabilities relating to financing activities are as follows:

Year ended March 31, 2019

	Millions of yen				
	Short-term borrowings	Commercial paper	Long-term borrowings (Note)	Bonds (Note)	Lease liabilities (Note)
As of April 1, 2018	¥375,829	¥24,000	¥673,266	¥533,027	¥17,334
Cash flows	428,298	44,000	90,228	67,036	(3,893)
Increase (decrease) due to transfer to liabilities related directly associated with assets held for sale	(400)	—	—	—	1
Changes from acquisition or loss of control over subsidiaries or other businesses	841	—	5,978	—	—
Changes owing to new leases and contract changes, etc.	—	—	—	—	2,780
Impact of foreign exchange rate fluctuations, etc.	(4,798)	—	9,041	405	107
As of March 31, 2019	¥799,770	¥68,000	¥778,513	¥600,468	¥16,329

Note: Including amounts due or scheduled for redemption within one year.

Year ended March 31, 2020

	Millions of yen				
	Short-term borrowings	Commercial paper	Long-term borrowings (Note)	Bonds (Note)	Lease liabilities (Note)
As of April 1, 2019	¥799,770	¥68,000	¥778,513	¥600,468	¥ 16,329
Adjustment due to applying IFRS 16	—	—	—	—	100,614
Adjusted balance as of April 1, 2019	799,770	68,000	778,513	600,468	116,943
Cash flows	(330,088)	2,000	306,715	89,185	(30,555)
Increase (decrease) due to transfer to liabilities related directly associated with assets held for sale	(100)	—	(600)	—	—
Changes from acquisition or loss of control over subsidiaries or other businesses	331	—	732	—	(9,627)
Changes owing to new leases and contract changes, etc.	—	—	—	—	29,284
Impact of foreign exchange rate fluctuations, etc.	(23,138)	—	(9,483)	949	(1,239)
As of March 31, 2020	¥446,775	¥70,000	¥1,075,877	¥690,602	¥104,806

Note: Including amounts due or scheduled for redemption within one year.

#### Note 32

#### Other Financial Liabilities

The breakdown of other financial liabilities is as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Accounts payable-other	¥ 124,855	¥ 212,111
Accrued expenses	75,174	78,052
Lease obligations	16,329	—
Lease liabilities	—	104,806
Deposits	8,699	30,665
Other	24,075	22,439
Total	¥249,132	¥448,073
Current liabilities	¥222,377	¥359,540
Non-current liabilities	26,755	88,533
Total	¥249,132	¥448,073

Other financial liabilities are mainly classified as financial liabilities measured at amortized cost.

#### Note 33

#### Lease Transactions

#### 1. Finance Leases (Lessee)

Future minimum lease payments and the present value of future minimum lease payments are as follows:

	Millions of yen		
	As of March 31, 2019		
	Total future minimum lease payments	Future finance costs	Present value
Due within one year	¥ 3,849	¥ (184)	¥3,665
Due after one year and not later than five years	7,711	(403)	7,308
Later than five years	5,444	(88)	5,356
Total	¥17,004	¥ (675)	¥16,329

## 2. Operating Lease (Lessee)

Future minimum lease payments under non-cancellable operating lease contracts are as follows:

	Millions of yen
	As of March 31, 2019
Due within one year	¥14,638
Due after one year and not later than five years	24,504
Later than five years	9,578
Total	¥48,720

In the year ended March 31, 2019, lease fees recognized as expenses were ¥22,154 million.

## 3. Profit or Loss and Cash Outflows Related to Lease Transactions

Profit or loss and cash outflows related to lease transactions are as follows.

	Millions of yen
	Year ended March 31, 2020
Depreciation of right-of-use assets	
Underlying assets of land, buildings and structures	¥ 16,450
Underlying assets of tools, furniture and fixtures	2,676
Underlying assets of machinery and vehicles	5,574
Total	¥ 24,700
Expenses related to short-term leases	¥ 1,507
Expenses related to leases of low-value assets	10,841
Variable lease payments	353
Total cash outflows for leases	¥ 43,256

## 4. Additional Information Related to Lease Transactions

Many of the leasing activities of the Group entail real estate leasing, with land and buildings being leased mainly as office and factory land. To provide business flexibility, some leases contain extension and termination options. The Group assesses whether it is reasonably certain to exercise extension options (or not to exercise termination options) and determines the lease periods.

Under the Group's leasing activities, there are no significant restrictions or covenants imposed by leasing or sale and leaseback transactions.

## Note 34

### Other Liabilities

The breakdown of other liabilities is as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Employees' bonuses	¥ 48,537	¥ 40,495
Employees' paid leave related obligations	35,646	35,443
Advances received	14,243	16,522
Accrued consumption taxes	12,319	13,051
Social insurance premiums received	6,199	3,719
Deferred income from out-licensing agreements	3,777	3,090
Other (Note)	59,339	91,095
Total	¥180,060	¥203,415
Current liabilities	¥138,089	¥122,575
Non-current liabilities	41,971	80,840
Total	¥180,060	¥203,415

Note:

Others include amounts recorded as liability for some royalties without recognizing revenue. See Note 7 Revenues for details.

## Note 35

### Trade Payables

Trade payables are as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Accounts payable	¥492,404	¥398,061

Trade payables are classified as financial liabilities measured at amortized cost.

## Note 36

### Financial Instruments

#### 1. Capital Management

Under the APTIS 20 medium-term management plan (fiscal 2016 to 2020), which commenced from the year ended March 31, 2017, the Group aims to become a fast-growing, highly profitable corporate entity through its business domains in Performance Products, Health Care and Industrial Materials. The Company aims to balance efforts to invest in growth business, bolster shareholder returns, and reinforce its financial position and thereby enhance enterprise value. Key benchmarks are core operating income, core operating income return on sales, net income attributable to owners of the parent, return on equity, and the net debt-to-equity ratio.

	As of or year ended March 31, 2019	As of or year ended March 31, 2020
Return on Equity (ROE) (Note 1)	12.7%	4.2%
Net D/E ratio (Note 2)	1.26	1.79

Notes:

- Net income attributable to owners of the parent / equity attributable to owners of the parent (averages of beginning and end of fiscal years)
- Net interest-bearing debt<sup>\*1</sup> / equity attributable to owners of the parent (end of fiscal years)  
<sup>\*1</sup>Net interest-bearing debt = Interest-bearing debt - (cash and cash equivalents + cash reserves<sup>\*2</sup>)  
<sup>\*2</sup> Cash reserves comprise certificates of deposits, securities, and other instruments other than cash equivalents that the Group holds to manage surplus funds.

#### 2. Financial Risk Management

The Group is exposed to financial risks in the course of doing business in an array of fields around the world. It manages risks based on certain policies to reduce or avoid such risks. The policy with derivatives transactions is to restrict their use to actual demand. The Group does not enter into derivative transactions for speculative purposes. The relevant officers are informed about contract balances, fair value, and other elements of these transactions based on internal regulations for transaction authority and limits.

#### 3. Credit Risk

The Group is exposed to customer credit risk for trade and other receivables acquired in the course of business. The securities that the Group holds are exposed to the credit risk of issuers. Derivatives transactions that the Group conducts to hedge financial risks are exposed to the credit risks of counterparty financial institutions.

In keeping with its credit management rules, the Group regularly monitors the trade receivables and long-term loans of major customers, oversees due dates and balances for each counterparty, and endeavors to swiftly identify and mitigate collections concerns arising from deteriorating financial positions. The Group only invests in bonds with high ratings, so credit risk is inconsequential. Derivatives transactions are only entered into with financial institutions with high credit ratings to minimize credit risk from nonperformance by counterparties. The Group prevents excessive concentrations of credit risk through special management procedures.

At the end of the fiscal year, the Group recognizes impairment losses based on historical rates to the Allowance for doubtful accounts, for significant uncollectible financial assets, and for insignificant financial assets. The Allowance for doubtful accounts relating to such assets is included in Trade receivables and Other financial assets in the Consolidated Statement of Financial Position.

Changes in the Allowance for doubtful accounts, measured at amounts equivalent to projected losses for the entire period, are as follows.

There were no significant differences between projected 12-month credit losses on loans and the projected credit losses for the entire period.

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Outstanding at the beginning of the period	¥6,713	¥9,807
Addition	5,465	2,637
Decrease (intended use)	(1,462)	(1,445)
Decrease (reversal)	(699)	(406)
Other	(210)	(414)
Outstanding at the end of the period	¥9,807	¥10,179

The maximum exposure to the credit risks of financial assets is the carrying amount after impairment presented in the Consolidated Statement of Financial Position.

The Group holds real estate, securities, etc. as collateral for receivables against certain customers.

Maximum exposure on credit risk of financial guarantee contracts is the amount of guarantee obligations etc. described in "Note 40 Contingent Liabilities".

#### 4. Liquidity Risk

The Group's trade payables obligations and borrowings are exposed to liquidity risk. The Group manages this risk by producing cash plan and ensuring liquidity by maintaining commitment lines with several financial institutions.

Outstanding financial liabilities (including derivative financial instruments) by fiscal year are as follows:

As of March 31, 2019

	Millions of yen								
	Carrying amount	Contractual cash flow	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years	
Non-derivative financial liabilities:									
Trade payables	¥492,404	¥492,404	¥492,404	¥ —	¥ —	¥ —	¥ —	¥ —	¥ —
Short-term borrowings	799,770	799,770	799,770	—	—	—	—	—	—
Commercial paper	68,000	68,000	68,000	—	—	—	—	—	—
Bonds	600,468	603,000	60,000	55,000	125,000	20,000	100,000	243,000	
Long-term borrowings	778,513	780,598	181,298	114,325	84,036	64,495	96,187	240,257	
Lease obligations	16,329	17,003	3,849	2,690	2,185	1,624	1,213	5,442	
Accounts payable-other	124,855	124,855	124,855	—	—	—	—	—	
Accrued expenses	75,174	75,174	75,174	—	—	—	—	—	
Others	32,635	32,635	19,866	1,563	262	2	2	10,940	
Derivative liabilities:									
Foreign exchange forward contracts									
Currency swaps	4	4	1	1	1	1	—	—	
Interest rate swaps	89	84	75	9	—	—	—	—	
Others	8	8	8	—	—	—	—	—	

As of March 31, 2020

	Millions of yen								
	Carrying amount	Contractual cash flow	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years	
Non-derivative financial liabilities:									
Trade payables	¥398,061	¥398,061	¥398,061	¥ —	¥ —	¥ —	¥ —	¥ —	¥ —
Short-term borrowings	446,775	446,775	446,775	—	—	—	—	—	—
Commercial paper	70,000	70,000	70,000	—	—	—	—	—	—
Bonds	690,602	693,000	55,000	125,000	20,000	100,000	35,000	358,000	
Long-term borrowings	1,075,877	1,080,863	155,532	114,698	106,578	137,557	114,916	451,582	
Lease obligations	104,806	116,458	30,264	22,517	13,475	10,584	8,853	30,765	
Accounts payable-other	212,111	212,111	212,111	—	—	—	—	—	
Accrued expenses	78,052	78,052	78,052	—	—	—	—	—	
Others	51,829	51,829	40,879	268	22	2	2	10,656	
Derivative liabilities:									
Foreign exchange forward contracts									
Currency swaps	1,181	1,181	1,181	—	—	—	—	—	
Interest rate swaps	69	69	18	11	11	11	11	7	

For financial guarantee agreements, maximum amounts based on performance requests are the outstanding guaranteed liabilities described in Note 40 Contingent Liabilities.

The total commitment line and borrowing balance is as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Total commitment line	¥131,589	¥135,878
Borrowing balance	7,769	—
Unused balance	¥123,820	¥135,878

We are also diversifying funding, notably by obtaining uncommitment-based overdraft facilities with several financial institutions and by securing frameworks to issue commercial paper or register corporate bond issues.

#### 5. Foreign Exchange Risk

Foreign currency denominated receivables and payables from the Group's global operations are exposed to foreign exchange fluctuation risk. The Group uses foreign exchange forward contracts and currency swaps as needed to hedge against the foreign currency risk associated with such receivables and payables.

The Group's net investments in foreign operations are exposed to foreign exchange fluctuation risk. The Group hedges such risk as needed using foreign currency-denominated loans.

#### Foreign Exchange Sensitivity Analysis

If the yen at the end of the fiscal year was 1% higher against the U.S. dollar and the euro for the foreign currency denominated financial instruments that the Group held at the year end, the impact on income before taxes in the Consolidated Statement of Income would be as follows.

This analysis is based on multiplying each currency risk exposure by 1%, based on the assumption that other variables (including other foreign exchange rates and interest rates) are held constant.

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
U.S. dollar (1% appreciation of yen)	¥(388)	¥(39)
Euro (1% appreciation of yen)	118	(6)

#### 6. Interest Rate Risk

Interest rate risk within the Group arises from interest-bearing debt net of cash equivalents. The Group raises funds needed to do business and make capital investments through borrowings and the issuance of corporate bonds. Borrowings and corporate bonds with floating rates are exposed to interest rate fluctuation risk.

The Group uses derivatives transactions (interest rate swaps) to hedge against interest rate fluctuation risk.

#### Interest Rate Sensitivity Analysis

In the event the interest rate on financial instruments that the Group holds at the end of each fiscal year increases by 100 basis points, the impact on income before taxes in the Consolidated Statement of Income would be as follows:

The analysis is for financial instruments affected by interest rate fluctuations and assumes that other factors, including the impacts of foreign exchange fluctuations, are held constant.

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Income before taxes	¥(3,300)	¥(3,426)

#### 7. Market Price Fluctuation Risk

The Group's securities holdings are exposed to market price fluctuation risk.

With respect to securities, the Group regularly reviews the fair value and financial positions of issuers (business partners), and constantly reviews holdings by taking into account its relationships with business partners.

#### 8. Fair Value of Financial Instruments

Financial instruments are classified into the following three-level fair value hierarchy:

- Level 1: Unadjusted quoted prices for identical assets or liabilities in active markets
- Level 2: Valuations measured by direct or indirect observable inputs other than Level 1
- Level 3: Valuations measured by significant unobservable inputs

Whether any financial instruments are determined to have been transferred between levels is considered at year-end. There were no significant transfers between levels in the years ended March 31, 2019 and 2020.

#### (1) Financial instruments measured at fair value on a recurring basis

Financial assets and liabilities measured at fair value on a recurring basis were as follows:

As of March 31, 2019				
	Millions of yen			
	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Stocks and investments	¥108,249	¥ —	¥84,164	¥192,413
Stocks and investments held for sale	449	—	9	458
Derivatives	—	258	—	258
Total	¥108,698	¥ 258	¥84,173	¥193,129
<b>Liabilities</b>				
Derivatives	¥ —	¥ 139	¥ —	¥ 139
Total	¥ —	¥ 139	¥ —	¥ 139

As of March 31, 2020

	Millions of yen			
	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Stocks and investments	¥ 75,050	¥ —	¥ 117,431	¥ 192,481
Stocks and investments held for sale	20	—	11	31
Derivatives	—	169	—	169
Total	¥75,070	¥ 169	¥ 117,442	¥ 192,681
<b>Liabilities</b>				
Derivatives	¥ —	¥1,275	¥ —	¥ 1,275
Total	¥ —	¥1,275	¥ —	¥ 1,275

#### Stocks and investments

The fair value of marketable shares classified as Level 1 is based on unadjusted quoted prices in active markets for identical assets or liabilities.

The fair value of Level 3 unlisted shares and investments for which quoted prices in active markets are unavailable is calculated by using reasonably available inputs through similar company comparisons or other appropriate valuation techniques. Illiquidity discounts are added as needed.

#### Derivative assets and liabilities

The fair value of Level 2 derivative assets and liabilities is based on such observable inputs as prices provided by counterparty financial institutions or exchange and interest rates and such like.

The fair value of Level 3 financial instruments is calculated by valuation specialists determining valuation methods for each relevant financial instrument in accordance with valuation policies and procedures that include valuation methods for fair value calculations approved by suitably authorized personnel

Changes in Level 3 financial instruments are as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Balance at beginning of period	¥73,244	¥84,173
Other comprehensive income (Note)	13,354	(1,712)
Purchase and share exchange acceptance	1,794	37,860
Sales or redemptions	(3,582)	(289)
Others	(637)	(2,590)
Balance at end of period	¥84,173	¥117,442

Note: Included in "Financial assets measured at fair value through other comprehensive income" in the Consolidated Statement of Comprehensive Income

(2) Financial instruments measured at amortized cost  
The carrying amounts and estimated fair values of the financial instruments measured at amortized cost are as follows:

As of March 31, 2019

	Carrying amounts	Fair value			Total
		Level 1	Level 2	Level 3	
Assets:					
Debt securities	¥ 30,000	¥ —	¥ —	¥29,982	¥ 29,982
Total	¥ 30,000	¥ —	¥ —	¥29,982	¥ 29,982
Liabilities:					
Long-term borrowings	¥ 778,513	¥ —	¥ 793,472	¥ —	¥ 793,472
Bonds	600,468	—	609,081	—	609,081
Total	¥1,378,981	¥ —	¥1,402,553	¥ —	¥1,402,553

As of March 31, 2020

	Carrying amounts	Fair value			Total
		Level 1	Level 2	Level 3	
Assets:					
Debt securities	¥ 50,000	¥ —	¥ —	¥49,960	¥ 49,960
Total	¥ 50,000	¥ —	¥ —	¥49,960	¥ 49,960
Liabilities:					
Long-term borrowings	¥1,075,877	¥ —	¥1,094,455	¥ —	¥1,094,455
Bonds	690,602	—	695,108	—	695,108
Total	¥1,766,479	¥ —	¥1,789,563	¥ —	¥1,789,563

The carrying amounts of financial assets and liabilities measured at amortized cost, other than debt securities, long-term borrowings and bonds presented in the tables above, are approximately the same as the fair values of such financial assets and liabilities.

#### Debt securities

The fair value of Level 3 subordinated and other bonds is calculated with reference to prices provided by counterparty financial institutions.

#### Long-term borrowings

The fair value of Level 2 long-term loans is based on the present value, calculated by discounting the total principal and interest by the interest rate assumed for similar new borrowings.

#### Bonds

The fair value of Level 2 corporate bonds is based on the market price.

### 9. Transfers of Financial Assets

The Group transfers some operating receivables to a business entity comprising third-party financial institutions. The entity operates as part of these institutions and purchases a large amount of assets from customers other than those of the Group, so trade receivables that the Group transferred constitute a small proportion of the entity's total assets. The relevance of the Group to the assessment of exposure to the risks of this entity is therefore low.

(1) Transfers of financial assets that are not derecognized overall

As of March 31, 2019 and 2020, Trade receivables included ¥20,097 million and ¥9,202 million, respectively, of trade receivables that were transferred without satisfying financial asset derecognition requirements. Bonds and borrowings included ¥24,322 million and ¥21,586 million in transfers. These fair values approximate their carrying values. The net positions mainly stem from differences in periods for retained portions relating to sales of trade receivables and deposits of trade receivables and repayments of borrowings. If debtors defaulted on these trade receivables, the Group would be deemed to hold most of the risks and economic value of ownership of the transferred assets, as payment obligations would revert to the Group.

(2) Transfers of financial assets that are derecognized overall

In the years ended March 31, 2019 and 2020, expenses arising from transfers of trade receivables that were derecognized in their entirety were ¥224 million and ¥224 million, respectively.

### 10. Derivative Transactions

(1) Derivative transactions to which hedge accounting is applied

The analysis of contract amounts of derivative transactions by due dates is as follows:

As of March 31, 2019

	Contract amount	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years
Cash flow hedges							
Foreign exchange risk:							
Foreign exchange forward contracts	¥5,436	¥4,766	¥ 670	¥ —	¥ —	¥ —	¥ —
Interest rate risk:							
Interest rate swaps	63,893	60,332	2,284	284	284	284	425
Others	292	292	—	—	—	—	—

As of March 31, 2020

	Contract amount	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years
Cash flow hedges							
Foreign exchange risk:							
Foreign exchange forward contracts	¥12,983	¥12,983	¥ —	¥ —	¥ —	¥ —	¥ —
Currency swaps	17,899	17,899	—	—	—	—	—
Interest rate risk:							
Interest rate swaps	3,639	2,298	298	298	298	298	149
Others	—	—	—	—	—	—	—
Hedge of net investments in foreign operations							
Foreign exchange risk:							
Foreign currency-denominated borrowings	74,718	—	—	—	—	—	74,718



The principal rates on forward exchange contracts and currency swap transactions and the principal rates on payments under interest rate swaps are as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Cash flow hedges		
Foreign exchange risk:		
Foreign exchange forward contracts		
U.S. dollars	¥107.13-111.82	¥103.93-111.68
Euros	¥124.43-131.48	¥118.23-122.43
Currency swaps		
British pounds	—	¥143.19
Interest rate risk		
Interest rate swaps		
Pay fixed rate, receive floating rate	0.23%-2.30%	0.23%-0.70%

Amounts for derivatives designated as hedges are as follows:

As of March 31, 2019

	Contract amount	Carrying amount		Items in Consolidated Statement of Financial Position	Change in fair value of hedged item used as the basis for recognizing hedge ineffectiveness
		Assets	Liabilities		
Cash flow hedges					
Foreign exchange risk:					
Foreign exchange forward contracts	¥ 5,436	¥ 46	¥ 27	Other financial assets Other financial liabilities	¥ (28)
Interest rate risk:					
Interest rate swaps	63,893	158	89	Other financial assets Other financial liabilities	53
Interest rate currency swaps	—	—	—	—	(1,180)
Others	292	—	8	Other financial liabilities	(23)

As of March 31, 2020

	Contract amount	Carrying amount		Items in Consolidated Statement of Financial Position	Change in fair value of hedged item used as the basis for recognizing hedge ineffectiveness
		Assets	Liabilities		
Cash flow hedges					
Foreign exchange risk:					
Foreign exchange forward contracts	¥ 12,983	¥ 96	¥ 23	Other financial assets Other financial liabilities	¥ 54
Currency swaps	17,899	—	1,181	Other financial liabilities	(1,181)
Interest rate risk:					
Interest rate swaps	3,639	—	69	Other financial liabilities	(138)
Others	—	—	—	—	8
Hedge of net investments in foreign operations					
Foreign exchange risk:					
Foreign currency-denominated borrowings	74,718	—	74,718	Bonds and borrowings	937

Amounts for items designated as hedges are as follows:

	As of March 31, 2019		As of March 31, 2020		
	Change in fair value of hedged item used as the basis for recognizing hedge ineffectiveness	Cash flow hedge reserve	Change in fair value of hedged item used as the basis for recognizing hedge ineffectiveness	Cash flow hedge reserve	Foreign currency translation surplus
Cash flow hedges					
Foreign exchange risk:					
Planned to purchase	¥ 28	¥ 54	¥ (54)	¥ 69	—
Foreign currency-denominated debt and interest	—	—	1,181	37	—
Interest rate risk:					
Interest on borrowings	1,127	95	138	45	—
Others	23	38	(8)	19	—
Hedge of net investments in foreign operations					
Foreign exchange risk:					
Exchange rate fluctuations in net investments	—	—	(937)	—	474

Details of cash flow hedges and hedges of net investments in foreign operations are as follows:

Year ended March 31, 2019

	Changes in fair value of hedges recognized in other comprehensive income	Ineffective portions of hedges recognized in profit or loss	Consolidated Statement of Income items in which ineffective portions of hedges are included in profit or loss	Millions of yen	
				Reclassification adjustments from cash flow hedge reserve to profit or loss	Consolidated Statement of Income items including profit from reclassification adjustments
Cash flow hedges					
Foreign exchange risk:					
Foreign exchange forward contracts	¥(2,960)	¥—	¥—	¥(124)	Financial expenses
Others	(199)	—	—	—	—
Interest rate risk:					
Interest rate swaps	48	—	—	61	Financial expenses
Interest rate currency swaps	(24)	—	—	(832)	Financial expenses
Others	(17)	—	—	—	—

Year ended March 31, 2020

					Millions of yen
	Changes in fair value of hedges recognized in other comprehensive income	Ineffective portions of hedges recognized in profit or loss	Consolidated Statement of Income items in which ineffective portions of hedges are included in profit or loss	Reclassification adjustments from cash flow hedge reserve to profit or loss	Consolidated Statement of Income items including profit from reclassification adjustments
<b>Cash flow hedges</b>					
Foreign exchange risk:					
Foreign exchange forward contracts	¥32	¥—	¥—	¥23	Financial expenses
Currency swaps	37	—	—	—	—
Interest rate risk:					
Interest rate swaps	(39)	—	—	38	Financial expenses
Others	6	—	—	—	—
<b>Hedge of net investments in foreign operations</b>					
Foreign exchange risk:					
Foreign currency-denominated borrowings	937	—	—	—	—

(2) Derivative transactions to which hedge accounting is not applied  
Amounts relating to items not designated as hedges are as follows:

	As of March 31, 2019			As of March 31, 2020		
	Contract amount	Over one year	Fair value	Contract amount	Over one year	Fair value
Foreign exchange forward contracts	¥ 7,250	¥ —	¥ 1	¥ 5,370	¥ —	¥ 37
Currency swaps	626	458	38	339	269	34
Total	¥ 7,876	¥458	¥ 39	¥ 5,709	¥269	¥ 71

**Note 37**

**Subsidiaries**

Subsidiaries with significant non-controlling interests in years ended March 31, 2019 and 2020, were as follows:

Name of subsidiary	Location	Percentage of non-controlling interest	
		As of March 31, 2019	As of March 31, 2020
Mitsubishi Tanabe Pharma Corporation	Japan, others	43.6%	—
TAIYO NIPPON SANSCO CORPORATION	Japan, others	49.4%	49.4%

Note:

Consolidated subsidiary Mitsubishi Tanabe Pharma Corporation became a wholly owned subsidiary in the year ended March 31, 2020. See Note 24 Capital for details.

As of March 31, 2020, there were no significant non-controlling interests in the Mitsubishi Tanabe Pharma Corporation, so cumulative non-controlling interests and summarized financial information for the year are not stated.

Net income attributable to non-controlling interests of relevant subsidiaries and dividends paid to non-controlling interests are as follows:

	Year ended March 31, 2019		Year ended March 31, 2020	
	Mitsubishi Tanabe Pharma Corporation	TAIYO NIPPON SANSCO CORPORATION	Mitsubishi Tanabe Pharma Corporation	TAIYO NIPPON SANSCO CORPORATION
Net income (loss) attributable to non-controlling interests	¥10,714	¥21,528	¥(1,371)	¥26,681
Dividends paid to non-controlling interests	13,982	5,735	13,879	6,391

Cumulative non-controlling interests of relevant subsidiaries are as follows:

	As of March 31, 2019		As of March 31, 2020
	Mitsubishi Tanabe Pharma Corporation	TAIYO NIPPON SANSCO CORPORATION	TAIYO NIPPON SANSCO CORPORATION
Cumulative non-controlling interests amounts	¥369,091	¥ 219,605	¥ 222,418

Summary financial information on relevant subsidiaries is as follows. Summary financial information below is calculated based on the amounts before elimination in consolidation, adjusting goodwill and other items recognized at the time of a business combination.

Summary Consolidated Statements of Financial Position

	As of March 31, 2019		As of March 31, 2020
	Mitsubishi Tanabe Pharma Corporation	TAIYO NIPPON SANSCO CORPORATION	TAIYO NIPPON SANSCO CORPORATION
Current assets	¥ 588,433	¥ 347,143	¥ 367,302
Non-current assets	438,606	1,508,420	1,464,947
Total	¥1,027,039	¥1,855,563	¥1,832,249
Current liabilities	91,699	719,177	331,903
Non-current liabilities	55,406	626,225	996,880
Total	¥ 147,105	¥1,345,402	¥1,328,783
Equity	879,934	510,161	503,466
Total	¥1,027,039	¥1,855,563	¥1,832,249

Summary Consolidated Statements of Income and Consolidated Statements of Comprehensive Income

	Millions of yen		
	Year ended March 31, 2019		Year ended March 31, 2020
	Mitsubishi Tanabe Pharma Corporation	TAIYO NIPPON SANSO CORPORATION	TAIYO NIPPON SANSO CORPORATION
Sales revenue	¥424,767	¥740,341	¥850,239
Net income	32,216	42,017	51,396
Total comprehensive income	40,894	26,161	9,608

Summary Consolidated Statements of Cash Flows

	Millions of yen		
	Year ended March 31, 2019		Year ended March 31, 2020
	Mitsubishi Tanabe Pharma Corporation	TAIYO NIPPON SANSO CORPORATION	TAIYO NIPPON SANSO CORPORATION
Cash flows from operating activities	¥ 41,460	¥ 98,686	¥150,084
Cash flows from investing activities	(31,212)	(754,969)	(62,630)
Cash flows from financing activities	(25,869)	664,925	(46,242)
Effect of exchange rate changes on cash and cash equivalents	531	3,128	(1,096)
Net increase (decrease) in cash and cash equivalents	¥(15,090)	¥ 11,770	¥ 40,116

Note 38

Related Parties

1. Related Party Transactions

Transactions with major related parties are as follows. For sales of goods and services, the principal transactions are product sales, while the main transactions for goods purchases are purchases of raw materials. The terms for transactions with related parties are similar to those of independent third-party transactions.

	Millions of yen			
	Year ended March 31, 2019		Year ended March 31, 2020	
	Joint venture	Associates	Joint venture	Associates
Sales of goods and services	¥64,441	¥37,058	¥62,576	¥29,449
Purchases of goods and services	23,138	45,824	24,024	40,687

Receivables and obligations to major related parties as a result of the above transactions are as follows:

	Millions of yen			
	As of March 31, 2019		As of March 31, 2020	
	Joint venture	Associates	Joint venture	Associates
Receivables				
Accounts receivable	¥12,538	¥ 9,658	¥14,302	¥ 7,274
Others	509	2,145	635	1,548
Total	¥13,047	¥11,803	¥14,937	¥ 8,822
Obligations				
Accounts payable	¥3,467	¥4,516	¥3,154	¥4,418
Others	2	841	11	204
Total	¥ 3,469	¥5,357	¥ 3,165	¥4,622

Remuneration for key Group executives is as follows:

	Millions of yen	
	Year ended March 31, 2019	Year ended March 31, 2020
Remuneration and bonuses	¥1,952	¥1,788
Share-based compensation	237	116
Total	¥2,189	¥1,904

Note 39

Commitments relating to acquisitions of property, plant and equipment and intangible assets are as follows:

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Acquisitions of property, plant and equipment and intangible assets	¥152,883	¥169,921

Note 40

Contingent Liabilities

Guarantee Obligations

Guarantees and similar undertakings for borrowings from joint ventures, associates and financial institutions of general business partners are as follows.

	Millions of yen	
	As of March 31, 2019	As of March 31, 2020
Joint ventures	¥8,201	¥6,741
Associates	372	247
General business partners	361	225
Others	1,262	1,170
Total	¥10,196	¥8,383

Note 41

Subsequent Event

Acquisition of Gelest, Inc. through Mitsubishi Chemical America, Inc. (MCA)

Mitsubishi Chemical Corporation (MCC) has decided to acquire, through MCA, this American innovator, manufacturer, and supplier of silicones, organosilanes, and metal-organics.

MCA entered into a definitive agreement with Gelest Intermediate Holdings, Inc., Gelest's parent, to acquire all of the latter's issued and outstanding shares on April 30, 2020. The transaction should be completed within six months of that date.

Combining Gelest's extensive capabilities with MCC's technologies, operating resources, and customer network should greatly expand the breadth of MCC's customer solutions.

Overview of Gelest, Inc.

Head office and plant: Morrisville, Pennsylvania

Establishment: 1991

Number of employees: Approximately 240 (as of July 1, 2019)

Key businesses: Developing, manufacturing, and selling silicon chemicals, methacrylates, and metal-organic compounds



Ernst & Young ShinNihon LLC  
Hibiya Mitsui Tower, Tokyo Midtown Hibiya  
1-1-2 Yurakucho, Chiyoda-ku  
Tokyo 100-0006, Japan

Tel: +81 3 3503 1036  
Fax: +81 3 3503 1506  
ey.com

### Independent Auditor's Report

The Board of Directors  
Mitsubishi Chemical Holdings Corporation

#### Opinion

We have audited the accompanying consolidated financial statements of Mitsubishi Chemical Holdings Corporation and its subsidiaries (the Group), which comprise the consolidated statement of financial position at March 31, 2020, and the consolidated statements of income, comprehensive income, changes in equity, and cash flows for the year then ended, and notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

#### Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of the audit of the consolidated financial statements as a whole, and in forming the auditor's opinion thereon, and we do not provide a separate opinion on these matters.



Valuation of goodwill	
Description of Key Audit Matter	Auditor's Response
<p>As described in note 14 to the consolidated financial statements, goodwill is valued at ¥616,769 million (12.0% of total assets) on March 31, 2020. As described in note 16 to the consolidated financial statements, impairment loss of ¥16,274 million for goodwill in pharmaceutical formulation material business was recognized for the year ended March 31, 2020.</p> <p>In the impairment tests, the recoverable amount of cash generating units including goodwill is measured based on value in use. The value in use is measured using discounted cash flow projections. The cash flow projections are based on the medium-term management plan for a five-year period approved by management. After the five-year plan, the Company estimates growth rates considering future uncertainties.</p> <p>The significant assumptions in estimating the value in use are the cash flow projections based on the medium-term management plan for a five-year period, the growth rates for subsequent periods and the discount rates. The medium-term management plan is affected primarily by the sales volume developments and the market growth rates.</p> <p>As the impairment test of goodwill is complex and requires management to apply judgment, and the assumptions in the future cash flows, growth rates and discount rates involve uncertainties, we determined it to be a key audit matter.</p>	<p>We performed the following procedures to assess valuation of goodwill, among others:</p> <ul style="list-style-type: none"> <li>-With the involvement of the valuation specialists of our network firm, we assessed valuation methodologies used in the calculation of the value in use.</li> <li>-We assessed the future cash flows for the five-year period by evaluating consistency of the underlying business plan with the budget for the next year and the medium-term management plan approved by management. We also assessed the degree of accuracy of estimation for the business plan by comparing the budgets and medium-term management plans in the prior years with actual results. In addition, we discussed impacts of Coronavirus disease (COVID-19) pandemic with management and evaluated management's assumptions on the duration of economic fallout and the market demands thereafter.</li> <li>-We assessed the key inputs included in the estimation for the business plan such as the sales volume developments and the market growth rates by discussing with management, comparing the relevant assumptions with market forecasts and publicly available data, performing comparisons with similar companies, and analyzing trends using actual results.</li> <li>-We assessed the growth rates for the periods following the five-year medium-term management plan by evaluating management's assessment of estimation uncertainties related to long-term market growth rates.</li> <li>-We assessed the discount rates by comparing the ones used by management with the estimates made by the valuation specialists of our network firm using available external data.</li> </ul>



Valuation of intangible assets with indefinite useful lives	
Description of Key Audit Matter	Auditor's Response
<p>As described in note 14 to the consolidated financial statements, intangible assets with indefinite useful lives are valued at ¥168,180 million on March 31, 2020. Intangible assets with indefinite useful lives mostly consist of in-process research and development expenses recognized when Mitsubishi Tanabe Pharma Corporation, a consolidated subsidiary of the Company, acquired NeuroDerm Ltd. The carrying amount is ¥131,467 million. As described in note 16 to the consolidated financial statements, impairment loss of ¥24,069 million for the in-process research and development expenses from Medicago Inc. acquisition was recognized for the year ended March 31, 2020, due to a decision to halt development on the related product in the United States.</p> <p>Because the in-process research and development expenses are at the research and development stage, have yet to obtain marketing approval from regulatory authorities, and are not available for use, the period during which the future economic benefits embodied in the assets are consumed is unforeseeable and therefore, the assets are classified as intangible assets with indefinite useful lives. The Company does not amortize intangible assets with indefinite useful lives and conducts impairment tests annually and whenever there are indications of impairment.</p> <p>In the impairment tests, the recoverable amount of the in-process research and development expenses is measured based on value in use. The value in use is measured using discounted cash flow projections, and the significant assumptions thereof are the probability of obtaining marketing approval from regulatory authorities, the projected revenues after launch of products and the discount rates.</p>	<p>We performed the following procedures to assess valuation of the in-process research and development expenses, among others:</p> <ul style="list-style-type: none"> <li>- With the involvement of the valuation specialists of our network firm, we assessed valuation methodologies used in the calculation of the value in use.</li> <li>- We assessed the probability of obtaining marketing approval from regulatory authorities by considering publicly available and observable success ratios for each stage of research and development. We also discussed the current development status of the products and the probability of approval with management and the persons responsible for the products.</li> <li>- We assessed the key inputs such as projected sales prices and volumes, and market share of the products to evaluate the projected revenues after launch of the products. We compared the relevant assumptions with market forecasts from external institutions and examined changes from the projections in the previous year. We compared management's assumptions with external data where it was available. We also discussed with management and reviewed management presentation materials to the Board of Directors.</li> <li>- We assessed the discount rates with the estimates made by the valuation specialists of our network firm using available external data.</li> <li>- We evaluated management's assessment of estimation uncertainties related to the assumptions with high sensitivity resulting in the outcome of value in use calculation.</li> <li>- We discussed with management the product related to the in-process research and development expenses of Medicago Inc. on which the decision of halt was made, and its background including the probability of obtaining marketing approval from regulatory authorities and the projected revenues. We also</li> </ul>

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<p>The research and development processes involve inherent uncertainties. Further, the impairment tests of in-process research and development expenses require management to apply judgment on the assumptions in the future cash flows and discount rates; and therefore we determined it to be a key audit matter.</p>	<p>reviewed management presentation materials to the Board of Directors.</p>
---	--

Valuation of deferred tax assets	
Description of Key Audit Matter	Auditor's Response
<p>On March 31, 2020, deferred tax assets are valued at ¥74,049 million in the consolidated statement of financial position. The related disclosure of income taxes is made in note 12 to the consolidated financial statements.</p> <p>The Company recognizes deferred tax assets for future deductible temporary differences and unused tax loss carryforwards, considering the planned reversal of deferred tax liabilities, expected future taxable income and tax planning. In particular, the Company has unused tax loss carryforwards incurred in the prior years, and recognizes the deferred tax assets of ¥52,950 million for unused tax loss carryforwards considering estimates of the expected future taxable income.</p> <p>The estimates of future taxable income are based on the Company's business plan, and the significant assumptions thereof are primarily the projected revenue growth and the forecasted market prices of raw materials.</p> <p>As the valuation of deferred tax assets is based on primarily management's estimates of future taxable income, and the underlying business plan is affected by significant assumptions involving management's judgment, we determined it to be a key audit matter.</p>	<p>We performed the following procedures to assess valuation of the deferred tax assets, among others:</p> <ul style="list-style-type: none"> <li>- With the involvement of the tax specialists of our network firm, we assessed balances of temporary differences and unused tax loss carryforwards. We also assessed the scheduling of the reversals of existing temporary differences and the utilizations of unused tax loss carryforwards.</li> <li>- We assessed the future taxable income estimated by management by evaluating the underlying business plan. We also assessed consistency of the business plan with the budget for the next year approved by management, and evaluated the degree of accuracy of estimation for the business plan by comparing past business plans with historical results. In addition, we discussed impacts of Coronavirus disease (COVID-19) pandemic with management and evaluated management's assumptions on the duration of economic fallout and the market demands thereafter.</li> <li>- We assessed the significant assumptions included in the business plan such as the projected revenue growth and the forecasted market prices of raw materials by discussing with management, performing trend analysis considering actual results and performing comparisons with publicly available data.</li> <li>- We evaluated management's assessment of estimation uncertainties related to the business plan.</li> </ul>

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#### Responsibilities of Management, the Audit Committee for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern and disclosing, as required by IFRSs, matters related to going concern. The Audit Committee is responsible for overseeing the Group's financial reporting process.

#### Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- Consider internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances for our risk assessments, while the purpose of the audit of the consolidated financial statements is not expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation in accordance with IFRSs.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.



We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with the ethical requirements regarding independence that are relevant to our audit of the financial statements in Japan, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

#### Interest Required to Be Disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.



*Ernst & Young ShinNihon LLC*

Ernst & Young ShinNihon LLC  
Tokyo, Japan

June 24, 2020

中村 和臣 

Kazuomi Nakamura  
Designated Engagement Partner  
Certified Public Accountant

剣持 宜昭 

Noriaki Kenmochi  
Designated Engagement Partner  
Certified Public Accountant

植木 貫幸 

Takayuki Ueki  
Designated Engagement Partner  
Certified Public Accountant

川 瑞 孝 祐 

Kosuke Kawabata  
Designated Engagement Partner  
Certified Public Accountant

Indicators with this icon have been assured by KPMG AZSA Sustainability Co., Ltd. for fiscal 2019.

### Environmental Data

**Scope of data aggregation**

The data covers the four operating companies (Mitsubishi Chemical Corporation, Mitsubishi Tanabe Pharma Corporation, Life Science Institute, Inc., and Taiyo Nippon Sanso Corporation) and their domestic and overseas Group companies. (Group companies are directly-owned consolidated subsidiaries.) Because of the expanded boundary of the KAITEKI Vision 30 (KV30), one domestic joint operation company was added to the fiscal 2019 data.

Energy consumption/Greenhouse gasses (GHG)*1	FY2016	FY2017	FY2018	FY2019
Greenhouse gas emissions (Scope 1 + Scope 2) (1,000 metric t-CO <sub>2</sub> e)*2	14,269	14,815	14,187	16,629*4
Scope 1	7,223	7,470	6,787	8,455
Scope 2	7,046	7,345	7,400	8,174
Scope 3*5	54,370	49,640	49,260	51,820
Energy consumption (GWh)*3	38,950	40,977	39,126	49,110

\*1 Based on the GHG protocol, energy used to produce electricity and steam sold externally and the resulting CO<sub>2</sub> emissions are not excluded. The data for fiscal 2019 includes half of energy consumption and GHG emissions by the joint operation.  
 \*2 The emission factors specified in the Act on Promotion of Global Warming Countermeasures are used for the calculation of emissions in Japan. GHG emissions that are not subject to reporting under the Act are mostly calculated based on the mass balance of chemical reactions. Overseas Scope 1 emissions are calculated with the emission factors specified in the Act on Promotion of Global Warming Countermeasures, and overseas Scope 2 emissions are calculated with power company-specific emission factors or country level emission factors for electricity published by the IEA.  
 \*3 The unit higher heating values for fuels specified in the Act on the Rational Use of Energy are used.  
 \*4 In addition to adding the one domestic joint operation company to the boundary for fiscal 2019 data, GHG emissions from businesses acquired in previous years and from the expanded boundary for KV30 resulted in an increase of 2,442 thousand metric tons of CO<sub>2</sub>e year on year. However, if these effects are excluded, GHG emissions were reduced by 54 thousand metric tons of CO<sub>2</sub>e year on year.  
 \*5 See page 3 of the non-financial data sheet on the Company's website for the calculation method for Scope 3 GHG emissions.

Environmental impact	FY2016	FY2017	FY2018	FY2019
NOx emissions (1,000 metric tons)	8.96	8.12	7.54	8.28
SOx emissions (1,000 metric tons)	4.77	4.42	3.81	3.15
COD emissions (1,000 metric tons)*6	2.00	2.08	1.84	1.80
Total nitrogen emissions in water discharged (1,000 metric tons)*6	6.06	6.04	5.64	5.67
Total phosphorous emissions (1,000 metric tons)*6	0.09	0.07	0.10	0.11

\*6 COD emissions, total nitrogen emissions and total phosphorous emissions each show total quantity of emissions discharged into rivers, lakes and oceans. Emissions into sewage systems and off-site wastewater treatment plants are excluded.

Water use	FY2016	FY2017	FY2018	FY2019
Water withdrawal (Million m <sup>3</sup> ) (excluding seawater)	189	193	189	204

### Social Data

Constitution of employees (MCHC Group)	FY2016	FY2017	FY2018	FY2019
Number of consolidated employees	69,291	69,230	72,020	69,609
Number of employees by district				
In Japan	44,034	43,406	43,709	40,732
Outside Japan	25,257	25,824	28,311	28,877

**Aggregation period** Each fiscal year from April 1 to March 31, or as of March 31

**Scope of data aggregation**

The figures show those employed by Mitsubishi Chemical, Mitsubishi Tanabe Pharma, Life Science Institute, and Taiyo Nippon Sanso (including those seconded to other companies but excluding those seconded from other companies).

Diversity/Work-life balance/Occupational safety	FY2016	FY2017	FY2018	FY2019
Number of employees	21,736	21,770	22,064	23,116
Number of employees by gender				
Male	18,459	18,440	18,578	19,444
Female	3,277	3,330	3,486	3,672
Percentage of female employees (%)	15.1	15.3	15.8	15.9
Percentage of female managers (%)*7	7.7	8.0	8.6	8.9
Paid leave utilization rate (%)*8	67.6	65.4	71.1	70.8
Lost-time injury frequency rate (LTIFR)*9, *10	0.30	0.26	0.99	1.09

\*7 Percentage of female employees out of all employees at assistant manager level and above.  
 \*8 The denominator is the number of days newly granted and the numerator is the number of days acquired in the reporting fiscal year. The denominator does not include the number of days carried over from the previous fiscal year.  
 \*9 Scope of data aggregation: The data for fiscal 2016 and fiscal 2017 covers the figures from domestic operations of the four operating companies (Mitsubishi Chemical, Mitsubishi Tanabe Pharma, Life Science Institute, and Taiyo Nippon Sanso) and their Group companies with operating divisions active within Japan. The data from fiscal 2018 covers these four operating companies and their domestic and overseas Group companies with operating divisions active.  
 \*10 The LTIFR is the number of lost-time injuries and fatalities per million hours worked.

### Independent Assurance Report



### Independent Assurance Report

To the President and CEO of Mitsubishi Chemical Holdings Corporation

We were engaged by Mitsubishi Chemical Holdings Corporation (the "Company") to undertake a limited assurance engagement of the environmental and social performance indicators marked with  (the "Indicators") for the period from April 1, 2019 to March 31, 2020 included in its KAITEKI REPORT 2020 (the "Report") for the fiscal year ended March 31, 2020.

**The Company's Responsibility**

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report.

**Our Responsibility**

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements', issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Visiting the Santo Site of the Shiga Plant of Mitsubishi Chemical Corporation selected on the basis of a risk analysis.
- Evaluating the overall presentation of the Indicators.

**Conclusion**

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

**Our Independence and Quality Control**

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

*KPMG AZSA Sustainability Co., Ltd.*

KPMG AZSA Sustainability Co., Ltd.  
Tokyo, Japan  
October 14, 2020



## Corporate Data

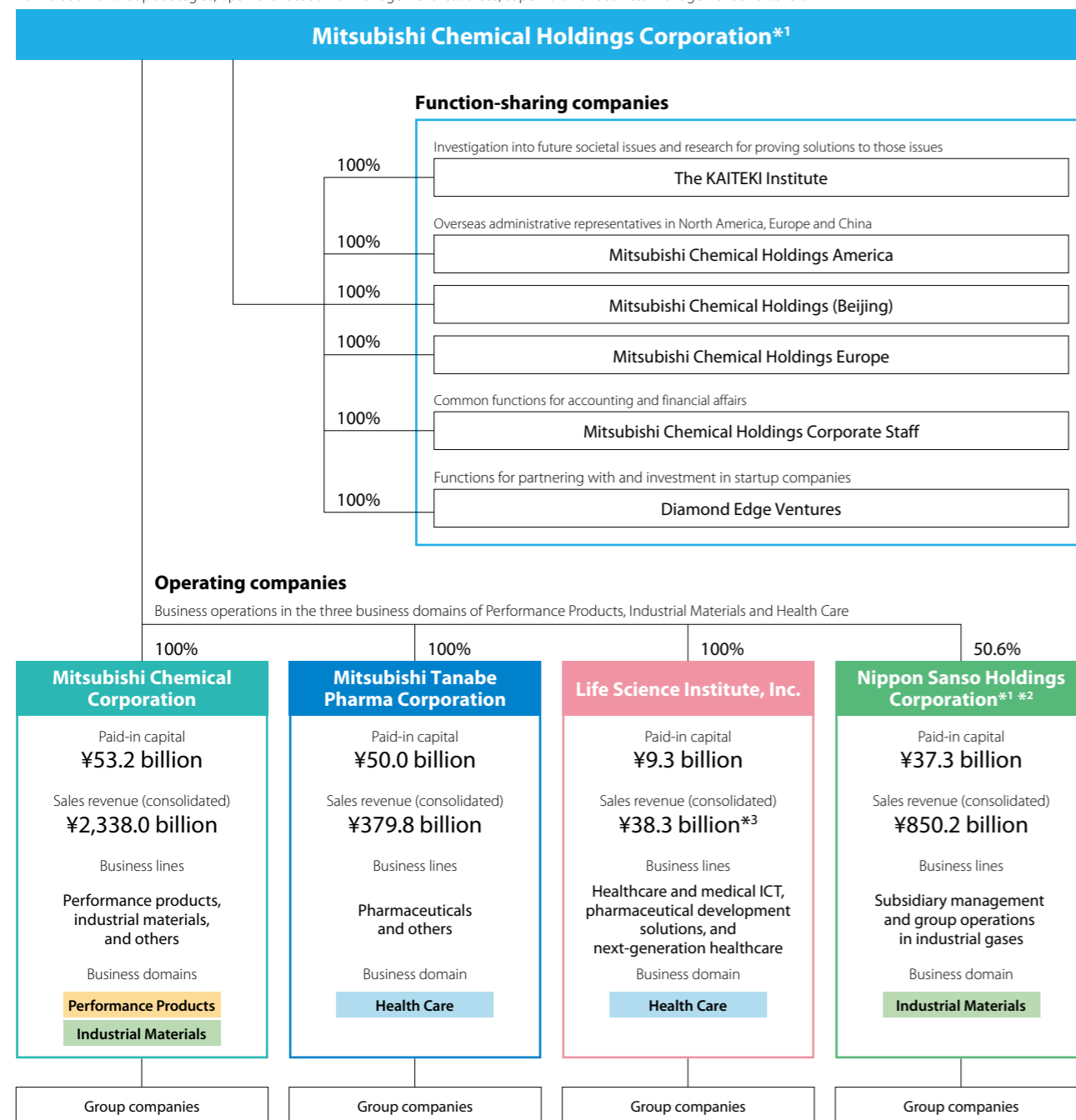
### Mitsubishi Chemical Holdings Corporation (As of October 1, 2020)

Head office	1-1 Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8251
Establishment	October 3, 2005
Paid-in capital	¥50.0 billion
Sales revenue (consolidated)	¥3,580.5 billion (FY2019, ended March 31, 2020)
Number of employees (consolidated)	69,609 (As of March 31, 2020)

### Organizational structure (As of October 1, 2020)

#### Holding company

Formulation of Group strategies, optimal allocation of management resources, supervision of business management and others



\*1 Listed company \*2 As of October 1, 2020, Taiyo Nippon Sanso's corporate name changed to Nippon Sanso Holdings. \*3 Figures do not include discontinued operations.

## Main Subsidiaries and Affiliates

(As of October 1, 2020)

#### Direct investees

Company name	Principal businesses	Paid-in capital	Equity participation (%)
Mitsubishi Chemical Corporation	Manufacturing and marketing of chemical products	¥53.2 billion	100.0
Mitsubishi Tanabe Pharma Corporation	Manufacturing and marketing of pharmaceuticals	¥50.0 billion	100.0
Life Science Institute, Inc.	Healthcare solutions business and holding shares of companies that manage the said businesses, etc.	¥9.3 billion	100.0
Nippon Sanso Holdings Corporation*	Subsidiary management and group operations in industrial gases	¥37.3 billion	50.6

\* As of October 1, 2020, Taiyo Nippon Sanso's corporate name changed to Nippon Sanso Holdings.

#### Indirect investees

Performance Products domain	Company name	Principal businesses	Paid-in capital	Equity participation (%)
	<b>Performance Products segment</b>			
	J-Film Corporation	Manufacturing and marketing of plastic films	¥1.2 billion	100.0
	Shinryo Corporation	Semiconductor-related services, and environmental and recycling-related business	¥500 million	100.0
	Mitsubishi Chemical Infracore Co., Ltd.	Manufacturing and marketing of house and building materials and infrastructure materials	¥0.4 billion	100.0
	Mitsubishi-Chemical Foods Corporation	Manufacturing and marketing of food and pharmaceutical ingredients	¥0.5 billion	100.0
	MC Ionic Solutions US, Inc.	Manufacturing and marketing of electrolytes for lithium-ion batteries	US\$100	100.0
	Mitsubishi Chemical Advanced Materials AG *1	Management of subsidiaries that engage in the engineering plastic business	CHF28 million	100.0
	Mitsubishi Chemical Performance Polymers, Inc.	Manufacturing and marketing of thermoplastic compounds and functional polyolefins	US\$100	100.0
	Mitsubishi Polyester Film, Inc.	Manufacturing and marketing of polyester film	US\$100	100.0

Industrial Materials domain	Company name	Principal businesses	Paid-in capital	Equity participation (%)
	<b>Chemicals segment</b>			
	Kansai Coke and Chemicals Co., Ltd.	Manufacturing and marketing of coke	¥6.0 billion	51.0
	Japan Polyethylene Corporation	Manufacturing and marketing of polyethylene	¥7.5 billion	58.0
	Japan Polypropylene Corporation	Manufacturing and marketing of polypropylene	¥11.8 billion	65.0
	Mitsubishi Chemical Lucite Group Limited	Management of subsidiaries that engage in the MMA business	£111 million	100.0
	<b>Industrial Gases segment</b>			
	Taiyo Nippon Sanso Corporation	Manufacturing and sale of industrial gases and related equipment	¥1.5 billion	100.0
	JFE Sanso Center Corporation	Manufacturing and sale of industrial gases	¥0.09 billion	60.0
	NIPPON EKITAN Corporation	Manufacturing and marketing of industrial gases	¥0.6 billion	84.2
	Nippon Gases Euro-Holdings S.L.U.	Management of subsidiaries that engage in the industrial gases business	€100 million	100.0
	Matheson Tri-Gas, Inc.	Manufacturing and marketing of industrial gases	US\$56	100.0

Health Care domain	Company name	Principal businesses	Paid-in capital	Equity participation (%)
	<b>Health Care segment</b>			
	API Corporation	Manufacturing and marketing of contracted manufactures of active pharmaceutical ingredients, intermediates, and investigational new drugs	¥4.0 billion	100.0
	Qualicaps Co., Ltd.*2	Manufacturing and marketing of capsules for pharmaceuticals, health and nutrition foods, and pharmaceutical processing equipment (PPE)	¥2.9 billion	100.0
	Mitsubishi Tanabe Pharma Factory Ltd.	Manufacturing and marketing of pharmaceuticals	¥1.1 billion	100.0
	Mitsubishi Tanabe Pharma Holdings America, Inc.	Planning and execution of targets and strategies relating to development of the pharmaceutical business in the US and management of US subsidiaries	US\$167	100.0

Others	Company name	Principal businesses	Paid-in capital	Equity participation (%)
	Mitsubishi Chemical Engineering Corporation	Engineering and construction services	¥1.4 billion	100.0
	Mitsubishi Chemical Logistics Corporation	Logistics and warehouse services	¥1.5 billion	100.0

\*1 Quadrant AG changed corporate name to Mitsubishi Chemical Advanced Materials.

\*2 Qualicaps' capsules and PPE businesses were transferred to the High Performance Chemicals Business Domain of Mitsubishi Chemical Corporation in July 2020.

# Main Businesses

● Mitsubishi Chemical Group 
 ● Mitsubishi Tanabe Pharma Group  
● Life Science Institute Group 
 ● Nippon Sanso Holdings Group

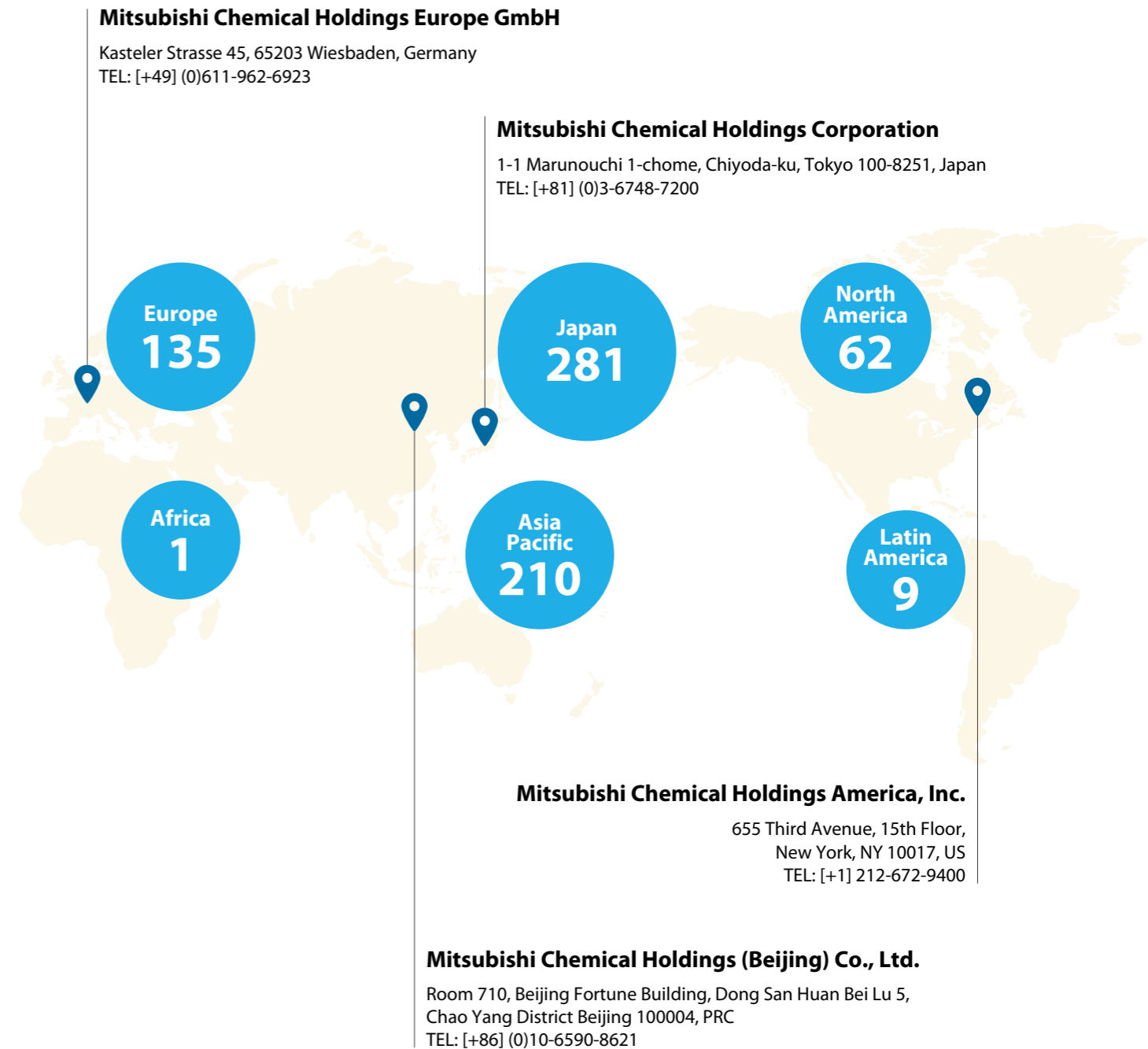
	Main businesses, products and services			Main uses	
<b>Information, Electronics and Displays</b>	 Optical clear adhesive sheet, CLEARFIT	 Optical PVOH <sup>1</sup> film, OPL film	 Color resist	<ul style="list-style-type: none"> <li>Optical films</li> <li>Display- and semiconductor-related products</li> </ul>	Electronics
<b>High Performance Films</b>	 Food packaging film, DIAMIRON	 Acrylic film, ACRYPLEN	 Moisture-proof PVC sheet for tablet and capsule packaging, VINYFOIL	<ul style="list-style-type: none"> <li>Food packaging materials</li> <li>Industrial-use films</li> <li>Medical and sanitary films</li> </ul>	Foods and household goods Industrial materials Medical care
<b>Environment and Living Solutions</b>	 Water treatment components, equipment and facilities	 Hydroponic system for leafy vegetables, Napperland	 FRP <sup>2</sup> panel water tank, HISHITANK	<ul style="list-style-type: none"> <li>Aqua solutions</li> <li>Ion-exchange resins</li> <li>Separator and aqua chemicals</li> <li>Agricultural solutions</li> <li>Infrastructure solutions</li> </ul>	Environment, infrastructure, household goods, medical care, foods Environment, energy, industrial-use chemicals, electronics, medical care, foods Environment, electronics, medical care, foods Agriculture Environment, infrastructure, industrial materials
<b>Advanced Moldings and Composites</b>	 Engineering plastics	 Carbon fiber and compounds materials	 Alumina fibers	<ul style="list-style-type: none"> <li>High-performance engineering plastics</li> <li>Carbon fiber and composite materials</li> <li>Alumina fibers</li> <li>Functional moldings and composites</li> <li>Fibers and textiles</li> </ul>	Automobiles, electronics, industrial materials, medical care Automobiles, aircraft, industrial materials, sporting goods Automobiles, industrial materials Industrial materials, automobiles, electronics Household goods, industrial materials
<b>Advanced Polymers</b>	 Thermoplastic elastomer, TEFABLOC	 Polycarbonate	 Biodegradable polymer, BioPBS	<ul style="list-style-type: none"> <li>Performance polymers</li> <li>Phenol and polycarbonate</li> <li>Polybutylene terephthalate</li> <li>Sustainable polymers</li> </ul>	Automobiles, industrial materials, electronics, household goods, foods, medical care Industrial-use chemicals, automobiles, electronics Automobiles, electronics, household goods, industrial materials
<b>High Performance Chemicals</b>	 Acrylic resins	 Epoxy resin, JER	 Sugar ester	<ul style="list-style-type: none"> <li>Coating materials</li> <li>Epoxy resins</li> <li>Resin additives</li> <li>Inorganic chemicals</li> <li>Food ingredients</li> </ul>	Industrial materials, automobiles, electronics, household goods, industrial-use chemicals, aircraft Automobiles, electronics, industrial-use chemicals Foods (beverages, confectionary, nutrition products, etc)
<b>New Energy</b>	 Lithium-ion battery materials	 Phosphors	 Scintillator	<ul style="list-style-type: none"> <li>Lithium-ion battery materials</li> <li>LED materials</li> <li>Scintillator</li> </ul>	Automobiles, electronics, energy Electronics, automobiles Medical care, security devices
<b>MMA</b>	 MMA monomers	 Acrylic molding material, ACRYPET	 Acrylic resin products	<ul style="list-style-type: none"> <li>MMA and PMMA</li> </ul>	Automobiles, electronics, industrial materials, household goods
<b>Petrochemicals</b>	 Ethylene production facility	 Petrochemical derivatives	 Automotive gasoline tank	<ul style="list-style-type: none"> <li>Basic petrochemicals and basic chemical derivatives</li> <li>Polyolefins</li> </ul>	Industrial-use chemicals Automobiles, electronics, household goods, industrial materials, medical care
<b>Carbon Products</b>	 Coke	 Carbon materials	 Carbon black	<ul style="list-style-type: none"> <li>Coke</li> <li>Carbon materials</li> <li>Carbon black</li> <li>Synthetic rubber</li> </ul>	Industrial materials Industrial materials, automobiles, household goods
<b>Industrial Gases</b>	 Separate gases (oxygen, nitrogen, argon)	 Electronics material gases	 Air separation units	<ul style="list-style-type: none"> <li>Industrial gases</li> <li>Industrial gas-related equipment and facilities</li> </ul>	Industrial materials, industrial-use chemicals, electronics, automobiles, foods, medical care
<b>Pharmaceuticals</b>	 Treatment agent for autoimmune diseases	 Therapeutic agent for ALS, RADICUT	 Vaccine	<ul style="list-style-type: none"> <li>Ethical pharmaceuticals</li> </ul>	Medical care, health
<b>Life Science</b>	 Capsules <sup>3</sup>	 Pharmaceutical processing equipment (PPE)	 Pharmaceutical intermediates	<ul style="list-style-type: none"> <li>Capsules and PPE<sup>3</sup></li> <li>Active pharmaceutical ingredients and intermediates</li> </ul>	Medical care, health

<sup>1</sup> Polyvinyl alcohol <sup>2</sup> Fiber reinforced plastic <sup>3</sup> Capsules and PPE businesses were transferred to the High Performance Chemicals Business Domain of Mitsubishi Chemical Corporation in July 2020.

# Global Network

(As of March 31, 2020)

Number of subsidiaries and affiliates (Japan) **281**  
 Number of subsidiaries and affiliates (outside Japan) **417**  
**Total: 698**



**Disclaimer:** This report contains forward-looking statements that reflect Mitsubishi Chemical Holdings Corporation's assumptions and beliefs based on currently available information. Actual results may differ materially from forecasts due to various risk factors and uncertainties. These include, but are not limited to, demand in Japan and overseas, exchange rates, price and procurement volume of crude oil and naphtha, market trends, technological innovation, National Health Insurance drug price revisions, product liabilities, lawsuits, laws and regulations, as the Mitsubishi Chemical Holdings Group is engaged in a wide range of businesses, including information, electronics and displays, advanced moldings and composites, advanced polymers, MMA, petrochemicals, carbon products, industrial gases, and pharmaceuticals.