Mitsubishi Chemical Holdings
KAITEKI Value for Tomorrow

KAITEKI REPORT 2021

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
Mitsubishi Chemical Holdings Corporation (MCHC) publishes the KAITEKI Report as a value creation story that covers the progress and outlook of corporate activities aimed at realizing the MCHC Group's KAITEKI vision. 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 material issues identified 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 the MCHC 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.

Reporting period
Fiscal 2020 (April 2020–March 2021), including some information from fiscal 2021

Reporting boundary
This report covers information relating to MCHC 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.

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

PDF **Securities Reports**
https://www.mitsubishichem-hd.co.jp/english/ir/library/stock_securities_report.html

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

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Rebalancing our portfolio for growth. Raising corporate value in a low-carbon economy.

A positive mindset is essential to transform the Company

April was my first day in office. It is an honor to be entrusted with leading the Mitsubishi Chemical Holdings Corporation (MCHC) Group. In these uncertain times, our venerable heritage is a rudder of stability. It keeps us on course as we steer our DNA of innovation to navigate the future.

I was persuaded to accept this position by three key factors in addition to the Company's respected name, worldwide presence and pioneering technology. The first and most decisive factor is challenge. I look forward to the challenge of taking the Company to the next level. Second is the infinite potential of the chemicals industry. From healthcare to automobile manufacturing, almost every other industry depends on chemical industry products. Third, my past experience in Japan has given me valuable insights into Japanese corporate culture and structure and the ways these can evolve to best benefit all stakeholders.

I am an optimist by nature and I see great things ahead for MCHC. My optimism is based first on the valuable opportunities that fit the Group's strengths. Having a positive "can do" mindset helps us survive and prosper in this era of ever-faster technological transformation. It underpins the flexibility to adapt, the agility to make quick decision and the courage to put words into action.

Jean-Marc Gilson President & CEO

PROFILE

Date of Birth: December 6, 1963

Place of Birth: Belgium

Professional Experience:

1989 Joined Dow Corning Corporation
2005 Corporate Vice President & General Manager of Specialty Chemicals Business, President Asian Area, Dow Corning Corporation
Shareholder Representative Director, Dow Corning Toray Co., Ltd.
2009 Executive Vice President & General Manager of Specialty Chemicals Business, Dow Corning Toray Co., Ltd.
2011 Chief Executive Officer, Avantor Performance Materials, Inc.
2012 Vice-Chairman & Chief Operating Officer, NuSil Technology LLC
2014 Chief Executive Officer, Roquette Frères S.A.
2021 Corporate Executive Officer, President and CEO, Mitsubishi Chemical Holdings Corporation (to present)

Message from the President

Right for the job. Ready for the challenges.

I am fortunate to have served as the CEO of companies in the United States, Europe and Japan. This experience has given me a broad perspective and I am confident I can use what I have learned to benefit our stakeholders.

At Dow Corning in the United States and Dow Corning Toray in Japan, our teams executed structural reforms to shift out of low-profitability businesses and into faster growing markets with higher margins, such as electronics and life science.

Over the following three years, I was involved with a private equity firm which taught me a lot about value creation and optimization of financial leverage.

Then, taking the helm of Roquette Frères in France, I spent more than six years implementing profit-boosting structural reforms and developing the high-growth markets of specialty proteins and pharmaceutical excipients.

Mission: Position the Company for growth

My role is to ensure a bright future for MCHC and our subsidiaries: Mitsubishi Chemical Corporation, Mitsubishi Tanabe Pharma Corporation, Life Science Institute, Inc. and Nippon Sanso Holdings Corporation. This is key to creating substantial value for our stakeholders. Our team's mission is to position the Company for growth and profits by uncovering the opportunities within the challenges ahead.

Our ultimate goal is to see MCHC on the winners' podium of the low-carbon economy. In an energy-intensive industry such as ours, carbon neutrality is a daunting challenge, but it also offers new possibilities. We will be exploring all areas of opportunity for our business, including petrochemicals and other traditional mainstays of the industry.

Over the next three decades leading to 2050, how must we change to survive and win?

It is important for everyone to feel ownership of our efforts and outcomes, to feel that their work at this company has an impact—on people, on well-being, on environmental protection and on making this planet a better place for generations to come.

With strength and focus, we can have an outsized impact on the industry. We can be a driving force for change. But if we remain dispersed then we will be on the receiving end of influence. We will, therefore, keep our hands on the steering wheel, and not be steered by others.

The MCHC Group has numerous strengths. As a long-established manufacturing company, we have a rich heritage of innovation and experience. The MCHC Group has the technological capability to safely and sustainably operate increasingly sophisticated and complex plants. This gives us the means to produce high-quality products. Customer satisfaction is also very high. In addition, the Company is well-endowed with human resources. In short, the Group has a four-fold competitive edge, comprising a solid business foundation, outstanding expertise and technological capabilities, high customer satisfaction and the firm commitment of its workforce.

To fortify the Company going forward, we will make great progress toward gender parity and overall inclusion. This is the responsibility of the CEO. MCHC currently has two women on the Board, among five outside directors. Our company began promoting women to executive positions under the successive leadership of CEOs who preceded me. Further gains in closing the gender gap are now my job—to make MCHC a better business. While preserving some positive aspects of the seniority system, we will intensify the focus on individual performance in selecting candidates for leadership positions. Indeed, our company needs to create an environment where the best are chosen to lead and age poses no hindrance to top executive office promotion.

The KAITEKI vision as guidance for action

KAITEKI has two facets.

There is the ideal: At its core, this directs us to pursue the well-being of the world's people and environment. This is a simple yet inspirational philosophy that I admire.

Then there is the necessity. This is about shifting to a low-carbon economy and becoming a cleaner company. There is no choice but to reduce our carbon footprint.

Most countries have reached a consensus of setting 2050 as the target year for carbon neutrality. However, the manufacturing processes of our energy-intensive businesses, such as the petrochemicals business, generate high levels of CO_2, this includes the electricity used in these processes, and most of this energy source comes from feedstocks derived from fossil fuel resources. Given all this, how will the chemical industry survive in a carbon-neutral world? Low-carbon processes, such as the use of renewable energy, raw fuels with low CO_2 emissions and chemical materials recycling offer a partial answer, but our vision must address this challenge.

Energy supply is a larger problem than any one company or industry. We need government involvement to quickly formulate energy policy through dialogue. This is especially critical in Japan given our strong presence here.

We need to be very clear about our strengths and which market segments offer the greatest return for leveraging those strengths. Right now, the MCHC Group spans the spectrum from petrochemicals to semiconductors to pharmaceuticals. It is important to improve profitability by readjusting our portfolio in the context of these two aspects of our vision.

Message from the President

Rebalancing our portfolio and strengthening our financial foundation

Actions and targets for change

What should a new CEO do first, knowing that the Company must adapt speedily if we are to meet a 2050 target of carbon neutrality? Transformation requires flexibility and freedom. A strong financial foundation enhances this flexibility and freedom by expanding the range of realistic possibilities for investment and structural reform. While the goal of corporate transformation is to increase our corporate value, a strong financial base is the fuel for this transformation. This will be our first priority: Restoring profitability and reducing our debt load.

Then, we will set our sights on quickly revamping our portfolio to deliver the best possible future growth and profitability. Evaluating our long-term portfolio will take months but not years. We have a lot of very smart people in the Company who know what needs to be done. I hope to be a catalyst for executing what we already know is necessary. Together, as a team, we will do our utmost to accomplish this work before the 2021 year-end.

The businesses that will make up our long-term portfolio will be selected using the following three criteria: What are our strengths? Is it part of a growing market? Can it achieve carbon neutrality? If a business does not tick all three boxes, it will face difficult challenges in the medium to long term and will probably not be part of the Group's future. We will define the strategy around this framework.

Carbon neutrality is both a major threat and a business opportunity for the chemical industry, including the MCHC Group. To take advantage of this opportunity we will have to make significant investments. As explained above, regaining financial strength is, therefore, a top priority.

Our goals are clear: We need to reinforce our financial base while reforming our portfolio.

Performance Products

We are always looking for opportunities that play to our strengths, market openings where we can innovate to drive growth. That's why I am optimistic about the Group's performance-chemical-formulated products and technologies. These are generally higher-margin products that help solve serious problems. A low-carbon society, for example, is a huge challenge. With our automotive-purpose lithium-ion battery technology, we are well positioned to turn alternative-energy challenges into major opportunities. The MCHC Group has the innovation, intellectual property, quality and market research capabilities that will be needed. We must always return to the strengths where we can really add value. This is a high-priority item on my list of tasks to strengthen the Group.

Industrial Materials

As the world shifts to a low-carbon economy, fossil fuels will remain, but their share will shrink in a mix of energy sources dominated by renewables. In our case, the manufacturing of basic petrochemicals such as ethylene and their chemical derivatives, as well as carbon products, which include coke and carbon materials, emit significant amounts of CO_2, and also use raw materials derived from fossil fuels. These businesses need to address the major challenges of reducing greenhouse gas (GHG) emissions to tackle the issue of global warming, while at the same time earning a return on their investment.

In the MMA business, we have the largest market share in the world and can expect high profitability by maintaining optimal operations in response to changes in the environment and the drive to carbon neutrality.

In the industrial gases domain, as the No. 4 gas company in the world, we are striving with Nippon Sanso Holdings to close the gap in profitability between us and our global top-three competitors while continuing to grow worldwide with an emphasis on our electronics and medical business.

Multiple revenue opportunities are available in our core chemical competency if we can significantly and profitably reduce manufacturing emissions and use atmospheric CO_2 as the carbon source in our products. Here, the MCHC Group has an edge, since we began developing processes and products to capitalize on low-carbon economy opportunities before it became a major topic. This includes promoting recycling of products and developing technologies to use CO_2 as a resource. In addition, we are strengthening our cooperation with oil refineries to promote chemical recycling of waste plastics.

Health Care

Health Care is a high-margin business with attractive growth potential. Our pharmaceuticals business in particular offers excellent opportunities for solutions that support health.

Last year, we acquired 100% ownership of Mitsubishi Tanabe Pharma. A thorough review has made clear that our focus must be on enlarging its scale, moving away from its Japan, centric business model and boosting R&D spending to build a more robust pipeline. Our Multilineage-differentiating stress enduring cells (Muse cells) development continues to make progress and we are optimistic about its long-term potential. While we hope to see sales begin in the next few years, more R&D investment will be needed to achieve significant revenue.

Stakeholder satisfaction and growing together

What makes a great company? I want to share with you my first impressions of the four key constituents of MCHC: Shareholders, customers, employees and, of course, regulators and others in the external environment. The Company will do well if all four are satisfied. MCHC is generally doing well with customers, employees and regulatory bodies/government, unfortunately, we have not been meeting the expectations of our shareholders for a company of our size and reach. To create more value and better returns for our investors, it is imperative for us to grow and to become more profitable. This all comes down to having the right business portfolio. Our valuation in capital markets will not rise until we significantly improve our growth outlook and boost our return on equity (ROE) well above the current figure of less than 5%.

In fiscal 2021, we will focus on regaining performance and reducing debt. To make us a winner in the coming low-carbon economy we must upgrade our strategy. Our focus will be to invest in carefully selected growth businesses, identify and reform weak businesses that have growth potential and recognize which businesses call for divestment because they are, given our resources, unable to adapt. The organizational structure that will execute the selected strategy also needs to be simple, transparent and cost effective. We will act decisively to make sure that the MCHC Group becomes a performance-driven organization, clearly linked to strategy in execution and leveraging opportunities for synergy. Where and how we allocate resources will be revised with a view toward improving shareholder returns.

Experience has proven that we can boost profitability and overcome obstacles through company-wide teamwork and by satisfying the four constituents of shareholders, customers, employees and the external environment, notably public opinion and regulatory authorities. With input from all stakeholders, we will rebalance our portfolio and revamp our organizational culture to become an industry-leading company. But first, our corporate culture must open up to different perspectives. Diversity and inclusion are no longer optional. In an unpredictable world, they give us a precious competitive advantage. The MCHC Group is committed to our KAITEKI vision of balancing social value and economic value in a sustainable manner, while executing reforms and boosting corporate value.

I will strive to make this year the first year of a new and successful era of growth for MCHC. I appreciate your continued support and guidance for the efforts of the MCHC Group.

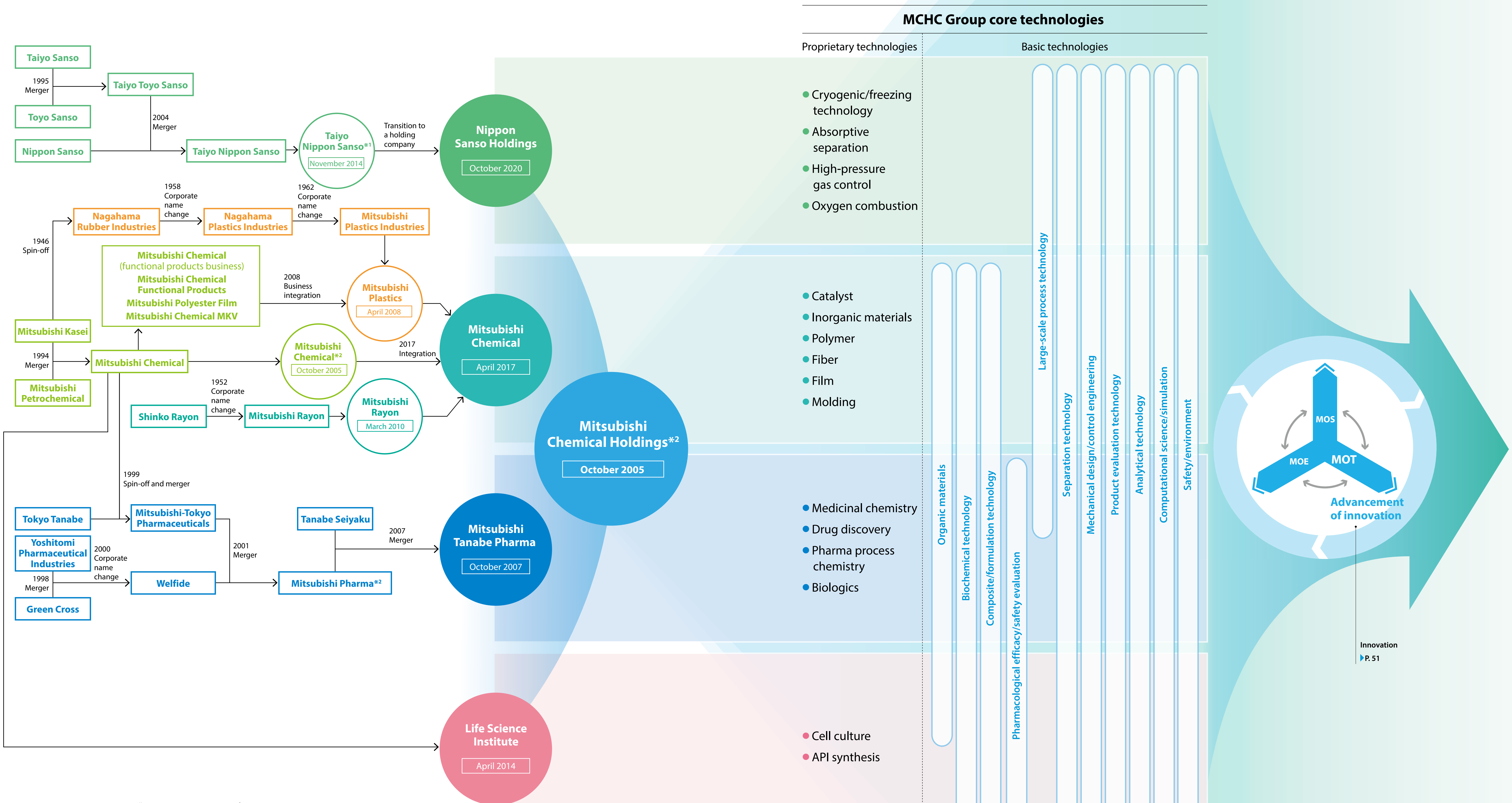
Jean-Marc Gilson
President & CEO

Leveraging Our Proprietary and Basic Technologies,
Creating New Business Opportunities

Across the MCHC Group, we have developed proprietary and basic technologies in a wide range of business domains.

These core technologies are important intellectual capital for the MCHC Group and a source of our competitive edge (see P. 15).

By maximizing the use of Group synergies and taking a multifaceted approach to advance innovation, we are working to enhance existing businesses and create new business opportunities.



*1 Taiyo Nippon Sanso Corporation will continue operations in Japan for Nippon Sanso Holdings Corporation.

*2 Mitsubishi Chemical Corporation and Mitsubishi Pharma Corporation established a joint holding company, Mitsubishi Chemical Holdings Corporation.

Progress of Portfolio Reforms ▶ P. 17

Value Creation Model ▶ P. 13

Value Creation Model—KAITEKI Management

Create New Value Starting with Social Issues

Executing KAITEKI Management

The Mitsubishi Chemical Holdings Corporation (MCHC) Group works to increase corporate value through KAITEKI Management by implementing the three axes of sustainability (MOS), innovation (MOT) and capital efficiency (MOE) in an integrated manner.

We work through our value creation cycle aimed at sustainable growth. We start with a focus on environmental and social issues as well as accelerating changes in social needs. We then identify growth business domains where the MCHC Group's business portfolio can provide solutions, in line with our mission and value.

Social trends

Environmental and social issues

The MCHC Group's material issues ▶P. 37

Management foundation and source of competitiveness

Financial capital
Robust financial position

Manufactured capital
Global network to achieve diverse solutions

Intellectual capital
Knowledge and technology driving business model reform

Human capital
Diverse human resources to support value creation

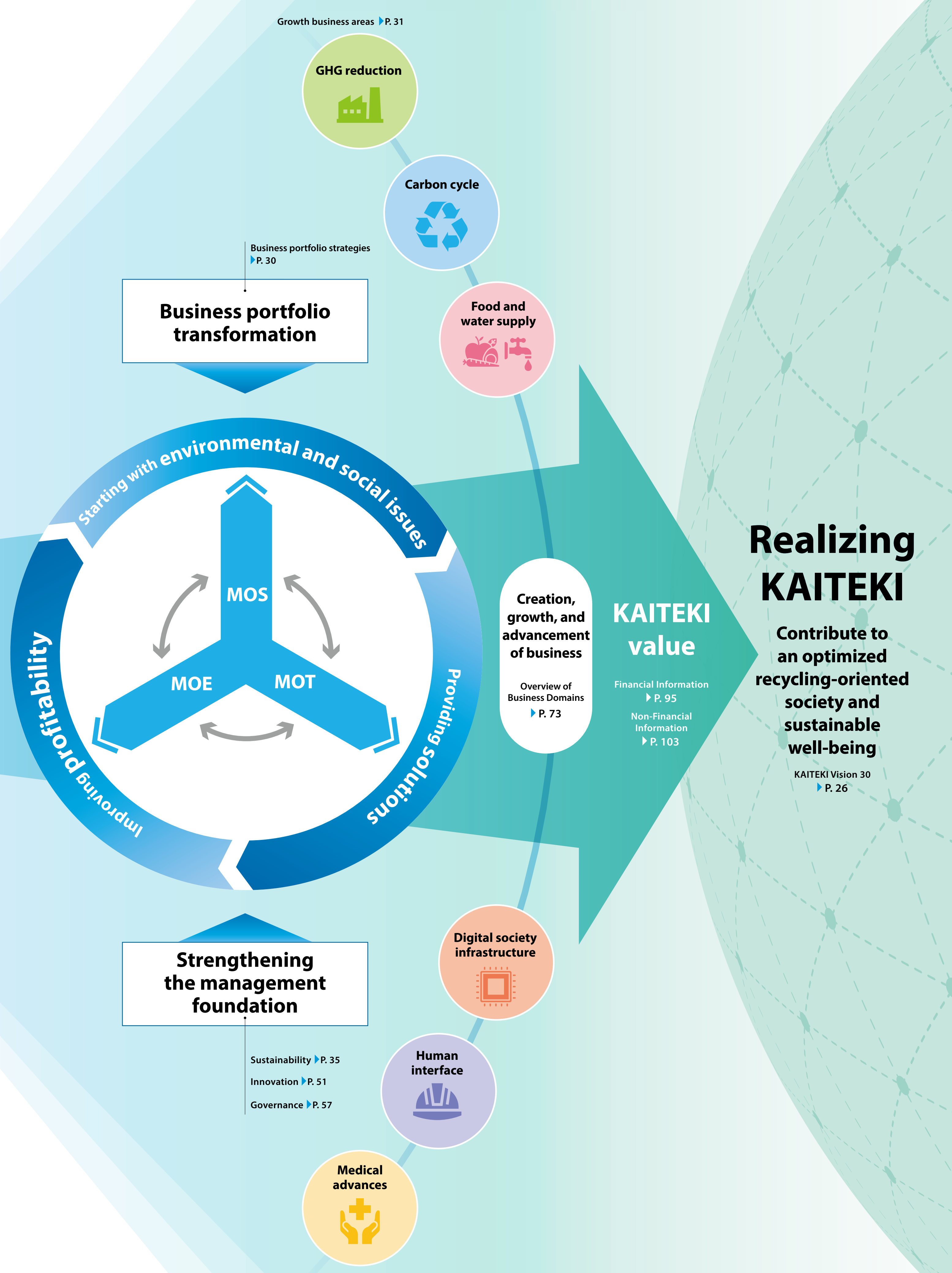
Social and relationship capital
Engagement with stakeholders

Natural capital
Sustainability management to reduce environmental impact

Core technologies ▶P. 12
Management resources to support value creation ▶P. 15

Mission
Value

▶P. 2



The three axes of KAITEKI Management

MOS	Management of Sustainability	Contributing to the resolution of various environmental and social issues and creating a better future for the sustainability of people, society and the Earth.	▶P. 39
MOT	Management of Technology	Creating innovations that contribute to the enhancement of economic and social value through the development and differentiation of technologies.	▶P. 24
MOE	Management of Economics	Utilizing a variety of capital resources efficiently, including human resources, assets and funds, to enhance economic value, including profits.	▶P. 28

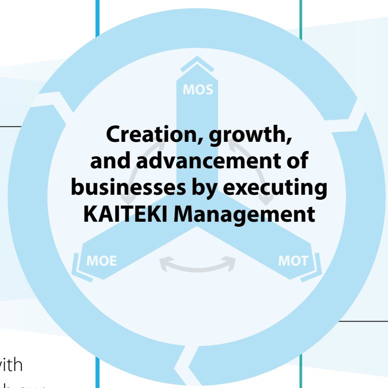
Strengthen the Driving Force behind Value Creation
Accelerating Growth to Achieve Our Vision

(As of March 31, 2021)

The MCHC Group's vision under its medium- to long-term basic management strategy, KAITEKI Vision 30, is to solve social issues for a sustainable future through leadership as a global solutions provider, and the Group is engaged in value creation through the execution of KAITEKI Management.

By using the economic and social value created through businesses that provide solutions to social issues, we further strengthen our business foundations and continue to move through the growth cycle, creating new value as we progress.

Management resources to support value creation	Approach
Financial capital Robust financial position Total assets ¥5,287.2 billion	A robust financial position provides the foundation for sustainable growth. We work to increase corporate value by balancing shareholder returns, improving our financial position and investing in growth businesses.
Manufactured capital Global network to achieve diverse solutions Capital expenditures: ¥263.7 billion Group sites (number of countries & regions): 43	Our global network allows us to rapidly provide solutions to regional needs or social issues. We are stepping up the use of digital technologies in our product development and optimizing our plants in order to strengthen our value creation platform.
Intellectual capital Knowledge and technology driving business model reform R&D expenditures: ¥126.1 billion Core technologies ▸P. 12	Our core technologies and the knowledge we have built up across a wide range of business domains are intangible assets that underpin business model reformation. We leverage our capabilities across the entire Group to respond to changing social needs in a fast and flexible way, and are creating new businesses to help optimize entire social systems.
Human capital Diverse human resources to support value creation Number of employees (consolidated): 69,607 Digital University attendees: Approx. 5,000 ▸P. 50	Human resources are the key management resource for value creation. HR programs allow us to foster creativity and productivity, boost job satisfaction and create workplaces where employees with diverse values and high-level expertise can flourish, united in our mission. We are also stepping up the development of human resources with digital skills to accelerate innovation through our digital technology platforms.
Social and relationship capital Engagement with stakeholders Dialogue with stakeholders ▸P. 94 More CVC programs ▸P. 55 Participation in initiatives ▸P. 44	We are building strong relationships of trust by engaging in active and constructive dialogue with stakeholders and by understanding and responding to expectations and demands. We are also working to build sustainable supply chains, help communities create a better society and increase brand value.
Natural capital Sustainability management to reduce environmental impact Energy consumption: 47.3 TWh Water withdrawal (excluding seawater): 216 million m^3 Non-Financial Highlights ▸P. 91	Rigorous sustainability management is essential to solve climate change and water shortages/pollution, achieve a recycling-oriented society, and preserve biodiversity. We aim to reduce our environmental impact by reducing and making more effective use of GHGs and by promoting a circular economy.



Metrics to manage progress
APTSIS 20 overview
MOS ▸P. 23
MOT ▸P. 24
MOE ▸P. 19

Value created by the MCHC Group

Improvement in economic value
Financial Highlights ▸P. 89

Sales revenue
¥3,257.5 billion

Core operating income*
¥174.7 billion

Business expansion

Ratio of overseas revenue
45%
Acceleration of overseas businesses

R&D and market indices
97% ▸P. 24
Advancement of innovation

Projects utilizing digital technologies
225 projects ▸P. 53
Promoting digital transformation

Improvement in creativity and productivity

Employees' vitality index
69 points ▸P. 48

Contributing to the reduction of environmental impact

Contribution to the reduction of GHG emissions through products
31.3 million t-CO_2e
Response to climate change

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

KAITEKI Vision 30

Vision

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

GHG reduction

Sustainable resource management

Sustainable food and water supplies

Healthy and vibrant lives

Safe and comfortable lives

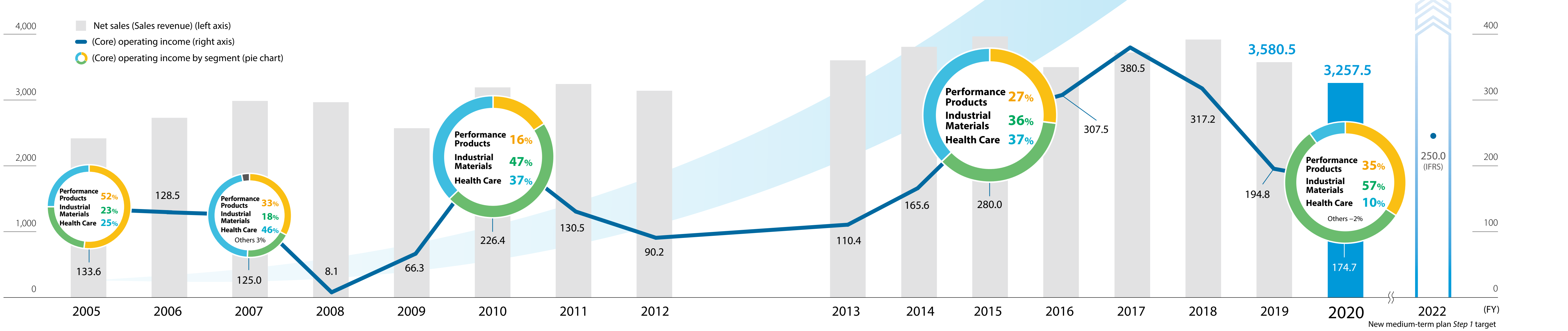
Improvement of communications and digital processing technologies

* 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.

Progress of Portfolio Reforms

We See Resolving Social Issues as Creating Business Opportunities
Steadily Advance with Portfolio Reform for a Sustainable Increase in Corporate Value

J-GAAP until FY2015
IFRS from FY2016
Figures for past fiscal periods (up to and including FY2019) are the business results figures announced at the time.



Pursuit of business scale through M&A and integrations, and restructuring of unprofitable businesses

Become a corporate group with high growth and a profitable business through Performance Products, Industrial Materials and Health Care

Realizing KAITEKI—Development as a solutions provider setting a global lead in the resolution of social issues for a sustainable future

Medium-term management plans and portfolio reforms ● Growth measures ▲ Restructuring

KAKUSHIN Plan—Phase 2 FY2005–FY2007

Operating income — Target ¥**140** billion or more — Result ¥**125.0** billion

Achievements

Raised the ratio of the pharmaceutical business and strengthened earnings less susceptible to the economy

● 2005 Establishment of MCHC

Strengthened the pharmaceutical business

● 2007 Establishment of MTPC

Challenges for the next management plan

Creation of growth drivers in the Performance Products domain and structural reform of unprofitable businesses

APTSIS 10 FY2008–FY2010

Operating income — Target ¥**190** billion — Result ¥**226.4** billion

Achievements

Expanded the Performance Products domain

● 2008 Integrated MPI, MCC's functional products business and three affiliate companies
● 2009 Conversion of Quadrant AG, the world's largest manufacturer of engineering plastic products, into a consolidated subsidiary

Shifted to a higher value-added business portfolio

● 2010 Conversion of MRC into a consolidated subsidiary
▲ 2010 Withdrawal from the nylon chain business
▲ 2011 Withdrawal from the PVC chain business
Withdrawal from the SM chain business

Challenges for the next management plan

Structural reforms and profit stabilization in the Industrial Materials domain
A shift to higher performance and added value

APTSIS 15 FY2011–FY2015

Operating income — Target ¥**280** billion — Result ¥**280.0** billion

Achievements

Stabilized profitability through structural reform in Industrial Materials domain and the conversion of an industrial gas company into a subsidiary

● 2014–2015 Production optimization of polyolefin
▲ 2014 Retained a single naphtha cracker at the Kashima Plant (now Ibaraki Plant)
● 2014 Conversion of TNSC into a consolidated subsidiary
▲ 2016 Formed a joint venture to operate the naphtha cracker at the Mizushima Plant (now Okayama Plant)
▲ 2016 Decided on the equity interest transfer of the terephthalic acid business in India and China

Shifted to high performance and added value

● 2013 Conversion of Qualicaps Co., Ltd., capsules and pharmaceutical processing equipment businesses based in Japan, the United States and Europe, into a consolidated subsidiary
● 2014 Established LSII

Strengthened corporate governance

● 2015 Transitioned to a company with a nominating committee, etc.

Challenges for the next management plan

Driving growth through synergies, development of a global management system and measures for low-profit businesses

APTSIS 20 FY2016–FY2020

Core operating income — Target ¥**410** billion — Result ¥**174.7** billion

Achievements

Accelerated growth of Performance Products domain through integrations

● 2016 Converted The Nippon Synthetic Chemical Industry Co., Ltd. into a wholly owned subsidiary
● 2017 Establishment of the New-MCC
Integration of the three chemical operating companies (MCC, MPI and MRC)

Strengthened management through continuous business restructuring and investment in growth areas

● 2018 Started commercial operations of the new MMA plants with The Saudi Methacrylates Company, in the Middle East
● 2018 and 2019 Expanded the global market share of the industrial gases through M&A activities
▲ 2019 Strategic capital alliance with PHC Holdings Corporation through share exchange with LSI Medience Corporation
▲ 2019 Withdrew from the storage media business
● 2020 Converted MTPC into a wholly owned subsidiary

Strengthened global management capabilities

● 2017 MCC established regional headquarters
● 2020 Established Nippon Sanso Holdings Corporation in the industrial gases business through a shift to a holding company structure

Accelerated digital transformation

● 2017 Establishment of the Emerging Technology and Business Development Office

Challenges for the next management plan

Strengthen the business foundation, strengthen operations in growth business domains and strengthen financial position

For detailed analysis of *APTSIS 20*, see Review of *APTSIS 20* ▶ P. 19
For details on *APTSIS 25* (*Step 1*), see New Medium-Term Management Plan ▶ P. 25

New Medium-Term Management Plan *APTSIS 25*

Step 1: FY2021–FY2022
Step 2: FY2023–FY2025

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

APTSIS 20 Overview

APTSIS 20

Medium-Term Management Plan (FY2016–FY2020)

Basic policy

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

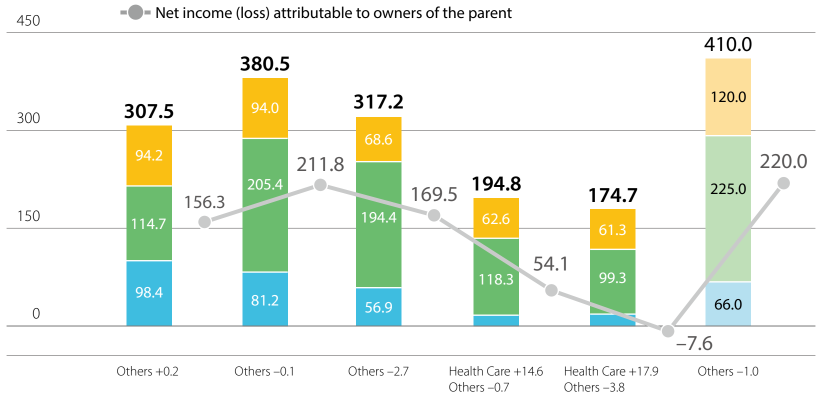
Growth | **Efficiency** | **Strengthening foundations**

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

MOE Management of Economics

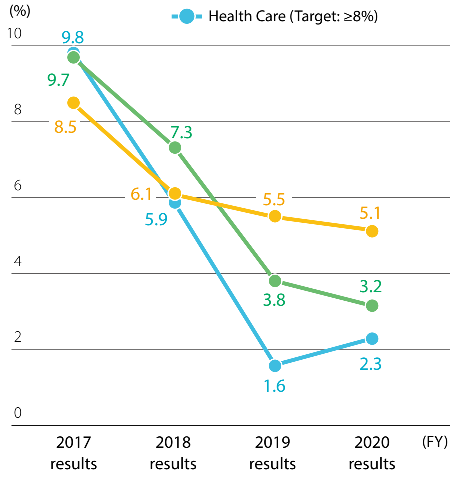
Numerical targets (KPIs based on MOE) and results

(Note) Figures for past fiscal periods (up to and including FY2019) are the business results figures announced at the time.



(FY)	2016 results	2017 results	2018 results	2019 results	2020 results	2020 targets
ROE (%)	15.1	17.8	12.7	4.2	−0.6	13.0
ROS (%)	9.1	10.2	8.1	5.4	5.4	9.0
Net D/E ratio (times)	1.06	0.89	1.26	1.79	1.73	1.00

ROIC trends by domain



Review

Restructuring exceeded the target, but other numerical targets were missed, partly due to the deteriorating economic environment and delayed execution of growth strategies.

Thanks to business portfolio reforms under the previous medium-term management plan, *APTSIS 20*, fiscal 2017 saw an increase in sales revenue in the Industrial Materials domain and expanded sales volume, mainly in the Performance Products domain, resulting in new records for both core operating income and net income attributable to owners of the parent. From fiscal 2018, sales revenue went into decline under the deteriorating economic conditions arising from the economic downturn, trade friction between the United States and China, the impact of the COVID-19 pandemic and other factors. This trend was accentuated by further impacts, notably the inability of the Health Care domain to record royalty revenue due to ongoing arbitration proceedings. Numerical targets other than for restructuring were missed for a number of reasons, including delays in the execution of growth strategies particularly in the Performance Products and Health Care domains. We will redouble our efforts to strengthen our business foundations while also working to transform business models in existing businesses and foster new businesses.

Main business measures and results

Performance Products	Industrial Materials	Health Care
Enhancing portfolio management • Accelerate portfolio transformation • Pursue growth strategies in focus markets	**Strengthening foundations** • MMA, industrial gases: Maintain and grow global share • Improve petrochemical product performance and optimize production	**Ethical pharmaceuticals** • Strengthen the product pipeline • Develop business in the United States
Synergies and collaborations following the creation of Mitsubishi Chemical • Synergies (cumulative FY2017–FY2020): Business collaboration/growth ¥24.3 billion, streamlining ¥21.7 billion (Target: Business collaboration/growth ¥35 billion, streamlining ¥15 billion)		**Life Science** • Commercialize regenerative medicine • Develop healthcare and medical ICT business
Strengthening marketing capabilities and access to the global market (establishing RHQs*, etc.)		• FY2020 ratio of overseas revenue: 45.0% (Target: 50%)
Early commercialization of the seeds of next-generation businesses (R&D, open innovation, digital transformation (DX))		
More in-depth KAITEKI Management, promote work style reforms		

+

Strengthening foundations

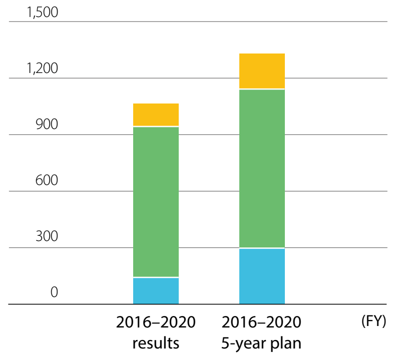
* RHQ: Regional headquarters

Resource allocation (investment and loans, capital expenditures, R&D expenditures)

Progress in overseas business development for industrial gases, investment of approx. ¥1.4 trillion over five years in the Industrial Materials domain

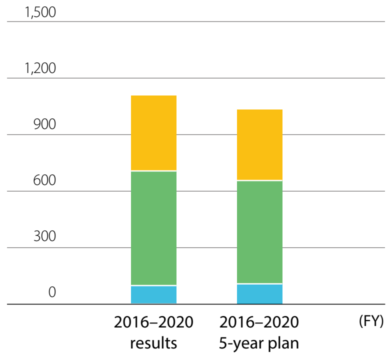
Performance Products | Industrial Materials | Health Care | Others

Investments and loans



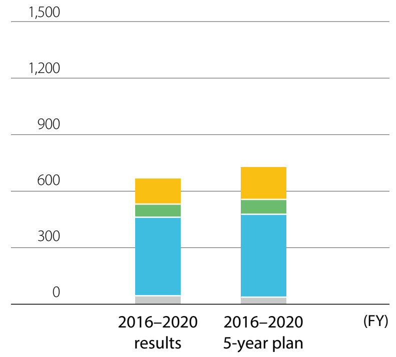
Performance Products and Health Care domains were below target, but investment and loans of approx. ¥1.1 trillion over five years executed mostly in the Industrial Materials domain, including industrial gases

Capital expenditures



Capital expenditures of approx. ¥1.1 trillion over five years implemented to actively increase capacity in the Performance Products and Industrial Materials domains

R&D expenditures

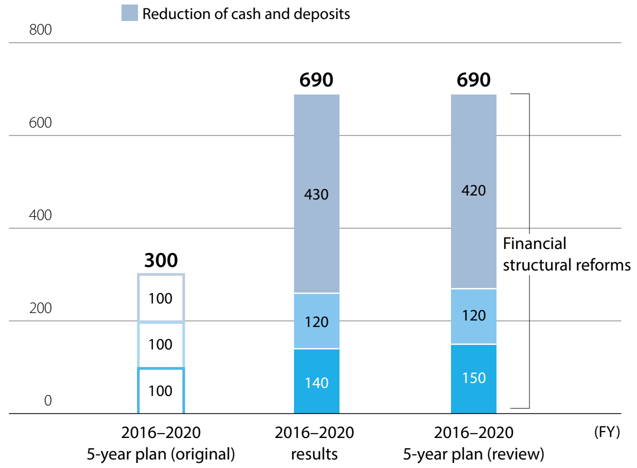


Invested approx. ¥670 billion over five years in R&D, mostly in the Health Care domain

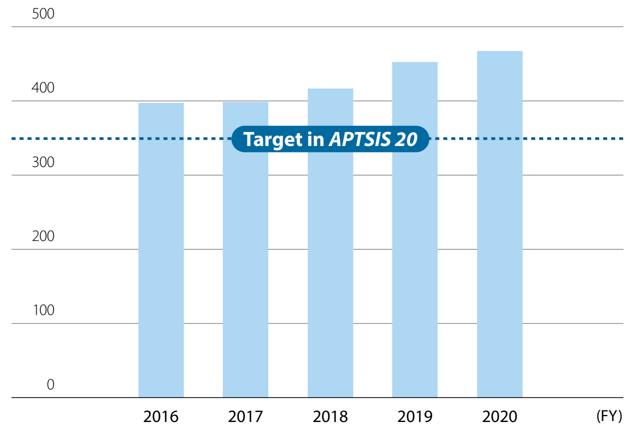
Cash flow generation

Enhanced cash flow generation capabilities through greater asset efficiency and other measures (reaching the target of ¥690 billion over five years)

Breakdown of cash generated



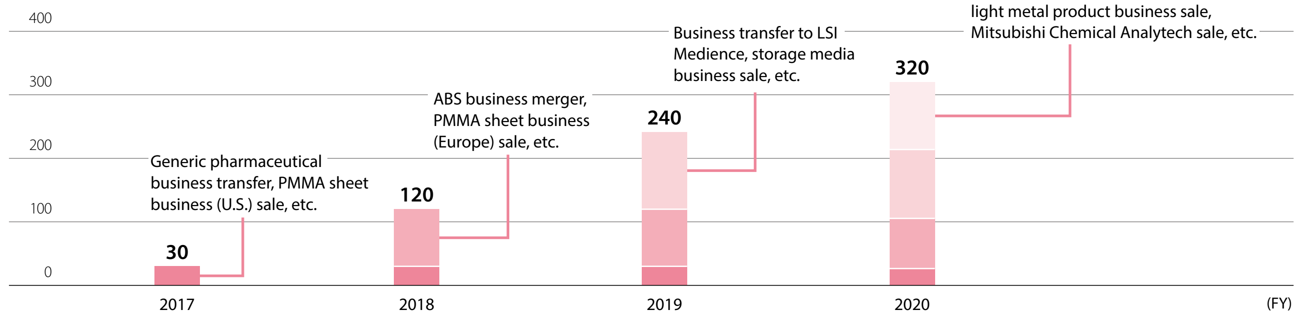
Changes in net cash flows from operating activities



Strengthening foundations (business restructuring)

Achieved corporate streamlining, affiliate cuts and restructuring of ¥320 billion, above the target (equating to ¥300 billion in sales revenue over the duration of the medium-term management plan)

Sales revenue from business withdrawal or sale



APTSIS 20 Overview

Measures by business domain

(Note) Figures for past fiscal periods (up to and including fiscal 2019) are the business results figures announced at the time.

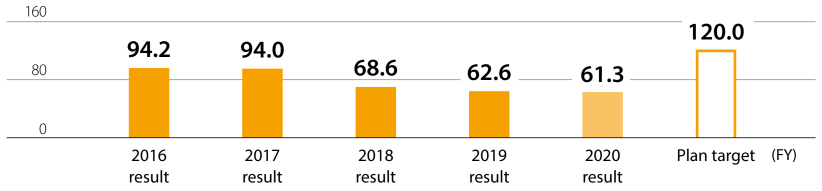
Performance Products Domain

5-year total	Targets	Results
Total investment*1	¥560 billion	¥519 billion
R&D expenditures	¥170 billion	¥135 billion

*1 Target after revision of medium-term management plan

Core operating income

(Billions of yen)



Steady progress in portfolio transformation Growth strategies in focus markets still underway

Although capacity and sales were expanded in the film business in line with growth in demand, and progress was also made to grow the business through the acquisition of semiconductor-related businesses and other measures, core operating income was below target due to the deteriorating economic environment and delays in initially planned growth measures, including sales growth for automotive lightweight composites, increased overseas business development for packaging materials and origination of new businesses.

Restructuring progressed, however, and we achieved steady growth in the resin compound and lithium-ion battery materials businesses, in semiconductor-related businesses and in the film business.

Measures and results

Measures	Results	
Accelerate portfolio transformation	**Outcomes** ● Restructuring progress: Sale of the ABS resin, storage media, flocculant and light metals businesses	
Pursue growth strategies in focus markets	**Outcomes** ● Established resin compound growth strategy ● Strengthened the foundations of the battery materials business (joint venture with Ube Industries, development of new natural graphite-based anode materials) ● Strengthened semiconductor cleaning services business through Cleanpart acquisition ● Expanded capacity and sales in the film business (optical films, polyester films) ● Gained access to advanced technologies through Gelest acquisition (Si chemicals, semiconductor miniaturization technologies) ● Built business model for carbon fiber composite materials for luxury vehicles	**Measures not achieved** ● Growth in lightweight materials, battery-related businesses (due to slowdown in automotive sales and delayed expectations for EV uptake*3) ● Increase business development overseas for packaging materials driven by progress in developing circular economies ● Establish a biomedical applications business ● Expand sales of semiconductor materials (due to deterioration in semiconductor market conditions and the market environment)
Major investments	● Converted The Nippon Synthetic Chemical Industry Co., Ltd. into a wholly owned subsidiary in November 2016 in order to strengthen our business foundations further (purchase amount: approx. ¥43 billion) ● Acquired Cleanpart Group GmbH, a provider of semiconductor-related services in Europe and the United States, in October 2018 to strengthen our semiconductor business ● Acquired Gelest, Inc., a U.S. manufacturer of organic and inorganic hybrid chemicals, in October 2020 to expand our technology platforms	

*3 Our estimate

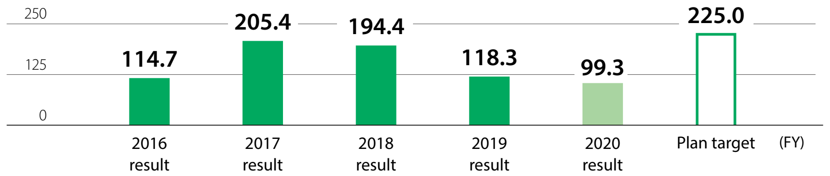
Industrial Materials Domain

5-year total	Targets	Results
Total investment*1	¥1,390 billion	¥1,406 billion
R&D expenditures	¥80 billion	¥68 billion

*1 Target after revision of medium-term management plan

Core operating income

(Billions of yen)



Steady progress in restructuring and measures to increase global share, despite impact of environmental changes

Core operating income in the Industrial Materials domain was below target because of declining market conditions for MMA and other products, due to trade friction between China and the United States and COVID-19 impacts, as well as declining coke sales volumes as domestic crude steel production was scaled back.

However, we were able to execute restructuring plans, including our withdrawal from the terephthalic acid business in India and China, and make progress in other areas, including operations using our new ethylene method (Alpha technology) at The Saudi Methacrylates Company (SAMAC), a new plant in the Middle East aimed at growing and stabilizing earnings in the MMA business, and the development of a global system spanning four regions in the industrial gases business through major M&A in Europe and the United States.

Measures and results

Measures	Results	
Growing global share	**Outcomes** ● MMA: Full-scale operations using our Alpha technology started at a new Middle East plant (SAMAC) by our joint venture with Saudi Basic Industries Corporation (SABIC) ● Industrial gases: Business expansion through acquisition of operations in Europe and the United States, including from Linde AG (Germany) and Praxair, Inc. (U.S.)	
Restructuring	**Outcomes** ● Withdrew from terephthalic acid business (India, China) ● Unified ethylene plant operations at the Okayama Plant ● Improved product mix with higher-performance polyethylene	● Expanded wide-area coordination for utilities ● Closed the Beaumont MMA site (U.S.)
Major investments	● JV with SABIC started full-scale operations in April 2018 at the new Middle East plant (SAMAC) (total business expenditure: approx. ¥100 billion) MMA monomer production capacity: 250,000 metric tons/year; PMMA production capacity: 40,000 metric tons/year ● To capture industrial gases market share in Europe, where MCHC was not operating, and progress business globalization further, acquired some of Praxair, Inc.'s European assets in December 2018, including industrial gas operations in Germany, Spain and Italy; carbon dioxide business in the United Kingdom and other regions; and the helium-related business (acquisition value: approx. ¥640 billion) ● Acquired part of a HyCO*4 business and related assets from Linde Gas North America LLC (U.S.), a subsidiary of Linde AG (Germany), through industrial gas subsidiary Matheson Tri-Gas, Inc. (U.S.) in February 2019 (acquisition value: approx. ¥46 billion)	

*4 HyCO: hydrogen (H_2) and carbon monoxide (CO), which are separated from natural gas using steam methane reforming equipment. The HyCO business provides large-scale supply of H_2 and CO to customers in oil refining and petrochemical industries by way of a pipeline.

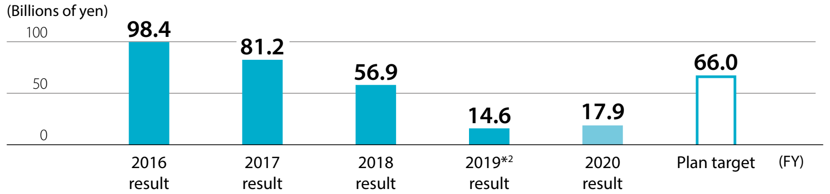
Health Care Domain

5-year total	Targets	Results
Total investment*1	¥408 billion	¥245 billion
R&D expenditures	¥440 billion	¥418 billion

*1 Target after revision of medium-term management plan

Core operating income

(Billions of yen)



*2 Figures do not include results from discontinued operations.

Established a sales base in the US, but was unable to generate results due to development delays and the non-recording of royalties during arbitration proceedings

We launched *RADICAVA* for amyotrophic lateral sclerosis (ALS) in the United States in August 2017 and established a sales base in the United States, which had been an issue since the formation of Mitsubishi Tanabe Pharma.

However, core operating income fell below target due to delays in the development of ND0612 for Parkinson's disease and the virus-like particle (VLP) vaccine of plant origin MT-2271 to prevent seasonal influenza, as well as our inability to book royalties from *Gilenya* for multiple sclerosis during arbitration proceedings on the contract provisions that began in February 2019. We made steady progress in clinical trials with regenerative medicine products using Multilineage-differentiating stress enduring cells (Muse cells), despite delays versus the initial development plans caused by COVID-19.

Measures and results

Measures	Results	
Pipeline reinforcement	**Outcomes** ● Obtained POC*5 (late-stage development): 10 discoveries (4 internationally and 6 domestically)	
U.S. development	**Outcomes** ● Launched *RADICAVA*	**Measures not achieved** ● Grow *RADICAVA* sales ● Recorded an impairment loss owing to delays in the development of ND0612 for Parkinson's disease and the VLP vaccine MT-2271 against seasonal influenza
Regenerative medicine (Muse cell-based products)	**Outcomes** ● Conducting clinical trials for the indications of acute myocardial infarction, ischemic stroke, epidermolysis bullosa, spinal cord injury and ALS ● Established Tonomachi CPC (cell processing center) and created mass cell culture techniques	
Restructuring	**Outcomes** ● Reorganized LSI Medience: Completed strategic capital partnership with PHC Holdings Corporation	
Major investments	● In October 2017, acquired as a wholly owned subsidiary the Israel-based company NeuroDerm Ltd., a pharmaceutical company with superior technology development capabilities that combines pharmaceuticals and medical devices and researches new formulations for Parkinson's disease drugs (total amount: approx. ¥120 billion) ● Converted Mitsubishi Tanabe Pharma into a wholly owned subsidiary in March 2020 with the goal of adapting to environmental changes in healthcare, including the expansion of drug discovery modalities, and creating further synergies between MCHC Group companies (purchase amount: approx. ¥490 billion)	

*5 POC: Proof of concept, demonstrating the feasibility of a new discovery or concept

APTSIS 20 Overview

MOS Management of Sustainability

The MCHC Group has introduced Management of Sustainability (MOS) Indices, which quantify the degree of contribution to sustainability, as its own management indicators. We set targets for these Indices and pursue our corporate activities accordingly. This report describes the degree of achievement of the MOS Indices and targets that have a significant impact on the environmental, social and economic value, in addition to the important indicators related to the basis of our continued existence.

WEB **For details on the material issues in *APTSIS 20* and a summary evaluation of the achievement of all the MOS Indices, please visit our website.**
https://www.mitsubishichem-hd.co.jp/english/sustainability/performance.html

Non-Financial Highlights ▶ P. 91
Non-Financial Information ▶ P. 103

Sustainability targets (KPIs for the MOS Indices) and results

MOS Indices and achievement rates

★★★★: 100% or above ★★★: 80–100% ★★: 50–80% ★: 30–50% Significantly low: 30% or below

	MOS Indices (Data elements)		Achievement rates under *APTSIS 20* (FY2016–FY2020)	Related SDGs
The global environment	Reduce the burden on the atmospheric environment (GHG, SOx and NOx emissions)		★★★★	6, 7, 12, 13, 14, 17
	Reduce the burden on the water environment (total phosphorous, total nitrogen in wastewater and chemical oxygen demand [COD] emissions)		★★★★	
	Reduce the burden on the soil environment (total landfill)		Significantly low	
	Provide products and services related to renewable energy		★★★★	
	Provide products and services that contribute to reducing GHG emissions		Significantly low	
	Provide products and services that help solve water resource problems		★★	
Social systems	Provide products and services that help solve food problems		★	3, 9, 11, 12, 17
	Contribute to medical treatment: Pharmaceuticals provision (contribution to treatment, increased effectiveness)		★★★★	
	Contribute to the prevention of diseases: Provide vaccines		★★★	
	Provide products and services that contribute to a comfortable society and better lifestyles (comfort value)		Significantly low	
	Initiatives to provide products and services trusted by society	Increase customer satisfaction	Significantly low	
		Reduce the number of complaints	★★	
	Promote communication with business partners (regarding CSR procurement, status of initiatives such as distribution of guidelines, checklists, monitoring of the situation, interviews/visits/audits)		★★★★	
People (the company and its organization)	Improve awareness of compliance (results of awareness survey)		★★★	3, 8, 12, 17
	Prevent accidents and injuries (reduce safety incidents)		Significantly low	
	Build a dynamic and cooperative organization (employee satisfaction, rate of taking paid leave, percentage of employees working long hours, rate of taking sick leave, percentage of female managers)		★	

Review

The global environment

We achieved the *APTSIS 20* targets for the reduction of global environmental impact, particularly in atmospheric and water environments. We reached our targets through business withdrawals and site mergers that allowed us to reduce emissions that produce various environmental impacts, as well as improvements in facilities and energy conservation. The targeted contribution to the reduction of environmental impact through products and services was not achieved due to a decrease in sales and demand for products that contribute to reducing GHG emissions or solving water resource issues. We aim to achieve environmental impact neutrality by strengthening our sustainability management under KAITEKI Vision 30 and the implementation of measures under *APTSIS 25*.

Social systems

A positive contribution was made to the prevention and treatment of diseases throughout *APTSIS 20*, 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. For initiatives relating to stakeholder engagement, we stepped up communication with business partners, for example, through briefing sessions and the distribution of guidelines on CSR procurement, and worked to build sustainable supply chains. In terms of customer satisfaction, we did not achieve the level of performance that we had achieved in the previous medium-term management plan, despite targeting further improvement during *APTSIS 20*. We will further utilize the evaluation results in our business activities in a bid to make further improvements in customer satisfaction.

People (the company and its organization)

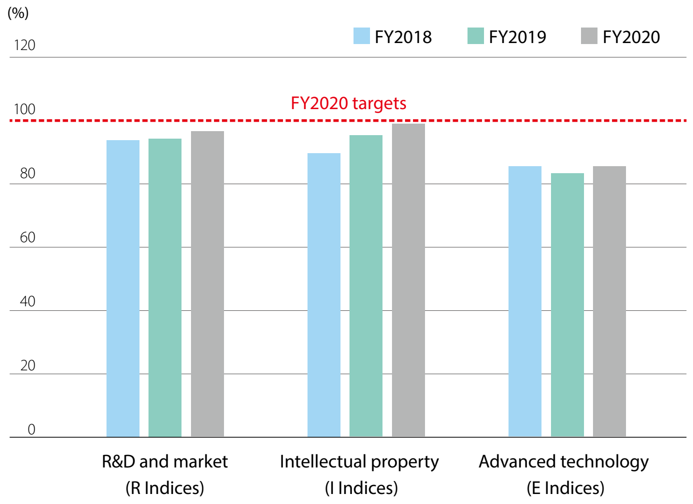
The number of safety-related incidents has been improving year by year, because we are implementing regular awareness campaigns and accident prevention measures that utilize the latest technologies, sharing information on accidents and developing human resources who are responsible for safety at work sites. However, we fell significantly short of our targets on accident and disaster prevention. We will continue to implement programs to improve accident and disaster prevention and ensure a rigorous approach to safety. Having built an organization that is dynamic and collaborative and where employees are motivated to work, we have seen an improvement in the percentage of employees taking paid leave, but long working hours are on the rise. In light of the changes in work styles brought about by COVID-19, we are working to implement further operational reforms and improve work-life balance. The awareness of compliance among employees has improved through a variety of training programs.

MOT Management of Technology

The MCHC Group has identified our technology and innovation capabilities, defining MOT Indices and relevant targets that serve as metrics for improvement. During *APTSIS 20*, we used these MOT Indices to advance initiatives for realizing next-generation businesses in key focus markets. The MOT Indices were updated to the current form in April 2018, prompted by the creation of the new Mitsubishi Chemical Corporation in April 2017.

Innovation targets (KPIs for the MOT Indices) and results

MOT Indices: Achievement rates over the past three years



Review

Achieved most targets for R&D and market, as well as for intellectual property, but fell short in advanced technology, including digital.

The current MOT Indices cover R&D and market (R Indices), intellectual property (I Indices), and advanced technology (E Indices). We made steady improvements in the R and I Indices between fiscal 2018 and fiscal 2020, and nearly achieved all targets in fiscal 2020. These results reflected strength in international patent applications and sales of new products. However, the E Indices did not improve as desired. To overcome this shortfall, we will focus our energies on the pursuit of digital transformation (DX) and programs across the Group to advance our key technology positions.

Promoting digital transformation

We measure 13 items to gauge our digital maturity, which is a key indicator in the E Indices (see table at right). Progress on each item is evaluated by assigning a ranking between one and four, and these rankings are combined to quantify the overall digital maturity. A score of 100% would mean that all items were ranked at the highest level ("Advanced").

The level of digital maturity has risen each year, but we achieved a score of only 61% for fiscal 2020. Given the importance of DX to our business, we will continue to place high priority on achieving further improvements in digital maturity.

Items evaluated for digital maturity

Category	Item
Strategy	DX strategy
	Communication, penetration
Organization and human resources	Structure for DX promotion
	Human resources development
Data infrastructure	Data policy
	Data infrastructure and application
Business processes	Supply chain
	Manufacturing
	Customer contact points
	R&D
	Corporate functions
Business models	Business model reform
	Megatrends

MOT Indices under the new medium-term management plan

We must accurately gauge our technological capabilities across the MCHC Group in order to continuously hone our competitive edge. For the new medium-term management plan, *APTSIS 25*, we have revised the MOT Indices to be more straightforward, transparent and objective. We will use the insights obtained to accelerate realization of next-generation businesses.

Formulating a New Medium-Term Management Plan to Realize KAITEKI Vision 30

KAITEKI Vision 30 (KV30) is our medium- to long-term basic management strategy, formulated by backcasting from our vision for 2050 in order for the MCHC Group to achieve sustainable growth. With the COVID-19 pandemic, risks related to social issues specified in KV30 are starting to emerge, so the MCHC Group is responding to changing social needs and accelerating business model reformation and innovation in order to swiftly commercialize growth businesses (see P. 31). We have taken a stepwise approach to the formulation of the medium-term management plan based on KV30 in order to reflect the impacts brought about by COVID-19. By executing *Step 1* of the *APTSIS 25* medium-term management plan, we will strengthen our business foundation in order to accelerate growth and make steady progress toward achieving our vision.

WEB **KAITEKI Vision 30 is presented in detail on our website.**
https://www.mitsubishichem-hd.co.jp/english/group/kv30/index.html

Medium-term management plan formulated in two steps

Stepwise approach to formulating the plan to reflect different scenarios for global socioeconomic changes and global economic recovery

Social trends

Environmental and social issues

Major global socioeconomic changes

Including trade friction between China and the United States and COVID-19 impacts

Politics and diplomacy

- Conflict between totalitarianism and democracy
- Rising nationalism and fraying international cooperation
- Growing geopolitical risks from fragmentation
- Swifter setting of carbon-neutral targets and tighter regulations

Economy and business

- Diversifying supply networks to hedge risks
- Switching to remote interactions through e-commerce
- Significant improvements in work style reforms and operational efficiency
- Accelerating green transformation (GX) and digital transformation (DX)

Individuals and society

- Societies increasingly valuing the environment
- People increasingly seeking safety and security
- More opportunities to enjoy services virtually
- Remote activities becoming commonplace
- Growing health consciousness

Global economy

Varying pace of recovery to pre-COVID-19 levels in different countries and regions

Emergence of social issues specified in KV30

Responding to changing social needs and accelerating business model reformation and innovation for swift commercialization

Prospective solutions

Backcasting approach

2050

Social vision

An optimized recycling-oriented society
Sustainable well-being

Corporate approach

Identify new social issues and provide ongoing solutions

New Medium-Term Management Plan (FY2021–FY2025)

APTSIS 25

Step 1
(during the COVID-19 pandemic)

Plan formulated for FY2021–FY2022 P. 27

MOE Indices P. 28

Step 2
(after the pandemic)

Scheduled formulation of plan for FY2023–FY2025

New material issues P. 37–38

New MOS Indices P. 39–42 | **New MOT Indices**

Projecting to the medium-term management plan

Medium- to long-term basic management strategy

KAITEKI Vision 30

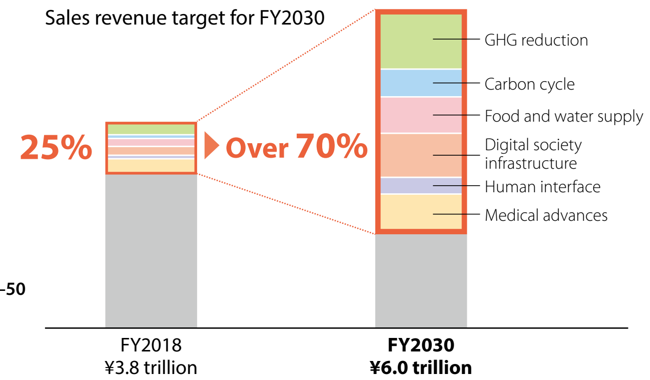
MCHC Group's vision for 2030

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

1. **Business portfolio transformation** P. 29–32
   - Specify social issues that the MCHC Group should help to resolve as business areas
   - Expand growth businesses (businesses that contribute to solving social issues) through business model transformation
2. **Thorough sustainability management** P. 43–44
   - GHG emissions: Seek to lower emissions in line with national and regional government targets
   - Building a foundation for achieving environmental impact neutrality by 2050
3. **Human capital system and framework reforms** P. 47–50
   - Reforms to create flexible human resources systems and organizations that embrace diversity, expertise and mobility



APTSIS 25 Step 1 (FY2021–FY2022)

Toward a Rapid Recovery from COVID-19 Impacts and Strengthening of the Business Foundation

Formulating a two-step plan in light of COVID-19 impacts

We have taken a two-step approach to the formulation of *APTSIS 25*, creating *Step 1* and *Step 2* plans in light of future uncertainties brought about by COVID-19. In *Step 1*, we prioritize a swift business recovery, strengthened business foundation and footholds for growth. In *Step 2*, we focus on growth acceleration.

COVID-19 impact analysis	Planning perspectives
Pandemic impact and global trends	Reinforce business foundations (streamline operations and overhaul human resources systems)
Global economic recovery scenario based on COVID-19 impact	Business strategies ● Accelerate reorganization and restructuring of at-risk businesses ● Growth strategies in light of the impact of COVID-19
Impact by business area	Health Care business growth strategies

Principle Management Measures in *APTSIS 25 Step 1*

Management foundations

Streamline management and rationalization
- Save ¥22 billion by rationalizing the business infrastructure
- Pare assets by ¥180 billion through asset efficiency measures

Human resources system and work style reforms
- Attract diverse talent through job-specific and performance-based pay P. 47
- Embrace new world of work P. 47-48

Organizational restructuring and global management
- Reorganize MCC (build an organizational structure matching growth business areas in KAITEKI Vision 30)
- Realize the "One MCC" structure (build a regional headquarters-based management structure that drives global growth)

DX strategies P. 53

Business foundations

Business model reform P. 29

Next-generation businesses initiatives and CVC P. 55

Business strategies

Business portfolio strategies

1. Accelerate reorganization and restructuring of at-risk businesses P. 30
2. Secure footholds in fields where growth is accelerating amid changing social needs P. 31
3. Health Care business growth strategies P. 32

Financial strategies

Financial strategies, improved financial position, financial target, resource allocation policy

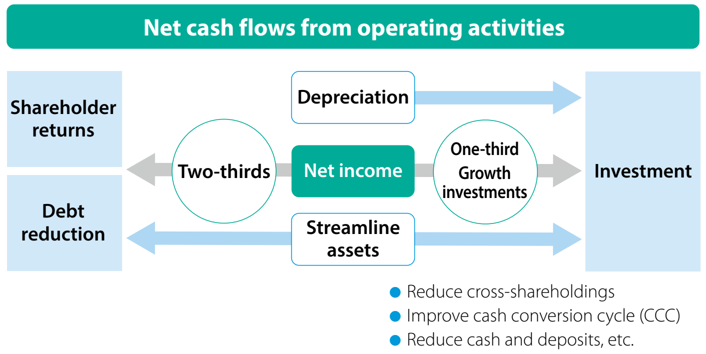
Sustainability management P. 43

Financial strategies

Increase corporate value by balancing shareholder returns, financial position improvements, and growth business investments

Pursue ROE of at least 8% under *Step 1*

- **Shareholder returns:** The initial fiscal 2021 dividend forecast of ¥24 per share is consistent with basic policy (a medium-term consolidated dividend payout ratio of 30%)
- **Growth investments:** Allocate one-third of net income to growth investments

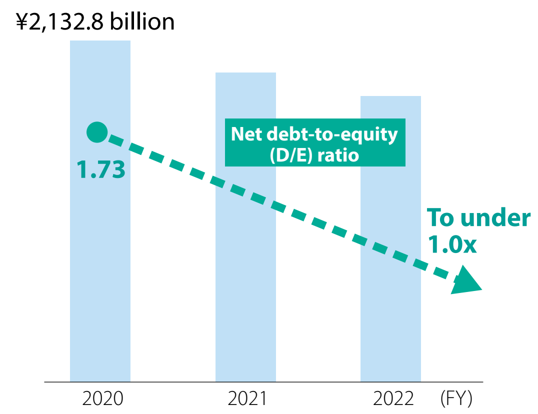


Improved financial position

Keep improving the financial position and aim to restore the net debt-to-equity (D/E) ratio to under 1.0x level by fiscal 2023

Undertake ¥180 billion in financial structural reforms during *APTSIS 25 Step 1* through measures to improve asset efficiency (improve cash conversion cycle (CCC), reduce cross-shareholdings, etc.)

Steadily reduce net interest-bearing debt



Details of measures to improve asset efficiency (Billions of yen)

	APTSIS 25 Step 1 (FY2021–FY2022)
Lower cross-shareholdings	65
Improve CCC	40
Lower cash and deposits and sell assets, etc.	75
Total asset efficiency improvements	180

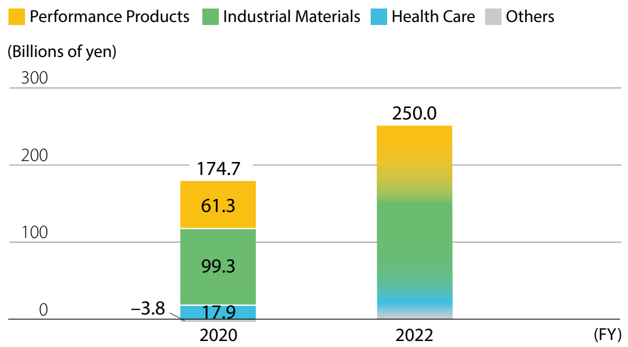
Financial target

Core operating income	¥250 billion
Net income attributable to owners of the parent	¥120 billion
ROE	10%

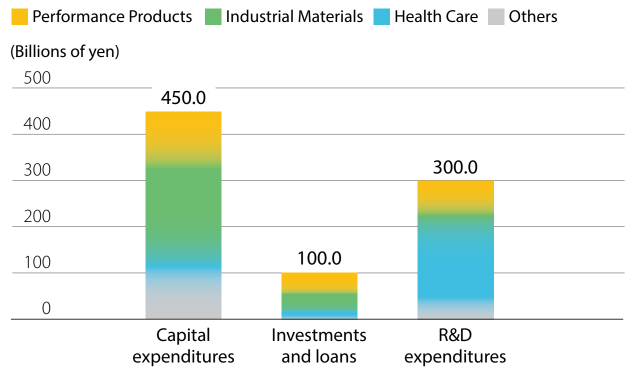
Resource allocation policy

Capital expenditures: Maximize within the scope of depreciation and amortization
Investments and loans: Prioritize areas with growth acceleration prospects
R&D expenditures: Strengthen Performance Products and Health Care R&D

Core operating income



Investments during *Step 1*



APTSIS 25 Step 1 (FY2021–FY2022)

Business model reform

Reform business models in line with changes to the business environment

During this period of major global socioeconomic change, it is essential to be in step with social developments and fundamentally transform business models in order to achieve sustainable growth. Rather than simply supplying industrial materials, the MCHC Group will transform business models with the goal of broadening the scope of our solutions and optimization services across all social systems and creating higher-level solutions and social value.

Strengthen the solution provision structure

Further expand carbon fiber composite materials business in the mobility field and provide total solutions including in chemical and material recycling

Strengthen carbon fiber composite materials business Step 1

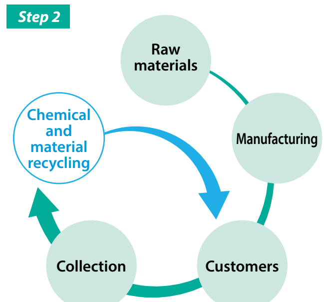
- Strengthen business centered on PCM[*1] and CF-SMC[*2]
- Build new CF-SMC manufacturing facilities in Italy to create a structure for providing integrated solutions for parts design, molding, painting and assembly


Toyota's GR Yaris employs CF-SMC
(Photo provided by Toyota Motor Corporation)

*1 PCM: Prepreg Compression Molding
*2 CF-SMC: Carbon Fiber-Sheet Molding Compound

Build recycling business model Step 2

- In addition to existing technologies, cultivate technologies from acquired European recycling companies to build a recycling business model for carbon fiber composite materials and engineering plastics that help lower CO_2 emissions



Collection from customers of molding offcuts and other carbon fiber reinforced (thermo) plastics

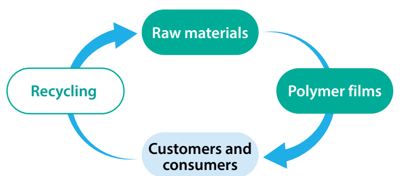
Promote chemical materials recycling

Help create a circular economy for plastics by managing the supply chain with customers and consumers

Engage in PIR[*1] and PCR[*2]

- Reduce environmental impact through chemical and material recycling technologies
- Build a chemical refinery
- Create a waste plastics collection system

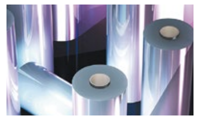
*1 PIR: Post Industrial Recycling
*2 PCR: Post Consumer Recycling



Design easily recyclable products

- Use materials informatics*
- Develop advanced monomaterial films
- Apply multilayer separation techniques

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

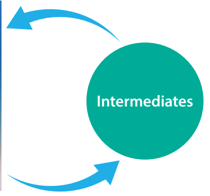

Biaxially oriented polyester film


Heat-shrinkable film

Develop chemical recycling technology

- Chemically recycle PET bottles
- Seek innovative startup partners (corporate venture capital activities)


PET bottles

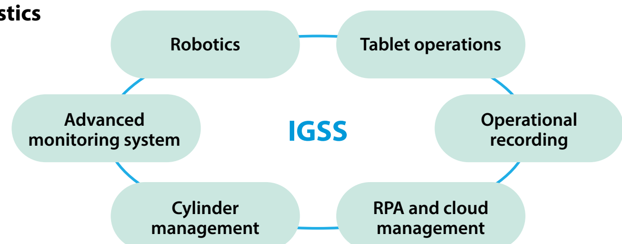


Developing an Intelligent Gas Supplying System (IGSS)

Develop an innovative next-generation gas supplying system that materializes smart factories and cultivate diverse applications through customization and packaged services

Drive DX among customers and through production sites and logistics

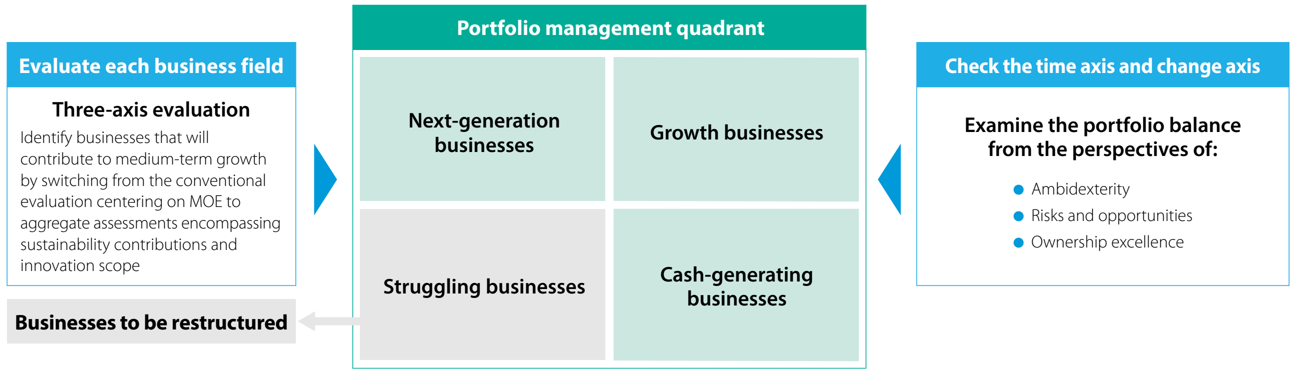
- Build an Intelligent Gas Supplying System (IGSS) that integrates cylinder transportation and management, routine inspections and gas monitoring system
- Drive DX to run plants remotely and optimize operations to cut costs by improving efficiency and saving labor
- Make order receipt processes more efficient and less labor intensive by promoting online ordering



Business portfolio strategies

Basic policy on portfolio reform—Shift to quadrant portfolio management based on three-axis evaluation (MOS, MOT and MOE)

Aim to foster growth businesses that have been identified as areas with growth potential from among our business areas that address social issues. We will conduct aggregate assessments encompassing MOS perspectives (can the business reduce environmental impacts in the future or help address social issues) and MOT perspectives (is there scope for technological innovation or technological applications for other solutions) as well as MOE perspectives (profitability or market growth potential) in order to identify those businesses that will contribute to medium-term growth.



1 Accelerate reorganization and restructuring of at-risk businesses

We will restructure businesses with the goal of creating more resilient operations versus external factors and more stable earnings structures. We will pursue business model transformation to increase our competitive edge through even stronger ties with oil refining in the petrochemicals business and to respond to changing demand structures for coke. We will work to stabilize MMA business profits through a number of measures, including globalizing business infrastructure and finalizing our decision on a U.S. project using MCC's new proprietary ethylene method (Alpha technology).

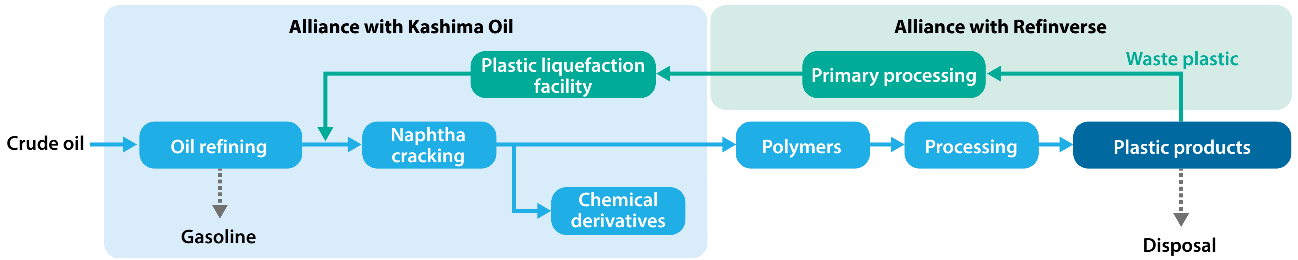
Petrochemicals **Stronger ties with oil refining**

Optimizing the integrated operations at Kashima Oil and MCC

- Crack butane and other fuels to create petrochemical raw materials
- Optimize naphtha quality and explore exchanges of utilities and infrastructure

Explore chemical recycling of waste plastics

- Set up plastic liquefaction facilities for waste plastics ▶ P. 81
- Invest in Refinverse to secure waste plastic materials



Coke **Business model reform to shift to overseas export business**

Trends in domestic steel industry consolidation

- Cease operations at five of 25 blast furnaces in Japan by 2023 (reduction of 9 million metric tons in annual crude steel production leading to a decrease of 4 million metric tons in annual coke demand)

MCHC coke business reforms

- Reduce the number of coke ovens at the Kagawa Plant from 323 to 250 to optimize operations
- Double export shipping lines to two

MMA **Globalize business infrastructure and stabilize earnings** ▶ P. 82

Globalize business infrastructure

- Maintain the global supply chain management system using DX
- Move relevant headquarter functions to Singapore

Push ahead with the U.S. project

- Acquired land in Geismar, Louisiana for plant construction, with goal of starting operations in 2025

APTSIS 25 Step 1 (FY2021–FY2022)

2 Secure footholds in fields where growth is accelerating amid changing social needs

Looking ahead to 2050, we have analyzed trends in the market and technological evolution from today through 2030 to identify candidate businesses and then selected out growth business areas based on market growth potential, scope for technological innovation and market size. We are working to progress business model transformation and technological innovation, with a focus on the various changes underway, including social needs, which have been accelerated by the COVID-19 pandemic.

Fields where demand expands due to COVID-19

Growth business areas	*Step 1* / *Step 2* / Next-generation businesses (business launch from FY2026)
GHG reduction	Lighter mobility; Decentralized energy management; Chemical processes with low environmental impacts; Development of advanced lithium-ion batteries; Next-generation batteries
Carbon cycle	Bio-based polymers; CO_2 capture and utilization; Chemical and material recycling; Hydrogen society
Food and water supply	Food packaging materials; Decentralized food and water systems; Alternative food and taste solutions
Digital society infrastructure	Semiconductor cleaning; Next-generation high-speed communication solutions; Advanced semiconductor materials; Next-generation displays
Human interface	Symbiosis of human and robot solutions (non-contact and antimicrobial materials)
Medical advances	Regenerative medicine; Preventive care (including vaccines); Precision medicine

Business strategies in *Step 1* and *Step 2*

GHG reduction	Help popularize EVs and expand adoption of renewable energy	**Lithium-ion battery materials** *Step 1* ● Joint electrolyte venture in Japan with Ube Industries ● Expanding sales of new anode materials **Next-generation battery materials** *Step 2* ● Accelerate development through open innovation
Carbon cycle	Help materialize low-environmental impact cycles and reach beyond-zero emissions targets through biodegradable polymers and artificial photosynthesis technology	**Focus on biomass and biodegradable polymers** *Step 1* *Step 2* ● Expand biomass polymer products for consumer durables ● Focus on biomass and biodegradability for medical and single-use tableware applications requiring plastics **Artificial photosynthesis** Next-generation businesses ● Develop new photocatalysts for efficient hydrogen production (Schedule: Large-scale verification tests in 2030, social implementation in 2040) ● Studying energy saving in the CO_2 resource recovery reaction process ● Pilot testing a new methanol synthesis technique
Food and water supply	Reduce food losses and contribute to circular economies	**Respond to increased demand** *Step 1* ● Cater to rising pandemic-driven demand for high-barrier, light, easy peel and other high-performance products ● Looking to expand production capacity of the ethylene vinyl alcohol copolymer *Soarnol* and biodegradable polymer *BioPBS* **Boost recycling and reduction technologies** *Step 2* ● Enhance chemical and material recycling technologies, as well as raw material conversion and processing and molding technologies
Digital society infrastructure	Expansion of the semiconductor-related solutions business through combination of advanced materials development with services to reduce environmental impact ▶ P. 78	

3 Health Care business growth strategies Medical advances

For pharmaceuticals, we aim to develop precision medicine*, particularly in the fields of the central nervous system and immuno-inflammation, and launch more products from fiscal 2025. We are also focusing on the vaccine business and aim to generate more than ¥100 billion in vaccine sales by fiscal 2025. We are advancing the development and commercialization of Muse cell-based regenerative medicine products and aim to file in fiscal 2021 and obtain approval in fiscal 2022.

* Precision medicine: Providing the right treatment at the right time to the right patient by taking into account differences between patients' genes, environments and lifestyles.

Preventive care — Generate more than ¥100 billion in vaccine business sales by fiscal 2025 *Step 1* *Step 2* ▶ P. 86

Help prevent infectious diseases by developing VLP vaccines and adjuvants

● Medicago Inc. (Canada) initiatives
VLP vaccine for COVID-19 (MT-2766)
Seasonal flu VLP vaccine (MT-2654)

Continue efforts to prevent infectious diseases in children and adults and maintain stable vaccine supplies in Japan

● Collaboration with the BIKEN Group
Pediatric 5-in-1 combined vaccine (MT-2355)
Varicella vaccine: Raise awareness of shingles

Regenerative medicine — Advance development and commercialization of Muse cell-based regenerative medicine products, aiming to file in fiscal 2021 and obtain approval in fiscal 2022 *Step 1* *Step 2* Next-generation businesses ▶ P. 86

Initiatives for multiple indications

● Clinical trials underway in six diseases

Collaborations for commercialization

● Establish a collaborative structure to drive commercialization using proprietary cell manufacturing technologies and alliances with Group companies and research institutions

Overseas expansion

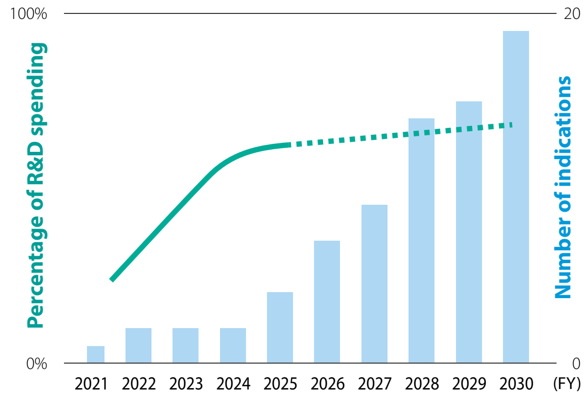
● Start consultations with U.S. authorities to prepare for clinical trials. At the same time, seek development and other partners

Precision medicine — Expand the pipeline Next-generation businesses

Expand the portfolio by combining the central nervous system and immuno-inflammation research infrastructure and modalities

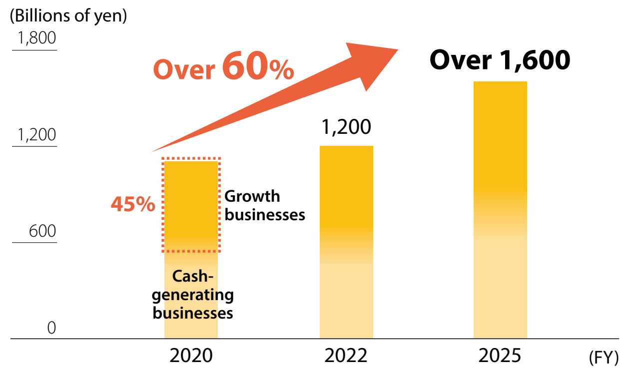
		Modalities
Central nervous system Drug discovery from validated genes Target gene verification	×	Gene Nucleic acid RNA-targeting small molecule
Immuno-inflammation Phenotypes analyzed drug discovery by stratification of patient group Analysis of clinical specimen and patient data	×	Small molecule Middle molecule Antibody

Aim to increase precision medicine R&D spending and launch more products after fiscal 2025

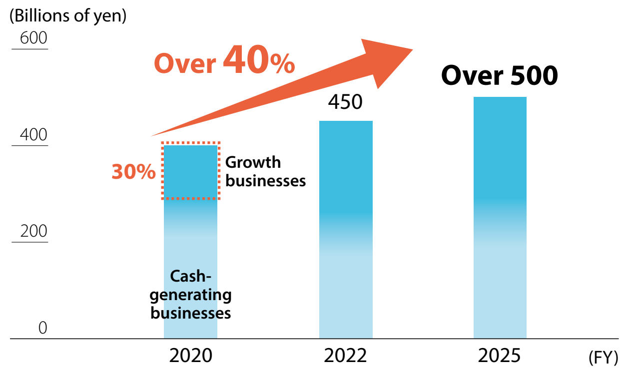


Performance Products and Health Care business expansion goals

Performance Products sales revenue



Health Care sales revenue



Message from the CFO

Stepping up optimal resource allocation and portfolio management to create both financial value and social value

Hidefumi Date
Managing Corporate Executive Officer
Chief Financial Officer

Further improving our financial position to swiftly return the net debt-to-equity ratio to under 1.0x

Under the previous medium-term management plan, *APTSIS 20* and my role as CFO, we put great emphasis on raising ROE and rigorous ROIC management to improve asset efficiency. We also worked to build agile and profit-focused management systems, including driving greater use of ROIC trees in each division. To strengthen our financial position, we set up a four-region Europe-North America-Japan-Asia cash management system (CMS) as a way to ensure efficient asset use, we shortened the cash conversion cycle (CCC) and we regularly reviewed the purpose of asset holdings and sold unnecessary assets (see P. 19).

However, our net debt-to-equity (D/E) ratio swelled to 1.73x at the end of fiscal 2020 as a result of investments and loans for U.S. and European acquisitions in Industrial Gases and to make Mitsubishi Tanabe Pharma a wholly owned subsidiary in Health Care.

Under the new medium-term management plan, *APTSIS 25*, we will work to improve our financial position with the goal of bringing the net D/E ratio below 1.0x by the end of fiscal 2023, targeting asset efficiencies worth ¥180 billion and ROE of at least 8% during the two-year *Step 1* phase.

Accelerating the portfolio transformation to create both economic and social value

To date, we have managed the business with an awareness of capital costs, setting ROE above cost of equity capital as a management indicator and singling out for review poorly profitable businesses where ROIC is below WACC.

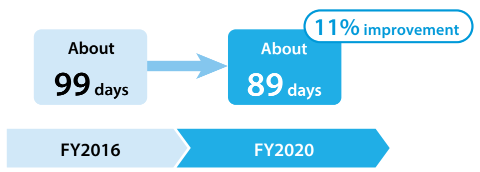
We now aim to manage our portfolio using aggregate assessments that combine MOE* perspectives on profitability or market growth potential with MOS* perspectives, such as whether the business can address such social issues as reducing environmental impacts, and MOT* perspectives, including the scope for technological innovation, in order to identify those businesses that will contribute to medium- and long-term growth.

This approach is simply the execution of KAITEKI Management. It is also consistent with our new president's goal of streamlining through comprehensive evaluations that focus on strengths, growth potential, and low-carbon perspectives. Our management team will work as one on this business portfolio optimization, developing more stable profit structures that are resilient to external change and ensuring appropriate resource allocation.

* MOE, MOS and MOT are the indices used in KAITEKI Management (see P. 13).

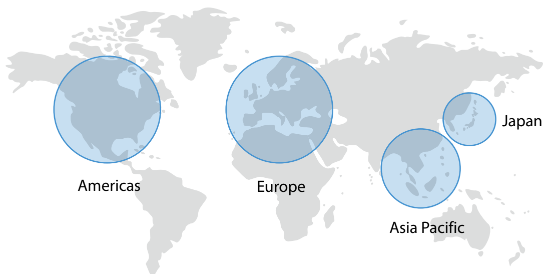
Capital efficiency initiatives and results under *APTSIS 20*

- Shorten the cash conversion cycle (CCC)

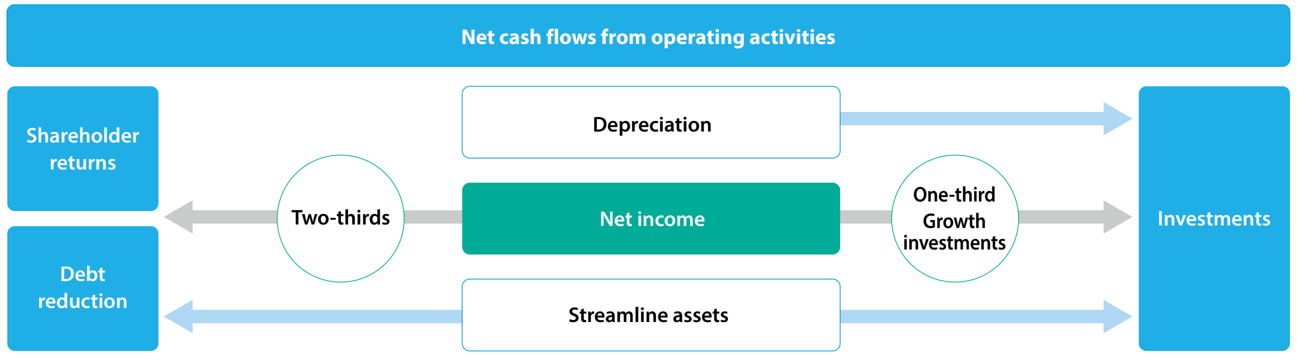


- Sell assets with lowered ownership value by regularly verifying their value

- Establish a cash management system (CMS) in four regions (Europe, Americas, Japan and Asia Pacific)



Financial strategy under *APTSIS 25 Step 1*



- Reduce cross-shareholdings (target: ¥65 billion)
- Improve cash conversion cycle (target: ¥40 billion)
- Reduce cash and deposits (target: ¥75 billion)

Resource allocation and shareholder return policy

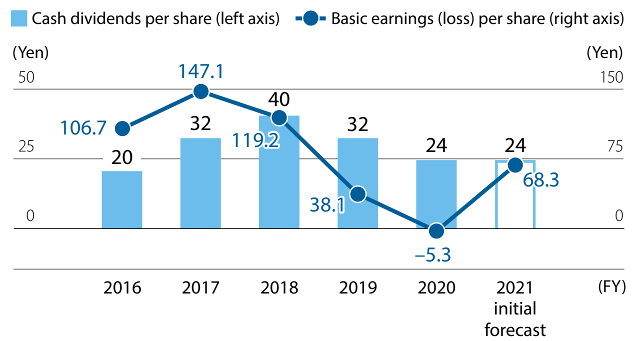
Our approach to resource allocation will not change under the *APTSIS 25* medium-term management plan, with a continued focus on achieving the right balance between providing shareholder returns, strengthening our financial position, and investing in growth businesses. We plan ¥450 billion in capital expenditures, ¥100 billion in investments and loans, and ¥300 billion in R&D expenditures over the two-year period of *Step 1*. When executing investments, we will rigorously and prudently investigate the business environment, while also focusing on cutting costs, and implement a financial strategy that aims for ROE of at least 8% (see P. 28).

Our basic policy for shareholder return is to improve shareholder value through increased corporate value. For dividends, we remain committed to maintaining a stable dividend and to providing a medium-term consolidated payout ratio of 30%, while balancing the need to invest for growth and improve our financial position. We plan to keep dividends at the same level as in fiscal 2020, distributing ¥24 per share in fiscal 2021.

After developing the concept of KAITEKI Management more than 10 years ago, we have worked to increase KAITEKI value, which can be defined as corporate value comprising both economic and social value. We report the results of these efforts in our KAITEKI Reports (integrated reports). We have been recognized for our work in this area by multiple external parties in recent years, including through awards for our integrated reports and inclusion in ESG stock indices. With the uncertain outlook in fiscal 2020, I was acutely aware of the difficulties we face in continuing to fulfill our responsibility to provide full accountability. However, I have always believed that improved accountability leads to lower capital costs for the Company, and I consider that my role is to provide appropriate accounts of specific measures relating to both financial and non-financial information. Looking ahead to the future under the new president, we will work to enhance our IR communications and actively create opportunities for two-way dialogue with stakeholders in Japan and overseas.

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



Sustainability

Message from the CSO

Our goal is to continuously increase corporate value by pursuing business activities with a focus on sustainability

Yoshihiro Ikegawa

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

Our mission

In the midst of numerous global-scale issues such as climate change and resource depletion, MCHC announced its medium- to long-term basic management strategy KAITEKI Vision 30 (KV30) in February 2020, identifying the Group vision for 2030 and a path to sustainable growth (see P. 25). The spread of COVID-19 has brought about enormous change in how we live and work, but the direction and policies in KV30 remain the same, with sustainability positioned at the center of sustainable growth by the MCHC Group. Our goal is to take a hard look at what society needs and provide a range of solutions to address these social issues. This is our mission at the MCHC Group.

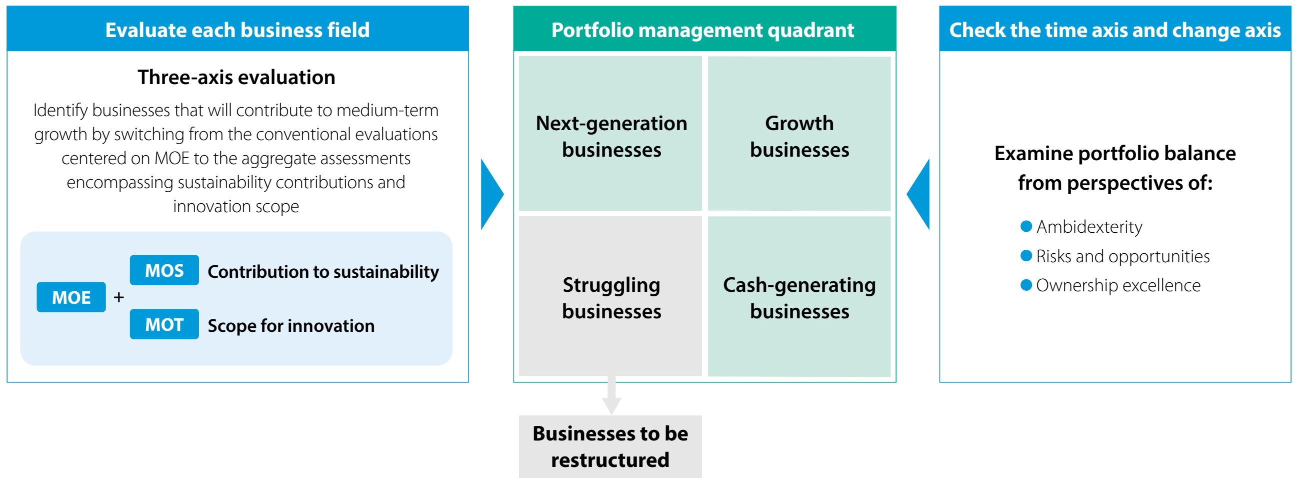
Recover business promptly and consider post-pandemic outlook

In February 2021, we unveiled *Step 1* of MCHC's medium-term management plan *APTSIS 25*, aimed at realizing KV30. Collaboration with our stakeholders is a key focus for MCHC, so we decided it was important to share our road map that describes how we will further strengthen our business foundation and achieve sustainable growth, even with the uncertain outlook caused by COVID-19.

When formulating the new medium-term management plan, we decided on a two-step approach as a rational way of reflecting the impact of COVID-19 now and in the future after the pandemic. *Step 1* runs through to 2022, when we expect uncertain economic conditions. During this *Step 1*, we will prioritize measures for business recovery, strengthened business foundation and footholds for growth (see P. 27–32). In *Step 2* from 2023, we will pursue measures to accelerate growth.

Portfolio transformation will be essential if we are to achieve this plan. We will pick up the pace on portfolio transformation, while reflecting on the changes of social needs and future business risks, using aggregate assessments that combine perspectives of sustainability such as reduced environmental impacts, with faster technological innovation, profitability and market growth potential.

Portfolio management through three-axis evaluation using MOS, MOT and MOE



Revising material issues

When formulating the new plan, we revised, categorized and ordered the material issues from the perspectives we consider important for the MCHC Group, including our business foundation, environmental and social impacts, and accelerated business portfolio transformation (see P. 37–38). We then set MOS Indices as KPIs to measure our progress in addressing these material issues (P. 39–42). The new MOS Indices also feature indicators that measure the contribution to sustainability through our businesses, including percentage of sales revenue from the growth businesses (businesses that contribute to solving social issues) and percentage of sales revenue from products that contribute to the circular economy or mitigate and adapt to climate change.

Rather than quantifying the results as in the past, the new MOS Indices have been improved to use the numbers to give a readily understandable picture of how we are progressing. With the growing focus on corporate ESG initiatives, information disclosure on sustainability is an important element for management. We aim to disclose information in an appropriate and accessible fashion, and thereby deepen our dialogue with all our stakeholders.

Working to reach our GHG goals in 2030

To address the urgent issue of climate change, national and regional governments have proposed targets through to 2030 and the main industrialized nations, Japan included, have set a target of achieving carbon neutrality by 2050.

Through our global business, the MCHC Group is making every effort to tackle climate change and is striving to lower GHG emissions in line with national and regional government targets. The Japanese government has proposed a 46% reduction in comparison to fiscal 2013 levels by fiscal 2030. To achieve this target, the government needs to develop innovative policies on energy and industry. We will build an action plan for the MCHC Group based on scenarios and specific measures put forward by the Japanese government. At this stage, we are stepping up our initiatives to reduce GHG emissions from manufacturing, including switching fuels on in-house generators, using renewable energy, and pursuing further process rationalization, while preparing to deploy in-house carbon pricing.

Approach to achieving carbon neutrality

To be carbon neutral by 2050, we need systems to objectively evaluate CO_2 across the entire value chain. We have therefore started to develop life cycle assessment (LCA) systems in a collaboration that goes beyond our industry. Carbon neutrality will require technology development relating to the carbon cycle, where CO_2 can be utilized as a resource, as well as stable energy supplies that are basically carbon-free. The MCHC Group will strengthen partnerships with industry, government and academia, while contributing to the realization of these innovations and striving to create new businesses that provide growth opportunities for the Group.

Toward a sustainable increase in corporate value

In order to steadily make our business activities more sustainable, every single MCHC Group employee needs to hone their own transformational capabilities. To promote the execution of the MCHC Group mission, we started providing workshops for general managers in 2018 and have since expanded this program in a stepwise fashion to younger employees leading the next generation. With these workshops as a starting point, we have widely promoted the KAITEKI concept and KV30 in the Group, fostering a culture to address social challenges through business activities. Three years have passed since we started these workshops, and I am confident that our employees are now taking ownership to create new value, with visible progress in work style reforms or projects at every workplace that aim to address social issues through our business.

The COVID-19 pandemic has accelerated change in social needs. The paradigm shift brought about by the pandemic can also be seen as a great opportunity to build new social systems. We aim to continuously improve corporate value by pursuing a business strategy focused on sustainability, with every single MCHC Group employee responding flexibly to change.

Material Issues Identified in *APTSIS 25* and New MOS Indices

MCHC has identified the material issues to be addressed by the MCHC Group as part of the new medium-term management plan, *APTSIS 25*, which is based on KAITEKI Vision 30 (KV30), the medium- to long-term basic management strategy. We have set targets for the material issues identified, with indicators (MOS Indices) also set to measure progress.

Going forward, we will monitor progress each year and proceed steadily with initiatives toward the fulfillment of KV30.

Identification process of material issues

Step 1	Selection of candidate material issues	Taking into account the medium- to long-term direction based on KV30, we studied the material issues identified in the previous assessment and added new issues in line with the MCHC Group's corporate mission, key policies, megatrends, the SDGs and other factors.
Step 2	Discussion on classification and structuring of material issues	The selected material issue candidates were screened against the policies and action plans of the new medium-term management plan, and the final selection of material issues was made after repeated internal discussions. The material issues were classified in accordance with their importance, in our view, for the fulfillment of KV30, including their contribution to the business portfolio strategy and the business foundation, as well as their environmental and social impact.
	Assessment from the stakeholder viewpoint	The classified material issues were reviewed from a wide range of perspectives through hearings with external experts and discussion by the Outside Director Liaison Committee.
Step 3	Setting of targets and indices	To map a path toward the vision outlined in KV30, targets were set for activities related to the material issues along with indicators to measure their progress (MOS Indices).
Step 4	Decision and approval	The issues were resolved by MCHC's Corporate Executive Officers Committee and Board of Directors together with the new medium-term management plan.

Overview of material issues

Material issues for business portfolio strategies ▶ P. 39
- GHG reduction
- Sustainable resource management
- Sustainable food and water supplies
- Healthy and vibrant lives
- Safe and comfortable lives
- Improvement of communications and digital processing technologies

Material issues for environmental and social impacts ▶ P. 41
- Environmental impact reduction
- Circular economy
- Life cycle assessment
- Contributions to communities
- Biodiversity

Factored into business portfolio reform

Driving force, acceleration and productivity improvement

Material issues for business foundations ▶ P. 40
- Business model reformation
- Product stewardship
- Intensification of DX
- Upgrading of the work environment and health and productivity management
- HR development and training
- Diversity and inclusion
- Stakeholder engagement

Material issues in terms of risk management ▶ P. 42
- Information security and cybersecurity
- Sustainable supply chain
- Human rights

Identifying and addressing risks

Material issues for existence ▶ P. 42
- Process safety
- Compliance
- Governance

Comments from an expert

This is a groundbreaking structure that allows the thought process leading to identification of the material issues to be traced logically.

The material issues identified in *APTSIS 25* are distinctive on a number of counts. For instance, the backcasting of KV30's long-term vision from the society of 2050 ensures consistency, and since it is based on existing analyses, past experience is included. The structure's unique approach that categorizes the various issues and indicates their mutual connections deserves special mention. Arranged above the material issues for existence are the material issues for business foundations and the material issues in terms of risk management. Opportunities and risks related to the growth strategy are then identified as required by ESG investors. At the top of the diagram are macrolevel social issues and the material issues for business portfolio strategies, which can be understood as representing the impact that MCHC attempts to generate by means of value creation through businesses in the middle of the diagram.

Choosing this systematic diagram rather than an ordinary matrix should have the benefit of allowing the thought process leading to the identification of the issues to be traced logically. Additionally, by avoiding any ranking of the individual issues, I think it establishes a mold-breaking new format able to adapt to dynamic change.

Keisuke Takegahara
Executive Fellow
Research Institute of Capital Formation
Development Bank of Japan Inc.

Sustainability

Material Issues Identified in *APTSIS 25* and New MOS Indices

We will proceed steadily with initiatives toward the fulfillment of KV30 by setting targets for the material issues and establishing MOS Indices to measure progress.

Material issues for business portfolio strategies

Material issues	Our actions
GHG reduction	To contribute to the improvement of energy efficiency by providing thermal management materials and other products that promote lighter mobility and the electrification of society.
Sustainable resource management	To contribute to realizing a recycling-oriented society by providing biodegradable and biologically derived plastics. To optimize the overall social system by promoting chemical and material recycling, and capture and utilization of CO_2.
Sustainable food and water supplies	To reduce food losses by providing solutions for long-term food storage and flavor enhancement. To promote R&D to further reduce the environmental impact of food and water supply.
Healthy and vibrant lives	To contribute to preventive medicine through provision of pharmaceuticals including vaccines and to optimize medical treatment for each individual patient through development of Muse cell-based regenerative medicine and precision medicine.
Safe and comfortable lives	To realize high-amenity living and mobility spaces by enabling human-robot symbiosis through lightweight composites, development of artificial joints and limbs, etc.
Improvement of communications and digital processing technologies	To deliver next-generation high-speed telecommunications solutions by developing semiconductor materials with higher processing capacity and other technologies for high-capacity, high-speed telecommunications and digital applications. To provide next-generation display solutions compatible with augmented/virtual reality and hologram technologies.

Switch to a business portfolio centered on growth businesses that contribute to resolving social issues

MOS Indices	FY2022 targets
Percentage of sales revenue from the growth businesses (businesses that contribute to solving social issues)	30%

Solutions to environmental and social issues

The Group's Material Issues
- GHG reduction
- Improvement of communications and digital processing technologies

Contributing to a low-energy society through GaN substrates

In May 2021, MCC and The Japan Steel Works, Ltd. completed construction of a pilot facility for mass production of gallium nitride (GaN) single-crystal substrates at the Muroran site of Japan Steel Works M&E, Inc.

GaN is a material that makes it possible for electronic devices to achieve high efficiency with low electric power consumption. The development of more compact and lightweight equipment and devices should also mean a significant reduction in electric power consumption, leading to lower CO_2 emissions and reduction of environmental impact. A wide range of applications for the material is envisaged, from power devices, high-frequency devices and other electronic equipment to blue and green laser diodes and other light-emitting devices.

The newly constructed large-scale facility will undertake pilot studies aimed at the mass production of 4-inch GaN substrates with a target of early fiscal 2022 for market launch. Based on the results of the pilot studies, we will put in place a stable supply system for GaN substrates and will also work on the development of 6-inch substrates compatible with power device applications, where demand is expected to increase. By supplying high-quality GaN substrates, we will contribute to realizing a low-energy society.

Material issues for business foundations

Material issues	Our actions
Business model reformation	To realize business model reform by enhancing solution levels through integration of products and services and intensifying innovation toward optimization of the overall social system.
Product stewardship	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.
Intensification of DX	To achieve operational optimization and at the same time create new businesses and services that continuously offer new value to business enterprises, customers and society by utilizing digital technology in every situation, for instance to improve operating procedures from R&D to manufacturing and to respond to the needs of customers and society.
Upgrading of the work environment and health and productivity management	To create a safe and conducive work environment through the twin approaches of ICT-based work style reform and health support.
HR development and training	To promote continuous self-improvement and personal growth for human resources and provide relevant opportunities in order to adapt to unpredictable changes in the environment and accelerating technological innovation.
Diversity and inclusion	To enhance the diversity of human resources in terms of gender, values, nationality, career background, age and other characteristics and to embed this inclusivity and leverage it for the benefit of corporate activity.
Stakeholder engagement	To be a business enterprise trusted by stakeholders by showing respect for and communicating closely with them and working together to not only benefit corporate activity but also realize a better society.

Contribution to and acceleration of growth by strengthening and enhancing the business foundation

MOS Indices	FY2025 targets
Employee engagement	80%*1
Diversity among management	40%
Wellness awareness	85%*1
Lost time injury frequency rate	0.71 (Approx. 40% reduction from peak figure of FY2016–FY2019)
Level of customer satisfaction	80
Evaluation related to the ESG stock index	Maintain and improve score on DJSI, FTSE4Good, etc.

*1 Percentage of favorable responses to set items in the employee awareness survey

Assessment results of corporate value including ESG (As of June 30, 2021)

- Dow Jones Sustainability Indices — Member of Dow Jones Sustainability Indices, Powered by the S&P Global CSA
- S&P Global Sustainability Award Bronze Class — Sustainability Award Bronze Class 2021, S&P Global
- MSCI Japan ESG Select Leaders Index* — 2021 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX
- MSCI Japan Empowering Women Index* — 2021 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)
- FTSE4Good Index Series — FTSE4Good
- FTSE Blossom Japan Index — FTSE Blossom Japan

Sustainability

Material Issues Identified in *APTSIS 25* and New MOS Indices

Material issues for environmental and social impacts

Material issues	Our actions
Environmental impact reduction	To reduce the environmental impact of GHG emissions and water consumption as a step toward resolving climate change and water resource issues and creating a recycling-oriented society.
Circular economy	To achieve smart use of resources, materials, and energy and new value creation through innovation and business model reform for an optimal recycling-oriented society.
Life cycle assessment (LCA)	To carry out and disclose appropriate quantitative assessments of the environmental and social impact of products and services, and their contribution to GHG reductions throughout the value chain.
Contributions to communities	Broadly contribute to society through business activities while deepening understanding of various communities and continually responding to their requests and expectations.
Biodiversity	To identify the effect of business activity on biodiversity and minimize any negative impact. To contribute to conserving biodiversity by promoting environmental protection activities and providing relevant products and services.

Reduction of negative impact, environmental and social contribution, and appropriate evaluation of impact

MOS Indices	FY2025 targets	
Percentage of sales revenue from products*2 that contribute to the circular economy or mitigate and adapt to climate change	FY2022 12%	—
GHG emissions	15% reduction (Compared to FY2013, Japan)	
COD emissions	Maintain current level: Approx. 1,600 tons (FY2019, Japan)	
Progress of LCA activities	100%	
Amount of landfill waste*3	50% reduction (Compared to FY2019, Japan)	

*2 GHG reduction and carbon cycle sectors among growth businesses (businesses that contribute to solving social issues)
*3 Amount of landfill waste regularly generated in the Group's routine production and logistics activity

Material issues for existence

Material issues	Our actions
Compliance	To comply with laws, international standards and internal regulations based on high ethical standards and to ensure that corporate activities are consistently fair and equitable and founded on integrity.
Process safety	To prevent security accidents and maintain stable operations based on the recognition that safety is the foundation of our continued corporate existence and that ensuring safety is a corporate social responsibility.
Governance	To achieve greater management agility for enhanced corporate governance by improving the transparency and fairness of operations, strengthening management supervision functions and speeding up decision-making.

Material issues in terms of risk management

Material issues	Our actions
Information security and cybersecurity	To recognize the importance of protecting information assets and our responsibility in corporate activities. To strive to manage information appropriately and raise security awareness in order to guard against leaking of confidential information relating to customers, business partners or our own organization.
Sustainable supply chain	To put in place a sustainable supply chain by deepening business partners' understanding of the MCHC Group's corporate mission and working with them to resolve environmental and social issues.
Human rights	To prevent the occurrence of human rights violations in corporate activity by putting in place a system that respects all individuals and their rights and acts to recognize, prevent and oppose negative impacts on human rights.

Appropriate risk management to avoid threats to continued corporate existence

MOS Indices		FY2025 targets
Number of serious compliance violations		0
Number of accidents	Security accidents	16 per year (33% reduction from peak figure of FY2016–FY2019)
	Environmental accidents	0
Participation rate in information security training		95%

Solutions to environmental and social issues

The Group's Material Issues
- GHG reduction
- Environmental impact reduction

First in the industrial gas sector to use renewable energy certificates, contributing to 160,000 t-CO_2e in yearly emissions reduction

In October 2020, the Spanish and Portuguese group company of Nippon Gases, a European industrial gases business operating company, became the first in the industrial gas sector to use Green Power certificates to convert to 100% renewable energy for the electric power required in the manufacturing process for medical gases, industrial gases and food gases. This measure has resulted in a yearly emissions reduction of 160,000 t-CO_2e. The Company's implementation of the European Union's Green Deal establishes its position as a business taking an advanced stance on environmental impact reduction. At the same time, the implementation of this project will make a significant and ongoing contribution to carbon footprint* reduction in the Iberian region through both the Company's and its customers' emissions.

* Carbon footprint: A system for converting GHG emissions throughout the lifecycle of products and services, from procurement of raw materials to disposal and recycling, into a CO_2 equivalent, and clearly indicating this value on products and services.

Solutions to environmental and social issues

The Group's Material Issues
- Sustainable supply chain
- Human rights

Distribution of a guidebook for business partners on prevention of human rights violations in the supply chain

The MCHC Group has established a Global Policy on Respecting Human Rights, Employment and Labor, which is compliant with international standards such as the Universal Declaration of Human Rights, UN Global Compact and UN Guiding Principles on Business and Human Rights. Based on this policy, we work to ensure respect for the human rights of all people involved in the MCHC Group's business activity.

To prevent human rights violations in the supply chain and fulfill our supply-related responsibilities, we distribute to our business partners a guidebook entitled *Developing Cooperative Business Practices with Suppliers and Business Partners*, which summarizes our standards on matters such as human rights, employment and labor, the environment and safety. This is designed to deepen their understanding of the MCHC Group's activities as a contribution to creating a sustainable supply chain.

Follow the link below to view the Global Policy on Respecting Human Rights, Employment and Labor
https://www.mitsubishichem-hd.co.jp/english/sustainability/activities/pdf/globalpolicy.pdf

Follow the link below to view Developing Cooperative Business Practices with Suppliers and Business Partners
https://www.mitsubishichem-hd.co.jp/english/sustainability/activities/pdf/guidebook.pdf

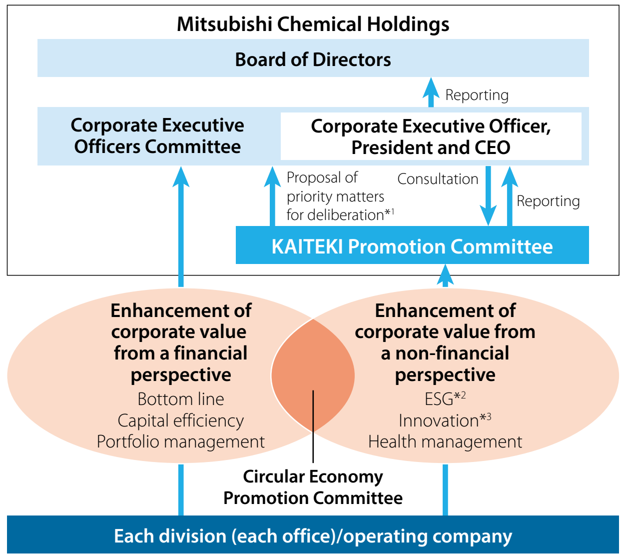
Strengthening of Sustainability Management

By practicing KAITEKI Management, the MCHC Group places sustainability at the center of its business strategy.

One of the key management policies announced under *Step 1* of the new medium-term management plan *APTSIS 25* is strengthening of sustainability management (see P. 27). This means further strengthening of the business foundation to improve environmental and social sustainability and reform the business model.

The MCHC Group's structure for promoting KAITEKI

MCHC is taking measures to increase long-term corporate value and has established the KAITEKI Promotion Committee to coordinate the increase in corporate value from a non-financial perspective. Meanwhile, the Circular Economy Promotion Committee, established in 2019, is promoting Group-wide measures to advance the circular economy through a crossover between social value and economic value. Within the framework of this KAITEKI promotion structure, we will progress steadily with a range of initiatives to fulfill our medium- to long-term basic management strategy KAITEKI Vision 30 (KV30).



*1 Where necessary
*2 Governance issues are mainly addressed by committees such as the Nominating Committee.
*3 Determination of the direction of technologies, etc.

Discussions by the KAITEKI Promotion Committee in FY2020

July 2020	• Progress of MOS activities • Activities for KAITEKI Health and Productivity Management • Circular economy promotion activities • Study of new material issues/New MOS Indices • Progress of MOT activities
February 2021	• New MOS Indices • New MOT Indices • Activities for KAITEKI Health and Productivity Management • Report on individual operating company activities

GHG reduction initiatives

The MCHC Group seeks to reduce emissions in line with the target level set by the government of each country or region. With our sights set on the KV30 target of a 26% reduction in Japanese domestic GHG emissions volume by fiscal 2030 compared to fiscal 2013, we are introducing various reduction measures including in-house electric power generation and fuel conversion of boiler facilities. We are now considering stepping up emissions reduction based on policy trends in response to the new emissions target announced by the Japanese government.

We are also accelerating technology development toward the goal of carbon neutrality, to which we aim to contribute through the practical application of artificial photosynthesis technology.

Current initiatives in Japan

GHG reduction in production activities
- Fuel conversion of in-house electric power generation, boiler facilities
- Process streamlining (DX, energy-saving, etc.)
- Use of renewable energy and carbon credits
- Improvement of CO_2 emissions coefficient of purchased electric power

Acceleration of R&D for CO_2 recycling
- Development of artificial photosynthesis technology*
  2030: Target date for large-scale verification tests
  2040: Target date for social implementation

* MCC's participation in NEDO's artificial photosynthesis project and ARPChem

Contribution to GHG reduction throughout the value chain
- Implementation of chemical recycling
- Expanded introduction of biomass plastics

Promote a circular economy

To drive the efficient utilization of resources, materials and energy and the creation of new value toward the goal of an optimal recycling-oriented society, the Circular Economy Promotion Committee is taking action for the cyclical use of carbon (CO_2), plastics and water resources and the evolution of LCA tools.

By participating in initiatives and supporting startup enterprises (see P. 55), we will accelerate the development and its social implementation of technology for innovation throughout the value chain and the reform of our business models.

Initiatives in which the MCHC Group participates

Joined in	Initiative
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)

Circular Economy Promotion Committee initiatives

Carbon cycle
- GHG reduction and effective utilization of CO_2

Plastics cycle
- Chemical and material recycling
- Bioplastics
- Environment-friendly product design

Water resource cycle
- Advanced recycling
- Reduction of water intake

Examples of circular economy initiatives

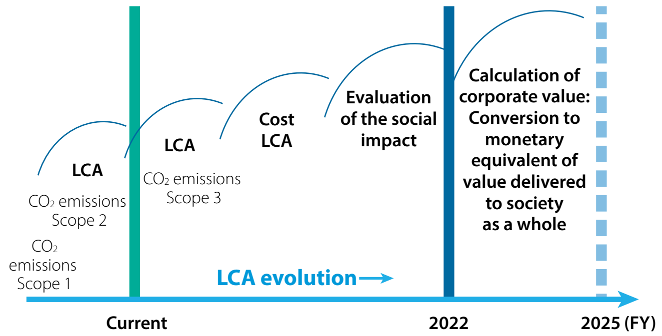
Activities	Description
Carbon cycle	Pilot project on utilization of microalgae selected as a NEDO commissioned project (research into technology for collection and concentration of microalgae using membrane separation technology)
	Launch of studies on offshore hydrogen manufacture using renewable energy, etc., and development of supply infrastructure (participation in a joint project)
	Development of a CO_2-free on-site hydrogen refilling system
	Development of artificial photosynthesis technology
Plastics cycle	Launch of a joint project with Kirin Holdings Company, Limited, aimed at PET bottle recycling through chemical recycling technology
	Partnership with Refinverse, Inc. to develop a waste plastic collection system ▶P. 30
	Creation of a recycling business model for carbon fiber composite materials and engineering plastics through acquisition of a European recycling company ▶P. 29
	Partnership with ENEOS Corporation to promote development of a chemical refinery ▶P. 81
	Expansion of biomass and biodegradable plastic products ▶P. 78

LCA tool evolution

We are progressing with the creation of systems and infrastructure for the use of LCA at an advanced level as a management tool in the chemical industry with a guideline target of fiscal 2025 for its introduction.

We will work to clearly identify the degree of social contribution of the MCHC Group and intensify KAITEKI Management by appropriately quantifying and disclosing the environmental and social impact of products and services and their contribution to environmental impact reduction as well as calculating and disclosing corporate value by converting these non-financial data to a financial equivalent.

Evolutionary process of LCA tools



Report in Line with the TCFD Recommendations

In October 2018, MCHC announced its support for the final recommendations prepared by the Task Force on Climate-related Financial Disclosures (TCFD*).

Within the framework of enhanced climate change-related measures, the MCHC Group is working for improved solutions in GHG reduction and the carbon cycle, which are among the growth businesses identified in its medium- to long-term basic management strategy, KAITEKI Vision 30 (KV30), as well as progressing with measures toward achieving the strategy's target for GHG reduction. Progressive enhancement of information disclosure is another initiative which we are targeting to increase our 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.

WEB The report based on the TCFD recommendations is also posted on our website.
https://www.mitsubishichem-hd.co.jp/english/ir/library/tcfd.html

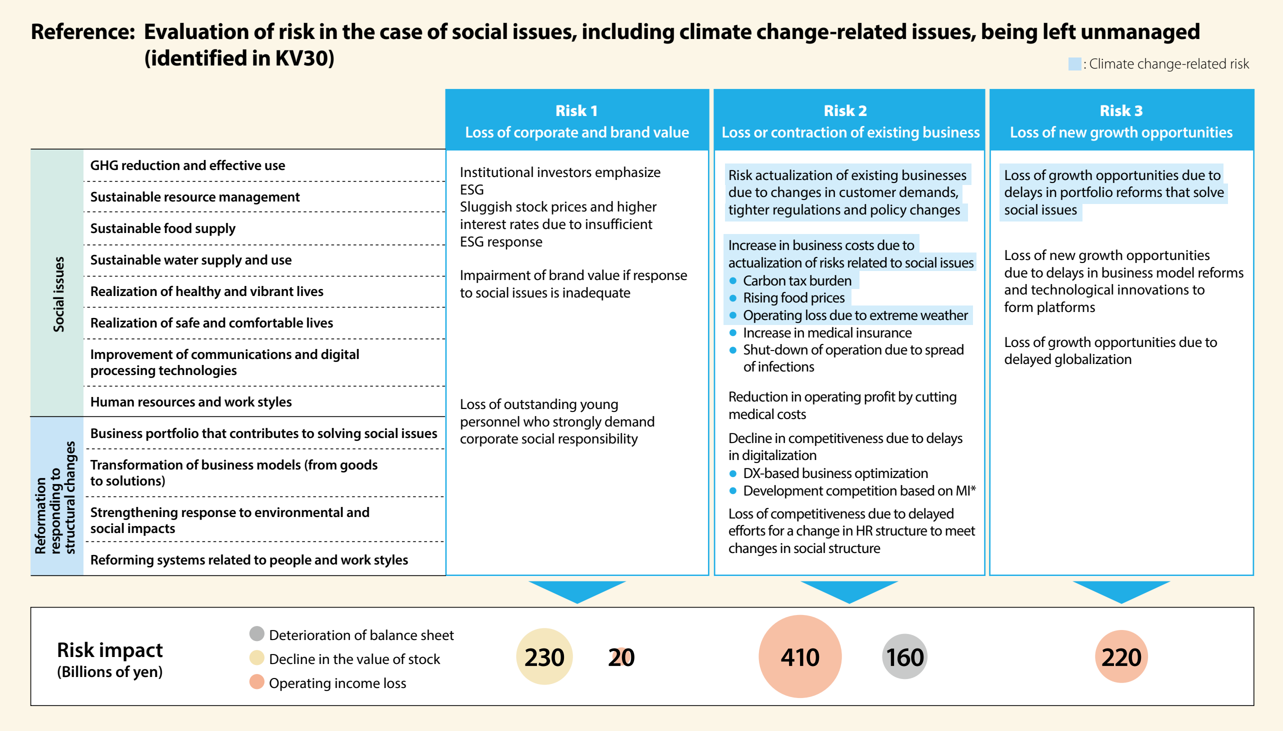
WEB KAITEKI Vision 30 is presented in detail on our website.
https://www.mitsubishichem-hd.co.jp/english/group/kv30/index.html

Governance

At MCHC, we have identified GHG reduction, environmental impact reduction and circular economy as the material issues (see P. 38) to be addressed in our medium-term management plan, *APTSIS 25*. In parallel, we have set management indicators and targets (see Metrics and targets) to measure progress with these initiatives to mitigate and adapt to climate change. Going forward, we will continue to monitor progress against the target values set for each operating company, acting in line with the KAITEKI Initiative Structure (see P. 43), centered on the KAITEKI Promotion Committee, a body under the advisory control of the MCHC president.

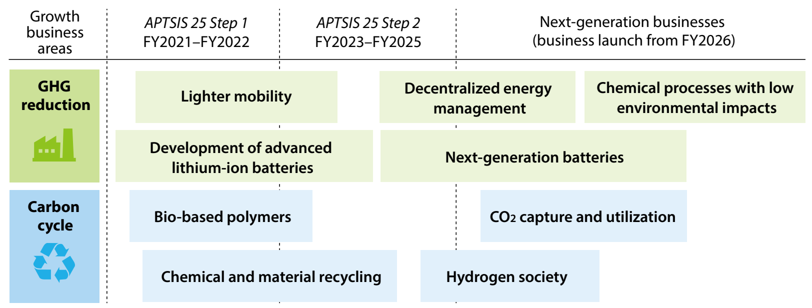
Strategy and risk management

Category	Contents of report	Related pages
Business opportunities and risks from perceived social issues	In its formulation of KV30, the MCHC Group identifies the business opportunities and risks relating to social issues that it faces in the period up to 2030. It also quantitatively assesses the risk of leaving social issues unmanaged (see the table below). A climate change-related risk that we recognize as having a particularly large impact is decrease in product demand and profitability due to factors such as increased carbon tax burden and regulation of the use of plastic products. 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.	▶ MCHC Group Material Issues (P. 37–38) ▶ Corporate Governance: Risk Management (P. 70–71) • Measures against major risks



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

Category	Contents of report	Related pages
Business opportunities and risks from perceived social issues	The MCHC Group recognizes business opportunities in solutions that contribute to resolving social issues, including the climate change-related items below, and has identified a group of relevant businesses as growth businesses, where it intends to progressively expand business scale and strengthen profitability. **MCHC Group growth businesses related to climate change**	▶ Secure footholds in fields where growth is accelerating amid changing social needs (strategy in growth businesses) (P. 31)



Category	Contents of report	Related pages
Impact on business scale and risks from perceived social issues	● By fiscal 2030, we aim to expand GHG reduction-related areas and other growth businesses to account for over ¥4 trillion in sales revenue, and over 70% of the total. ● By fiscal 2022, the target period for *Step 1* of the medium-term management plan *APTSIS 25*, we aim to expand the GHG reduction and carbon cycle areas to account for 12% of total sales revenue. ● We estimate risk associated with social issues and structural change in 2030 at around ¥1 trillion.	▶ KV30: Sales revenue target for FY2030 (P. 26)
Portfolio management	● Based on the risk impact evaluation in KV30, we have carried out a review of the basic policy for portfolio reform to switch from the previous MOE-based evaluation to an overall evaluation based on factors including sustainability contribution (MOS) and innovation potential (MOT). Going forward, with a keen eye for businesses that contribute to medium-term growth, we will undertake continuous business portfolio reform using new evaluation criteria that take into account factors such as the scale of the environmental impact.	▶ Basic policy on portfolio reform (P. 30)
Risk management	● We will strive to avoid the occurrence of major risks and minimize losses when they occur under our risk management system (see P. 70). ● We are aware that climate change risk is expected to increase further in the medium to long term, and we have factored this prediction into KV30 and the medium-term management plan. We are also exploring additional risk management methods.	▶ Corporate Governance: Risk Management (P. 70–71) • Risk management system • Measures against major risks • Measures against future risks

Metrics and targets

Category	Contents of report	Related pages
Metrics and targets to assess risks and opportunities	Of the management indicators used to measure progress with material issues (MOS Indices), we have set medium-term targets in two selected items: the percentage reduction in GHG emissions and the percentage contribution of the GHG reduction and carbon cycle business areas to total sales revenue. We will carry out annual evaluation of the state of progress. Regarding the percentage reduction in GHG emissions, we will aim for reductions in line with the target levels of the respective national and regional governments. In Japan, we are taking forward concrete measures aimed at meeting the KV30 fiscal 2030 target of a 26% reduction in domestic emissions compared to fiscal 2013. Going forward, we are committed to exploring further emissions reduction in line with the approach adopted by the respective national and regional governments.	▶ New MOS Indices (P. 39–42)
Scope 1–3 GHG emissions	Please see GHG emissions in "Non-Financial Highlights" for the performance in fiscal 2020. We have received independent assurance for GHG emissions, and are working to disclose highly reliable information.	▶ Non-Financial Highlights (P. 91) ▶ Environmental Data/Independent Assurance Report (P. 103–104)
Director remuneration	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. * From fiscal 2021, we will shift to new MOS Indices. For a detailed explanation, please refer to New MOS Indices on P. 39–42.	▶ Corporate Governance: Director remuneration (P. 66–68)

Transformation-Oriented Human Resources Strategy

Message from the Corporate Officer Supervising HR Management

Diverse individuals collaborating to create new value

Ken Fujiwara
Managing Corporate Executive Officer
Chief Group Compliance Officer

Reforming human resources systems to increase our global competitive edge

The MCHC Group believes that human resources are a key management resource for value creation. We drive transformation and sustainable growth at the Group by promoting challenge, creativity and self-actualization through work, and by making the most of the skills brought to the table by a diverse array of individuals.

Under our medium- to long-term basic management strategy KAITEKI Vision 30, we have embarked upon HR reforms that are founded on the five pillars shown below and are aiming to create highly accommodating human resources systems that embrace the diversity, expertise, and mobility of our people. One area targeted for reform is the HR system at MCC (see P. 49). Leveraging the concept of creating a corporate culture of continuous mutual growth based on the Company and its employees actively choosing and benefiting each other, we have put forward the three measures of self-directed career development, transparent working conditions and remuneration, and promotion and support for diversity. MCC will support employees to take on new challenges through ongoing communication between supervisors and their subordinates. We have also introduced a job-based setup where employee remuneration is determined according to job descriptions and outcomes. This way of working is considered mainstream in Europe and North America, but represents a significant change for a Japanese company. We think these are vital reforms if we are to provide fulfilling work for our employees and increase our global competitive edge.

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

Enhancing diversity

Diversity is a source of innovation. I believe companies that lack diversity are not capable of growth. There is room for improvement at the MCHC Group when compared with highly competitive global companies. The new MOS Indices now include diversity among management as a KPI at the main Group companies. We will initially promote diversity in a top-down fashion to foster a corporate culture that respects diverse values and backgrounds, allows individuals to make the most of their skills and promotes collaboration toward a common goal.

Embrace new world of work

For some time, we have promoted the KAITEKI Health and Productivity Management initiative that aims to support employee health and implement work style reforms to create fulfilling workplace environments (see P. 48). We are working to change work processes to fit with the New Normal, including switching to paperless procedures, using digital tools and improving administrative processes for greater efficiency, in order to embrace remote working and various other approaches thrust upon us during the pandemic (see P. 48 for details of actual initiatives). We are also reviewing our office setups. Refurbishments have been implemented for our Tokyo and Osaka head office buildings and our Yokohama Research Laboratories, and we are expanding our satellite office network with the goal of improving creativity and productivity. We are also looking at fostering cross-organization communication and collaboration and promoting innovation by consolidating MCC, MTPC, and other Group company offices scattered around the Tokyo metropolitan area into our Tokyo Head Office building.

Transformation through communication

Mindsets and behavior also need to change if we are to successfully transform HR systems and workplaces. Implementing these changes can have an enormous impact on individual motivation, and it can be difficult to get every single employee on board. As someone responsible for managing these changes, I believe I have to be aware of these issues and confront them head-on. I need to think through how the changes will be seen by those affected and how I can be inventive and build up expectations for the changes, and then communicate proactively with our employees while we implement the reforms. Through these changes, the MCHC Group will evolve into a company where people with the aspiration to create new value can take on the challenge of transformation and find fulfillment.

KAITEKI Health and Productivity Management Initiatives

The MCHC Group is promoting KAITEKI Health and Productivity Management*, pursuing health support and work style reforms for each employee and at workplaces in order to support employees flourish from a health perspective.

* *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.

KAITEKI Health and Productivity Management targets (KPIs) and results

Review

Steady improvement in work style awareness and behavior

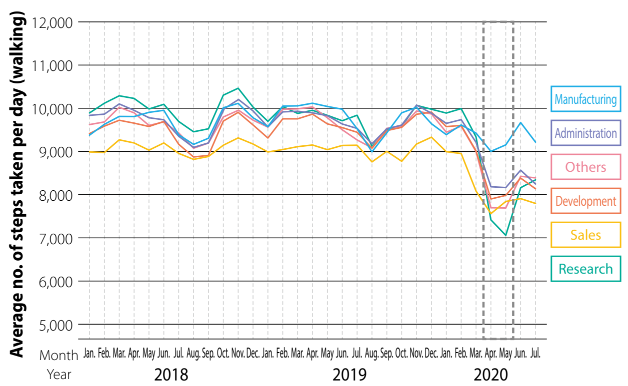
In fiscal 2020, the Vitality Index was up 6 points (40% achievement rate), the Work Style Index was up 6 points (60% achievement rate) and the Wellness Index was up 2 points (20% achievement rate). For the Work Style Index, we are seeing steady change in awareness and behavior for both workplaces and individual employees following a review of work style issues at the organizational and team level. For the Wellness Index, measures to encourage remote working have improved self-rated health assessments and sleep habits, but activity levels (daily number of steps) for all job categories declined during the first state of emergency declaration (April–May 2020) in Japan. Significant impacts were seen because of employees refraining from going out and working remotely, although the degree of impact differed among job categories. We continue communicating on the value of regular exercise in daily lives and the importance of making it a habit.

Groups with a high Work Style Index and Wellness Index tend to have a higher Vitality Index. We aim to improve creativity and productivity through measures for health support and work style reforms, the twin pillars of KAITEKI Health and Productivity Management, and by promoting the use of the PDCA cycle with the i^2 Healthcare*1.

*1 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.
*2 We conduct the health survey to assess each employee's awareness and approach to KAITEKI Health and Productivity Management.
*3 The MCHC Group distributes wearable devices to those who wish to use them and, having obtained individual employee consent and Ethics Review Committee approval, we analyze the wearable device data as part of analyses related to KAITEKI Health and Productivity Management. The fiscal 2020 analysis was conducted using data through to July 2020.

Description	FY2020 results	FY2020 targets
Vitality Index Index for employees' job satisfaction, enthusiasm, trust and growth	**69 pts** (Base year +6 pts)	**+15 pts** Increase positive choices by 15 points or more in the health survey*2.
Work Style Index Index for levels of work style awareness, behavior and initiatives	**74 pts** (Base year +6 pts)	**+10 pts** Increase positive choices by 10 points or more in the health survey.
Wellness Index Index for health checkup items, lifestyle quality and level of life satisfaction	**48 pts** (Base year +2 pts)	**+10 pts** For the 10 health criteria items, increase the number of items met by each employee by one item (= 10 points) or more.

Average number of steps by job category*3



Changing the way we work to produce an autonomous organization where creativity can flourish

Since COVID-19 started to spread, the MCHC Group has adapted to various new ways of working, including promotion of teleworking and establishment of satellite offices.

With the rapid take-up of remote working, MCHC initiated a project in October 2020 to reform operational processes under the motto "Transformation for the New Normal." The project objectives are to eliminate obstacles to remote work efficiency and find ways for employees to do their jobs productively and flexibly, regardless of the setting or distant location. So far, the project team has produced a guide to using digital applications and has recommended tools and ideas to create a comfortable work environment in the home or at satellite offices. The team is progressing a range of improvements in the workplace and exploring paperless procedures, electronic submission and approval systems (using digital signatures), and tools to optimize communication from remote work settings.

New team members are selected from applicants responding to in-house notices posted every six months. This project is helping the MCHC Group to become an autonomous organization where creativity can flourish and individual employees are adaptable to change.

ACTION
Initiatives for Human Resources and Organizations

The Group's Material Issues
- Upgrading of the work environment and health and productivity management
- HR development and training
- Diversity and inclusion
- Stakeholder engagement

To strengthen the human resources base, the MCHC Group companies are pursuing the initiatives presented below.

Reform of the personnel system for mutual growth of the Company and employees

Around the keywords of diversity, mobility and expertise, the MCHC Group is moving ahead with the personnel system reform outlined in the medium- to long-term basic management strategy KAITEKI Vision 30, which emphasizes "respect for individuals," "flexibility" and "compensation and treatment in line with market value and performance."

Taking its cue from there, MCC is implementing reform with a new personnel system launched in 2021 to realize its vision. The new system is based on the three concepts of self-directed career development, transparent working conditions and remuneration, and promotion and support for diversity. In restructuring the system for deciding employee compensation and treatment as part of this reform, MCC gave foremost attention to supporting employees in their efforts to take on challenges and drive innovation on their own initiative. The emphasis was therefore on a system that was fair, clearly understandable and transparent. Taking a job-based approach, the system determines employee compensation and treatment based not on age or experience but on the duties of the job. A change in work duties is accompanied by a timely adjustment of raising or lowering the salary.

Company's Vision

- Faced with a dramatically changing environment that is bound to strongly impact existing businesses, MCC aims to respond with a new spirit of challenge and creativity to **realize the KAITEKI vision and achieve corporate growth**.
- With that in mind, we want all employees to work in **a positive and energized atmosphere**.
- We want to be **a company that attracts diverse human resources**.

We want to create a culture where company and employees **choose and utilize each other, and mutually grow**

Three key policies of the MCC personnel system

Self-directed career development
- Each employee can realize what they want to do through their work and contribute to society.
- Each employee has opportunities to actively acquire needed specialization, knowledge and experience.
- Superiors understand the ideas and feelings of subordinates and support them in taking on challenges and developing.

Transparent working conditions and remuneration
- Transparent working conditions based on results, performance, and market value to support employees in taking on challenges
- Remuneration is determined based on the duties performed, not on age, gender or years of service.

Promotion and support for diversity
- Respect for the diverse values of individuals.
- Support individuals to take on challenges based on their needs and life plans.

Strengthening employee engagement in the ASEAN region

The MCHC Group believes that cultivating a conducive work environment in which every employee can derive a sense of satisfaction from their work is the driving force for continuous value creation of corporate activities. Based on this approach, we are rolling out a range of Group-wide policies to enhance employee engagement.

Nippon Sanso Holdings Singapore Pte. Ltd., a member of the Nippon Sanso Holdings Group, launched the "Unity in Diversity" campaign in the ASEAN region in August 2018 to lay the foundation for implementing the employee engagement strategy. This strategy has resulted in the active rollout of employee engagement initiatives such as the production of the internal video titled "Unity in Diversity Starts with Us," the hosting of a monthly webinar series on promoting cross-cultural awareness and the conduct of a region-wide employee engagement survey. These employee engagement initiatives won recognition at the Annual Loyalty & Engagement Awards 2020, held in November 2020 in Singapore, whereby the company received the regional Bronze award for Best Employee Engagement Strategy for the Asia Pacific region. Going forward, it will continue to put structures in place to enhance employee capabilities and motivation.

At the award ceremony of the Annual Loyalty & Engagement Awards 2020

Initiatives to support respect for employee diversity

MCHC has identified diversity and inclusion as a material issue and supports Group-wide action for the participation of diverse human resources.

MTPC is engaged in initiatives that aim to maximize achievement by cultivating the strengths of each individual based on mutual respect for individual differences. This includes not only conspicuous diversity (such as gender, gender identity, sexual orientation, age, employment background, nationality, disability status or time restrictions due to child-rearing and nursing care duties) but also invisible diversity (such as knowledge, skills, experience, values and ways of thinking). In November 2020, for the second consecutive year, MTPC received the highest distinction of a Gold award in the PRIDE Index 2020, which recognizes the LGBT-related initiatives of enterprises and other organizations. Going forward, by deepening understanding of diversity including LGBT and adjusting our systems accordingly, we will create a corporate ethos that enables diverse human resources to develop their abilities to the full for enhanced productivity and growth.

MTPC sticker expressing LGBT support

Main LGBT-related initiatives at MTPC

2017
- The Compliance Guidebook states that employees will not be treated unfairly on the grounds of sexual orientation, gender identity (including LGBT) or any similar reason, and makes clear that discrimination and bullying based on LGBT-related sexual orientation or gender identity is counted as a form of sexual harassment subject to disciplinary measures under employment regulations.
- Removal of the gender entry from the registration sheet for graduate recruits

2018
- MTPC-branded "ally" stickers are distributed to employees who understand LGBT and would like to take some action of their own to show support.
- Establishment of a contact point for LGBT-related inquiries and advice

2020
- Same-sex partners are added to the eligible range of family members for nursing care leave under the nursing care system.
- Joint sponsorship of advertising for the LGBT event Rainbow Festa 2020
- Change in the system of spouse benefits to award common-law marriage and same-sex partners equal treatment with spouses

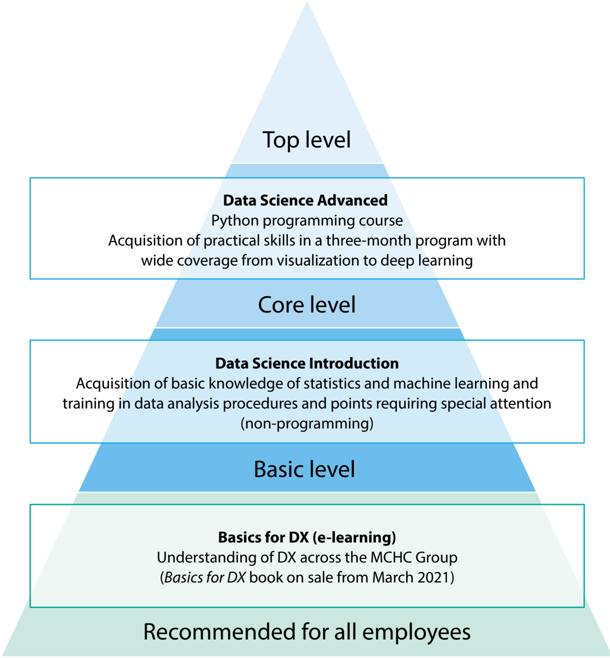
Establishment of "Digital University" to enhance digital human resources development

To accelerate transformation and create new value using digital technology, MCHC is focusing on Group-wide digital human resources development. In January 2020, we established a "Digital University" as part of our digital human resources development program and instituted three training courses as a foundation for data-driven management. The goal is to develop human resources who can take the initiative in utilizing data analysis and AI-based technologies and also in introducing practical improvements to existing businesses and field operations.

In fiscal 2020, approximately 5,000 employees participated in basic courses, creating better digital awareness throughout the Group. Further, we issued a book entitled *Basics for DX* on the content of the basic course. By not only promoting DX in-house, but also sharing our know-how with outside organizations, we aim to contribute to the widespread adoption of digital technology and the development of a data-driven society.

Going forward, we have committed to working with each of our operating companies to enhance digital human resources development through two strategies: expanding basic training and cultivating data scientists. In this way, we will achieve "ambidextrous DX" by progressing simultaneously with the resolution of existing business issues through DX and the realization of DX for the future vision of KV30.

Three Digital University courses



Innovation

Message from the CIO

Innovation is the catalyst to dramatically increase our corporate value.

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

Innovation has always been an important driver of economic growth, for companies as well as for nations. But from a practical perspective, how can we, the MCHC Group, reach beyond our established businesses to create differentiation? How can we be first to adapt to market changes and transcend outdated approaches? These questions inspire us as we move into a new era characterized by post-pandemic market shifts and the global imperative to achieve a carbon-neutral society.

R&D as the seed of innovation

R&D is a core element of MCHC Group innovation, contributing to portfolio reform by stimulating development of new businesses (see P. 52). For example, we view GHG reduction not as a burden, but as a significant business opportunity. This drives us to strengthen our R&D capability to create next-generation structural, battery, and thermal management materials, while at the same time exploring new frontiers in material recycling and bio-based polymers. In healthcare, even as we develop new pharmaceuticals including Muse cells, we also emphasize "around the pill" digital solutions to fulfill unmet patient needs. And since completing the acquisition of MTPC in 2020, we have actively promoted synergistic R&D between our materials and healthcare business segments (see P. 54).

Creating the future: DX and venture engagement

Maximizing the business impact of innovation across the MCHC Group requires that we continuously nurture the capabilities and attitude to stimulate new, productive lines of inquiry. We are building this innovation infrastructure through DX, corporate venture capital (CVC) initiatives, and strategic new business development.

Our Digital Transformation Group (see P. 53) provides a central core of digital expertise and drives high-value projects across the MCHC Group. In addition, to foster the "digital mindset" critical to our future success, DXG provides education and training programs (see P. 50) used by thousands of MCHC Group employees and conducts staff exchanges and shared work assignments with the operating companies.

Access to global innovation allows us to leverage our advantages of scale and domain knowledge while overcoming the constraints of conventional thinking and risk-averse processes. We therefore initiated CVC activities and founded Diamond Edge Ventures, Inc., in Silicon Valley in 2018 (see P. 55). With our first five portfolio companies, we are stimulating strategic collaborations in growth areas across the MCHC Group. We are also developing new business models that leverage cross-company strengths, including data-based solutions for customers in the food value chain.

Winning the global race

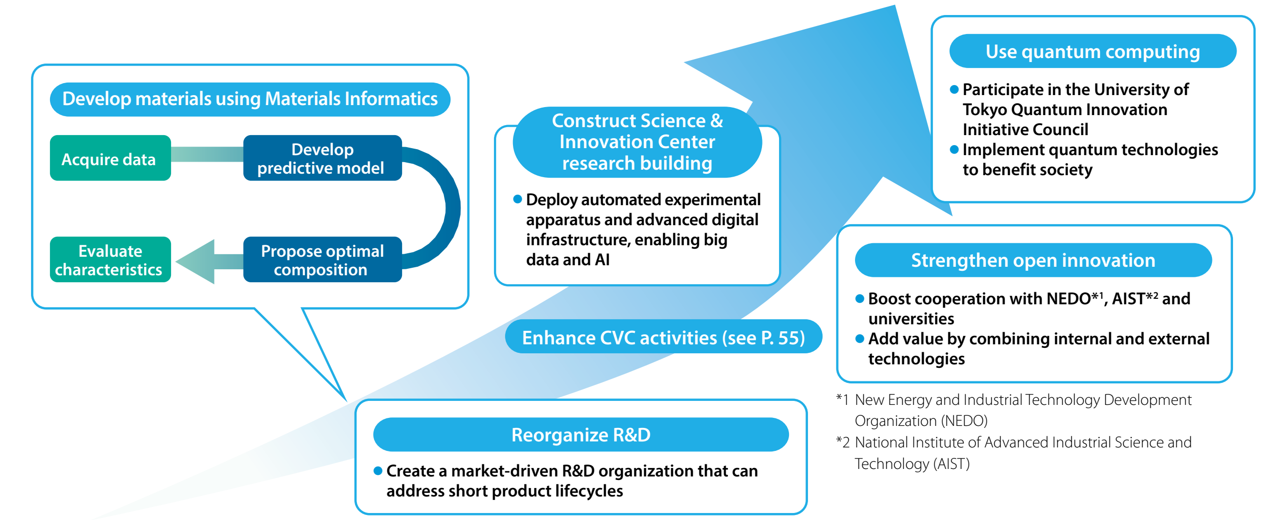
To keep pace in the global innovation race, we emphasize objective benchmarking and measurement (see MOT Indices, P. 24). Only by constantly evaluating our strengths and weaknesses can we develop into a global innovation leader.

We are living in a period of dramatic social change due to the COVID-19 pandemic, transformational developments in digital technology and the biological sciences, and significant geopolitical shifts. In such an era, entire industries may disappear while new ones emerge. This environment does not reward timidity. As we transform our portfolio and our corporation itself over the coming years, innovation will be the catalyst that allows us to dramatically increase our value to our stakeholders and to society.

Advancing R&D and Developing Next-Generation Businesses

R&D lies at the very heart of innovation, and we are improving R&D efficiency by applying materials informatics and expanding open innovation. Advancing innovation in this way will accelerate the creation of next-generation businesses.

Streamlining R&D with digital technology and open innovation



*1 New Energy and Industrial Technology Development Organization (NEDO)
*2 National Institute of Advanced Industrial Science and Technology (AIST)

R&D initiatives for next-generation businesses

Noteworthy R&D themes expected to deliver value for growth businesses (*Step 2*) and next-generation businesses

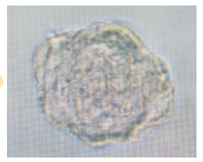
Growth business areas	Solutions	Examples of R&D themes
GHG reduction	• Lighter mobility • Electrification solutions • Decentralized energy management	• Strong, lightweight materials • Next-generation battery materials • Thermal management materials
Carbon cycle	• Bio-based polymers • Chemical and material recycling • CO_2 capture and utilization • Hydrogen society	• Biomass plastics • Plastics recycling technology • Artificial photosynthesis • Carbon-free hydrogen stations
Food and water supply	• Decentralized food and water systems • Alternative food and taste solutions	• High-performance packaging materials • Food preservation gas
Digital society infrastructure	• Next-generation high-speed communication solutions • Semiconductors • Next-generation displays	• Next-generation communication related materials • Advanced semiconductor materials • Next-generation display materials
Human interface	• Symbiosis of human and robot solutions	• Antibacterial and antiviral materials • Non-contact materials
Medical advances	• Regenerative medicine • Preventive care • Precision medicine	• Muse cells • Cell culture materials • VLP vaccine • Genetic medicine • Phenotype medicine

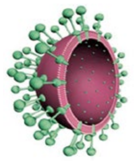
Technologies and products


Lightweight materials for mobility


Carbon-free hydrogen station


High-performance packaging materials


Muse cells


VLP vaccine

Value Creation through Digital Transformation

MCHC is applying digital technologies and developing the capabilities to achieve digital transformation (DX), which will allow us to create new value through innovation.

Accelerating digital technology development and deployment

MCHC established the Digital Transformation Group (DXG) in 2017 to promote DX across the broad portfolio of MCHC Group companies. Since then, DXG has served as a central core of digital expertise, a stimulus for operating companies to develop their digital capabilities, and a resource for individual projects. Our overall approach has been to identify high-value initiatives that can be refined and targeted for broad adoption across the MCHC Group.

Engaging with high-value initiatives through digital applications

For example, we are applying digital technologies to improve product quality, optimize and automate business processes, and accelerate R&D. Specifically, we have implemented image-based quality control of specialty chemical products using automated identification of defects. Using data analysis and optimization tools, we have created methods to optimize supply chains to meet customer and market demands in our global markets. And we are exploiting Materials Informatics to speed up materials discovery R&D, while also deploying the technology for pathfinding applications at relevant business units. These examples illustrate the increasing contribution of DX to strengthen manufacturing, business and R&D processes across the MCHC Group.

Fostering "digital natives"

Ultimately, our purpose in applying these digital innovations is to enable the creation of novel operational, customer, and social value. Now that DX has become well established within the MCHC Group, we are moving beyond our initial focus on operational excellence to initiate projects that create customer and social value. In addition to promoting open innovation beyond industry boundaries, we are laying the foundation for data-driven management by nurturing a new generation of "digital natives" through extensive digital education and the adoption of new ways of working (see P. 50). In this way, even as we execute projects that add value today, we are strengthening our digital foundation to enable continuous advancement in the years ahead.

Comments from the Chief Digital Officer

We generate innovation from change created by each employee, walking together on the path to transformation.

In this time of unpredictable change, innovation plays an increasingly important role in business growth. Digital innovation does not arise from digital technology alone, but rather in combination with the resources of our company and the experience of our employees.

To create business value, it is important for each employee to see change as their own responsibility and to actively promote change. We will continue to promote DX activities across the entire MCHC Group, as a light that illuminates the path for a team that walks together.

Naohiko Uramoto
Executive Officer
Chief Digital Officer

Solutions to environmental and social issues

The Group's Material Issues
• Intensification of DX

Deploying mathematical modeling to optimize company-wide energy costs

MCC has a large number of manufacturing sites, some of which have their own power generation facilities and surplus generation capacity, while others purchase from electric power companies. One major cost reduction opportunity is to minimize energy costs such as electricity (utility) costs at the company level. To address this opportunity, MCC launched the Wide-Area Energy Cooperation Project in September 2017. In response to the Japanese government's liberalization of electricity policy, we needed a system to optimize and efficiently operate our power generation and power purchase plans among multiple locations.

DXG built and verified a large-scale mathematical model, consisting of three million variables, to optimize company-wide utility costs. We then worked closely with the plant teams to adapt this theoretical model for deployment. Coupled with a negotiation of contract terms with power companies, MCC reduced utility costs by 10% in fiscal 2020 compared to fiscal 2017. This significant efficiency improvement was achieved through collaboration between plant personnel, business units and digital scientists. Our current work centers on further refinement of the model and increased automation of demand optimization and decision-making, with the goal of rolling out the model across the entire Group.

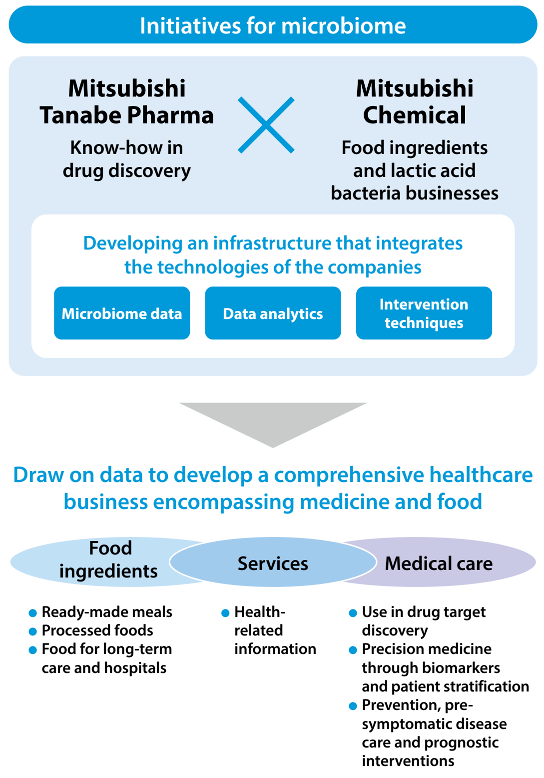
Creating Group synergies

Integrating MCHC Group assets to develop next-generation healthcare businesses leveraging the microbiome

When MTPC became a wholly owned subsidiary, MCHC set up a synergy creation committee. This initiative led to a joint project to develop next-generation healthcare businesses leveraging the microbiome (the ensemble of microorganisms in the human body) by MCC, MTPC and the MCHC Group.

Under this project, data on microbiomes will be collected and market trends analyzed to provide intelligence to inform the development of business models. Decisions on where to focus (in terms of diseases and stages, from prevention to treatment and convalescence) will be made based on business potential.

We aim to provide healthcare services in the future, but over the medium term, we will provide food ingredients that tap into the microbiome. We are also considering the use of the collected data to create health-related service solutions.



Corporate Venture Capital Activity

MCHC launched its corporate venture capital (CVC) activity in 2018 to engage with startups around the world, creating business options for both the Group and its partners. Over the next 10 years, we plan to invest $150 million to expand our existing business and $50 million to cultivate new fields.

Engagement to create new business with partners around the world

MCHC CVC activity is in its third year since establishing our Silicon Valley-based subsidiary, Diamond Edge Ventures (DEV), in 2018. With members in Japan, America, and Europe, and deep connections with business units across the entire MCHC Group, we pursue strategic engagements to create business options for both MCHC and our startup partners.

These collaborations extend far beyond the five companies in which we have invested as of April 2021. We have introduced over 1,000 opportunities across the MCHC Group, leading to 200 engagements, including 12 joint development agreements (JDA) and 6 business contracts. MCHC has announced its long-term commitment to CVC activity, comprising a "Platform Fund" to expand current business and a "Frontier Fund" to seed new business areas for the MCHC Group.

Mitsubishi Chemical Holdings

	Platform Fund	Frontier Fund
Duration	FY2021–FY2030	
Description	Investment to support the expansion of **current business** via startup engagement	Investment to **cultivate new fields** to create a future business pipeline
Investment area	Current and adjacent fields to realize KV30	Frontier fields to expand KV30
Target outcome	New revenue for current businesses	Revenue from new businesses
Fund size	$150 million (10 years)	$50 million (10 years)

Mitsubishi Tanabe Pharma — Therapeutics Fund (MP Healthcare)

Breakthrough technology to enable next-generation semiconductor production

French startup aveni S.A. is the most recent addition to the DEV investment portfolio. aveni has developed breakthrough metallization technologies that enable the next generation of semiconductor devices for memory, logic, and lighting. In conjunction with this investment, MCC entered into a JDA with aveni, reflecting MCHC's strategy to expand our core offerings in the semiconductor sector. "The Diamond Edge Ventures team's professionalism, efficiency and expertise helped us close an incredibly complex deal in record time," said Bruno Morel, president of aveni.

Accelerator program for a circular economy

In 2020, we organized the KAITEKI Challenge, an accelerator program aimed at contributing to a circular economy. This program was in partnership with Greentown Labs, the largest climate-tech incubator in the United States. Our theme of "Reimagining Proteins, Plastics, and Packaging" reflects our concern about global over-consumption of resources and excessive waste generation. Six startups were selected competitively to participate in the KAITEKI Challenge. These startups are working closely with MCHC Group business and technical teams to transform their innovative concepts into commercial reality.

Comment from the DEV President

Continuing along the road to true innovation that will allow us to leapfrog the competition

"You can't manage innovation with a rear-view mirror." This statement still resonates with me, many years after first hearing it. Basing strategy on what your market peers are doing is tempting, as it gives you a direction to competitiveness based on current market knowledge. But true innovation is not about catching up, it is about leapfrogging! Sometimes you need help from the outside to do so. This is true for startups and large corporations alike.

I am proud of the portfolio of investments we have created in less than three years. The road to innovation is seldom straight, but we can help MCHC anticipate curves and bumps by aggressively creating mutual business value with our startup partners.

Patrick Suel
President, Diamond Edge Ventures, Inc.

Solutions to environmental and social issues

The Group's Material Issues
• GHG reduction

Investment in AddiFab ApS

In June 2019, DEV invested in AddiFab ApS, a Danish startup developing next-generation molding technologies that combine 3D printing with injection molding.

What followed is already a CVC success story. "Diamond Edge Ventures hit the jackpot with AddiFab," says Randy White, Chief Innovation Officer of Mitsubishi Chemical Advanced Materials (MCAM). "This partnership is already a huge win for both AddiFab and MCC within the first two years."

For business growth, AddiFab benefits from the strong commercial and technological support of multiple MCC teams. For example, MCC is developing new dissolvable resins for AddiFab's process, while multiple MCC business units leverage AddiFab capabilities to diversify their injection molding business, enabling them to expand beyond their current customer base. With AddiFab as its partner, MCAM is now the exclusive service provider promoting Freeform Injection Molding, reinforcing MCAM's global solutions provider status.

MCAM became AddiFab's largest customer by installing five sets of AddiFab equipment around the world, starting with MCAM's Innovation and Technology Center in Arizona in early 2020. Additional equipment is now fully operational in the United States, Belgium and Japan. MCAM plans to add more sites in 2021 in order to keep up with the demand for this fast and affordable prototype business, branded as "MCAM SPRINT."

Through this partnership, AddiFab and MCHC customers around the world are now benefiting from the speed, design freedom and low cost of 3D printing combined with the mechanical strength of injection molded parts.

Technician inspects AddiFab 3D-printed mold at MCAM's Innovation and Technology Center in Arizona

Super-strong injection molded KyronMAX automotive bracket made using the AddiFab process

Governance

Special Feature: Selection Process for the New President

In the appointment of our new president, our concerns were to secure the sustainable growth of the MCHC Group and to ensure the objectivity, appropriate timing and transparency of the process for appointment and dismissal of the president.

Takayuki Hashimoto
Outside Director of the Board
Chairperson of the Nominating Committee

Emphasis on the objectives of the Corporate Governance Code

As MCHC has now appointed its first non-Japanese president, interest has focused on the Nominating Committee's thinking. However, in June 2015, following the publication earlier in the year of Japan's Corporate Governance Code, MCHC became one of the first in the industry to transition to the structure of a company with a nominating committee, etc., and to appoint an outside director as committee chairperson. MCHC has thus long been a pioneer in governance reform. Seen in this light, the new president's appointment can be understood as resulting from the emphasis we placed on the Code's main objectives: to secure sustainable growth and to ensure the objectivity, appropriate timing and transparency of the process for appointment and dismissal of a president.

Defining a leadership profile in anticipation of MCHC 2.0

I was first appointed in 2016 as an outside director and member of the Nominating Committee. Subsequently, following the revision of the Corporate Governance Code in 2018, the ratio of inside to outside directors on the Nominating Committee was adjusted from 2:3 to 1:4 to strengthen the committee's independence.

It was around that time that I, having been appointed chairperson of the committee in 2019, introduced performance evaluation for the president. I considered this evaluation necessary to the appointment and dismissal of a president based on my understanding of the main objectives targeted by the revision of the Code. Taking as my reference point the medium-term management plan *APTSIS 20*, whose final year was fiscal 2020, I set the criteria for the appointment of the next president by holding interviews with the directors and corporate executive officers and by using questionnaires and other methods to gather opinions from the corporate executive officer level and below. In this way, I worked to define the profile of a leader to guide the transition from what I have named MCHC 1.0 to MCHC 2.0.

Setting out three missions

MCHC 1.0 refers to the evolutionary phase from the Company's establishment in 2005 under former president and retiring chairperson Yoshimitsu Kobayashi and retiring president Hitoshi Ochi, in which a large number of companies with similar aims came together under the holding company umbrella and, following various intermediate developments, created the present corporate group through the recent integration of the three chemical operating companies and consolidation of Mitsubishi Tanabe Pharma Corporation as a wholly owned subsidiary. MCHC 2.0 represents a vision for the post-COVID era in which the constituent operating companies, leveraging their distinctive characteristics to respond to the rapidly changing social environment and social challenges, grow together as a corporate group that delivers new value.

I believe that our mission on the Nominating Committee is to select the leader most suited to guiding the Company toward the realization of its target future profile based on the principles of fairness and transparency. What kind of person could realize this vision? After countless discussions around this question, we set out three main criteria, or missions, for the candidate.

The first was to grasp the need for evolution toward MCHC 2.0 and possess the ability to create and explain the road map and see it through to its final destination. This would mean being strongly committed to the KAITEKI philosophy but at the same time being able to synergize the Group's management resources in chemicals, healthcare, regenerative medicine and industrial gases to create new value and promote the corporate brand.

The second was to have a strong commitment to steadily incorporating the corporate mission and the creation of social value into MCHC's business activities from an investor perspective.

The third was to have the practical ability to carry out the business portfolio reform that was vital to achieving an increase in corporate value, without feeling restrained by past loyalties and without sacrificing employee motivation.

Emphasis on commitment to reform and communicative ability

Having set out these criteria, in the spring of 2020 I learned that President Ochi intended to retire at the end of the final year of *APTSIS 20*. I therefore set about the process of selecting the next president. For the candidate interviews, in addition to the three criteria outlined above, I specified six competencies as characteristic behaviors required of a leader: (1) Ability to change, (2) Ethical standards, (3) Conceptual thinking ability, (4) Results orientation, (5) Long-term perspective, (6) Ability to communicate a vision

Our final selection based on these three criteria and six competencies was Jean-Marc, but I was gratified to find that more than 30 people nominated as candidates had expressed interest.

Eventually, seven finalists were interviewed by the members of the Nominating Committee. The choice was among a group of professionals who were all outstanding, but as long as leaders are human, there is no such thing as one who can function in any and every management environment. To identify the individual most suited to executing the missions indicated above, the members of the Nominating Committee carried on interviewing and discussing throughout the week-long August holiday period.

The deciding factor was whether the candidate, irrespective of their past successes, had the character and the determination to carry through innovative reform. On this point, the internal candidates, who were familiar with the past growth of the business and the hard work put in by employees, might have made ideal leaders of the Group operating companies, but would have been lacking in some respects as the leader of the holding company. Although that is a great pity, it is my honest assessment.

The non-Japanese candidates meanwhile fell into two main groups. The first group comprised noted business managers who had built up extensive experience and a strong track record in major enterprises. The other group was younger and therefore did not have senior managerial experience in a company on the scale of MCHC, but had been successful in achieving results by driving steady reform. After discussing which among these candidates we should appoint, we came to the conclusion that we should ask Jean-Marc to accept.

The reasons for Jean-Marc's appointment: The four Ps

The first P is for Performance. After beginning his career at the U.S. chemical company Dow Corning, Jean-Marc became president of a company financed by an investment firm and pushed through business reform to achieve enhanced financial performance. Most recently, he transformed Roquette's commodity business into a high-value-added operation and doubled the profit margin in the space of around seven years, a success to which we gave strong positive recognition.

The second P is for Potential. The new president has wide-ranging knowledge of the global market in areas from chemicals and foods to drug discovery, which made him highly attractive to MCHC.

The third P is for Passion. None of the other candidates had prepared so thoroughly for the interview by researching the Company in advance or showed a resulting level of commitment to reform. We were highly impressed by Jean-Marc's ability to explain the importance of KAITEKI Management in his own words and by his declared commitment to enhancing financial performance.

The last P is for Personality. A remote interview provides less information than a face-to-face meeting, so we tried to compensate by giving weight to references from managers at previous employers and consultation with former colleagues. Those around Jean-Marc remembered, for instance, that he had emphasized communication and teamwork and that his approach to reform was not to simply draft in human resources from outside but to start by changing the attitudes of the existing staff. Here and on other points, their evaluations closely matched his own self-evaluation.

We continue to have high expectations of Jean-Marc, the new president appointed as a result of this process. However, our mission on the Nominating Committee is not only to support him but also to work on refining the succession plan, which is designed to continuously select and cultivate the executive human resources of the next and subsequent generations. Rather than seeking only to defend the choice made by the Nominating Committee, I am committed to strengthening the system to select the next generation of senior executives through continuous evaluation based on objectivity, appropriate timing and transparency.

Directors

(As of July 1, 2021)

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

■ Lead Independent Outside Director
□ Independent Director
◆ 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,
Corporate Executive Officer,
President and Chief Executive Officer

Jean-Marc Gilson

Aug. 1989 Joined Dow Corning Corp.
Jun. 2005 Corporate Vice President & General Manager of Specialty Chemicals Business, President Asian Area of Dow Corning Corp. (until Jun. 2009) Shareholder Representative Director of Dow Corning Toray Co., Ltd. (until Jun. 2009)
Jun. 2009 Executive Vice President & General Manager of Specialty Chemicals Business of Dow Corning Toray Co., Ltd. (until Dec. 2010)
Feb. 2011 Chief Executive Officer of Avantor Performance Materials, Inc. (until Dec. 2011)
Feb. 2012 Vice Chairman & Chief Operating Officer of NuSil Technology LLC (until Jun. 2014)
Sep. 2014 Chief Executive Officer of Roquette Frères S.A. (until Dec. 2020)
Feb. 2021 Executive Advisor of MCHC
Apr. 2021 Corporate Executive Officer, President and CEO of MCHC
Jun. 2021 Director of the Board, Corporate Executive Officer, President and CEO of MCHC (to present)

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

Hidefumi Date

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

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

Ken Fujiwara

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

Director of the Board

Yoshimitsu Kobayashi

Dec. 1974 Joined Mitsubishi Chemical Industries Limited
Jun. 2003 Executive Officer of MCC
Apr. 2005 Managing Executive Officer of MCC
Jun. 2006 Director of the Board of MCHC (to present)
Feb. 2007 Director of the Board, Managing Executive Officer of MCC
Apr. 2007 Director of the Board, President and CEO of MCHC
Director of the Board, President and CEO of MCC
Apr. 2012 Director of the Board, Chairperson of MCC (until Mar. 2017)
Apr. 2015 Director of the Board, Chairperson of MCHC (until Jun. 2021)

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 (to present)
May 1998 Chairperson, Department of Chemical Engineering, UCSB (until Jul. 2001)
Mar. 2001 Director of Mitsubishi Chemical Center for Advanced Materials at UCSB (to present)
Apr. 2014 Managing Executive Officer of MCHC
Jun. 2014 Director of the Board, Managing Executive Officer of MCHC
Jun. 2015 Director of the Board, Managing Corporate Executive Officer of MCHC
Apr. 2017 Director of the Board of MCHC (to present)

Director of the Board ●

Shigeru Kobayashi

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

Director of the Board ○

Hiroshi Katayama

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

Outside Director of the Board ■◆△

Takayuki Hashimoto

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

Outside Director of the Board □◇▲

Chikatomo Hodo

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

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 (to present)
Jun. 2019 Outside Director of MCHC (to present)

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 of The International Accounting Standards Board (until Jun. 2011)
Sep. 2011 KPMG AZSA LLC (until Jun. 2018)
Jan. 2012 Board Member of KPMG AZSA LLC (until Jun. 2015)
Feb. 2014 Founding member of International Integrated Reporting Council (to present)
Oct. 2014 Trustee of International Valuation Standards Council (until Oct. 2020)
Sep. 2015 Specially Appointed Professor of Faculty of Commerce, Chuo University (to present)
Apr. 2016 Member of the Certified Public Accountants and Auditing Oversight Board for FSA (to present)
Jun. 2020 Outside Director of MCHC (to present)

Outside Director of the Board □◇○

Takako Masai

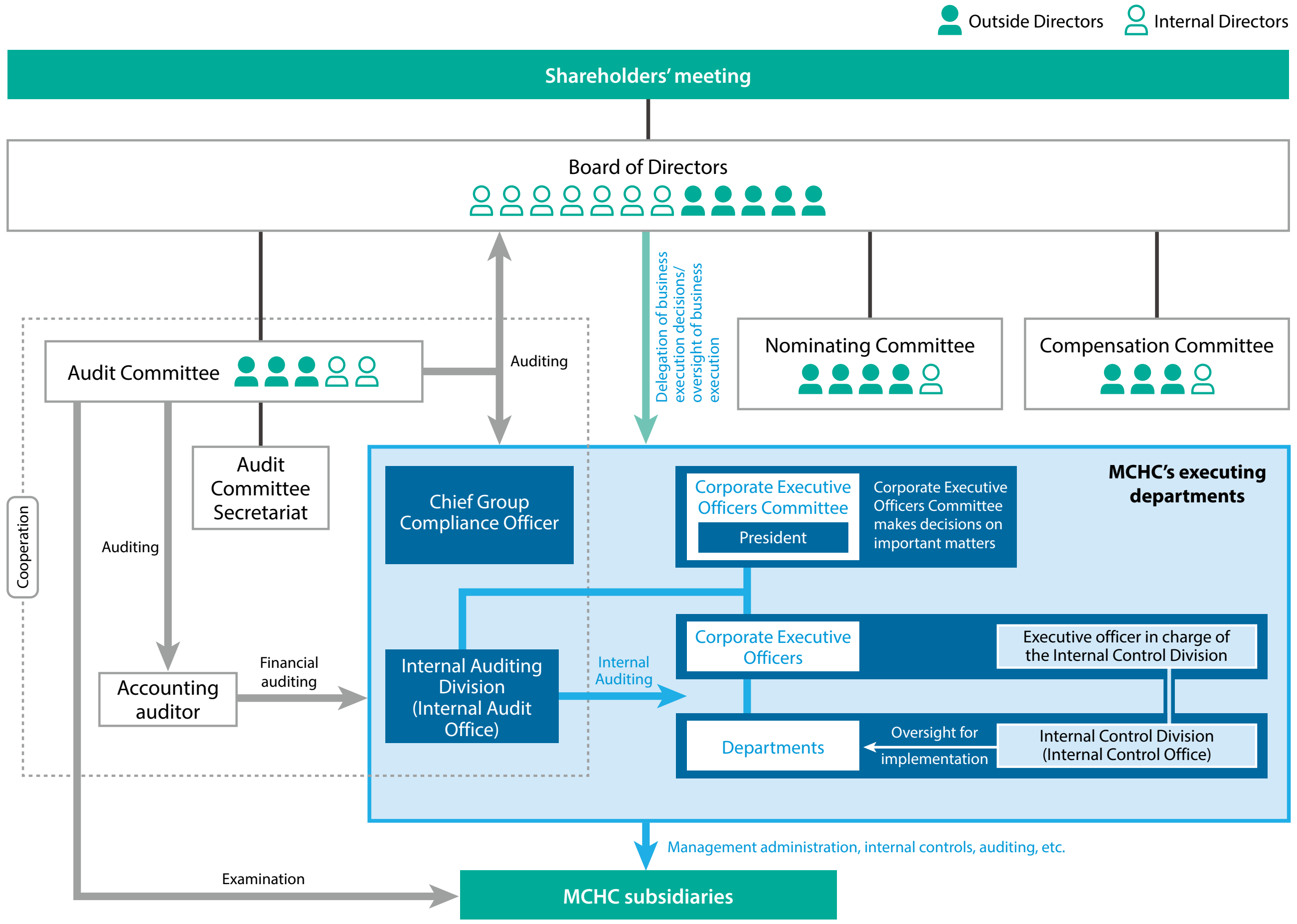
Nov. 1988 Joined Tokyo Branch, The Bank of Nova Scotia
May 2007 Head of Capital Markets Division, Shinsei Bank, Limited
Oct. 2011 Head of Markets Sub-Group, Shinsei Bank, Limited
Apr. 2013 Executive Officer, Head of Markets Research Department, Markets Sub-Group, Shinsei Bank, Limited
Jul. 2015 Executive Officer, General Manager of Markets Research Division, Shinsei Bank, Limited
Apr. 2016 Executive Officer, General Manager of Financial Research Division, Shinsei Bank, Limited
Jun. 2016 Member of the Policy Board, Bank of Japan
Jul. 2021 Outside Director of MCHC (to present)

Corporate Governance

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 July 1, 2021)

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	June 2021
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	Appoint a lead independent outside director
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	Enhance the independence of the Board of Directors and strengthening of cooperation between executive and outside 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 July 1, 2021)

	Nominating Committee	Audit Committee	Compensation Committee
Chairperson	Outside director	Internal director (full-time)	Outside director
Composition (including chairperson)	Outside directors—4 Internal director—1	Outside directors—3 Internal directors (full-time)—2	Outside directors—3 Internal director—1
Purpose	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 (MCC, MTPC and LSII).	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 design of the remuneration system and the amount of remuneration to be paid to individuals as well as to the presidents of the major directly owned subsidiaries that are not listed companies (MCC, MTPC and LCII).
Activities in FY2020	The committee met a total of 10 times and, after reviewing the succession plan and considering the competencies required of the CEO (character, abilities, experience, etc.), selected the successor candidates for the post of corporate executive officer, president and CEO. It also selected the successor candidates for posts as director, including outside director. The committee further considered the question of how to improve the systems for business oversight and execution to further enhance governance.	The committee met a total of 13 times and undertook key point audits of the status of development and operation of the internal control system and the status of progress of the medium-term management plan *APTSIS 20*. The audits focused on the impact of COVID-19 and the status of the Company's response, and made proactive use of remote meeting systems and other tools to ensure that they could proceed unhindered.	The committee met a total of 8 times, and, in accordance with the basic policy on director remuneration, discussed and decided the remuneration level for the next corporate executive officer, president & CEO. Among the other matters it addressed was a review of the system of performance-linked stock-based remuneration for corporate executive officers.

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.

Assessment of the CEO

The Nominating Committee assesses the performance of the CEO from multiple perspectives using indices (see P. 67) 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.

Audit system (trilateral audits)

The Audit Committee cooperates with the Internal Auditing Division 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.

Governance

Diversity of directors

Regarding the composition of the Board of Directors, the Board of Directors decides on the MCHC Group's basic management policies, which set the expected skill areas using a skills matrix so that useful oversight and advice can be obtained on management issues, and ensure that the Board of Directors consists of diverse directors with a high level of expertise.

	Management experience	Finance and accounting	Science and technology, IT and production	Risk management	Business strategy and marketing	Laws and regulations, etc.	Globality and diversity
Jean-Marc Gilson ◆	●				●		●
Hidefumi Date ◆		●		●			●
Ken Fujiwara ◆				●		●	●
Yoshimitsu Kobayashi	●		●				●
Glenn H. Fredrickson			●		●		●
Shigeru Kobayashi	●			●	●		
Hiroshi Katayama				●		●	●
Takayuki Hashimoto	●				●		●
Chikatomo Hodo	●		●				●
Kiyomi Kikuchi				●		●	●
Tatsumi Yamada		●		●			●
Takako Masai		●		●			●

Notes: 1. Up to three prospective areas of special expertise for each director are indicated.
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

For the nomination of outside and internal director candidates, the specified appointment process is implemented following interview of the candidates by the Nominating Committee, on which outside directors form a majority. The individuals nominated by the Nominating Committee as director candidates must meet the following criteria:

- Possess the deep insight and ability to make objective and fair judgments that are necessary to fulfill the responsibilities of a director of a company with a nominating committee, etc.
- Possess high ethical standards and a law-abiding spirit.
- Be in sufficient health to fulfill the responsibilities of a director.
- For outside directors, fulfill the standards for independence of outside directors (see below), be able to secure enough time to carry out the duties, and contribute to diversity among the outside directors.

Standards for independence of outside directors

The individuals appointed as outside directors shall not fall under any of the items listed below so as to be capable of overseeing the Company's management from a fair and neutral standpoint free of conflict of interest with general shareholders.

1. Related party of the Company
(1) An executive director, corporate executive officer, executive officer, manager, employee, partner, etc., of the MCHC Group (hereinafter referred to as a "person engaged in the execution of operations")
(2) A person who has been engaged in the execution of operations of the MCHC Group in the past 10 years

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

3. Major business partner
(1) A person engaged in the execution of operations of a company*1 whose major business partners include MCHC, MCC, MTPC, LSII or NSHD (hereinafter referred to as "major subsidiaries of the MCHC Group")
(2) A person engaged in the execution of operations of a major business partner*2 of MCHC or a major subsidiary of the MCHC Group

4. Accounting auditor
An accounting Auditor of the MCHC Group or an employee thereof

5. Person engaged in transaction as an individual
A person who receives money or other financial benefits of ¥10 million or more per year from MCHC or a major subsidiary of the MCHC Group

6. Donation recipient
A person who receives a donation or financial assistance of ¥10 million or more per year from MCHC or a major subsidiary of the MCHC Group or a person engaged in the execution of operations of a company that receives such donation or financial assistance

7. Reciprocal holder of the position of director
A person engaged in the execution of operations of a company that has appointed as director an MCHC Group director or employee

8. Close relative, etc.
(1) A spouse, relative within the second degree of kinship, or any person who shares the livelihood, of a person engaged in the execution of important operations of the MCHC Group (hereinafter referred to as a "close relative")
(2) A close relative of any person who meets the definition in any of items 3 to 7 above

*1 If the said business partner has received from MCHC or a major subsidiary of the MCHC Group an amount equivalent to 2% or more of its annual consolidated sales revenue in the latest fiscal year, it shall be considered as having MCHC as a major business partner.
*2 If MCHC or a major subsidiary of the MCHC Group has received from the said business partner an amount equivalent to 2% or more of MCHC's annual consolidated sales revenue in the latest fiscal year or the said business partner has lent to the MCHC Group an amount equivalent to 2% or more of MCHC's total consolidated assets, the said business partner shall be considered as a major business partner of MCHC.
Note: The party is deemed to fall under one of items 3 to 7 if the relevant condition has been met at any time in the past three years.

Main agenda items discussed at the Board of Directors' meeting during fiscal 2020

- Next medium-term management plan
- Budgeting and planning of investments for the next fiscal year
- Assessment of the effectiveness of the Board of Directors
- Selection and appointment of corporate executive officers
- Report from each of the committees
- Main agenda reported at the Board of Directors' meeting
- Business monitoring
- Effectiveness of internal control system
- Report from the Risk Management Committee
- Review of the meaningfulness of strategic shareholdings
- Outcomes of engagement activities with institutional investors

Fiscal 2020 assessment of the Board's effectiveness

From March to April 2021, an assessment of the effectiveness of the Board of Directors was carried out by a third-party organization. The Board of Directors discussed the results before deciding on initiatives to improve its effectiveness.

Assessment by a third-party organization

March to April 2021
Assessment carried out by Board Advisors Japan, Inc.

- Inspection of the minutes of the Board of Directors, Corporate Executive Officers Committee and each of the Nominating, Audit and Compensation committees
- Questionnaire survey of all directors, including the chairperson of the Board of Directors, covering the following items:
  - Overall assessment
  - Efforts to address the problems identified in the previous fiscal year's assessment
  - Composition of the Board of Directors
  - Preparations for Board meetings and support system for Board members
  - Discussions at Board of Directors' meetings
  - Contribution of directors
  - Ideal profile of each committee
  - Ways of monitoring business execution
- Survey consisting of interview of approximately one hour with each director

Summary of evaluation results

The effectiveness of the Board of Directors is secured in terms of the structural framework, as shown for instance by the adoption of the institutional design of a company with a nominating committee, etc. as defined in Japan's Companies Act. In practical terms, however, a number of critical issues remain.

- Many directors have pointed out that effectiveness as the board of directors of a holding company is not sufficiently ensured, and have advocated the need to clarify the role of the Board and review the agenda.
- Efforts to address the issues identified in the previous fiscal year's effectiveness assessment have brought improvements in some issues. Other issues however have not been sufficiently addressed, as is clear from the harsh comments of some outside directors on issues including discussion of the role of the holding company and prior distribution of Board meeting materials.
- Since the mission of increasing the Company's corporate value is to be entrusted to a new CEO recruited from outside, enhancing the effectiveness of the Board of Directors, as the supervisory body of the CEO, is a critical and urgent issue. In connection, the Company is expected to address the following four issues:
  - Redefining the role of the Board of Directors and reviewing the agenda
  - Encouraging the directors to display leadership
  - Reviewing the composition of the Board of Directors
  - Reinforcing the function of director nomination

Initiatives to improve effectiveness

Based on the assessment findings described above and the ensuing discussions by the Board of Directors, it has been decided to take action on the following challenges:

- Redefining the roles of the Board of Directors and the agenda
  - Recast the role and functions of the Board of Directors and review the agenda
  - Monitor business execution through the use of key performance indicators (KPIs)
  - Increase all directors' awareness of their duty to effectively supervise business execution
- Reviewing the composition of the Board of Directors
  - Devise a skills matrix reflecting the role the Board of Directors should fulfill in supervising the new CEO's execution of duties
  - Review the ratio of internal to outside directors
- Further reinforcing the function of director nomination
  - Plan management succession and identify and list persons with leadership potential at an early stage

Lead independent outside director

In June 2021, with the aim of enhancing the independence of the Board of Directors and strengthening cooperation between executive and outside directors, it was decided to appoint a lead independent outside director to be elected by the outside directors from among themselves. The lead independent outside director will hold discussions with the corporate executive officer, president & CEO, after gathering the opinions of the outside directors, and will preside as chairperson over a meeting body composed solely of the outside directors.

Director Liaison Committee

Following a review of the Outside Director Liaison Committee, which has served hitherto as a forum separate from the Board of Directors for sharing of important management-related information and frank exchange of opinions on management issues, a Director Liaison Committee has been established including all directors as members.

Separate from the new committee, regular meetings will be held for exchange of opinions among the outside directors only.

Main agenda items of the Outside Director Liaison Committee in fiscal 2020

The main agenda items at meetings of the Outside Director Liaison Committee in fiscal 2020 were as follows:

- Review of the business policy for subsidiaries
- Issues relating to management strategy
- Items relating to the next medium-term management plan (basic policy, material issues, portfolio management)
- Items relating to the Nominating Committee
- Business results forecasts/dividends
- Healthcare business-related reports and future plans
- Corporate venture activity and long-term strategy
- Discussion of the draft of the next medium-term management plan
- Review and future outlook for DX activity

Governance

Outside officers' main activities and attendance at Board of Directors' and committee meetings

Name	Status of activities and summary of duties executed in relation to expected roles	Attendance (FY2020)		
Hideko Kunii	At Board of Directors' meetings, Ms. Kunii provided input on matters such as promotion of women's empowerment, science and technology, and IT, drawing on her profound insight into diversity promotion as well as her extensive experience in company management and her expertise in the information processing domain. At Nominating Committee meetings likewise, Ms. Kunii fulfilled her duties, which included commenting appropriately as a member of the committee on the major agenda items, which were management succession planning, the nomination of candidates for various posts including director, corporate executive officer and the next corporate executive officer, president and CEO, and the improvement of the systems for business oversight and execution toward further enhanced governance. At Audit Committee meetings, Ms. Kunii appropriately discharged her assigned duties as an outside member of the committee in relation to the key audit items of the fiscal year under review as set out in the audit plan, which included the development and operation of the internal control system and intensive auditing of the progress of the medium-term management plan, *APTSIS 20*.	Board of Directors' meetings	8/8	100%
		Nominating Committee meetings	10/10	100%
		Audit Committee meetings	13/13	100%
Takayuki Hashimoto	At Board of Directors' meetings, Mr. Hashimoto provided input mainly in relation to global management, business portfolio strategy and risk management, drawing on his extensive experience in company management and profound insights into digital business. At Nominating Committee meetings likewise, Mr. Hashimoto played a leading role as chairperson in fair and transparent decision-making on the main agenda items, which were management succession planning, the nomination of candidates for various posts including director, corporate executive officer and the next corporate executive officer, president and CEO, and the improvement of the systems for business oversight and execution toward further enhanced governance. As a member of the Compensation Committee, Mr. Hashimoto fulfilled his duties, which included providing appropriate input on the major agenda item for the fiscal year under review, which was the design and implementation of the remuneration system for directors and corporate executive officers.	Board of Directors' meetings	8/8	100%
		Nominating Committee meetings	10/10	100%
		Compensation Committee meetings	8/8	100%
Chikatomo Hodo	At Board of Directors' meetings, Mr. Hodo provided input on such matters as global management, portfolio management and corporate value enhancement from the perspective of ESG, drawing on his extensive experience in company management and profound insight into management knowhow. At Compensation Committee meetings likewise, Mr. Hodo played a leading role as chairperson in fair and transparent decision-making on the design and implementation of the remuneration system for directors and corporate executive officers. At Nominating Committee meetings, Mr. Hodo also fulfilled his duties, which included commenting appropriately as a member of the committee on the major agenda items, which were management succession planning, the nomination of candidates for various posts including director, corporate executive officer and the next corporate executive officer, president and CEO, and the improvement of the systems for business oversight and execution toward further enhanced governance.	Board of Directors' meetings	8/8	100%
		Nominating Committee meetings	10/10	100%
		Compensation Committee meetings	8/8	100%
Kiyomi Kikuchi	At Board of Directors' meetings, Ms. Kikuchi provided input on such matters as the functions and responsibilities of the Board of Directors, assessment of legal risk and global governance, drawing on her experience and profound insight as a lawyer. At Nominating Committee meetings likewise, Ms. Kikuchi fulfilled her duties as a member of the committee, which included commenting appropriately on the major agenda items, which were management succession planning, the nomination of candidates for various posts including director, corporate executive officer and the next corporate executive officer, president and CEO, and the improvement of the systems for business oversight and execution toward further enhanced governance. At Audit Committee meetings, Ms. Kikuchi appropriately fulfilled her assigned duties as an outside member of the committee in relation to the main audit items for the fiscal year under review as set out in the audit plan, which included the development and operation of the internal control system and intensive auditing of the progress of the medium-term management plan, *APTSIS 20*.	Board of Directors' meetings	8/8	100%
		Nominating Committee meetings	10/10	100%
		Audit Committee meetings	13/13	100%
Tatsumi Yamada	At Board of Directors' meetings, Mr. Yamada provided input on such matters as finance and accounting, disclosure and market valuation, drawing on his experience and profound insight as a certified public accountant and an international accounting expert. As a member of the Compensation Committee likewise, Mr. Yamada fulfilled his duties, which included providing appropriate input on the major agenda item for the fiscal year under review, which was the design and implementation of the remuneration system for directors and corporate executive officers. At Audit Committee meetings, Mr. Yamada appropriately fulfilled his assigned duties as an outside member of the committee in relation to the key audit items for the fiscal year under review as set out in the audit plan, which included the development and operation of the internal control system and intensive auditing of the progress of the medium-term management plan, *APTSIS 20*.	Board of Directors' meetings	6/6	100%
		Nominating Committee meetings	7/7	100%
		Audit Committee meetings	10/10	100%

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.

Director remuneration

Policy for deciding the remuneration of directors and corporate executive officers for fiscal 2021

Principle of remuneration

The systems for directors and for corporate executive officers are separate, and remuneration is determined by the Compensation Committee based on the concepts outlined below.

Basic policy for deciding remuneration, etc., for directors

- Given their role of overseeing and auditing the management of the Company from an independent and objective standpoint, remuneration for directors shall be basic remuneration (fixed remuneration) only.
- In order to secure personnel suitable for executing the responsibilities of a director of a company with a nominating committee, etc., the level of remuneration shall be determined by considering the levels set by other companies, the expected role and function, the hours required to complete the duties and other factors.

Basic policy for deciding the remuneration, etc., of corporate executive officers

- The remuneration plan shall be such as to make officers conscious of the integrated practice of the three axes of KAITEKI Management toward the MCHC Group's vision, "Realizing KAITEKI" (MOS/MOT/MOE).
- The remuneration plan shall be designed to function effectively as an incentive to enhancing short-term and medium- and long-term performance and improving sustainable corporate value and shareholder value.
- Remuneration shall be set at a level competitive enough to attract and retain high-quality management personnel to lead the sustainable growth of the MCHC Group.
- Remuneration shall be determined through a fair and reasonable decision-making process that fulfills the duty of accountability to all stakeholders including shareholders, customers and employees.

Basic policy for deciding the remuneration, etc., of officers recruited from outside

- The remuneration, etc., of officers recruited from outside shall be determined in accordance with the basic policies outlined above, but with consideration given on a case-by-case basis to the remuneration levels and practices thought to prevail in the place or country of origin or residence of the officer recruited and other relevant factors.

Remuneration system

Directors

The remuneration of directors shall be basic remuneration (fixed remuneration) only. When a director serves concurrently as a corporate executive officer, the remuneration system for corporate executive officers shall apply.

Corporate executive officers

The composition of the remuneration of corporate executive officers shall be as set out in the table below.

Type of remuneration			Description
Fixed	Short-term / Cash	Basic remuneration	Basic remuneration paid for the execution of responsibilities and duties Determined by role and size of responsibility (office title, with or without representative right, etc.)
Variable		Annual bonus	Monetary remuneration paid in proportion to KAITEKI value assessment and individual appraisal (achievement of initiative targets under medium-term management plan, leadership quality, etc.) for each fiscal year
	Long-term / Stock	Performance share unit (PSU)	Stock allocation based on Company share price growth* over a three-year period (*) Relative to JPX-Nikkei 400 Index and peer group (domestic and overseas chemical/healthcare companies with global operational presence)
		Restricted transfer stock (RS)	Restricted transfer stock is allocated each fiscal year in an amount depending on the office title. The transfer restriction is removed on the officer's retirement.

Note: For overseas national officers, fringe benefits and severance pay may be paid in addition to the above, to the extent appropriate, based on consideration of the remuneration levels and practices believed to prevail in the place or country of origin or residence of the officer recruited.

Governance

Method of setting the levels / percentage of remuneration

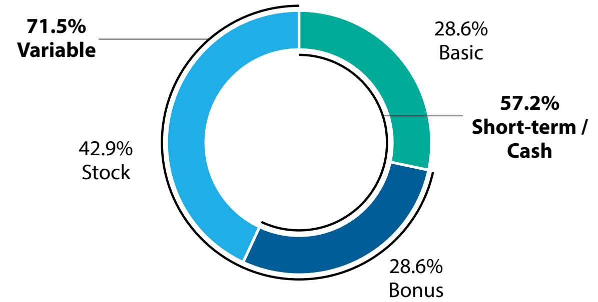
Directors

The basic remuneration level for directors shall be determined by considering the remuneration level for non-executive directors and outside directors at other companies of similar size in terms of domestic sales, market capitalization and other indicators, the role and functions of the director (e.g., member/chairperson of Nominating/Compensation/Audit Committee), and the hours required to complete the duties (full-time/part-time distinction).

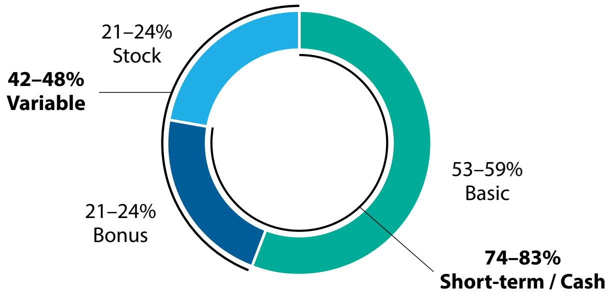
Corporate executive officers

The remuneration, etc., of corporate executive officers shall be set according to the office title and the associated responsibilities and duties and shall be of a level that is competitive, in terms of the amount of remuneration and the degree of performance linkage, based on comparison with the remuneration level and degree of performance linkage set by other companies of similar size in terms of market capitalization and domestic sales (for overseas national officers, however, sales in the officer's place or country of origin or residence or in another region relevant when considering recruitment of talent).

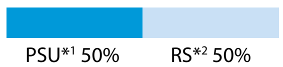
Corporate executive officer, president and CEO



Other corporate executive officers



Composition of stock remuneration



*1 PSU: Performance share unit
*2 RS: Restricted transfer stock

Note: The ratio of basic remuneration to bonus to stock remuneration is set at 1:1:1.5 for the corporate executive officer, president and CEO and at 1:0.35–0.45:0.35–0.45 for other corporate executive officers, with the ratio of variable remuneration increasing with seniority of position.

Annual bonus

The amount of individual bonus for corporate executive officers is determined in proportion to the KAITEKI value assessment (achievement of annual targets under the MCHC Group's three axes of KAITEKI Management) and individual appraisal (achievement of initiative targets set individually under the medium- to long-term management plan, leadership quality, etc.).

Individual bonus amount =
Base amount for office title × KAITEKI value assessment (0–200%) × Individual appraisal (±20%)

Basis for assessment

KAITEKI value assessment

To make officers conscious of the practice of KAITEKI Management toward the Company's vision, "Realizing KAITEKI," the Company directly applies management indicators for the three respective axes of KAITEKI Management, MOS, MOT and MOE, as indicators for evaluating bonuses.

Specific indicators for KAITEKI value assessment are selected every fiscal year, primarily from those listed below.

KAITEKI Management axis	Management indicator for axis = Indicator for determining bonus	% weight in assessment
MOS	Indicator associated with reduction of GHG and other environmental impacts, contribution to health/medical treatment and social issues, compliance, accident/fire prevention, etc.	20%
MOT	Indicator associated with R&D efficiency, technological superiority and alignment with social needs	10%
MOE	Indicator associated with core operating income, ROE, ROIC, operating cash flow, etc.	70%

For fiscal 2021, the relative weight of the indicators was reviewed, with MOS adjusted from 10% to 20% and MOE from 80% to 70%.

Individual appraisal

For the corporate executive officer, president and CEO, self-set targets declared at the beginning of the fiscal year are reviewed and assessed by the Compensation Committee and the Nominating Committee. For evaluation, a self-assessment is reviewed and evaluated at the end of the fiscal year by the Compensation Committee and the Nominating Committee.

Regarding targets and evaluation for other corporate executive officers, these are determined through interview between the individual officer and the corporate executive officer, president and CEO, then reviewed and approved by the Compensation Committee. In cooperation with the Nominating Committee, the Compensation Committee verifies the fairness and reasonableness of the targets and evaluations for each corporate executive officer.

Performance share unit (PSU)

In fiscal 2021, the Company discontinued the stock remuneration plan using the Board Incentive Plan (BIP) trust and introduced a new PSU-based system. Under this system, which is intended to promote awareness of sustainable improvement in corporate value and shareholder value, common stock of the Company is allocated, in principle annually, in an amount calculated in proportion to the Company's share price growth (total shareholder return (TSR)) over a three-year period. The method of calculating the number of stocks allocated is as follows:

Number of individual shares allocated =
Base number of shares for office title × Relative TSR assessment (0–200%)

Stock-based remuneration with restricted transfer stock (RS)

Based on a yearly agreement between the Company and the corporate executive officers on the allocation of restricted transfer stock, an allocation of the Company's common stock is made in line with the base value for the office title. In order to share shareholder value and achieve growth in share price in the medium to long term, the period of transfer restriction shall be from the date of allocation to the date of retirement as a corporate executive officer of the Company.

Remuneration clawback and other important matters

The Company may apply other special remuneration and benefits, where necessary, after a case-by-case review by the Compensation Committee. In addition, if a director or corporate executive officer is found to have committed misconduct or other infringement, the Company may, subject to a review by the Compensation Committee, make a claim against the director or corporate executive officer to withdraw the right to receive remuneration ("malus clause") or to reclaim the remuneration ("clawback clause") .

Aggregate amount of remuneration of company officers

Aggregate amount of remuneration of officers for FY2020

Category of officer	Aggregate amount of consolidated remuneration, etc. (millions of yen)					No. of persons
	Basic remuneration	Performance-linked remuneration		Restricted transfer stock	Total	
		Cash bonus	Stock-based remuneration			
Directors (internal)	185 (185)	—	—	—	185 (185)	5
Directors (outside)	71	—	—	—	71	6
Corporate executive officers	303 (292)	21 (21)	33 (33)	62 (62)	419 (409)	7
Total	560 (549)	21 (21)	33 (33)	62 (62)	676 (666)	18

Notes: 1. The aggregate amount of remuneration, etc., above is stated as consolidated remuneration, etc. (the sum of remuneration paid or to be paid, or expenses, etc., borne by the Company and its subsidiaries). For directors (inside) and corporate executive officers, the amounts in brackets are the sum of remuneration, etc., paid by the Company. For outside directors, the aggregate amount of consolidated remuneration, etc., is paid fully by the Company.
2. MCHC directors who serve concurrently as corporate executive officers are remunerated as corporate executive officers.
3. The amounts of basic remuneration and cash bonus are the sum of remuneration, etc., paid during the fiscal year under review (all monetary remuneration).
4. The amount of stock-based remuneration above is the sum of relevant expenses recorded for the fiscal year under review (expenses for allocation of common stock, etc., of the Company and for payment of dividends accrued on such stock through the BIP trust on the officer's retirement).
5. The amount stated above for restricted transfer stock is the sum of relevant expenses recorded for the fiscal year under review (expenses for allocation of restricted transfer stock at the base value for the office title whose transfer restriction is removed on the officer's retirement).

Method of calculating performance-linked remuneration paid during the fiscal year under review and results of assessment

The Company's performance-linked remuneration is decided mainly on the basis of the results of the assessment of KAITEKI value for the previous fiscal year.

[Cash bonus]
Individual remuneration amount =
Base amount for office title × KAITEKI value assessment (0–200%)

[Stock-based remuneration]
Number of individual points awarded (for stock allocation) =
Base points for office title × KAITEKI value assessment (0–200%)

Notes: 1. KAITEKI value assessment: Performance is rated on a five-level scale with "A" (100%) as the base value, "SS" (200%) when the target is surpassed by a significant margin, "S" (150%) when the target is surpassed, "B" (50%) when the target is missed, and "C" (0%) when the target is missed by a significant margin (figures in brackets: percentage payout).
2. Stock-based remuneration: Points are awarded each year in proportion to the KAITEKI value assessment. An amount of the Company's common stock, etc., equivalent to the accumulated points together with the dividends accrued on such stocks is paid on the officer's retirement.

The result of the assessment of KAITEKI value for fiscal 2019 was B (50%). The main indicators used in the assessment of KAITEKI value and their relative weights are indicated below.

Major indicators		% weight in assessment
MOS	Reduction of GHG and other environmental impacts	10%
	Contribution index for pharmaceutical provision	
	Employee wellness index	
MOT	New product creation rate	10%
	Patent examination request/claims rate	
	Core technology evolution rate	
MOE	Core operating income	80%
	ROE	
	Free cash flow	

Message from an outside director of the Board

Focus on "proactive governance" when monitoring the management, to enhance corporate value

Kiyomi Kikuchi
Outside Director of the Board
Lawyer

Role of the Board of Directors in achieving *APTSIS 25*

In my view, the roles of the Board of Directors in light of the new medium-term management plan are to drive forward the portfolio transformation and to create a management system that enables financial stability and improves the profitability of the entire Group. The medium-term management plan includes numerical targets and detailed measures, but it is the responsibility of the executive team (not the Board) to execute such measures and achieve those targets. The Board of Directors (more specifically, the outside directors based on their individual expertise), on the other hand, takes a broader perspective to monitor and supervise the directors and the executive team to see what actions are taken by the management to achieve portfolio transformation and increase profitability and to review whether appropriate decisions are made and efficient operations are employed to implement such objectives.

As a company with a nominating committee, etc., the MCHC Group has made certain progress in its management system from the perspective of "defensive governance" for example, by having outside directors with various skills sit on the committee to exercise monitoring and control functions. Going forward, we will also focus on "proactive governance" for the Group to achieve portfolio transformation and pursue steady growth in profits.

Fostering lively discussions for creative decision-making

To pursue proactive governance, we need to clarify the authority and duties of the Board of Directors (especially of a company with a nominating committee, etc.) and separate the supervisory role from the execution function to allow speedy and efficient decision making by the management team. While the decisions by the Board of Directors (which is the second supreme decision-making body within a company after the Shareholders' Meeting) are limited to the most fundamental policies of the Company, the execution and implementation of such basic policies and the day-to-day business decisions are delegated to the executive team. The Board of Directors monitors the processes of such decision making.

For this system to work well, the Board needs to function as a forum for discussion in the true sense of the term. It is often the case that the Board meeting becomes a place where the management team reports on what it has already determined and the Board provides approval after the fact. But the Board is supposed to be a more creative organ where appropriate agendas are timely selected, key issues are brought to light through full debate and solutions are sought and developed for those issues. To realize this purpose, ensuring the objectiveness of the source of information and data becomes more and more important so that transparency and efficiency of the discussion at the Board level increases. Having objective information and data helps the Board to spot the nature of the underlying issues and set a direction for the solution. I would like to promote discussions based on objective information and data, and help build a system to ensure such discussions.

Making the most of the new CEO's skillset

We recently welcomed Jean-Marc Gilson as our new CEO. The MCHC Group is a large organization with a long history, and this may mean that the Group is relying on and is still bound by ideas from the old days. I am interested to see how our new CEO will change the mindsets of officers and employees, and together with the team, improve profitability of the Group under his leadership. Meanwhile, we expect to monitor the reasonableness and logicalness of the decisions made by the executive team as well as the processes, and the efficiency and speed with which the team manages the Group.

Strengthening and activating the Board may lead to maximizing the new CEO's skillset. By ensuring transparent processes and having the CEO and the executive team report actively to the Board, issues surrounding the Company will be highlighted, and more essential and effective discussions can take place there. In such an environment, we hope to monitor the direction in which the management is taking the Company, and together with them, make appropriate decisions for the MCHC Group.

Risk Management

The 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.

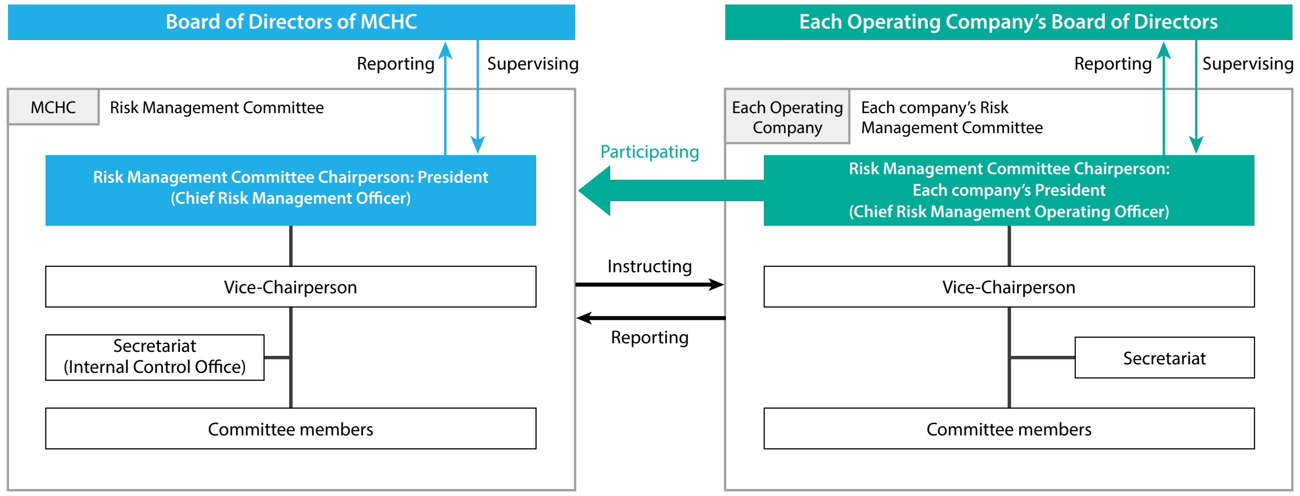
Risk management system

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 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



Solutions to environmental and social issues

COVID-19-related risk management

Located in Kawasaki City, Kanagawa Prefecture, LSII's Tonomachi Cell Processing Center (CPC) is an important base for the culture of Muse cells and the manufacture of related product formulations.

Although we have rolled out teleworking and online meetings, the cell culture operations require the presence of over 80% of the staff. We have therefore stationed body temperature measuring equipment and non-contact alcohol spray dispensers at room entrances and made it standard practice to check body temperature and sanitize the hands before entering. Meeting rooms and similar areas are provided with a permanent supply of sanitizer, and all staff are required to eat in silence as well as wear a mask at all times other than when taking a meal or refreshment.

Risk management process

1 Identification of risks	2 Risk assessment and measures	3 Detailed examination of risk measures	4 Auditing
All operating companies of the Group regularly identify both internal risks associated with business types and models, and external risks such as country specific risks and economic risks.	Each operating company prioritizes the risks identified using a uniform framework based on impact and frequency. Senior managers specify risks with significant impacts on the Group management as major risks. The relevant departments then implement appropriate risk mitigation measures as instructed.	Risk measures are periodically scrutinized. Countermeasures against the major risks, in particular, are reported to each Chief Risk Management Officer at operating companies.	To ensure the proper administration of these risk management systems, the Internal Audit Office periodically conducts audits and reports to the Chief Risk Management Officers.

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.

Human rights issues
In line with the commitments set out in our Global Policy on Respecting Human Rights, Employment and Labor, we work through dialogue with stakeholders and other activities based on the approach of human rights due diligence to monitor the value chain for human rights violations and high-risk situations. Where a high-risk workplace or other situation of concern is identified, we seek improvement to prevent adverse human rights outcomes. In the rare event of a human rights violation occurring, we take steps to resolve the issue at an early stage.

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.

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.

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. The MCHC Group has identified GHG reduction as a material issue under *APTSIS 25*. As well as promoting products that contribute to improving energy efficiency, we are working on further adaptation and development.

GHG reduction initiatives ▶ P. 43

Digital technologies
The digital technologies represented by artificial intelligence (AI) and the Internet of Things (IoT) are bringing dramatic change to business models and supply chains across the whole of industry. If the MCHC Group fails to adapt appropriately to this change, it risks a decline in competitiveness. To maintain and reinforce competitiveness, we are applying AI and the IoT to digitize the customer interface for an enhanced customer experience, and using these technologies to optimize the supply chain, to automate process control and product analysis and quality inspection, and to promote new material and pharmaceutical development.

Compliance

For the MCHC Group, the word compliance has a broad meaning encompassing not just basic adherence to the law but also observance of corporate ethics and general social norms. We regard compliance as one of the most important management issues and engage in a range of initiatives to instill a culture of compliance throughout the Group.

Charter of Corporate Behavior

The MCHC Group Charter of Corporate Behavior declares explicitly our commitment to applying sound ethics and good common sense to every aspect of our corporate activities.

Among other things, the Charter sets out fundamental principles of conduct for achieving sustainable development in harmony with society and explains our approach to the main issues affecting our contribution to the realization of KAITEKI.

WEB The full text of the Charter of Corporate Behavior can be viewed on our website.
https://www.mitsubishichem-hd.co.jp/english/group/charter.html

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 seeks to ensure compliance in accordance with local conditions through the regional headquarters established in the United States, Europe and China. In addition to developing shared educational tools, we provide training to overseas Group companies and help them to set up compliance hotlines. 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 2020, 116 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 fiscal 2020

In fiscal 2020, 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. The survey results were presented as feedback to all operating companies, who use them to enhance compliance awareness through education and training and other activities. 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.

Solutions to environmental and social issues

The Group's Material Issues
• Compliance

Compliance training

The MCHC Group provides grade-specific compliance training every year in Japan and overseas. 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.

In fiscal 2020, to reduce the risk of COVID-19 infection, MTPC made video recordings of discussion-style training sessions and made the content available online.

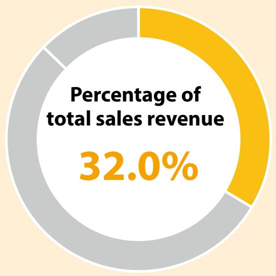

Video recording at a compliance training session at MTPC

Overview of Business Domains | Summary

Detailed financial results figures for each domain can be viewed on our website.
https://www.mitsubishichem-hd.co.jp/english/ir/pdf/01062/01273.pdf

Notes:
1. ROA was calculated as core operating income divided by the fiscal year average of total assets.
2. Figures for past fiscal periods (up to and including fiscal 2019) are the business results figures announced at the time.
3. Fiscal 2016 figures for sales revenue YoY change and ROA for Performance Products and Industrial Materials are provided for reference only.

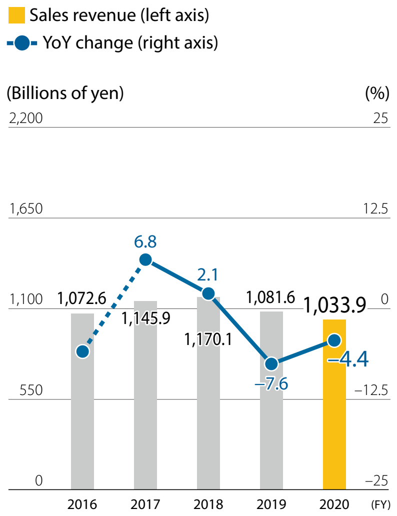
Performance Products domain



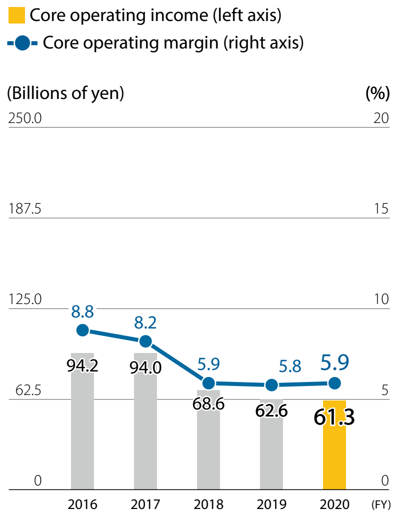
Sales revenue ¥1,033.9 billion

ROIC 5.1%

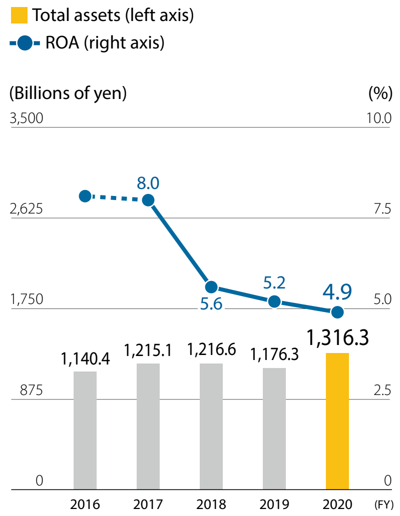
Sales revenue and YoY change



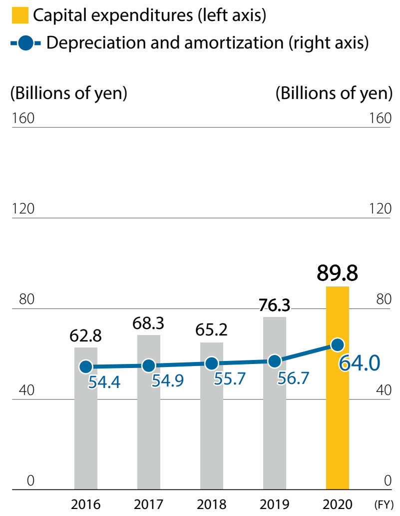
Core operating income and margin



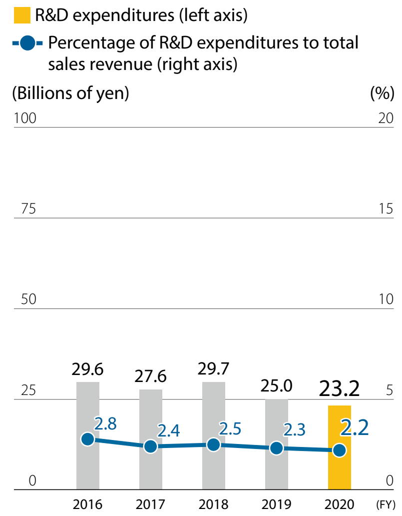
Total assets and ROA



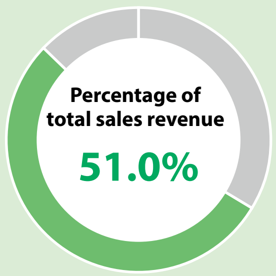
Capital expenditures and depreciation and amortization



R&D expenditures and percentage of total sales revenue

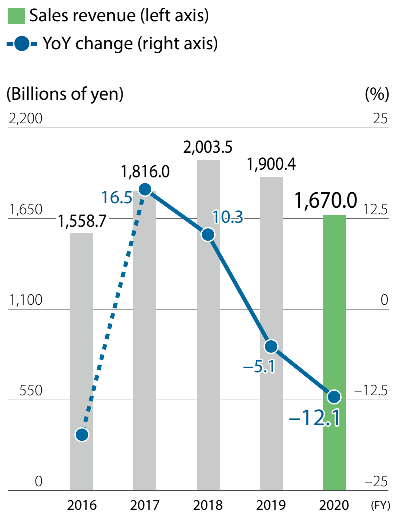


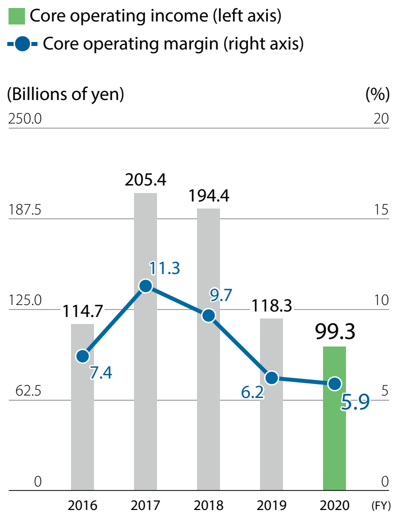
Industrial Materials domain

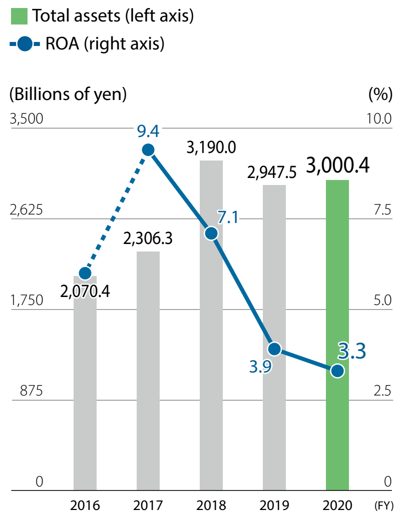


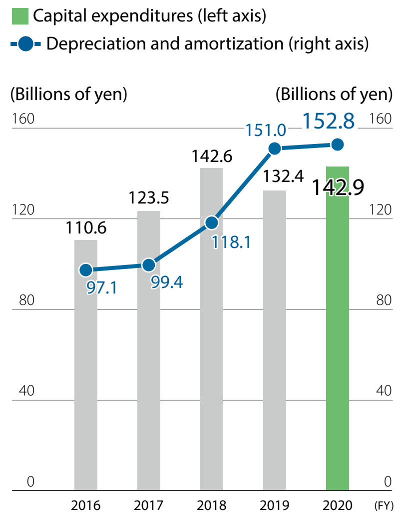
Sales revenue ¥1,670.0 billion

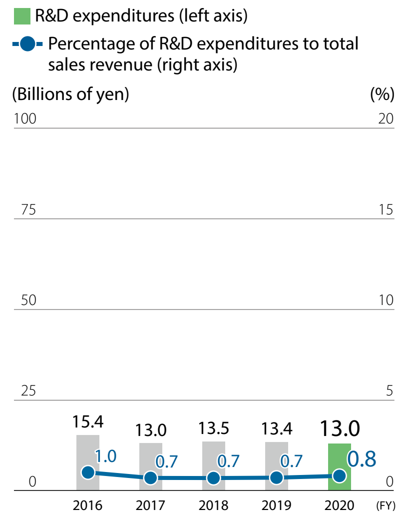
ROIC 3.2%



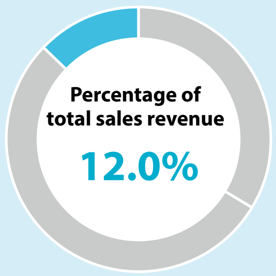






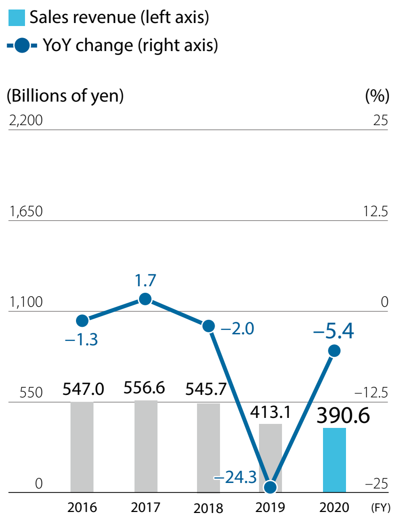


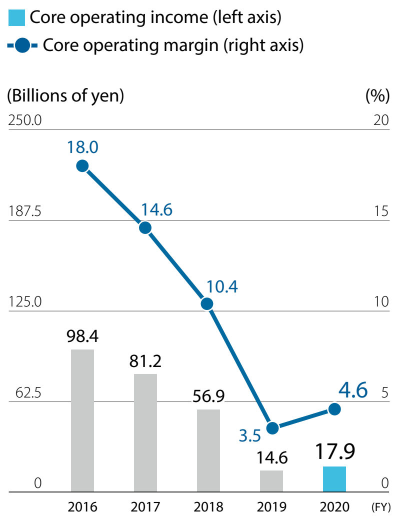
Health Care domain

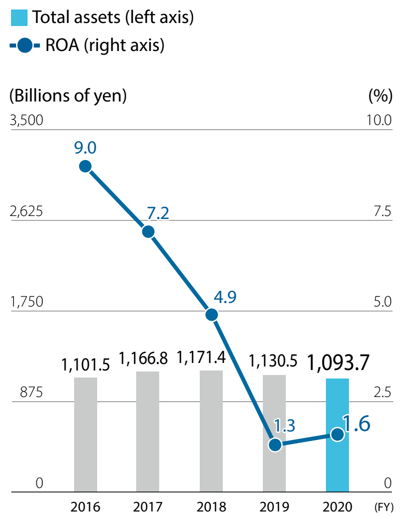


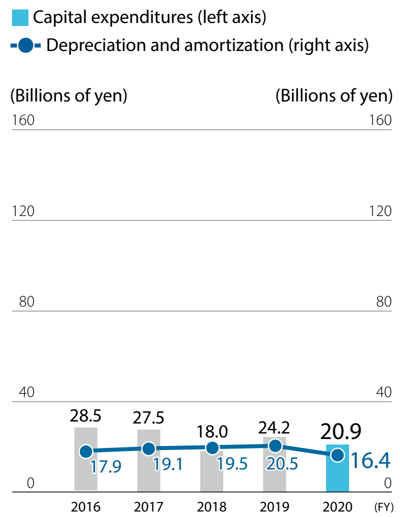
Sales revenue ¥390.6 billion

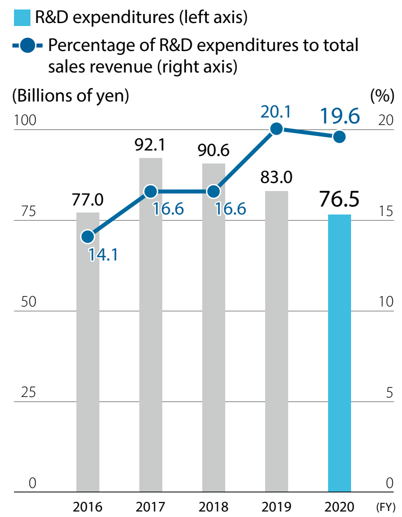
ROIC 2.3%





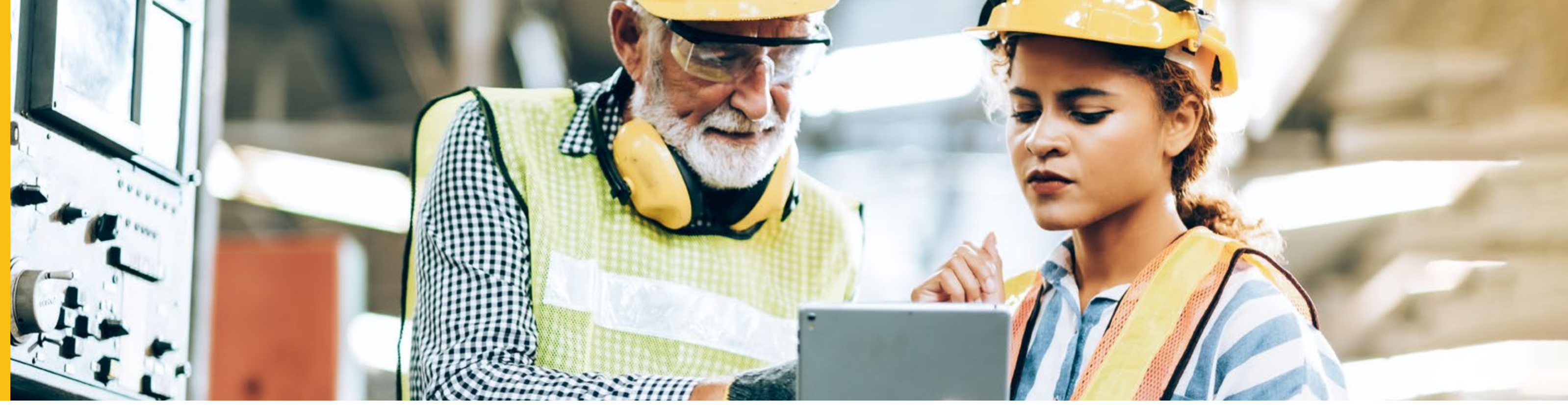






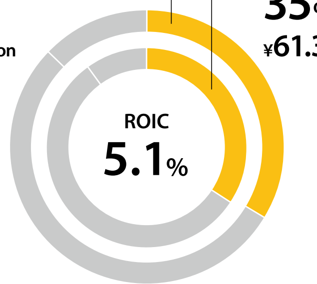
Performance Products Domain

We will seek to achieve differentiation and advanced functions, coordinating the Group's diverse range of products and technologies to offer varied solutions to different target markets.



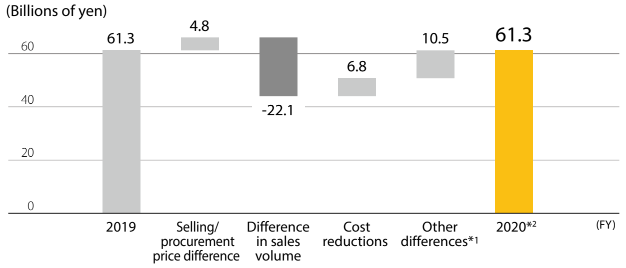
Sales revenue
32%
¥1,033.9 billion

Core operating income
35%
¥61.3 billion



Performance Products segment

Factors underlying YoY change in core operating income



*1 Includes differences in inventory valuation and gains/losses on equity method investments
*2 The core operating income of ¥61.3 billion for fiscal 2020 is the figure before segment change.

Performance Products segment

Sales revenue amounted to ¥1,033.9 billion, a year-on-year decrease of ¥84.2 billion, while core operating income of ¥61.3 billion maintained the previous fiscal year's level. Although demand began to recover from the second half of the year, sales revenue declined year on year, due particularly to a decrease in sales to the automotive industry of high-performance engineering plastics and other products supplied by the Advanced Moldings and Composites business. Other reasons for the decrease included the reduced sales volume of phenol and polycarbonate chain materials in the Advanced Polymers business, arising mainly from the impact of scheduled maintenance and repairs.

The segment's core operating income, however, maintained the previous fiscal period's level thanks to the recovery in demand from the second half of the year and the improvement in the phenol and polycarbonate chain materials market, which compensated for the abovementioned negative factors.

Strengths (S)

Polyester Films business
- We possess a strong market position and the ability to provide solutions in the advanced polyester film sector.

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.

Semiconductors business
- We utilize our high-level purification and quality management technologies to monitor microscopic particulate contamination.
- We globally roll out cleaning services for semiconductor manufacturing equipment components.

Battery Materials business
- Electrolytes: We have the ability to develop functional additives that create high-performance batteries.

Weaknesses (W)

Polyester 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.

Semiconductors business
- Our distinctive products have yet to gain full recognition within the semiconductor industry.

Battery Materials business
- We depend on China for raw material supplies.

Opportunities (O)

Polyester Films business
- Market needs are increasingly sophisticated and complex.

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.

Semiconductors business
- Demand is increasing for new materials in response to rapid market expansion and microwiring and multilayering of circuits.

Battery Materials business
- The market is growing explosively.

Threats (T)

Polyester 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.

Semiconductors business
- There is strong pressure to localize production.

Battery Materials business
- Profits are being squeezed due to a sharp rise in raw material prices.

Main businesses and products

(Business names were changed starting from fiscal 2021 to reflect the segment change.)

* Figures reflect performance after segment restructuring.

Polymers and Compounds

FY2020 Sales revenue ¥**271.8** billion* FY2020 Core operating income ¥**15.0** billion*

Polymers Performance polymers, sustainable polymers (biodegradable resins, bio-engineering plastics, polycarbonate, polybutylene, epoxy resins), acetyl polymers (EVOH*1, PVOH*2)

- **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.
- **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.

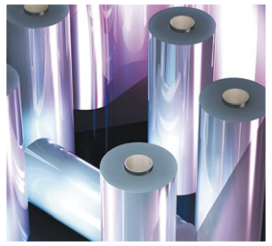
Coating & Additives Coating materials, functional additives, fine chemicals

- **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 and adhesives.

*1 Ethylene vinyl alcohol copolymer *2 Polyvinyl alcohol

Films & Molding Materials

FY2020 Sales revenue ¥**413.8** billion* FY2020 Core operating income ¥**27.6** billion*



Films Packaging (food packaging), industrial films (for manufacturing and medical uses, *OPL film*, etc.), polyester films

- **Packaging (food packaging), industrial films (for manufacturing and medical uses, *OPL film*, etc.)** 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.
- **Polyester films** We are moving to secure supply capacity in response to the globally expanding market for industrial and optical polyester films, and we are promoting the evolution of a wide range of industrial products to provide prompt solutions to increasingly sophisticated needs.

Molding Materials 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 compounds 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.

Advanced Solutions

FY2020 Sales revenue ¥**308.9** billion* FY2020 Core operating income ¥**17.1** billion*

Amenity Life Aqua solutions, life solutions (functional food ingredients, etc.), construction material-related products

- **Aqua solutions** We use membrane filters, ion-exchange resins and other functional separators to provide water treatments for all needs from drinking water supply to sewage treatment, and to offer total solutions in food and pharmaceutical manufacturing processes.
- **Life solutions** We also supply a range of products from vitamin E and capsules to food emulsifiers such as sugar ester, in which we have the leading share of the world market. We aim to combine good health with good taste as we expand this diverse business from food into other sectors.

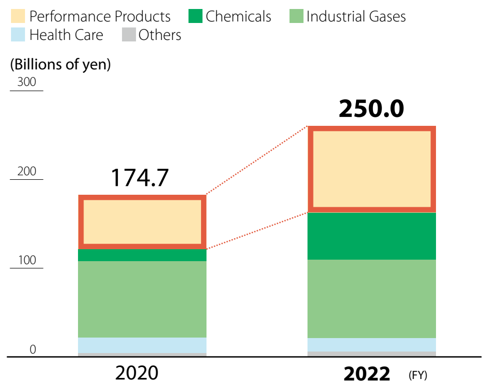
Information & Electronics Semiconductors, electronics (electronic display materials, optical clear adhesive sheets, etc.), battery materials

- **Semiconductors & Electronics** We are also focused on developing and marketing products and services to create new value tailored to customer needs, ranging from a diverse range of materials for electronic displays to high-purity products and precision cleaning materials for semiconductors.
- **Battery materials** This business manufactures electrolytes and anode materials for electric vehicles lithium-ion batteries according to the latest customer specifications, leveraging its global supply network and technical expertise spanning from material development to safety assessments.

APTSIS 25 Step 1

Policies	• Business model reform for business expansion • Secure footholds in fields where growth is accelerating amid changing social needs • Promotion of next-generation project fields likely to deliver value
Key strategies	• Strengthen the ability to offer total solutions through further business expansion in the mobility sector and building of a recycling business • Strengthen operations in growth business domains • Enhance R&D efficiency through digital technology and open innovation • Leverage corporate venture capital to explore new business domains and create new businesses

Core operating income targets



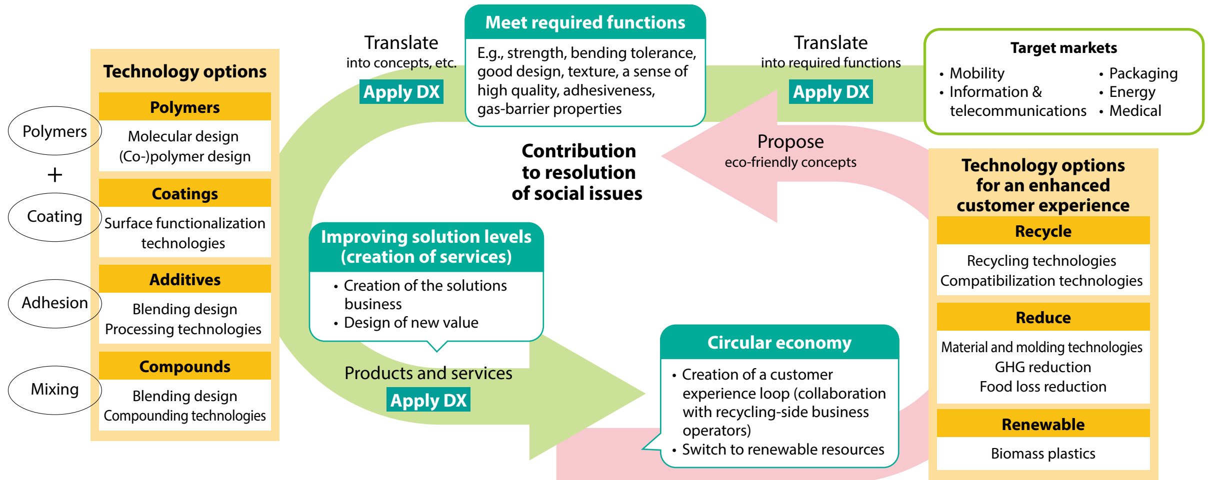
Key strategies in Polymers and Compounds

Our target markets in the mobility sector and other fields have diverse requirements for material properties such as strength and bending tolerance, good design, adhesiveness and gas-barrier properties. We aim to meet these demands by building a solutions business to design new value based on polymers and additives and a wide range of other product groups and technology platforms, from molecular design and compounding to evaluation and processing technologies.

To realize a circular economy, we are working on the development of readily recyclable materials and technologies. In sectors where recycling is considered impractical, we aim to reduce environmental impact in other ways, such as expanding our offer of biodegradable products and developing biodegradability function control technologies.

Through business activities such as these, we will continue contributing to the resolution of social issues.

Proposed business flow in the Polymers and Compounds domain



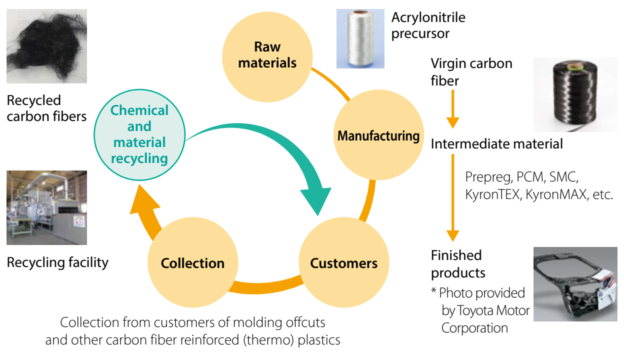
Key strategies in Films & Molding Materials

Lightweight, thinness, strength, and flexibility. With unique products and services that bring together these qualities, we will lead the way to fulfilling future lifestyles and a recycling-oriented society.

In the polyester film business, we will draw on the membrane and materials technologies accumulated globally in the course of our long history to develop electronic displays, industrial labeling systems and other optics and industrial applications. We will also target global business growth by offering solutions in a wide range of industrial product sectors to meet social needs connected with the shift to electric vehicles, high-speed telecommunications and the reduction of environmental impact. We will additionally contribute to realizing a circular economy by developing and supplying environment-friendly products based on the special properties of highly recyclable polyester resins.

In the molding materials business, we will work for business growth through global delivery of high-value-added products such as high-performance engineering plastics and carbon fiber composite materials to serve a wide range of industrial applications in the automobile, aerospace, building construction and medical device industries. In the carbon fiber business, by acquiring recycling companies and other strategies, we have become the only player with a business model integrating all stages from raw material to recycling, thus contributing to realizing a circular economy.

Building a carbon fiber recycling business model ▶ P. 29



Key strategies for Advanced Solutions

By delivering products and services that increase customer value, we aim to expand our business and realize KAITEKI.

In the food and water supply sector, we are focusing on further development of technologies that will help to improve the taste of fresh and processed food products and reduce food loss. Another focus is enhancing decentralized water supply and treatment systems and water treatment-related services using total water treatment technologies that cover all needs, from drinking water supply to sewage treatment. We provide solutions in the healthcare domain, including pharmaceutical raw materials and pharmaceutical capsules, and develop products that help create healthy living environments.

In the electronic display sector, the focus is on developing optical components such as optical clear adhesive sheets and products for use in liquid crystal and OLED displays. In the battery materials sector, we are working to further boost the competitiveness of our lithium-ion battery materials and to strengthen our global supply system, focusing mainly on the automotive sector, where advanced functions and safety are key.

Focus

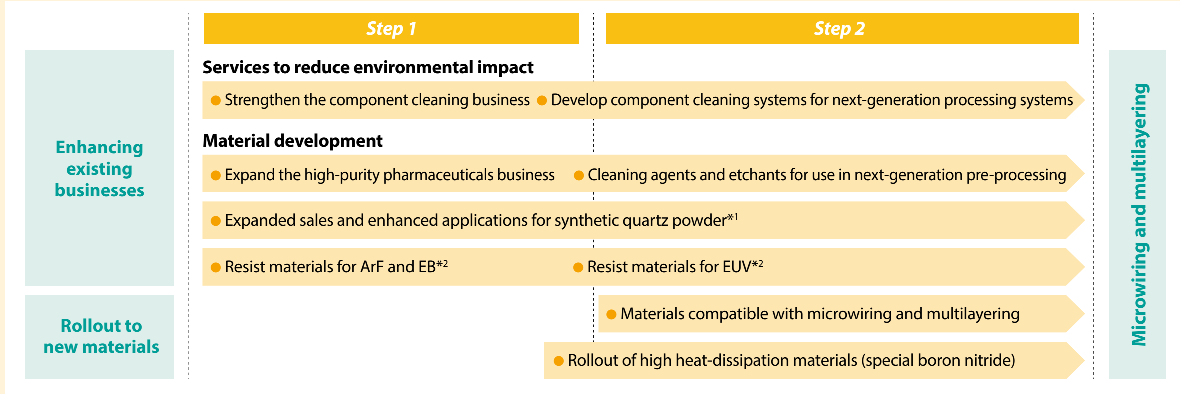
Key strategy example: Expansion of the semiconductor-related business Helping to build the infrastructure of the digital society

MCHC is working to enhance solutions across a wide range of products and services for semiconductor manufacturing.

To drive expansion of the semiconductor-related business, in October 2018 we acquired Cleanpart Group GmbH, a leading company in the provision of precision cleaning and coating services to semiconductor manufacturers and other business operators in Europe and the United States. This gives us the capability to deliver semiconductor precision cleaning services on a global basis, in addition to our existing operations in Japan and Asia. In April 2020, we centralized the MCC Group's semiconductor-related business and at the same time established a global organization, enabling us to promote one-stop, semiconductor-related solutions under a unified brand. Meanwhile, we are driving the creation of synergies with the semiconductor-related businesses and technologies of Gelest, Inc., which we acquired in October 2020.

Our medium- to long-term basic management strategy, KAITEKI Vision 30, declares digital society infrastructure as one of our growth business domains, and we will continue working to expand our semiconductor-related business.

Expansion of the semiconductor-related solutions business through a combination of advanced materials development with services to reduce environmental impact



*1 For crucible use
*2 ArF (argon fluoride): Exposure light source with 193nm wavelength EB: Electron beam as exposure light source EUV (extreme ultraviolet): Exposure light source with 13.5nm wavelength

Solutions to environmental and social issues

The Group's Material Issues
• GHG reduction • Sustainable resource management • Circular economy

Coating-free bio-engineering plastics that contribute to the reduction of volatile organic compounds (VOCs) and a gain of additional functionality

MCC's *DURABIO* is a bio-engineering plastic made with the renewable plant-based raw material isosorbide. With its good dyeability, simply mixing it with pigment allows the creation of smooth and glossy surfaces. As the surface is tough and resistant to scratch marks, no painting or coating process is required, which not only reduces the VOCs generated by coating agents during manufacture but also removes the risk of the coating material interfering with radio waves.

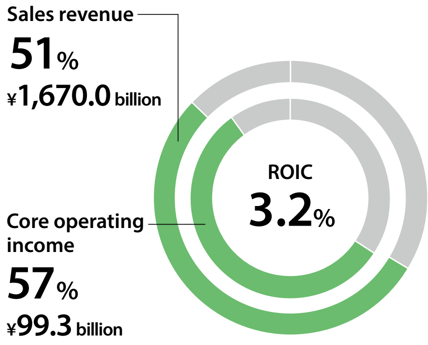
These functional and environment-friendly features have received a strong positive reception especially from the automotive industry, which has adopted the product for use in interior and exterior finish materials and in the housings of truck radar devices that detect other vehicles, pedestrians and so on. MCHC will continue contributing to environment-friendly vehicle design by promoting further applications for *DURABIO*.

Example of use of coating-free *DURABIO* in automotive interior and exterior finish materials

Manufacturer	Daihatsu Motor Co., Ltd.
Vehicle make	Rocky
Component	Steering wheel switch bezel

Industrial Materials Domain

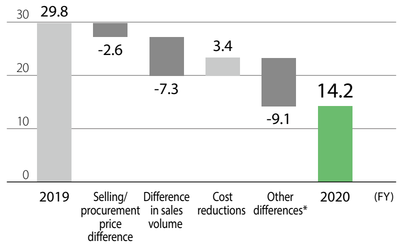
In the Industrial Materials domain, we will support growth markets by delivering products and technologies through a corporate structure that is continuously adapted to meet contemporary needs, while seeking to diversify our raw material procurement including through the use of renewable resources.



Chemicals segment

Factors underlying YoY change in core operating income

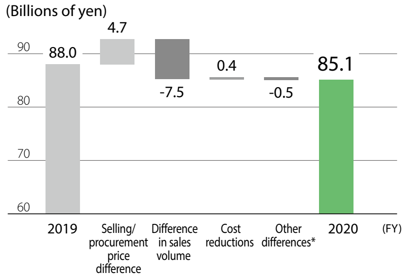
(Billions of yen)



Industrial Gases segment

Factors underlying YoY change in core operating income

(Billions of yen)



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

Chemicals segment

Sales revenue amounted to ¥858.2 billion, a year-on-year decrease of ¥185.3 billion, and core operating income to ¥14.2 billion, a decrease of ¥15.6 billion. The MMA subsegment saw a decline in sales revenue due to the lower market prices compared to the previous fiscal year, despite an improvement from the second half of the year in the price of MMA monomer and related products. The Petrochemicals subsegment saw a decrease in sales revenue that was due on one hand to lower sales volume owing to the increased impact of scheduled maintenance and repairs at our ethylene production facilities, and on the other hand to lower sales prices arising mainly from the fall in raw material prices. In the Carbon Products subsegment, sales revenue fell on the twin impact of lower sales prices, due mainly to the fall in raw material prices, and reduced sales volume, due to declining demand for coke and related products. Core operating income in the segment decreased due to the falling market price of MMA monomer and related products and to the lower sales volume of carbon products.

Industrial Gases segment

Sales revenue amounted to ¥818.8 billion, a year-on-year decrease of ¥31.5 billion, and core operating income to ¥85.1 billion, a decline of ¥2.9 billion. The Industrial Gases segment experienced a drop in both sales revenue and core operating income, despite the strong performance of gases for electronic applications, as domestic and overseas demand fell overall.

Strengths (S)

MMA
- 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
- As a group, we hold the top share of Japan's industrial gases market and can supply these gases to markets around the world.

Weaknesses (W)

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

Petrochemicals business
- Earnings in this business fluctuate according to raw material prices and global market conditions.

Carbon Products business
- Earnings in this business fluctuate according to raw material prices and global market conditions.

Industrial Gases
- Business earnings in Japan are impacted by electricity costs.

Opportunities (O)

MMA
- 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
- 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.

Threats (T)

MMA
- Our products face competition from alternative materials.

Petrochemicals business
- Competition in Japan has intensified due to greater than expected imports of petrochemicals derived from U.S. shale and Chinese coal.

Carbon Products business
- Adoption of low-carbon technology by the steel industry

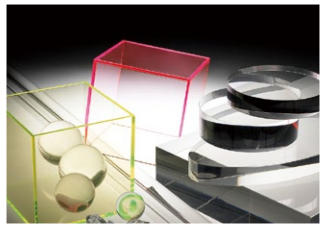
Industrial Gases
- Our international competitors have become larger following mergers of major European and American gas companies

Financial results and main products

MMA

FY2020 Sales revenue ¥250.6 billion FY2020 Core operating income ¥14.8 billion

MMA and PMMA



MMA*1 Our production capacity of this organic compound accounts for approximately 40% of total global capacity. We produce this through three methods*2 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.

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

PMMA*3 We manufacture this thermoplastic, which boasts excellent transparency, weather-resistance, and formability, for use in 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, plastic optical fibers and partitions to prevent airborne droplet infection.

*3 Polymethyl methacrylate

Petrochemicals

FY2020 Sales revenue ¥430.2 billion FY2020 Core operating loss ¥(1.5) billion

Basic petrochemicals and basic chemical derivatives, and 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 MCC, and another in Okayama Prefecture owned by Asahi Kasei Mitsubishi Chemical Ethylene Corporation, a 50:50 joint venture company between MCC 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.

Carbon Products

FY2020 Sales revenue ¥177.4 billion FY2020 Core operating income ¥0.9 billion

Coke, carbon materials, carbon black, and synthetic rubber

Coke Coke is a major raw material for the global steel industry. 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.

Industrial Gases

FY2020 Sales revenue ¥811.8 billion FY2020 Core operating income ¥85.1 billion

Industrial gases and related equipment and facilities

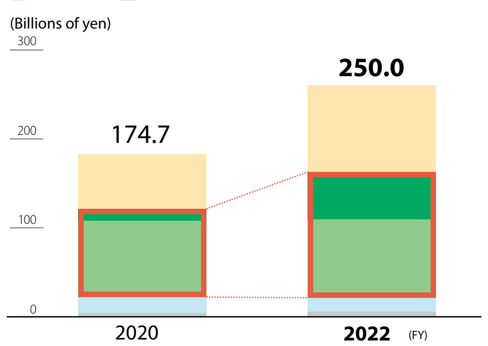
Industrial gases Having secured the top share (40%) of Japan's market for industrial gases, which includes oxygen, nitrogen and argon, we are working to expand this business in other major markets of the world, particularly in North America, Europe, Asia and Oceania.

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 25 Step 1

Policies	● Accelerated reorganization and restructuring of risk businesses ● Business model reform to strengthen the business foundation
Key strategies	● Strengthen the partnership with oil refining (Petrochemicals) ● Reform the business model to shift from domestic market dependency to export-oriented operation (Carbon Products) ● Strengthen global management (MMA, Industrial Gases) ● Develop an innovative Intelligent Gas Supply System to realize smart factory operation ● Promote a plastic recycling society through supply chain management in partnership with customers and consumers ● Implement DX

Core operating income targets



Strategy for improving competitiveness in the Petrochemicals business

We have worked to stabilize revenues in this business through major structural reforms, such as consolidating naphtha cracker operations and withdrawing from unprofitable businesses. Looking ahead, we will further strengthen the partnership with the oil refining business and implement chemical recycling. In parallel, we will target differentiation and a competitive advantage by developing high-performance polyolefins.

In July 2021, Japan Polychem Corporation, a consolidated subsidiary of MCC, acquired the stock of the overseas Group company operating the PPCP*[1] business of Japan Polypropylene Corporation*[2]. PPCP is expected to attract growing demand going forward as a material contributing to lighter-weight vehicles. We are committed to responding swiftly to customer needs by making active use of the overseas business foundations of the MCC Group.

*1 Polypropylene compound
*2 Joint venture between Japan Polychem Corporation and JNC Petrochemical Corporation

Example of PPCP applications
(Daihatsu Mira e:S)

Left: Rear door interior
Right: Rear door exterior

Reform of the Carbon Products business model

The coke supplied by MCC under the SAKAIDE COKE brand is known for its highly uniform and stable quality and enjoys a correspondingly strong reputation with steel manufacturers, not just in Japan but worldwide. Going forward, we will continue with restructuring to achieve an optimal sales portfolio and production system to match structural changes in the domestic steel industry. This will enable us to ensure a stable supply of high-quality coke and to realize global business expansion. We will continuously strengthen the revenue base by progressively increasing the added value of needle coke and other coke byproducts.

Solutions to environmental and social issues

The Group's Material Issues
• GHG reduction • Sustainable resource management • Circular economy

A pioneering chemical recycling project

As a concrete solution to the problem of plastic waste and other issues, we are implementing a pioneering chemical recycling project. Impressed with this initiative, the Development Bank of Japan Inc. (DBJ) has concluded a loan agreement with MCHC in the framework of DBJ Sustainability Linked Loans with an Engagement Dialogue (DBJ-SLL). In July 2021, it was decided to build a plastic-to-oil conversion-based chemical recycling plant for waste plastics at MCC's Ibaraki Plant in a joint project with ENEOS Corporation. The target is to launch commercial operation by fiscal 2024.

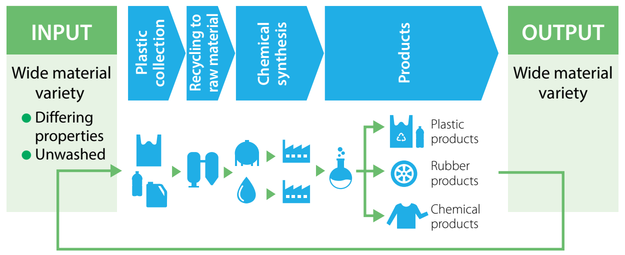
By ensuring that our business activities help address social challenges such as GHG reduction and the carbon cycle, we are committed to ongoing contributions to the realization of a sustainable society.

Outline of DBJ-SLL program*

Date of agreement	November 30, 2020
Agreement period	10 years
Loan amount	¥30 billion

* The loan conditions are linked to the degree of fulfillment of the borrower's ESG activity targets, which incentivizes the borrower to carry out business activities to meet the targets.

Envisioned plastic waste recycling process



Strategy to strengthen Industrial Gases competitiveness

In the industrial gas industry, increasingly dominated by major corporations, our acquisition of a European business operator in December 2018 establishes for the Group a system with bases in the four regions of Japan, Americas, Europe and Asia Pacific. To leverage its collective capabilities for successful competition with the major players in the global industrial gas market, in October 2020 the Group shifted to a holding company structure under which it is transferring authority to its operating companies in the respective regions and taking measures to clarify responsibilities for business execution and 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.

New global management system

Focus

Strategy for expanding the MMA business
Building a solidly reliable worldwide supply network

MCC, which is unique worldwide in possessing capability in all three main MMA manufacturing methods, is the leading global supplier, boasting an approximate 40% share of the world's production capacity. Going forward, to maintain our competitive advantage in the world market and continue to secure stable revenues, our two main tasks are to eliminate technical issues arising from outdated facilities and to optimize the production and supply network.

To meet these challenges, we will launch a global supply chain management system using the mathematical optimization technologies associated with DX. In parallel, we need to strengthen the management base by integrating and speeding up decision-making processes and to promote the advancement of diverse human resources. With these aims in mind, in April 2021 we centralized the head office functions of the MMA business in Singapore.

Meanwhile, in March 2021 we closed the Beaumont site in the United States and are now considering the construction of a new MMA monomer plant in the United States. Envisaged as using a new ethylene method known as Alpha technology, it would follow the start of full operations at SAMAC in the Middle East in April 2018.

Going forward, we will leverage the strong competitive advantage afforded by the prime location of our plants and our proprietary technologies to build an optimal supply system covering all regions of the world, consolidating our position as one of the industry's leading companies.

History and future development of the MMA business

Wide-ranging applications of MMA

- Store signboards and signage
- Automotive light covers
- Optical lenses
- Liquid crystal light-guide panels
- Lighting equipment
- Stationery
- Aquarium tanks
- Optical fibers
- Partitions to prevent airborne droplet infection
- Adhesive agents
- Coating agents

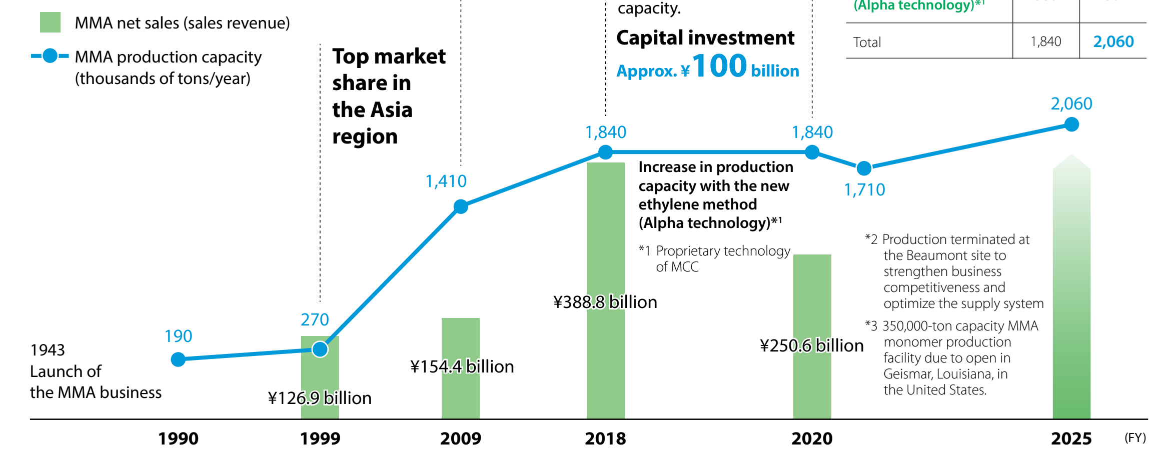
Top share of the world market
Acquisition of the Lucite International Group establishes a production technology system encompassing all three manufacturing methods
Acquisition cost
Approx. ¥160 billion

In Saudi Arabia, we have begun construction of a plant with the world's largest production capacity.
Capital investment
Approx. ¥100 billion

Worldwide demand for MMA in 2020
Three million tons plus
Share of world market: Approx. 40%

Plan for increased yearly MMA production capacity (Thousand tons)

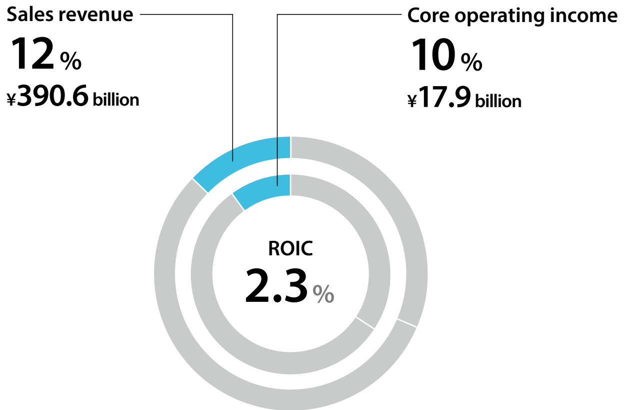
Manufacturing method	FY2020	FY2025
C4 direct oxidation process	560	560
ACH method	900	770*[2]
New ethylene method (Alpha technology)*[1]	380	730*[3]
Total	1,840	2,060



*1 Proprietary technology of MCC
*2 Production terminated at the Beaumont site to strengthen business competitiveness and optimize the supply system
*3 350,000-ton capacity MMA monomer production facility due to open in Geismar, Louisiana, in the United States.

Health Care Domain

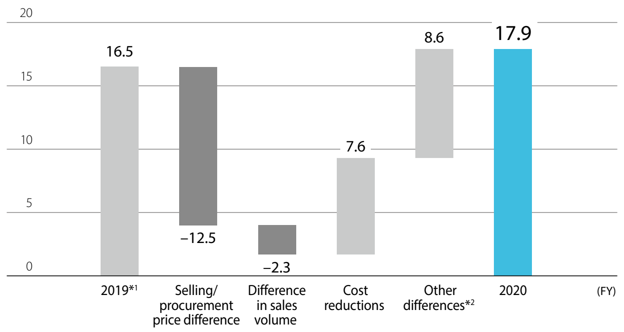
In the Health Care domain, we not only work to provide treatments for diseases but also products and services that help people around the world live longer and healthier lives.



Health Care segment

Factors underlying YoY change in core operating income

(Billions of yen)



*1 Figures do not include discontinued operations.
*2 Includes differences in inventory valuation and gains/losses on equity method investments

Health Care segment

Sales revenue amounted to ¥390.6 billion, a year-on-year decrease of ¥2.5 billion, and core operating income was ¥17.9 billion, an increase of ¥1.4 billion. The pharmaceuticals segment maintained the level of sales revenue of the previous fiscal year thanks to sales growth, mainly in priority products, which outweighed negative factors including the impact of National Health Insurance drug price revisions in the Japanese market.

Core operating income increased owing to a decrease in sales costs and R&D expenditures mainly reflecting the constrained level of activities resulting from the spread of COVID-19. Note that some royalty revenue from Novartis Pharma AG for *Gilenya*, a treatment agent for multiple sclerosis, was not recognized as sales revenue in accordance with IFRS 15 (Revenue from Contracts with Customers) due to the start of arbitration proceedings in February 2019. In fiscal 2020 likewise, some royalty revenue was not recognized as sales revenue due to the ongoing arbitration proceedings.

Strengths (S)

Pharmaceuticals business
- We have advanced drug discovery and IKUYAKU (drug fostering and evolution) capabilities.
- We have a strong presence in priority drug markets including central nervous system disorders and immuno-inflammatory diseases.

Life Science business
- We have outstanding product development and technological capabilities in regenerative medicine.
- We have the ability to offer value propositions to the medical community and patients based on a long track record in pharmaceutical development.

Weaknesses (W)

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

Life Science business
- We need to increase technological capability to a sufficient level in the ICT domain.

Opportunities (O)

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

Life Science business
- Needs in the healthcare and medical sectors are diversifying.
- There are still unmet medical needs.
- There are growing expectations for the development of regenerative medicine products.

Threats (T)

Pharmaceuticals business
- The probability of success with drug discovery is declining.
- R&D expenditures are increasing.
- Governments are taking various measures to control healthcare expenditures.

Life Science business
- The medical ICT market is still in the developing stage.
- Governments are taking various measures to control healthcare expenditures.

Main businesses and products

Data on the sales revenue and core operating income of the pharmaceuticals business (Mitsubishi Tanabe Pharma Corporation (MTPC)) are published on the website.
https://www.mt-pharma.co.jp/e/company/financial-information/pdf/e_presen210512.pdf

Pharmaceuticals business

Immuno-inflammation This is a field where we have a strong business base built on a relationship of trust with medical professionals established in connection with *REMICADE*. Here, we will work to retain the leading share in the Japanese market by maximizing the respective benefits of three biopharmaceuticals—*REMICADE*, *Simponi*, and *Stelara*—whose indications include rheumatoid arthritis, Crohn's disease, ulcerative colitis and psoriasis.

Central nervous system *RADICUT* (*RADICAVA* in the United States), originated by MTPC, protects motor neurons against oxidative stress by eliminating the free radicals that persist in the body under the pathological conditions of amyotrophic lateral sclerosis (ALS). This action is thought to slow the decline of physical function and muscle atrophy in ALS patients. *RADICAVA* was launched in the United States in August 2017 as the first new ALS drug in some 20 years. The drug has received approval in seven countries around the world including Japan, South Korea, the United States and Canada. Currently, global development of an oral suspension formulation of *RADICAVA* is underway.

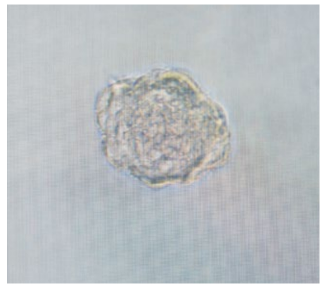
Diabetes and kidney In the diabetes drug market, we are seeking to maximize value with our type 2 diabetes treatments: *TENELIA* and *CANALIA*—originated in Japan by MTPC—and a combination table of the two, *CANAGLU*. Meanwhile, in August 2020 we launched sales of the renal anemia treatment *VAFSEO*. We will steadily strengthen our presence in the diabetes and kidney disease field by accumulating evidence and expanding sales channels.

Vaccines In Japan, we are marketing a vaccine developed and manufactured by Osaka University's Research Institute for Microbial Diseases (BIKEN Group). We have also established a vaccine-manufacturing joint venture with the BIKEN Group under the name BIKEN Co., Ltd., which began operations in September 2017. We will contribute to stable vaccine supply by reinforcing our production base. In North America, meanwhile, Medicago Inc. is working on vaccine development using virus-like particle (VLP) technology.

Life Science business

Next-generation healthcare CL2020 (development code) is a product based on Muse cells (Multilineage-differentiating Stress Enduring cells), which were discovered by a group of scientists led by Professor Mari Dezawa of Tohoku University. We are currently progressing with clinical trials for six indications (acute myocardial infarction, cerebral infarction, epidermolysis bullosa, spinal cord injury, amyotrophic lateral sclerosis [ALS], and acute respiratory distress syndrome [ARDS] related to SARS-CoV-2 infection). Meanwhile, LSII Tonomachi CPC* obtained a license for manufacturing of regenerative medicine products in July 2019, and is making preparations to launch products to the market. (As of August 2021)

* CPC: Cell Processing Center



Muse cells

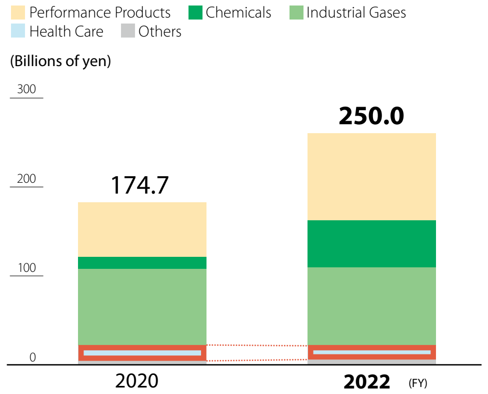
Healthcare and medical ICT With the aim of meeting challenges in the super-aged society, we are collaborating with academia and venture businesses in the framework of "open shared business" to create new products and services benefiting from the application of ICT and AI. Cognitive function testing programs at multiple medical institutions have confirmed its effectiveness at an exploratory level, and we are currently progressing with specified clinical research in cognitive impairment and related conditions.

Pharmaceutical development solutions Our Group company API Corporation operates a proposal-oriented business based on our technical knowledge in areas such as cost-competitive manufacturing routes for target compounds. We have developed new synthetic methods utilizing fewer reaction steps and successfully commercialized the resulting products.

APTSIS 25 Step 1

Policies	● Rollout of precision medicine and "around the pill" solutions ● Acceleration of development and commercialization of regenerative medicine products
Key strategies	● Realize precision medicine with the focus on central nervous system disorders and immuno-inflammatory diseases ● Contribute to preventive medicine through focus on the vaccine field ● Synergize the expertise and technology bases of Group companies to accelerate the development of established businesses and create new "around the pill" businesses. ● Develop a collaborative and synergistic partnership structure within the MCHC Group for the commercialization of Muse cell-based products.

Core operating income targets



Growth strategies in the pharmaceuticals business

In its medium-term management plan 21-25, launched in fiscal 2021, MTPC declares its commitment to realizing precision medicine*1 and "around the pill" solutions*2 to address areas of remaining unmet medical need.

By concentrating and increasing R&D expenditures on precision medicine, focusing on central nervous system disorders and immuno-inflammatory diseases, we aim to increase the number of products brought to market starting from fiscal 2025. We are also contributing to infectious disease prevention with a focus on the vaccine field. In the vaccine business, our target is to achieve sales revenue of ¥100 billion in fiscal 2025.

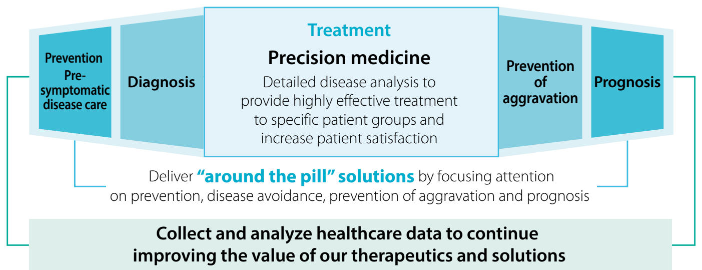
In the central nervous system disorders field, we will take as our entry point ALS, where there is a wealth of drug discovery data. In this area, we will address intractable neurological diseases that are caused by the same genes and have a common pathophysiology to rapidly identify the relevant genes and develop new modalities.

Next, in the immuno-inflammatory field, we will focus on systemic scleroderma and systemic lupus erythematosus, diseases showing diverse pathologies for which there is as yet no effective drug treatment. Here, we will work on phenotype drug discovery based on appropriately stratified patient groups.

In the vaccine field, at the global level we will address the social challenge of preventing COVID-19 infection by working on a plant-derived VLP vaccine. In Japan, meanwhile, we will collaborate with the BIKEN Group on infection prevention in children and adults and on stable vaccine supply.

*1 Providing the appropriate healthcare to the appropriate patient at the appropriate time taking account of the differences in people's genes, environment and lifestyle.
*2 An approach that takes drug therapies as the starting point to offer solutions ranging from prevention to prognosis to contribute to improving the quality of life of patients and their families

"Precision medicine" and "around the pill solutions"



Major development pipeline list

Research areas	Code and indications	Region	Stage
Central nervous system	MT-1186 (ALS/oral suspension)	Global	Phase 3
	ND0612 (Parkinson's disease)	Global	Phase 3
Immuno-inflammation	MT-7117 (EPP/XLP*3)	Global	Phase 3
	MT-7117 (systemic sclerosis)	Global	Phase 2
Vaccines	MT-2766 (prophylaxis of COVID-19)	Global	Phase 3
	MT-2654 (prophylaxis of seasonal influenza/elderly)	Global	Phase 1
	MT-2355 (5 combined vaccine)	Japan	Phase 3

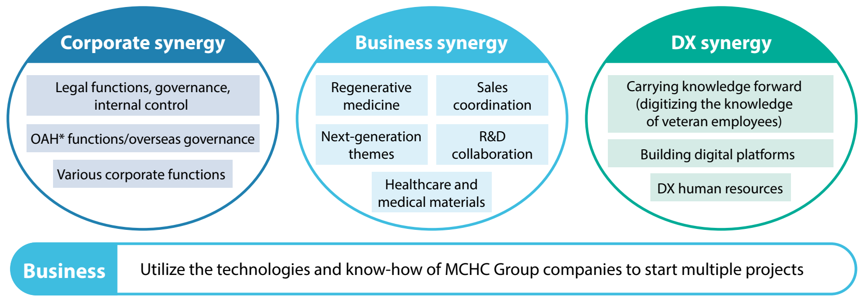
*3 EPP: Erythropoietic protoporphyria
XLP: X-linked protoporphyria

(As of August 2021)

Creation of Group synergies

In December 2019, to coincide with the integration of MTPC as a wholly owned subsidiary, the Group established a committee to discuss the creation of synergies from three viewpoints: Business operations, corporate cooperation and DX. The committee will work to create synergies by bringing together the technologies and expertise of the different MCHC Group operating companies.

Examples of themes addressed by the committee to explore ways to generate synergies



* OAH: Overseas Administrative Headquarters

Focus

Contributing through vaccines to infectious disease prevention
Development of a VLP vaccine to prevent COVID-19 infection

In March 2021, Medicago Inc., a subsidiary of MTPC, began the Phase 3 portion of Phase 2–3 clinical trials of a plant-derived VLP vaccine (MT-2766) aimed at prevention of COVID-19 infection. Phase 3 global clinical trials are ongoing in countries including Canada, the United States, the United Kingdom and Brazil, with the aim of commercialization in Canada before the end of 2021.

The VLP vaccine is a new type of vaccine produced using VLP manufacturing technology. With an external structure that is similar to the virus, the vaccine is expected to display strong efficacy in providing immunity. Moreover, as it does not contain genetic information, it does not result in virus proliferation within the body. It has therefore attracted interest as a promising vaccine technology that should offer excellent safety. The manufacturing technology for the plant-based VLP vaccine is expected to allow large-volume production in a short timespan and at low cost.

Medicago Inc., which is headquartered in Canada, has concluded an agreement with the Canadian government under which it will receive a grant of 173 million Canadian dollars (approximately ¥13.7 billion) for the development of a VLP vaccine for COVID-19 prevention and in return supply the government with up to 76 million doses of the vaccine. Currently, we are using the grant to speed up development and are putting in place a supply system.

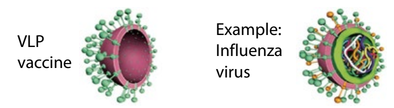
Going forward, we will proceed steadily with development to deliver the VLP vaccine to society as soon as possible, contributing further to the prevention of COVID-19, a pressing social issue.

Plant-based VLP vaccine manufacturing process (utilizing transient gene expression)

Advantages expected with VLP* manufacturing technology

- The use of plants allows large-volume production in a short timespan at low cost.
- There is excellent safety, as there is no virus proliferation.

* The VLP has an external structure that is similar to the virus and is therefore expected to have high efficacy in providing immunity.



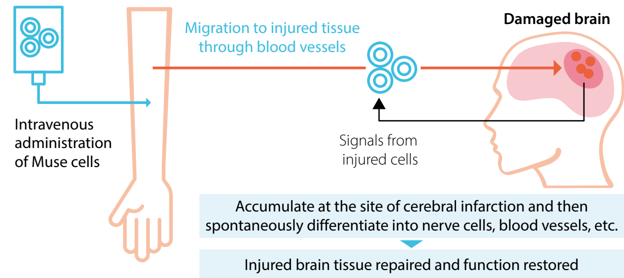
Solutions to environmental and social issues

The Group's Material Issues
● Healthy and vibrant lives

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

Muse cells are endogenous pluripotent repair stem cells that are naturally present in the bone marrow, peripheral blood, and connective tissues of all body organs. They normally accumulate in injured organs where they replace and replenish injured cells by differentiating into the damaged cell type, and exert pleiotropic effects including anti-inflammatory actions and vascular protection over an extended period of time, without the need for HLA-matching test or long-term immunosuppressive drug administration for the use of donor Muse cells. Donor Muse cells, administered by simple intravenous drip, accumulate in the injured tissue to exert their tissue repair effects by spontaneously differentiating into healthy cells corresponding to the damaged tissue. Because the donor Muse cells that engraft into the injured tissue are maintained as living, functional cells over an extended period of time, the anti-inflammatory, vascular-protective, tissue protective, and anti-cell-death effects continue to be exerted for a long time. Administration of Muse cells is significantly more effective than administration of another type of stem cell, human mesenchymal stem cells, for the repair of damaged tissue.

LSII is working to achieve the successful approval and commercialization of a Muse cell-based product (CL2020) as soon as possible.



Financial Summary

With the start of the previous 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.

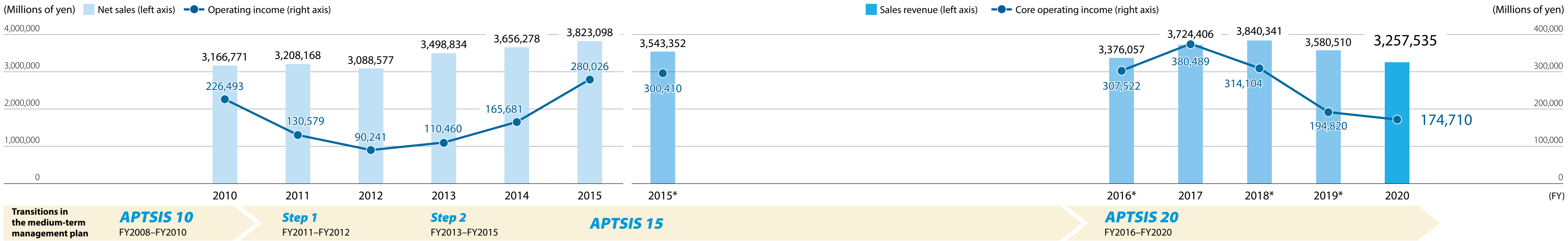
J-GAAP (FY2010–FY2015)

	2010	2011	2012	2013	2014	2015
For the year						Millions of yen
Net sales	3,166,771	3,208,168	3,088,577	3,498,834	3,656,278	3,823,098
Operating income	226,493	130,579	90,241	110,460	165,681	280,026
Income before income taxes and minority interests in consolidated subsidiaries	169,552	127,474	82,900	116,594	165,621	198,248
Net income attributable to owners of the parent	83,581	35,486	18,596	32,248	60,859	46,444
Total comprehensive income	86,742	64,199	94,900	134,016	173,692	7,695
Capital expenditures	117,806	116,145	132,221	133,339	165,057	176,508
Depreciation and amortization	148,697	145,695	129,549	131,571	151,253	180,374
R&D expenditures	130,825	138,545	134,723	134,260	132,217	138,364
Net cash provided by (used in) operating activities	288,853	217,954	206,504	177,027	329,776	388,663
Net cash provided by (used in) investing activities	(101,064)	(63,404)	(169,758)	(159,789)	(277,223)	(202,796)
Net cash provided by (used in) financing activities	(149,493)	(164,146)	(26,250)	(8,307)	(2,061)	(156,957)
At year-end						
Total assets	3,294,014	3,173,970	3,307,758	3,479,359	4,323,038	4,061,572
Property, plant and equipment	1,088,369	1,032,738	1,061,551	1,118,050	1,498,146	1,390,727
Short-term and long-term debt	1,304,589	1,164,128	1,198,799	1,258,186	1,603,595	1,465,752
Total net assets	1,114,003	1,144,954	1,203,316	1,314,870	1,588,601	1,554,528
Per share						Yen
Net income—basic	58.72	24.06	12.61	21.89	41.40	31.70
Net assets	514.30	522.77	553.54	611.95	669.77	636.43
Cash dividends	10	10	12	12	13	15
Key indicators						
Return on assets (ROA) (%)	5.1	3.9	2.6	3.4	4.2	4.7
Return on equity (ROE) (%)	11.6	4.6	2.3	3.7	6.4	4.8
Shareholders' equity ratio (%)	23.0	24.2	24.6	25.8	22.6	22.9
Other						
Number of employees	53,882	53,979	55,131	56,031	68,263	68,988

IFRS (FY2015–FY2020)

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

	2015*	2016*	2017	2018*	2019*	2020	Increase or decrease (%)	2020
For the year						Millions of yen		Thousands of U.S. dollars
Sales revenue	3,543,352	3,376,057	3,724,406	3,840,341	3,580,510	**3,257,535**	(9.0)	**30,760,482**
Core operating income	300,410	307,522	380,489	314,104	194,820	**174,710**	(10.3)	**1,649,764**
Income before taxes	252,791	258,343	344,077	284,846	122,003	**32,908**	(73.0)	**310,746**
Net income (loss) attributable to owners of the parent	51,358	156,259	211,788	169,530	54,077	**(7,557)**	—	**(71,360)**
Total comprehensive income	34,302	226,493	297,476	205,898	475	**160,551**	—	**1,516,062**
Capital expenditures	213,134	206,482	225,189	231,742	240,390	**263,715**	9.7	**2,490,227**
Depreciation and amortization	182,656	174,040	178,895	199,332	239,824	**243,793**	1.7	**2,302,106**
R&D expenditures	126,782	126,290	138,833	142,822	133,368	**126,073**	(5.5)	**1,190,491**
Net cash provided by (used in) operating activities	299,612	396,643	397,940	415,575	452,003	**467,133**	—	**4,411,076**
Net cash provided by (used in) investing activities	(234,078)	(289,056)	(335,933)	(895,068)	(87,563)	**(217,010)**	—	**(2,049,197)**
Net cash provided by (used in) financing activities	(40,945)	1,411	(150,592)	519,062	(450,523)	**(142,773)**	—	**(1,348,187)**
At year-end								
Total assets	4,223,774	4,463,547	4,701,415	5,572,508	5,132,149	**5,287,228**	3.0	**49,926,610**
Property, plant and equipment	1,403,437	1,431,681	1,433,509	1,683,354	1,742,216	**1,813,838**	4.1	**17,127,838**
Interest-bearing debt	1,579,575	1,693,742	1,606,123	2,246,751	2,388,060	**2,482,422**	4.0	**26,288,849**
Equity attributable to owners of the parent	972,197	1,091,398	1,285,750	1,377,947	1,170,222	**1,236,339**	5.7	**11,674,589**
Per share						Yen		U.S. dollars
Basic earnings (loss) per share	35.06	106.73	147.14	119.22	38.08	**(5.32)**	—	**(0.1)**
Equity attributable to owners of the parent	663.71	758.30	893.26	970.46	824.07	**870.40**	5.6	**8.2**
Cash dividends	15	20	32	40	32	**24**	(25.0)	**0.2**
Key indicators								
Return on assets (ROA) (%)	5.9	5.9	7.5	5.5	2.3	**0.6**	(1.7 pt)	—
Return on equity (ROE) (%)	5.2	15.1	17.8	12.7	4.2	**–0.6**	(4.8 pt)	—
Ratio of core operating income to sales revenue (ROS) (%)	8.5	9.1	10.2	8.2	5.4	**5.4**	(0.0 pt)	—
Net debt-to-equity (D/E) ratio (times)	1.17	1.06	0.89	1.26	1.79	**1.73**	—	—
Ratio of equity attributable to owners of the parent (%)	23.0	24.5	27.3	24.7	22.8	**23.4**	0.6 pt	—
Other								
Number of employees	68,988	69,291	69,230	72,020	69,609	**69,607**	—	—

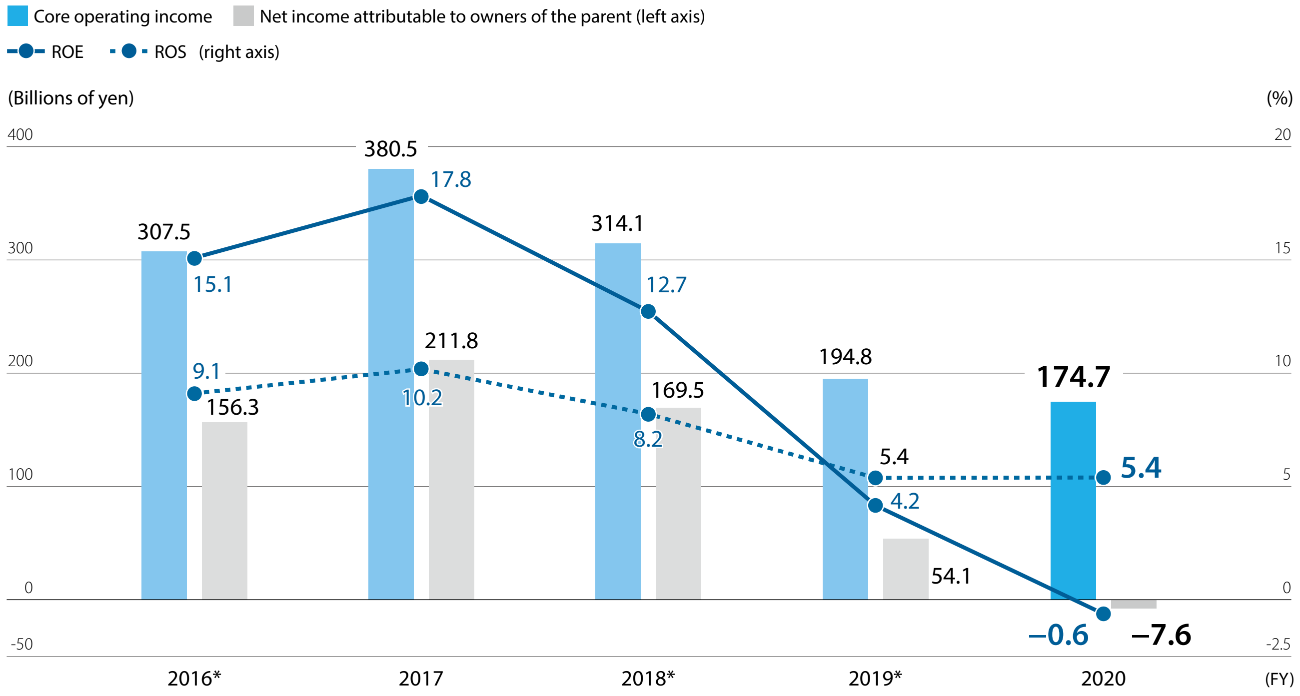


Notes: 1. In this report, the fiscal year refers to the period beginning April 1 and ending March 31 of the following year. Fiscal 2020 refers to the year ended March 31, 2021.
2. U.S. dollar amounts are converted from yen at the rate of ¥105.9 = U.S.$1.00.
3. Return on assets (ROA) (%) is calculated by dividing income before taxes by the average of the beginning and ending balances of total assets.
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

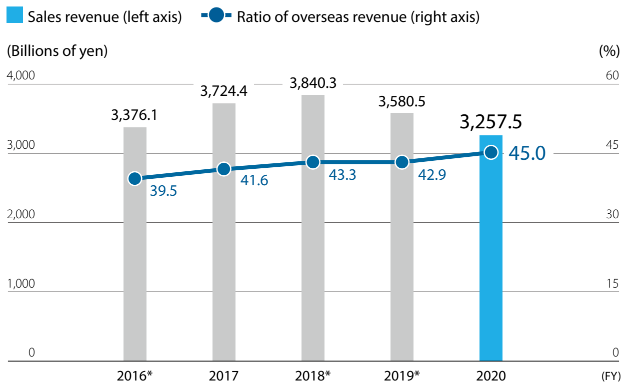
Figures for years indicated with (*) do not include results from discontinued operations.

Net income and ROS/ROE



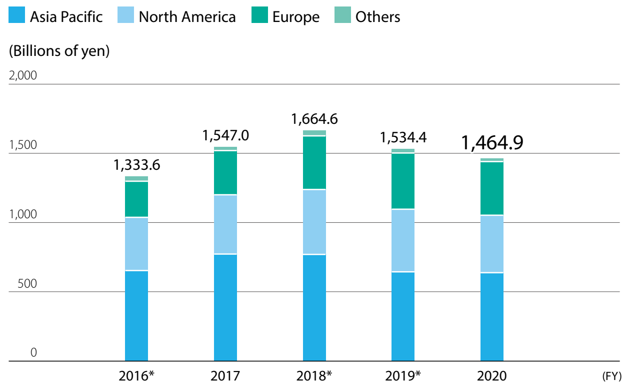
Thanks to business portfolio reforms under the previous medium-term management plan, *APTSIS 20*, fiscal 2017 saw an increase in sales revenue in the Industrial Materials domain and expanded sales volume, mainly in the Performance Products domain, resulting in new records for both core operating income and net income attributable to owners of the parent. From fiscal 2018, however, sales revenue went into decline under the deteriorating economic conditions arising from the economic downturn, trade friction between the United States and China, the impact of the COVID-19 pandemic, and other factors. This trend was accentuated by further impacts, notably the inability of the Health Care domain to record royalty revenue due to ongoing arbitration proceedings. Amid these conditions, fiscal 2020 saw core operating income fall by ¥20.1 billion (10.3%) year on year to ¥174.7 billion, while ROS remained unchanged at 5.4%. Net income attributable to owners of the parent declined by ¥61.7 billion to show a loss of ¥7.6 billion, due mainly to the recording of an impairment loss on non-recurring items in the Health Care domain. ROE declined by 4.8 points year on year to –0.6%.

Sales revenue and ratio of overseas revenue



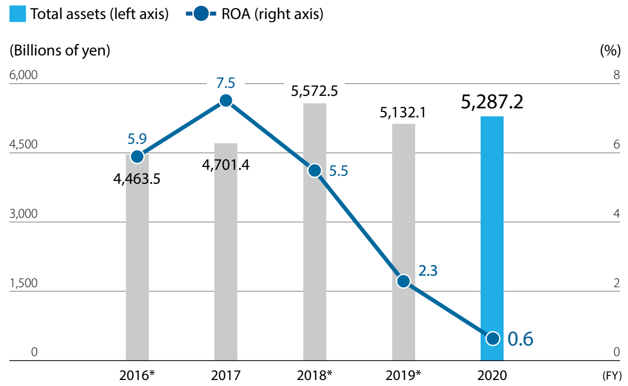
In fiscal 2020, sales revenue decreased by ¥323.0 billion (9.0%) year on year. The Industrial Materials domain was affected by lower sales prices, mainly reflecting falling raw material prices, as well as by reduced sales volume due to the increased impact of scheduled maintenance and repairs. Reduced sales volume in the Performance Products domain was another factor in the decrease. The ratio of overseas revenue rose by 2.1 points to 45.0%.

Overseas revenue by region



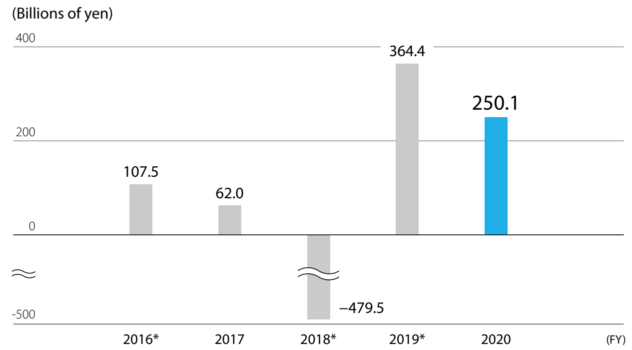
Operations in Europe and North America and also in Asia, were impacted by the COVID-19 pandemic. The resulting weak demand combined with the impact of exchange rate differences due to the stronger yen and other factors led to a year-on-year decline in overseas revenue.

Total assets and ROA



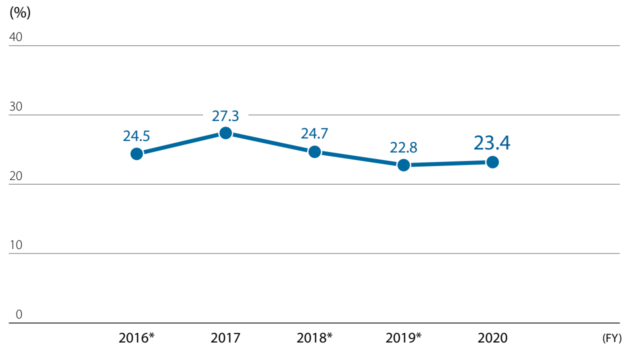
Total assets amounted to ¥5,287.2 billion, a year-on-year increase of ¥155.1 billion despite the impairment loss on intangible assets in the Health Care domain and other negative factors. One input to the increase was the rise in the yen-denominated value of the assets of overseas consolidated subsidiaries due to the progressive depreciation of the yen, while another was the securing of cash and cash equivalents in preparation for unforeseen eventualities arising out of the COVID-19 pandemic. ROA was 0.6%, down 1.7 points year on year.

Free cash flow



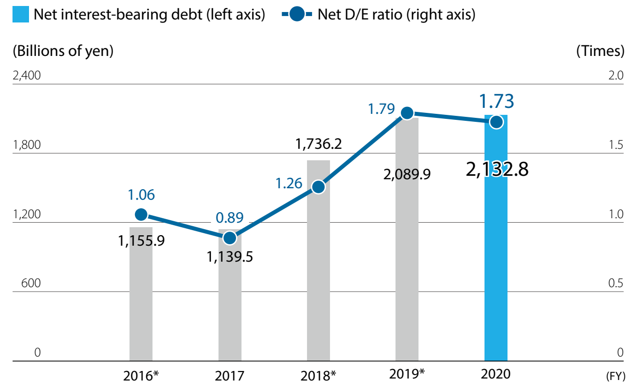
In fiscal 2020, net cash provided by operating activities increased from the previous fiscal year to ¥467.1 billion, mainly due to a decrease in working capital caused notably by falling raw material prices. In cash flows from investing activities, approximately ¥680.0 billion was spent on industrial gases business acquisitions in Europe and the United States in fiscal 2018. In fiscal 2020, acquisitions of property, plant and equipment and related outflows amounted to ¥217.0 billion. The resulting balance of free cash flow was ¥250.1 billion.

Ratio of equity attributable to owners of the parent



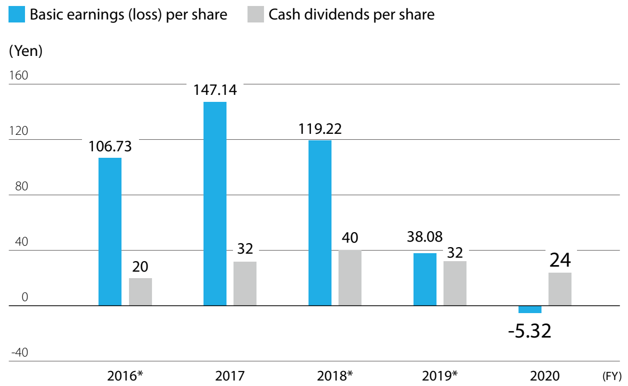
Equity attributable to owners of the parent decreased ¥66.1 billion year on year to ¥1,236.3 billion. Consequently, the ratio of equity attributable to owners of the parent increased 0.6 point year on year to 23.4%.

Net interest-bearing debt and net D/E ratio



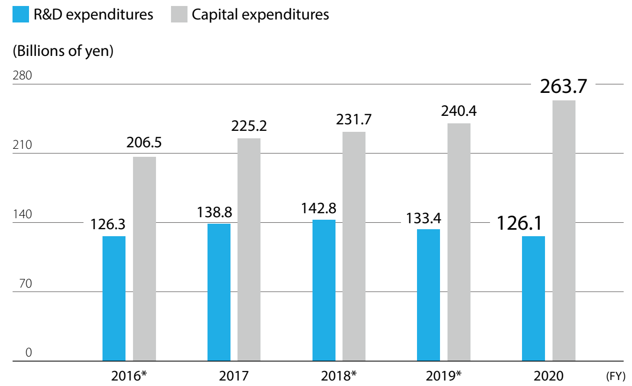
In fiscal 2019, the integration of MTPC as a wholly owned subsidiary pushed the net debt-to-equity ratio up to 1.79. In fiscal 2020, exchange rate impacts and other factors caused net interest-bearing debt to rise by ¥42.9 billion year on year, resulting in a 0.06 improvement in the net debt-to-equity (D/E) ratio to 1.73. We are targeting a recovery to a ratio of 1.0 by fiscal 2023, based on continued improvement in our financial position.

Basic earnings (loss) per share and cash dividends per share



In fiscal 2020, basic earnings per share declined to a loss of ¥5.32. The full-year cash dividend per share is based on an overall consideration of our financial position and future business conditions. Due to the recording in fiscal 2020 of a loss, consisting mainly of impairment loss, we have therefore regretfully reduced the full-year dividend per share by ¥8 from the previous fiscal year to ¥24.

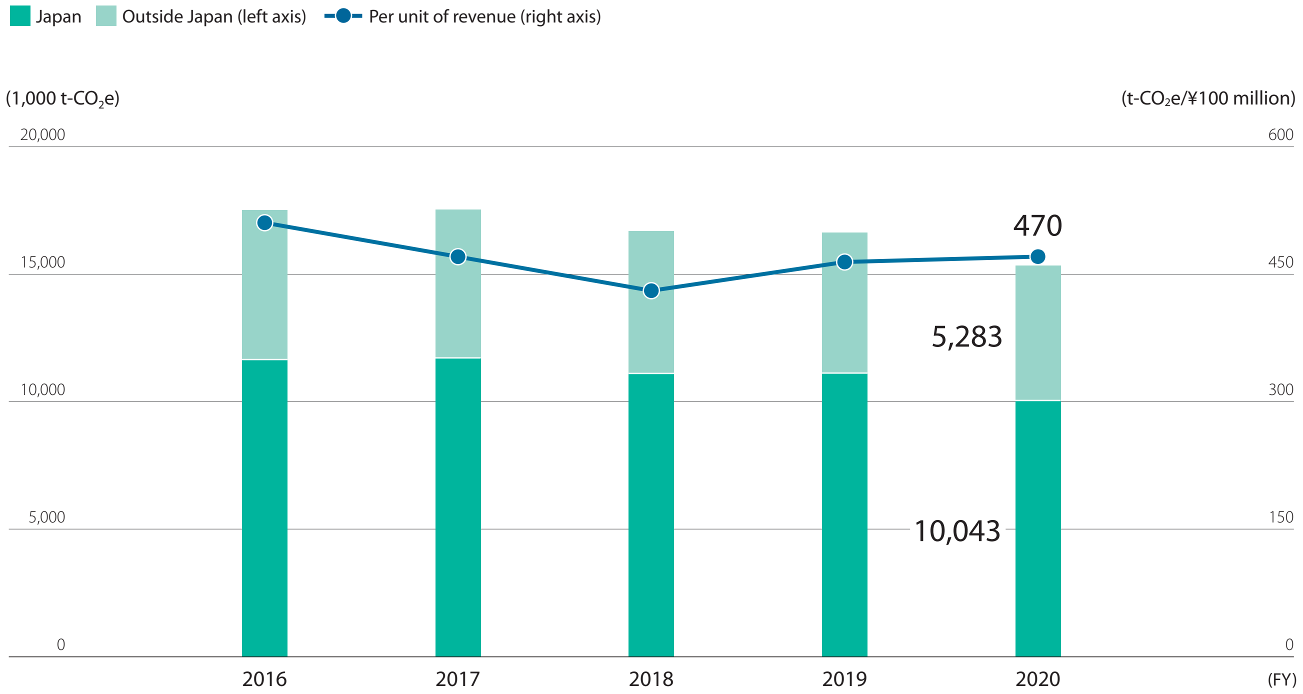
R&D expenditures and capital expenditures



R&D expenditures were ¥126.1 billion, as we continued to focus on refining existing technologies and developing new technologies. Capital expenditures increased to ¥263.7 billion, up ¥23.3 billion year on year, due to the expansion of production facilities, mainly in the Performance Products domain.

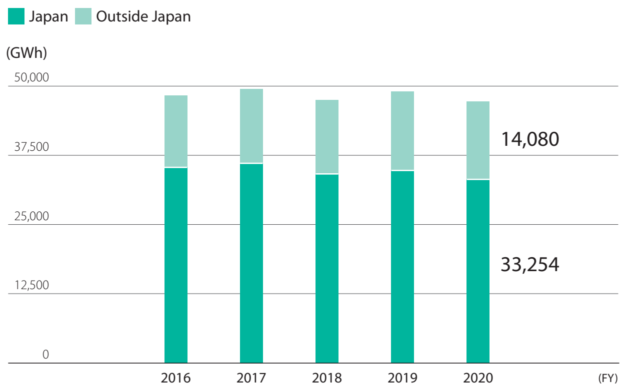
Non-Financial Indicators

GHG emissions*1



Fiscal 2020 GHG emissions (Scope 1 + Scope 2) totaled 15,325 thousand t-CO_2e. Total emissions were reduced by 7.8% year on year, due chiefly to scheduled maintenance and repairs at large-scale manufacturing plants and the suspension of operations at plants with high emissions levels. After accounting for the impact of COVID-19, however, emissions per unit of revenue, at 470 t-CO_2e/¥100 million, remained close to the previous fiscal year's level. GHG reduction is viewed as one of the most important social issues under our medium- to long-term basic management strategy, KAITEKI Vision 30 (KV30). In addition to contributing to the reduction of emissions through our products and services, we are working to further accelerate the reduction of GHG emissions from business activities including production.

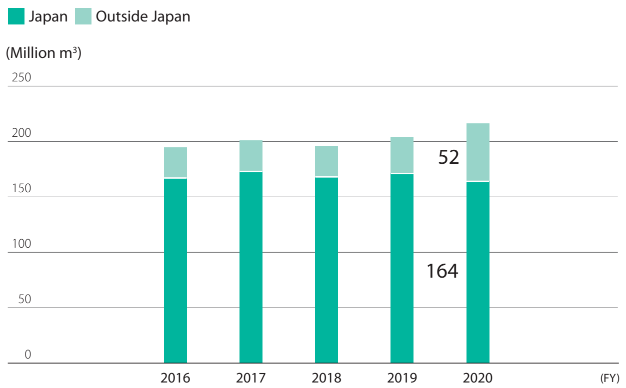
Energy consumption*1



Energy consumption fell year on year in fiscal 2020, due mainly to scheduled maintenance and repairs at large-scale plants in Japan and the suspension of certain operations with high energy consumption.

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.

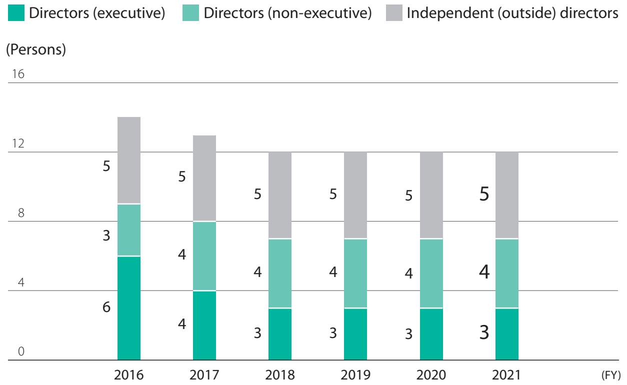
Water withdrawal (excluding seawater)



In fiscal 2020, water consumption increased overall as new overseas group company bases were added to the newly revised scope of measurement from fiscal 2019. In Japan, however, more efficient utilization of water led to a year-on-year reduction of 7 million m³ in water intake. 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.

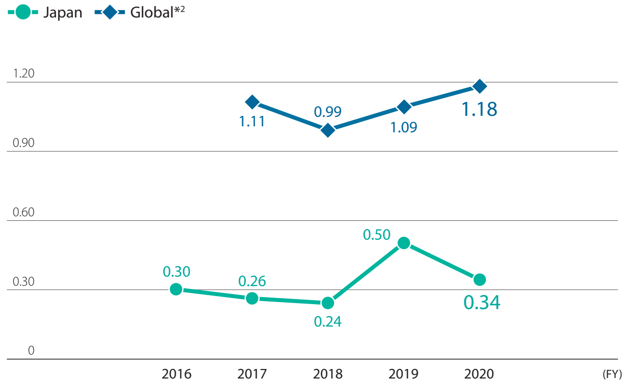
*1 Data for fiscal 2019 and subsequent periods are calculated based on categories revised to reflect the scope of activity of KV30. Figures for fiscal 2018 and earlier periods shown in the graph have been recalculated based on the revised categories. Figures for fiscal 2019 and subsequent periods, calculated based on the post-revision categories, have received independent assurance.

Number of directors and outside directors



Please see P. 59–60 for a list of directors.

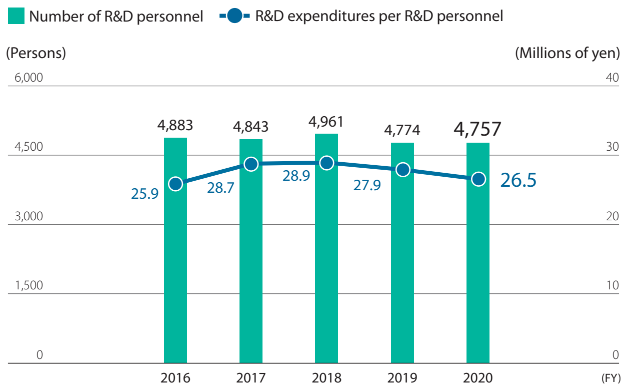
Lost-time injury frequency rate (LTIFR)



The LTIFR in Japan was 0.34, an improvement on the previous fiscal year. The corresponding global figure, for which data has been collected and aggregated since fiscal 2017, is higher than in Japan. We are committed to efforts to reduce the LTIFR by stepping up initiatives to prevent occupational accidents. These will include a range of measures such as ensuring compliance with basic safety practice and operational safety rules and undertaking risk assessments.

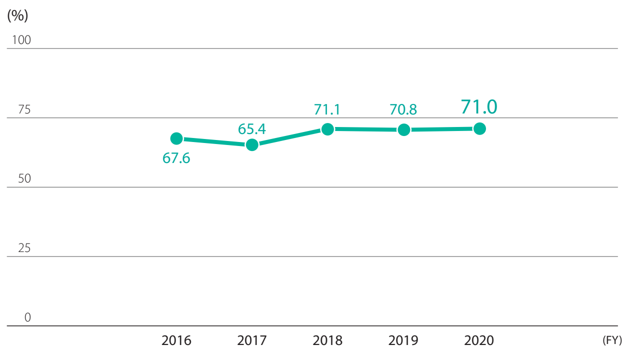
*2 For the scope of data aggregation, see P. 103.

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



In fiscal 2020, the number of R&D personnel fell by 17 from the previous fiscal year to 4,757, giving a figure of ¥26.5 million for R&D expenditures per R&D personnel.

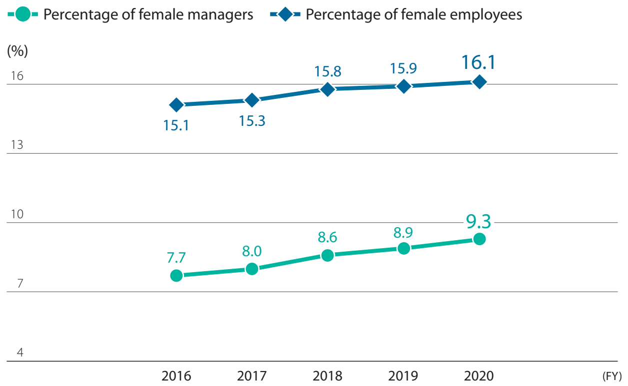
Paid leave utilization rate*2



The paid leave utilization rate was much the same as the previous fiscal year. We will work to reform operational procedures in line with the approaching the New Normal as we continue with strengthened initiatives to improve the work-life balance.

*2 For the scope of data aggregation, see P. 103.

Percentage of female employees and percentage of female managers*2



The percentage of female employees increased by 0.2 points to 16.1% from the previous fiscal year while the percentage of female managers was 9.3%, up 0.4 points from the previous fiscal year. We operate a range of initiatives to promote the empowerment of women.

*2 For the scope of data aggregation, see P. 103.

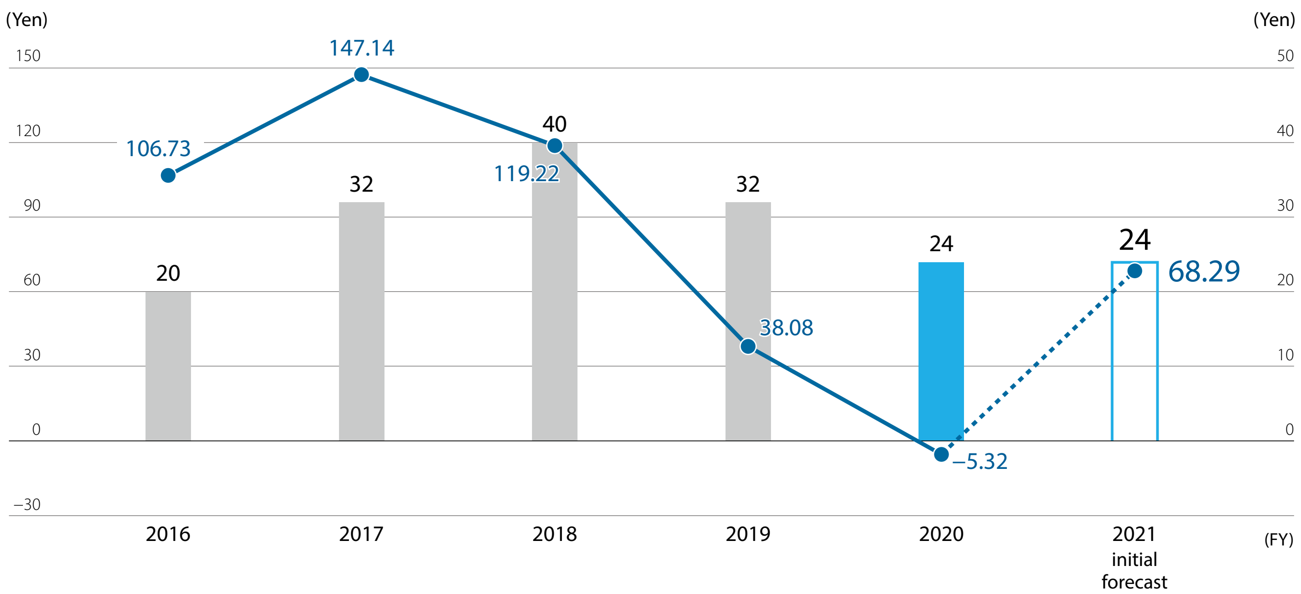
Basic Policy on Shareholder Returns

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%

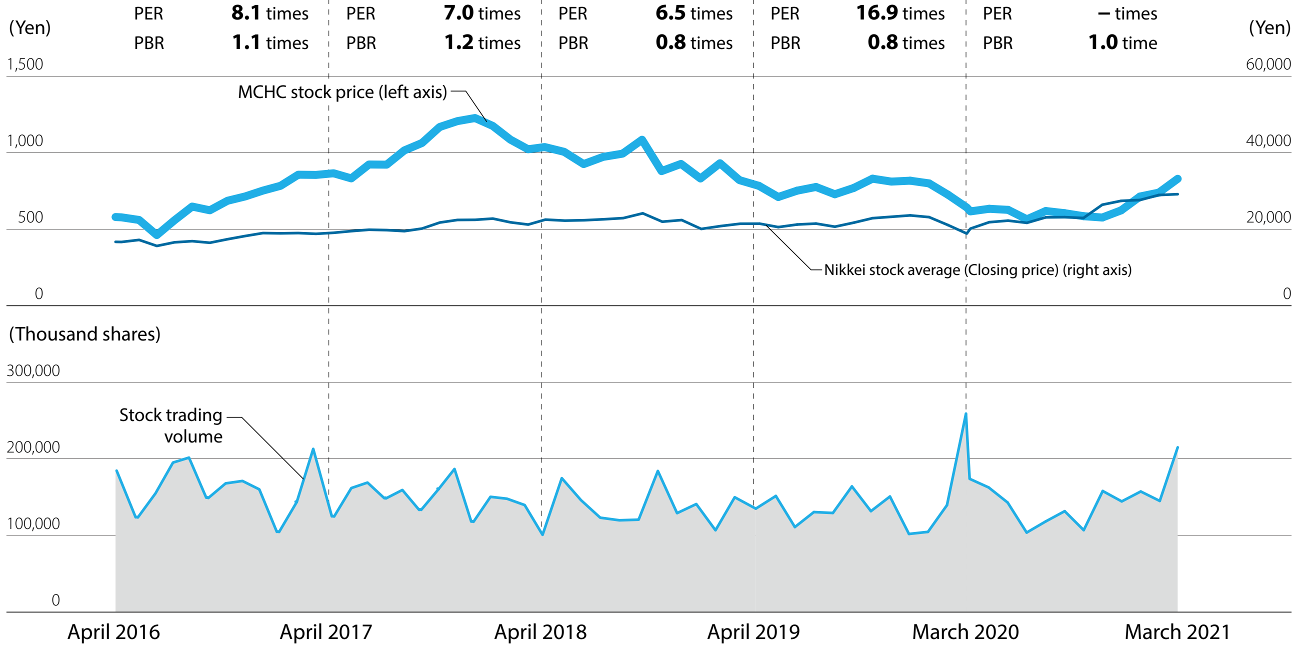
Paying stable dividends

Basic earnings (loss) per share and cash dividends per share



Stock price and stock trading volume

	FY2016	FY2017	FY2018	FY2019	FY2020
Stock price	¥861.4	¥1,030.5	¥779.4	¥642.8	¥829.9
PER	8.1 times	7.0 times	6.5 times	16.9 times	– times
PBR	1.1 times	1.2 times	0.8 times	0.8 times	1.0 time



Stock price: As of March 31
PER: Share price as of March 31/Basic earnings (loss) per share
PBR: Share price as of March 31/Equity attributable to owners of the parent per share

Shareholder information (As of March 31, 2021)

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	273,758

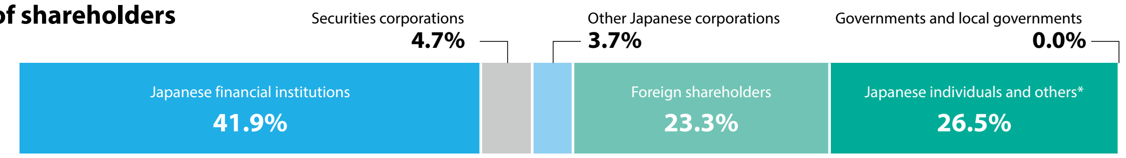
Major shareholders

Name	Number of shares (Thousands)	Percentage (%)
The Master Trust Bank of Japan, Ltd. (Trust account)	126,731	8.9
Custody Bank of Japan, Ltd. (Trust account)	82,101	5.8
Meiji Yasuda Life Insurance Company	64,389	4.5
Nippon Life Insurance Company	42,509	3.0
Custody Bank of Japan, Ltd. (Trust account 7)	26,246	1.8
Custody Bank of Japan, Ltd. (Trust account 4)	23,652	1.7
MUFG Bank, Ltd.	20,553	1.4
STATE STREET BANK WEST CLIENT - TREATY 505234	20,298	1.4
Custody Bank of Japan, Ltd. (Trust account 5)	20,075	1.4
Taiyo Life Insurance Company	18,838	1.3

Notes: 1. In addition to the above, Mitsubishi Chemical Holdings holds 82,871 thousand shares as treasury stock, 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 (82,871 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

FY2020
(As of March 31, 2021)



* Shares held by the Group as treasury stock are included in "Japanese individuals and others."

FY2020 IR Report

Mitsubishi Chemical Holdings engages in active and constructive dialogues with shareholders, customers and other stakeholders through various opportunities and aims to cooperate for realization of KAITEKI by sharing issues and goals. In dialogues 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 dialogues with shareholders and reflect such dialogues in our corporate activities.

Activities		Description
1 General Meeting of Shareholders		Held on June 24, 2021
2 For domestic and overseas institutional investors, analysts	IR briefings (large meetings)	2 events: Business briefing (Feb.); Briefing on medium-term management plan for pharmaceutical business (Mitsubishi Tanabe Pharma; Mar.). Video and documentation available on our website (Japanese and English)
	Top management's dialogue with investors	Small meetings (Jun., Mar.): Individual interviews with domestic and overseas institutional investors
	Conference calls, following the financial results announcement	4 sessions (following the quarterly financial results announcement) Audio and documentation available on our website (Japanese and English)
	Participation in conferences held by securities firms	6 events: Mainly individual interviews with overseas institutional investors
	Small meetings on individual themes	2 sessions: Pharmaceutical business (Jun.); Automotive business (Dec.).
	Other IR activities	Meetings following the financial results announcement and other events
3 For individual investors	Individual investors briefings	5 sessions: including presentation by CEO/CFO


General Meeting of Shareholders


Business briefing

Consolidated Financial Statements

Consolidated Statement of Income

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries
Years ended March 31

Millions of yen

	Year ended March 31, 2020	**Year ended March 31, 2021**
Continuing operations:		
Sales revenue	¥ 3,580,510	**¥ 3,257,535**
Cost of sales	(2,593,247)	**(2,331,286)**
Gross profit	987,263	**926,249**
Selling, general and administrative expenses	(800,572)	**(752,693)**
Other operating income	27,571	**30,713**
Other operating expenses	(83,373)	**(172,391)**
Share of profit of associates and joint ventures	13,396	**15,640**
Operating income	144,285	**47,518**
Financial income	7,206	**8,252**
Financial expenses	(29,488)	**(22,862)**
Income before taxes	122,003	**32,908**
Income taxes	(52,335)	**(10,186)**
Net income from continuing operations	69,668	**22,722**
Discontinued operations:		
Net income from discontinued operations	16,892	—
Net income	¥ 86,560	**¥ 22,722**
Net income attributable to:		
Owners of the parent	¥ 54,077	**¥ (7,557)**
Non-controlling interests	32,483	**30,279**
Net income	¥ 86,560	**¥ 22,722**
Earnings per share:		(Yen)
Basic earnings(loss) per share attributable to owners of the parent		
Continuing operations	¥ 26.19	**¥ (5.32)**
Discontinued operations	11.89	—
Total	¥ 38.08	**¥ (5.32)**
Diluted earnings(loss) per share attributable to owners of the parent		
Continuing operations	¥ 24.27	**¥ (5.32)**
Discontinued operations	10.94	—
Total	¥ 35.21	**¥ (5.32)**

Consolidated Statement of Comprehensive Income

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries
Years ended March 31

Millions of yen

	Year ended March 31, 2020	**Year ended March 31, 2021**
Net income	¥ 86,560	**¥ 22,722**
Other comprehensive income:		
Items that will not be reclassified to profit or loss:		
Net gain (loss) on revaluation of financial assets measured at fair value through other comprehensive income	(15,912)	**26,675**
Remeasurements of defined benefit pensions plans	(735)	**26,817**
Share of other comprehensive income (loss) of associates and joint ventures for using the equity method	(183)	**(191)**
Total items that will not be reclassified to profit or loss	(16,830)	**53,301**
Items that may be subsequently reclassified to profit or loss		
Exchange differences on translation of foreign operations	(63,517)	**81,019**
Net gain (loss) on derivatives designated as cash flow hedges	36	**180**
Share of other comprehensive income (loss) of associates and joint ventures for using the equity method	(5,774)	**3,329**
Total items that may be subsequently reclassified to profit or loss	(69,255)	**84,528**
Total other comprehensive income (net of tax)	(86,085)	**137,829**
Total comprehensive income	¥ 475	**¥160,551**
Total comprehensive income attributable to:		
Owners of the parent	¥(6,664)	**¥ 97,068**
Non-controlling interests	7,139	**63,483**

Consolidated Financial Statements

Consolidated Statement of Financial Position

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries
As of March 31

Millions of yen

		March 31, 2020	**March 31, 2021**
Assets	**Current assets:**		
	Cash and cash equivalents	¥ 228,211	**¥ 349,577**
	Trade receivables	698,516	**716,392**
	Inventories	606,505	**576,473**
	Other financial assets	117,628	**47,818**
	Other current assets	90,140	**83,462**
	Subtotal	1,741,000	**1,773,722**
	Assets held for sale	8,281	**23,812**
	Total current assets	1,749,281	**1,797,534**
	Non-current assets:		
	Property, plant and equipment	1,742,216	**1,813,838**
	Goodwill	616,769	**671,889**
	Intangible assets	510,575	**455,317**
	Investments accounted for using the equity method	169,958	**162,042**
	Other financial assets	226,488	**251,211**
	Other non-current assets	42,813	**68,051**
	Deferred tax assets	74,049	**67,346**
	Total non-current assets	3,382,868	**3,489,694**
	Total assets	¥5,132,149	**¥5,287,228**

Millions of yen

		March 31, 2020	**March 31, 2021**
Liabilities and Equity			
Liabilities	**Current liabilities:**		
	Trade payables	¥ 398,061	**¥ 382,272**
	Bonds and borrowings	727,307	**653,475**
	Income tax payable	19,287	**22,283**
	Other financial liabilities	359,540	**272,341**
	Provisions	7,968	**11,690**
	Other current liabilities	122,575	**147,911**
	Subtotal	1,634,738	**1,489,972**
	Liabilities directly associated with assets held for sale	1,761	**2,534**
	Total current liabilities	1,636,499	**1,492,506**
	Non-current liabilities:		
	Bonds and borrowings	1,555,947	**1,696,029**
	Other financial liabilities	88,533	**118,300**
	Retirement benefit liabilities	125,611	**112,272**
	Provisions	31,893	**27,398**
	Other non-current liabilities	80,840	**113,730**
	Deferred tax liabilities	161,997	**155,845**
	Total non-current liabilities	2,044,821	**2,223,574**
	Total liabilities	3,681,320	**3,716,080**
Equity	Common stock:	50,000	**50,000**
	Additional paid-in capital	176,715	**179,716**
	Treasury stock	(63,485)	**(63,244)**
	Retained earnings	1,071,260	**1,060,069**
	Other components of equity	(64,268)	**9,798**
	Equity attributable to owners of the parent	1,170,222	**1,236,339**
	Non-controlling interests	280,607	**334,809**
	Total equity	1,450,829	**1,571,148**
	Total liabilities and equity	¥5,132,149	**¥5,287,228**

Consolidated Statement of Changes in Equity

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries

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	—	—	—	—
Total comprehensive income	—	—	—	54,077
Purchase of treasury stock	—	—	(27)	—
Disposal of treasury stock	—	(100)	102	—
Cash dividends	—	—	—	(56,804)
Share-based payment transactions	—	194	—	—
Share-based payment transactions of subsidiaries	—	—	—	—
Changes in interests in subsidiaries	—	(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 through other comprehensive income	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	(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	—	—	—	—	—	(27)	—	(27)
Disposal of treasury stock	—	—	—	—	—	2	—	2
Cash dividends	—	—	—	—	—	(56,804)	(31,111)	(87,915)
Share-based payment transactions	—	—	—	—	—	194	—	194
Share-based payment transactions of subsidiaries	—	—	—	—	—	—	(14)	(14)
Changes in interests in subsidiaries	—	—	—	—	—	(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

Year ended March 31, 2021

Millions of yen

	Common stock	Additional paid-in capital	Treasury stock	Retained earnings
Balance at April 1, 2020	**¥50,000**	**¥ 176,715**	**¥ (63,485)**	**¥1,071,260**
Net income(loss)	—	—	—	**(7,557)**
Other comprehensive income	—	—	—	—
Total comprehensive income	—	—	—	**(7,557)**
Purchase of treasury stock	—	—	**(20)**	—
Disposal of treasury stock	—	**(198)**	**261**	—
Cash dividends	—	—	—	**(34,091)**
Share-based payment transactions	—	**(13)**	—	—
Changes in interests in subsidiaries	—	**(756)**	—	—
Business combinations or business divestitures	—	**2,456**	—	—
Changes in scope of consolidation	—	—	—	**51**
Transfer from other components of equity to retained earnings	—	—	—	**30,406**
Transfer from other components of equity to non-financial assets	—	—	—	—
Total transactions with owners	—	**3,001**	**241**	**(3,634)**
Balance at March 31, 2021	**¥50,000**	**¥179,716**	**¥(63,244)**	**¥1,060,069**

	Other components of equity: Net gain (loss) on revaluation of financial assets measured at fair value through other comprehensive income	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, 2020	**¥38,335**	**¥ —**	**¥(102,773)**	**¥170**	**¥(64,268)**	**¥1,170,222**	**¥280,607**	**¥1,450,829**
Net income(loss)	—	—	—	—	—	**(7,557)**	**30,279**	**22,722**
Other comprehensive income	**22,523**	**26,255**	**55,696**	**151**	**104,625**	**104,625**	**33,204**	**137,829**
Total comprehensive income	**22,523**	**26,255**	**55,696**	**151**	**104,625**	**97,068**	**63,483**	**160,551**
Purchase of treasury stock	—	—	—	—	—	**(20)**	—	**(20)**
Disposal of treasury stock	—	—	—	—	—	**63**	—	**63**
Cash dividends	—	—	—	—	—	**(34,091)**	**(11,049)**	**(45,140)**
Share-based payment transactions	—	—	—	—	—	**(13)**	—	**(13)**
Changes in interests in subsidiaries	—	—	—	—	—	**756**	**361**	**1,117**
Business combinations or business divestitures	—	—	—	—	—	**2,456**	**1,488**	**3,944**
Changes in scope of consolidation	—	—	—	—	—	**51**	**(81)**	**(30)**
Transfer from other components of equity to retained earnings	**(4,151)**	**(26,255)**	—	—	**(30,406)**	—	—	—
Transfer from other components of equity to non-financial assets	—	—	—	**(153)**	**(153)**	**(153)**	—	**(153)**
Total transactions with owners	**(4,151)**	**(26,255)**	—	**(153)**	**(30,559)**	**(30,951)**	**(9,281)**	**(40,232)**
Balance at March 31, 2021	**¥56,707**	**¥ —**	**¥(47,077)**	**¥168**	**¥9,798**	**¥1,236,339**	**¥334,809**	**¥1,571,148**

Consolidated Statement of Cash Flows

Mitsubishi Chemical Holdings Corporation and Consolidated Subsidiaries
Years ended March 31

Millions of yen

	Year ended March 31, 2020	**Year ended March 31, 2021**
Cash flows from operating activities:		
Income before taxes	¥122,003	**¥32,908**
Income before taxes from discontinued operations	25,585	**—**
Depreciation and amortization	239,824	**243,793**
Share of profit of associates and joint ventures	(13,401)	**(15,640)**
Impairment loss	48,647	**127,193**
Loss on sales and retirement of property, plant and equipment	15,797	**11,458**
Loss on liquidation of subsidiaries and associates	—	**7,379**
Provision for loss related to plant closure	—	**3,318**
Loss on sales of shares of subsidiaries and associates	1,567	**554**
Gain on sales of property, plant and equipment	(8,533)	**(9,869)**
Gain on transfer of businesses	—	**(1,428)**
Gain on step acquisitions	—	**(1,295)**
Gain on sales of shares of subsidiaries and associates	(530)	**(1,168)**
Gain on share exchanges	(23,922)	**—**
Gain on reversal of impairment loss	(1,720)	**—**
Interest and dividend income	(6,886)	**(5,547)**
Interest expense	24,515	**21,404**
(Increase) decrease in trade receivables	122,281	**(237)**
(Increase) decrease in inventories	7,139	**44,629**
Increase (decrease) in trade payables	(79,540)	**(27,240)**
Increase (decrease) in retirement benefit assets and liabilities, net	(719)	**446**
Others	34,960	**71,141**
Subtotal	507,067	**501,799**
Interest received	3,040	**1,391**
Dividends received	25,310	**19,019**
Interest paid	(21,847)	**(19,891)**
Income tax (paid) received, net	(61,567)	**(35,185)**
Net cash provided by (used in) operating activities	452,003	**467,133**
Cash flows from investing activities:		
Purchase of property, plant and equipment	(223,478)	**(246,410)**
Proceeds from sales of property, plant and equipment	14,995	**15,843**
Purchase of intangible assets	(12,601)	**(10,606)**
Purchase of other financial assets	(348,240)	**(3,106)**
Proceeds from sales/redemption of other financial assets	453,694	**76,982**
Purchase of investments in subsidiaries	(5,490)	**(28,677)**
Proceeds from sales of investments in subsidiaries	2,836	**3,020**
Proceeds from loss of control due to share exchange	14,432	**—**
Payments for transfer of businesses	(3,000)	**(983)**
Net (increase) decrease in time deposits	25,236	**5,708**
Others	(5,947)	**(28,781)**
Net cash provided by (used in) investing activities	(87,563)	**(217,010)**
Cash flows from financing activities:		
Net increase (decrease) in short-term borrowings	(330,088)	**(115,453)**
Net increase (decrease) in commercial papers	2,000	**(3,000)**
Proceeds from long-term borrowings	490,580	**301,531**
Repayment of long-term borrowings	(183,865)	**(171,789)**
Proceeds from issuance of bonds	149,185	**69,640**
Redemption of bonds	(60,000)	**(55,000)**
Repayment of lease liabilities	(30,555)	**(30,349)**
Net (increase) decrease in treasury stock	(25)	**(19)**
Dividends paid to owners of the parent	(56,804)	**(34,091)**
Dividends paid to non-controlling interests	(31,070)	**(11,007)**
Proceeds from stock issuance to non-controlling interests	3	**4,404**
Payment for acquisition of subsidiaries' interests from non-controlling interests	(399,834)	**(98,779)**
Others	(50)	**1,139**
Net cash provided in (used in) financing activities	(450,523)	**(142,773)**
Effect of exchange rate changes on cash and cash equivalents	(10,184)	**13,094**
Net increase (decrease) in cash and cash equivalents	(96,267)	**120,444**
Cash and cash equivalents at the beginning of the period	321,541	**228,211**
Net increase (decrease) in cash and cash equivalents resulting from transfer to assets held for sale	2,103	**49**
Net increase (decrease) in cash and cash equivalents resulting from change in scope of consolidation	834	**854**
Net increase in cash and cash equivalents resulting from merger and acquisition	—	**19**
Cash and cash equivalents at the end of the period	¥228,211	**¥349,577**

Non-Financial Information

Environmental Data

☑ Indicators with this icon have been assured by KPMG AZSA Sustainability Co., Ltd. for fiscal 2020.

Scope of data aggregation The data covers the four operating companies (Mitsubishi Chemical, Mitsubishi Tanabe Pharma, Life Science Institute and Nippon Sanso Holdings) and their domestic and overseas Group companies.

Energy consumption/Greenhouse gases (GHG)*1	FY2017	FY2018	FY2019	FY2020
☑ GHG emissions (Scope 1 + Scope 2) (1,000 metric t-CO_2e)*2	14,815	14,187	16,629*4	15,325
☑ Scope 1	7,470	6,787	8,455	7,786
☑ Scope 2	7,345	7,400	8,174	7,540
☑ Scope 3*5	49,640	49,260	51,820	51,930
☑ Energy consumption (GWh)*3	40,977	39,126	49,110	47,335

*1 Based on the GHG protocol, energy used to produce electricity and steam sold externally and the resulting CO_2 emissions are not excluded. Since fiscal 2019, the data has included half of energy consumption and GHG emissions by the joint operation.

*2 For the calculation of emissions in Japan, the base emission factors of individual electric power companies specified in the Act on Promotion of Global Warming Countermeasures are used in principle, with an alternative emission factor used in cases where the specific emission factor is unavailable. 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 fiscal 2019, the expanded scope of measurement under the medium- to long-term basic management strategy KAITEKI Vision 30 resulted in the additional inclusion of one joint operations company. Given the additional effect of expansion due to acquisitions in previous years, the total of Scope 1 + Scope 2 emissions showed an increase of 2,442 thousand metric t-CO_2e from fiscal 2018 to 16,629 thousand metric t-CO_2e. Excluding these effects, however, emissions fell by 54 thousand metric t-CO_2e compared to fiscal 2018.

*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	FY2017	FY2018	FY2019	FY2020
☑ NOx emissions (1,000 metric tons)	8.12	7.54	8.28	7.94
☑ SOx emissions (1,000 metric tons)	4.42	4.07*7	3.39*7	3.23
☑ COD emissions (1,000 metric tons)*6	2.08	1.84	1.80	1.68
☑ Total nitrogen emissions in water discharged (1,000 metric tons)*6	6.04	5.64	5.67	4.87
☑ Total phosphorous emissions (1,000 metric tons)*6	0.07	0.10	0.11	0.10

*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.

*7 Emissions for fiscal 2018 and fiscal 2019 have been adjusted following a revision of the calculation method for SOx emissions at certain sites.

Water use	FY2017	FY2018	FY2019	FY2020
☑ Water withdrawal (Million m^3) (excluding seawater)	193	189	204	216

Social Data

Constitution of employees (MCHC Group)		FY2017	FY2018	FY2019	FY2020
Number of consolidated employees		69,230	72,020	69,609	69,607
Number of employees by district	In Japan	43,406	43,709	40,732	40,774
	Outside Japan	25,824	28,311	28,877	28,833

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		FY2017	FY2018	FY2019	FY2020
☑ Number of employees		21,770	22,064	23,116	23,147
☑ Number of employees by gender	Male	18,440	18,578	19,444	19,429
☑	Female	3,330	3,486	3,672	3,718
☑ Percentage of female employees (%)		15.3	15.8	15.9	16.1
☑ Percentage of female managers (%)*8		8.0	8.6	8.9	9.3
☑ Paid leave utilization rate (%)*9		65.4	71.1	70.8	71.0
☑ Lost-time injury frequency rate (LTIFR)*10, *11		0.26	0.99	1.09	1.18

*8 Percentage of female employees out of all employees at assistant manager level and above.

*9 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.

*10 Scope of data aggregation: The data for 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. From fiscal 2020, the scope of the LTIFR includes the staff of Mitsubishi Tanabe Pharma's Head Office, branches, and sales offices in Japan.

*11 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, 2020 to March 31, 2021 included in its KAITEKI REPORT 2021 (the "Report") for the fiscal year ended March 31, 2021.

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.
- Making inquiries and reviewing materials including documented evidence of the Toyama Plant of Mitsubishi Chemical Corporation selected on the basis of a risk analysis, as alternative procedures to a site visit.
- 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 25, 2021

Corporate Data

Mitsubishi Chemical Holdings Corporation (As of March 31, 2021)

Head office	1-1 Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8251, Japan
Establishment	October 3, 2005
Paid-in capital	¥50.0 billion
Sales revenue (consolidated)	¥3,257.5 billion (FY2020, ended March 31, 2021)
Number of employees (consolidated)	69,607 (As of March 31, 2021)

Organizational structure (As of March 31, 2021)

Holding company

Formulation of Group strategies, optimal allocation of management resources, supervision of business management and others

Mitsubishi Chemical Holdings Corporation*

Function-sharing companies

Investigation into future social issues and research for proving solutions to those issues

- 100% The KAITEKI Institute

Overseas administrative representatives in North America, Europe, China and the Asia Pacific region supporting global business expansion

- 100% Mitsubishi Chemical Holdings America
- 100% Mitsubishi Chemical Holdings (Beijing)
- 100% Mitsubishi Chemical Holdings Europe
- 100% Mitsubishi Chemical Holdings Asia Pacific

Common functions for accounting and financial affairs

- 100% Mitsubishi Chemical Holdings Corporate Staff

Functions for partnering with and investment in startup companies

- 100% Diamond Edge Ventures

Operating companies

Business operations in the three business domains of Performance Products, Industrial Materials and Health Care

	100%	100%	100%	50.6%
	Mitsubishi Chemical Corporation	Mitsubishi Tanabe Pharma Corporation	Life Science Institute, Inc.	Nippon Sanso Holdings Corporation*
Paid-in capital	¥53.2 billion	¥50.0 billion	¥9.3 billion	¥37.3 billion
Sales revenue (consolidated)	¥2,062.0 billion	¥377.8 billion	¥23.2 billion	¥818.2 billion
Business lines	Performance products, industrial materials and others	Pharmaceuticals and others	Next-generation healthcare, healthcare and medical ICT, and pharmaceutical development solutions	Subsidiary management and Group operations in industrial gases
Business domains / Business domain	Performance Products Industrial Materials	Health Care	Health Care	Industrial Materials
	Group companies	Group companies	Group companies	Group companies

* Listed company

Main Subsidiaries and Affiliates

(As of March 31, 2021)

Direct investees

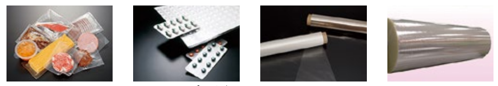
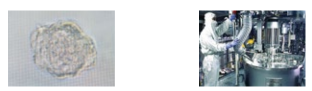
Company name	Principal businesses	Paid-in capital	Equity participation (%)
Mitsubishi Chemical Corporation	Manufacturing and marketing of chemical products	¥53.2 billion	100.0
Mitsubishi Tanabe Pharma Corporation	Manufacturing and marketing of pharmaceuticals	¥50.0 billion	100.0
Life Science Institute, Inc.	Healthcare solutions business	¥9.3 billion	100.0
Nippon Sanso Holdings Corporation	Subsidiary management and Group operations in industrial gases	¥37.3 billion	50.6

Indirect investees	Company name	Principal businesses	Paid-in capital	Equity participation (%)
Performance Products domain	**Performance Products segment**			
	Qualicaps Co., Ltd.	Manufacturing and marketing of capsules for pharmaceuticals and health food, and pharmaceutical processing equipment	¥1.0 billion	100.0
	J-Film Corporation	Manufacturing and marketing of plastic films	¥1.2 billion	100.0
	Shinryo Corporation	Provision of semiconductor-related services, manufacturing and marketing of fine chemicals, and environmental and recycling-related business	¥0.5 billion	100.0
	Mitsubishi Chemical Infratec Co., Ltd.	Manufacturing and marketing of synthetic resin products for civil engineering materials, waterproof reinforcement, distribution materials, aluminum composite material sheets, industrial plates, plastic film-laminated steel sheets, housing materials, and urethane and facility systems	¥0.4 billion	100.0
	MC Ionic Solutions US, Inc.*1	Manufacturing and marketing of electrolytes for lithium-ion batteries	US$100	100.0
	Mitsubishi Chemical Advanced Materials AG	Management of subsidiaries that engage in the engineering plastic business and other sectors	CHF28 million	100.0
	Mitsubishi Chemical Performance Polymers, Inc.*1	Manufacturing and marketing of thermoplastic elastomers, functional polyolefins, etc.	US$100	100.0
Industrial Materials domain	**Chemicals segment**			
	Kansai Coke, 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*2	Management of subsidiaries that engage in the MMA business	£111 million	100.0
	Industrial Gases segment			
	TAIYO NIPPON SANSO CORPORATION	Manufacturing and marketing of industrial gases	¥1.5 billion	100.0*3
	NIPPON EKITAN Corporation	Manufacturing and marketing of industrial gases	¥0.6 billion	84.2*3
	Nippon Gases Euro-Holding S.L.U.	Management of subsidiaries that engage in the industrial gases business	€100 million	100.0*3
	Matheson Tri-Gas, Inc.	Manufacturing and marketing of industrial gases	US$56	100.0*3
Health Care domain	**Health Care segment**			
	API Corporation	Manufacturing and marketing of contracted manufactures of active pharmaceutical ingredients, intermediates, and investigational new drugs	¥4.0 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 United States and management of U.S. subsidiaries	US$167	100.0
Others	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 Effective April 1, 2021, Mitsubishi Chemical America, Inc. absorbed Mitsubishi Chemical Performance Polymers, Inc. and MC Ionic Solutions US, Inc.
*2 Effective April 1, 2021, Mitsubishi Chemical Lucite Group Limited changed its company name to Mitsubishi Chemical Methacrylates Ltd.
*3 Ratio of equity investment by Nippon Sanso Holdings Corporation (%)

Main Businesses

● Mitsubishi Chemical Group ● Mitsubishi Tanabe Pharma Group ● Life Science Institute Group ● Nippon Sanso Holdings Group

	Main businesses, products and services		Main uses
Polymers	 Thermoplastic urethane elastomer *ChronoFlex AL*; Biodegradable plastic *BioPBS*; EVOH *Soarnol*; Epoxy resin jER	● Performance polymers	Automobiles, industrial materials, electronics, household goods, foods, medical care
		● Polycarbonate, biopolycarbonate ● Polybutylene terephthalate, biopolyester	Automobiles, electronics, household goods, Industrial-use chemicals, industrial materials
		● Epoxy resins	Industrial materials, automobiles, electronics, household goods, industrial-use chemicals, aircraft
		● EVOH*1, PVOH*2	Household goods, industrial materials, automobiles, electronics
Coating & Additives	 Acrylic resins *Dianal*; Coating material *ACRYKING*; Karl Fischer reagents *AQUAMICRON*	● Coating materials ● Fine chemicals ● Resin additives	Industrial materials, automobiles, electronics, household goods, industrial-use chemicals, aircraft
Films	 Food packaging film *DIAMIRON*; Moisture-proof PVC sheet for tablet and capsule packaging *VINYFOIL*; Acrylic film *ACRYPLEN*; Optical PVOH*2 film *OPL film*	● Food packaging materials	Foods, household goods
		● Industrial films	Industrial materials, medical care, electronics
		● Polyester films	Industrial materials, electronics
Molding Materials	 Engineering plastics; Carbon fiber and composite materials; Alumina fibers	● High-performance engineering plastics	Automobiles, electronics, industrial materials, medical care
		● Carbon fiber and composite materials	Automobiles, aircraft, industrial materials, sporting goods
		● Alumina fibers	Automobiles, industrial materials
		● Functional moldings and composites	Industrial materials, automobiles, electronics
		● Fibers and textiles	Household goods, industrial materials
Amenity Life	 Water treatment components, equipment and facilities; FRP*3 panel water tank *HISHITANK*; Sugar ester; Capsules	● Aqua solutions	Environment, infrastructure, household goods, medical care, foods
		● Construction material-related products	Industrial materials, infrastructure
		● Food ingredients	Foods (beverages, confectionery, nutrition products, etc.)
		● Capsules and PPE	Medical care
Information & Electronics	 Optical clear adhesive sheet, *CLEARFIT*; Color resist; Semiconductor-related materials  Lithium-ion battery materials; Phosphors; Scintillator	● Display-related products ● Semiconductor-related products	Electronics
		● Lithium-ion battery materials	Automobiles, electronics, energy
		● LED materials	Electronics, automobiles
		● Scintillator	Medical care, security devices
MMA	 MMA monomers; Acrylic molding material *ACRYPET*; Acrylic resin products	● MMA and PMMA	Automobiles, electronics, industrial materials, household goods
Petrochemicals	 Ethylene production facility; Petrochemical derivative; Automobile fuel tanks	● Basic petrochemicals and basic chemical derivatives	Industrial-use chemicals
		● Polyolefins	Automobiles, electronics, household goods, industrial materials, medical care
Carbon Products	 Coke; Carbon materials; Carbon black	● Coke ● Carbon materials	Synthetic rubber
		● Industrial materials ● Carbon black	Industrial materials, automobiles, household goods
Industrial Gases	 Separate gases (oxygen, nitrogen, argon); Electronic materials gases; Air separation units	● Industrial gases ● Industrial gas-related equipment and facilities	Industrial materials, industrial-use chemicals, electronics, automobiles, foods, medical care
Pharmaceuticals	 Treatment agent for autoimmune diseases; Therapeutic agent for ALS, *RADICAVA*; Vaccine	● Ethical pharmaceuticals	Medical care, health
Life Science	 Muse cells; Pharmaceutical development solutions	● Next-generation healthcare ● Healthcare and medical ICT ● Pharmaceutical development solutions	Medical care, health

*1 Ethylene vinyl alcohol copolymer *2 Polyvinyl alcohol *3 Fiber reinforced plastic

Global Network

(As of March 31, 2021)

Number of subsidiaries and affiliates (Japan)	Number of subsidiaries and affiliates (outside Japan)	
265	401	**Total:** 666

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Kasteler Strasse 45, 65203 Wiesbaden, Germany

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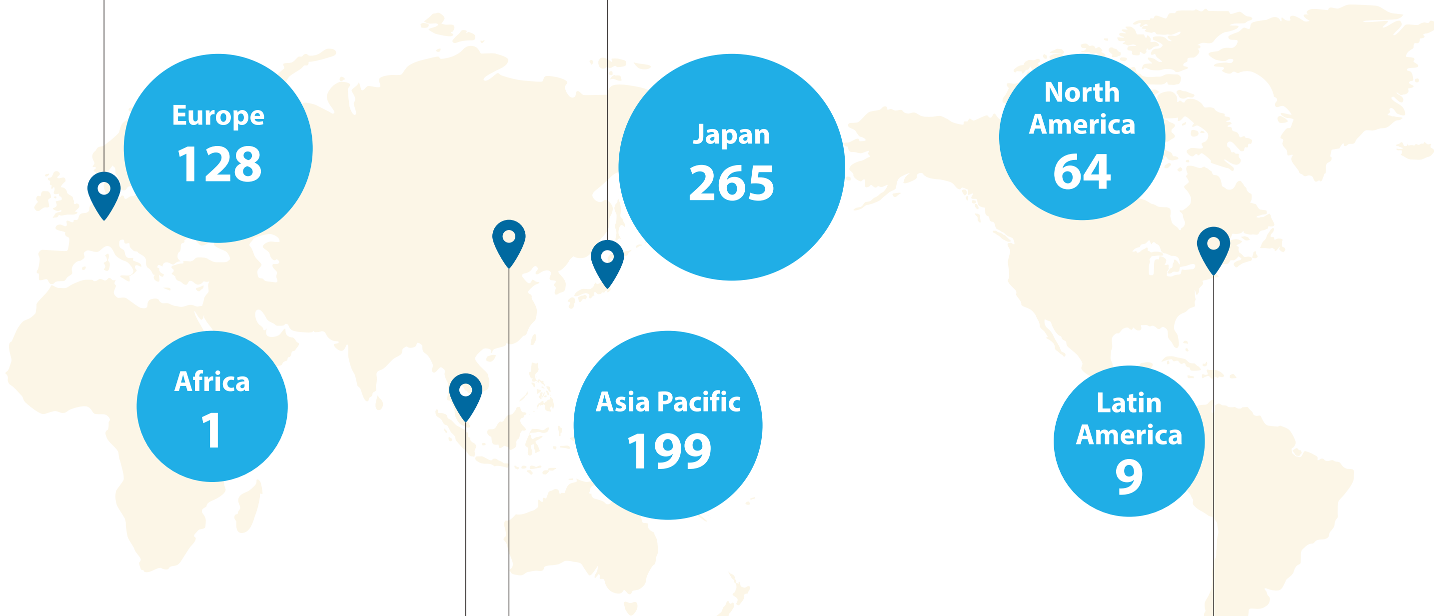

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Disclaimer: This report contains forward-looking statements that reflect Mitsubishi Chemical Holdings Corporation's assumptions and beliefs based on currently available information. Actual results may differ materially from forecasts due to various 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 various performance products, MMA, petrochemicals, carbon products, industrial gases and pharmaceuticals.

Mitsubishi Chemical Holdings Corporation

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