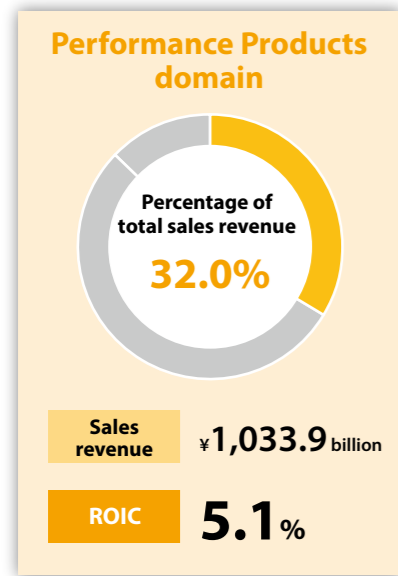


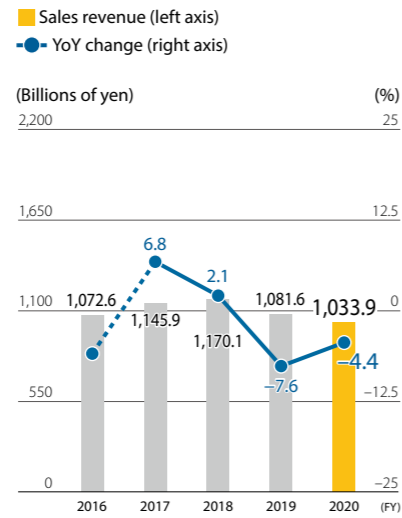
Overview of Business Domains | Summary

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>

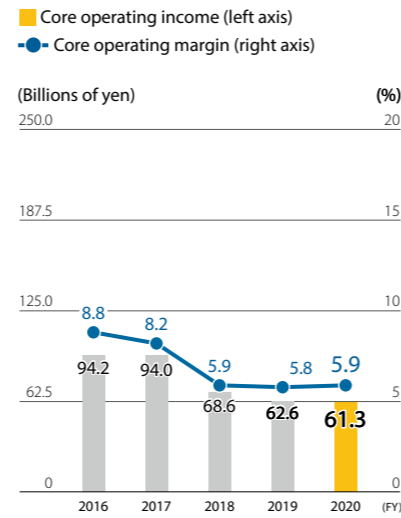
Notes:
 1. ROA was calculated as core operating income divided by the fiscal year average of total assets.
 2. Figures for past fiscal periods (up to and including fiscal 2019) are the business results figures announced at the time.
 3. Fiscal 2016 figures for sales revenue YoY change and ROA for Performance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



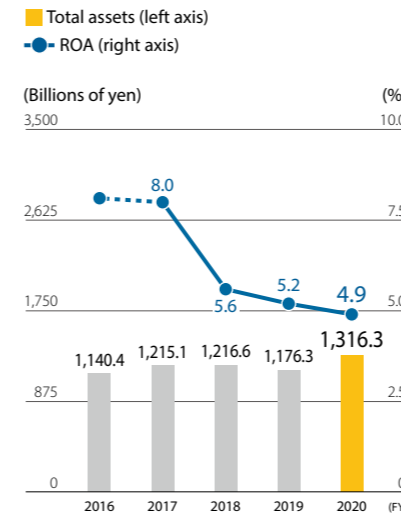
Sales revenue and YoY change



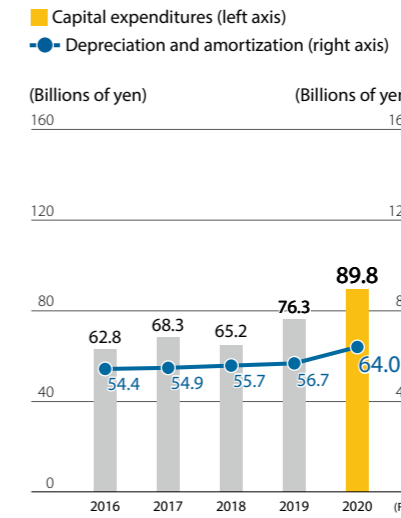
Core operating income and margin



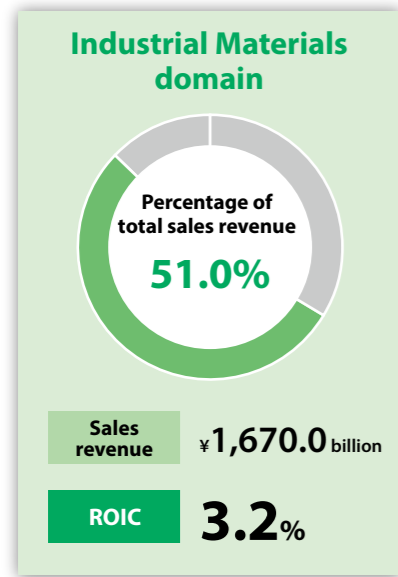
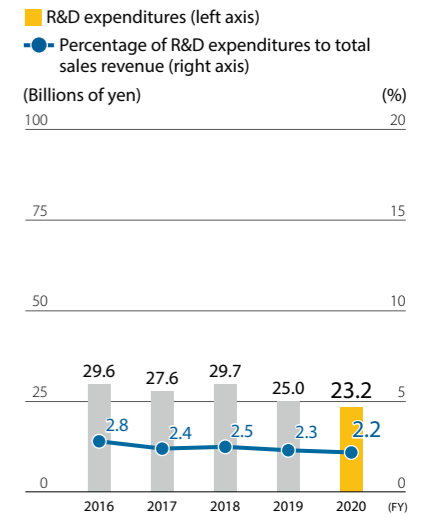
Total assets and ROA



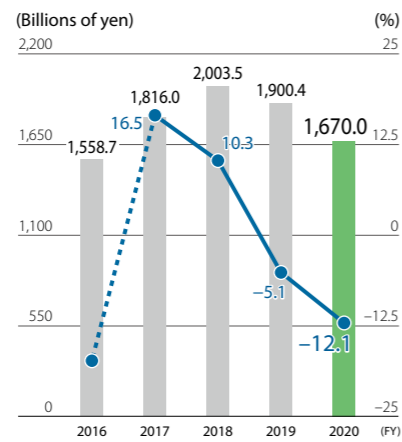
Capital expenditures and depreciation and amortization



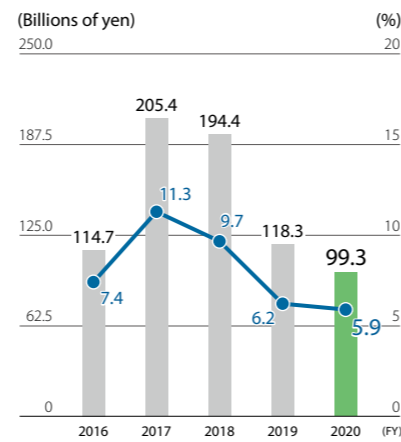
R&D expenditures and percentage of total sales revenue



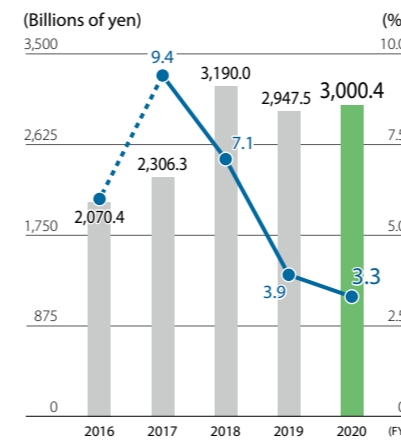
Sales revenue and YoY change



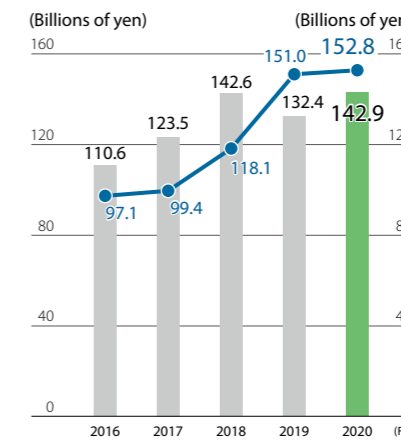
Core operating income and margin



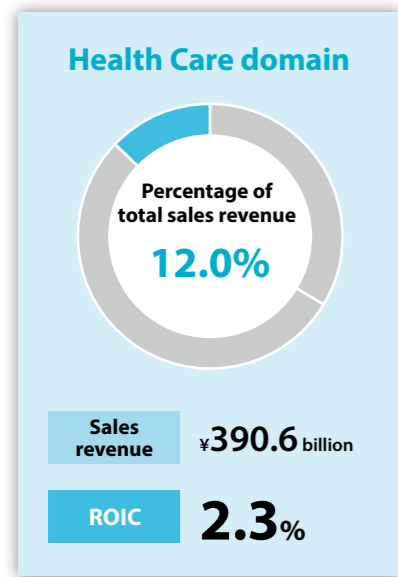
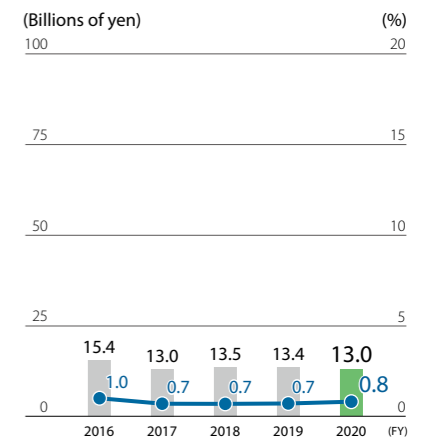
Total assets and ROA



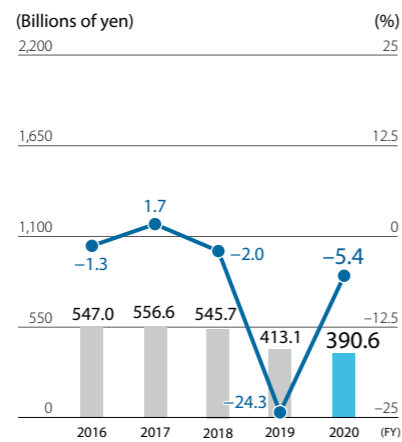
Capital expenditures and depreciation and amortization



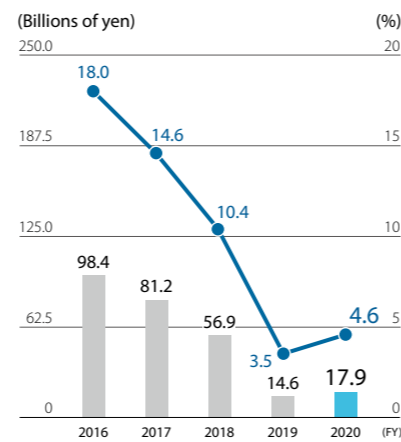
R&D expenditures and percentage of total sales revenue



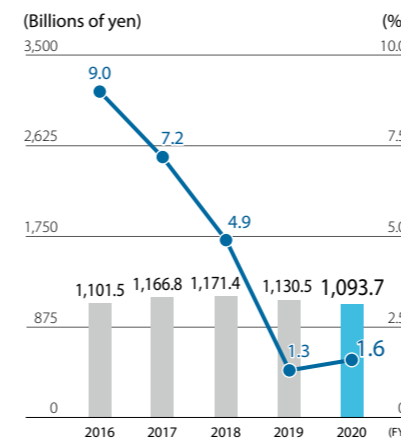
Sales revenue and YoY change



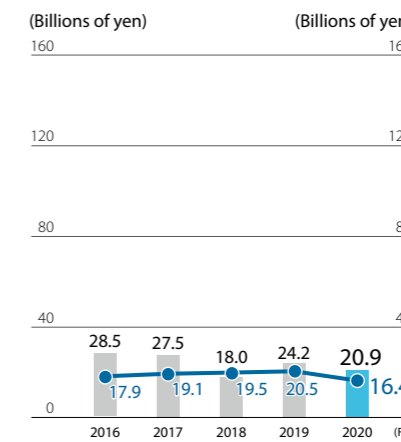
Core operating income and margin



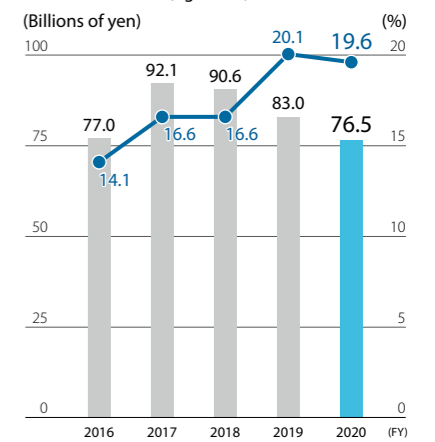
Total assets and ROA



Capital expenditures and depreciation and amortization

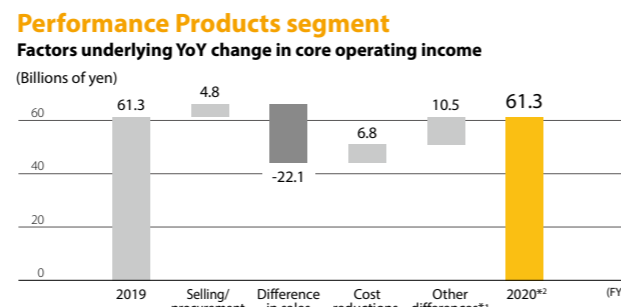
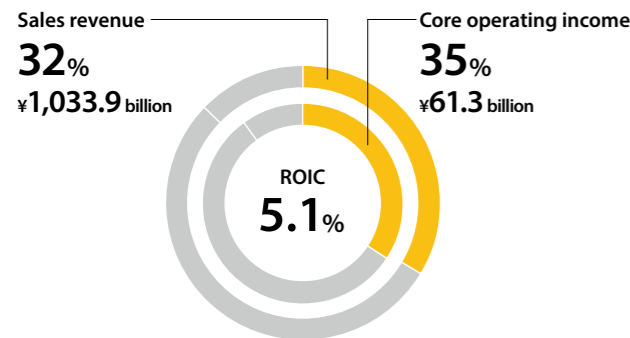
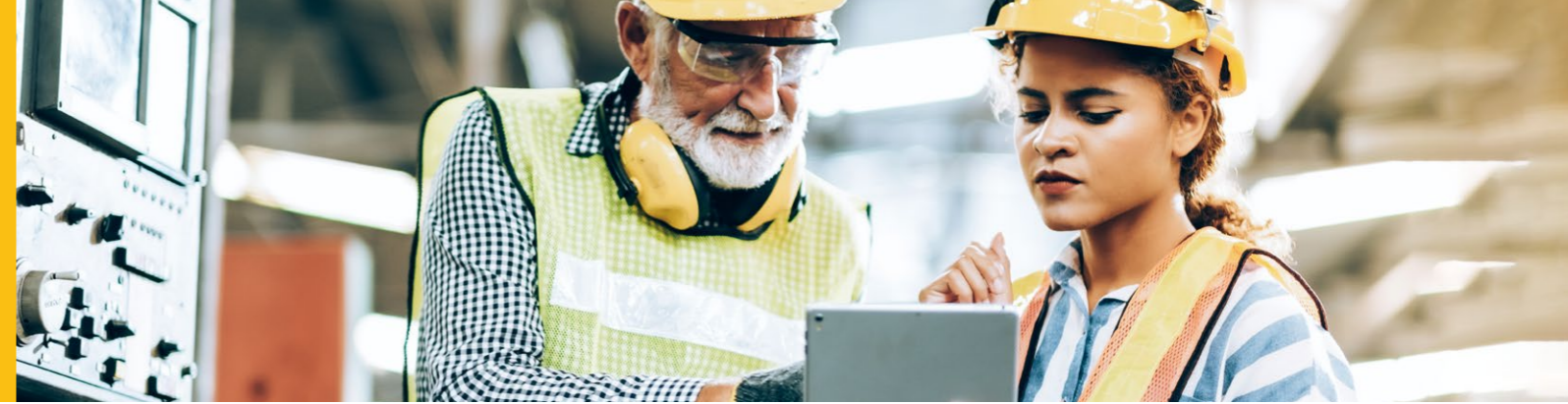


R&D expenditures and percentage of total sales revenue



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.



*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.

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.

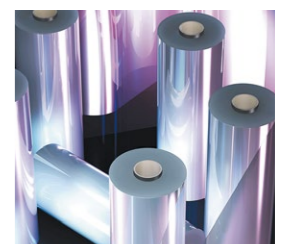


*1 Ethylene vinyl alcohol copolymer *2 Polyvinyl alcohol

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.

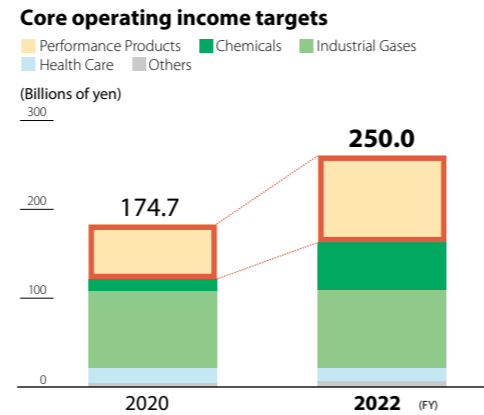


Strengths	Weaknesses
<p>Polyester Films business</p> <ul style="list-style-type: none"> ● We possess a strong market position and the ability to provide solutions in the advanced polyester film sector. <p>High-Performance Films business</p> <ul style="list-style-type: none"> ● We provide technological capabilities for adding various functions to films, such as gas-barrier, porous and multilayer films. <p>High-Performance Engineering Plastics business</p> <ul style="list-style-type: none"> ● We operate a global network of facilities capable of handling a broad range of operations from plastic production to molding and processing. <p>Carbon Fiber and Composite Materials business</p> <ul style="list-style-type: none"> ● This business can leverage a vertically integrated value chain spanning from carbon fibers to intermediate base materials and composite materials. <p>Semiconductors business</p> <ul style="list-style-type: none"> ● 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. <p>Battery Materials business</p> <ul style="list-style-type: none"> ● Electrolytes: We have the ability to develop functional additives that create high-performance batteries. 	<p>Polyester Films business</p> <ul style="list-style-type: none"> ● We must respond to greater than expected short-term changes in market demand. <p>High-Performance Films business</p> <ul style="list-style-type: none"> ● The operations of this business are concentrated mainly in Japan. <p>High-Performance Engineering Plastics business</p> <ul style="list-style-type: none"> ● This business is particularly vulnerable to social, economic and foreign exchange risks in various regions of the world. <p>Carbon Fiber and Composite Materials business</p> <ul style="list-style-type: none"> ● This business mainly sells products outside Japan, exposing it to foreign exchange risks. <p>Semiconductors business</p> <ul style="list-style-type: none"> ● Our distinctive products have yet to gain full recognition within the semiconductor industry. <p>Battery Materials business</p> <ul style="list-style-type: none"> ● We depend on China for raw material supplies.
Opportunities	Threats
<p>Polyester Films business</p> <ul style="list-style-type: none"> ● Market needs are increasingly sophisticated and complex. <p>High-Performance Films business</p> <ul style="list-style-type: none"> ● As a group, we are able to offer high-performance products to markets outside Japan. <p>High-Performance Engineering Plastics business</p> <ul style="list-style-type: none"> ● Demand is rising for engineering plastics from the aircraft, semiconductor, and medical equipment industries. <p>Carbon Fiber and Composite Materials business</p> <ul style="list-style-type: none"> ● These materials are increasingly in demand for use as automobile parts, wind turbine blades and pressure vessel materials. <p>Semiconductors business</p> <ul style="list-style-type: none"> ● Demand is increasing for new materials in response to rapid market expansion and microwiring and multilayering of circuits. <p>Battery Materials business</p> <ul style="list-style-type: none"> ● The market is growing explosively. 	<p>Polyester Films business</p> <ul style="list-style-type: none"> ● The optical film market is shrinking due to disruptive innovations. <p>High-Performance Films business</p> <ul style="list-style-type: none"> ● Demand for these films in Japan is forecast to decline over the medium term. <p>High-Performance Engineering Plastics business</p> <ul style="list-style-type: none"> ● The market is shrinking with the growing adoption of 3D printers and other new technologies. <p>Carbon Fiber and Composite Materials business</p> <ul style="list-style-type: none"> ● Competition is intensifying as manufacturers of these materials in emerging countries improve product quality. <p>Semiconductors business</p> <ul style="list-style-type: none"> ● There is strong pressure to localize production. <p>Battery Materials business</p> <ul style="list-style-type: none"> ● Profits are being squeezed due to a sharp rise in raw material prices.

Overview of Business Domains

APTSIS 25 Step 1

Policies	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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



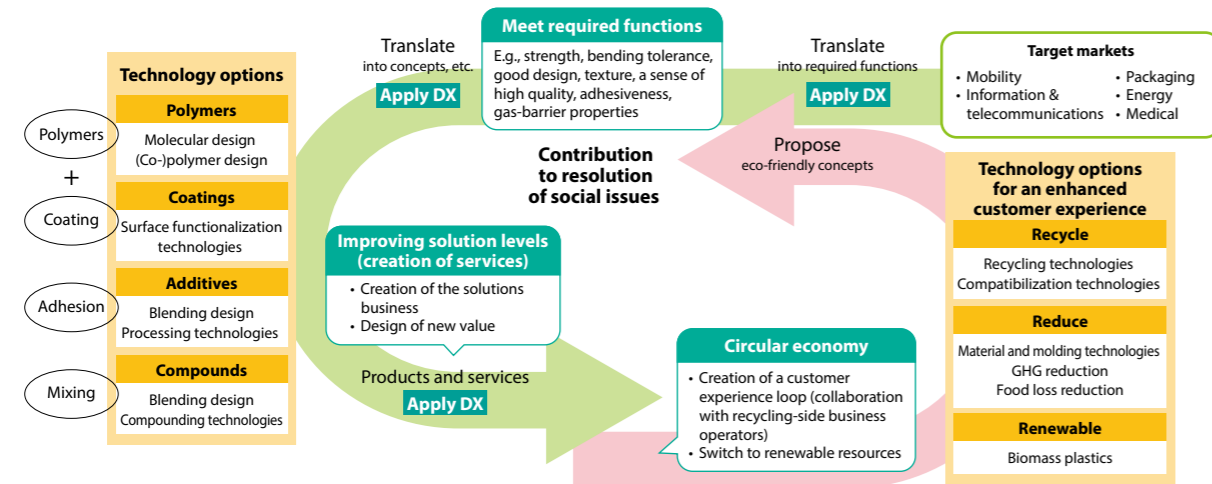
Key strategies in Polymers and Compounds

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

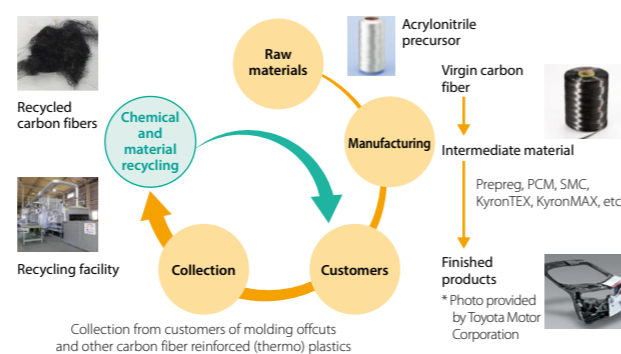
Lightweight, thinness, strength, and flexibility. With unique products and services that bring together these qualities, we will lead the way to fulfilling future lifestyles and a recycling-oriented society.

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

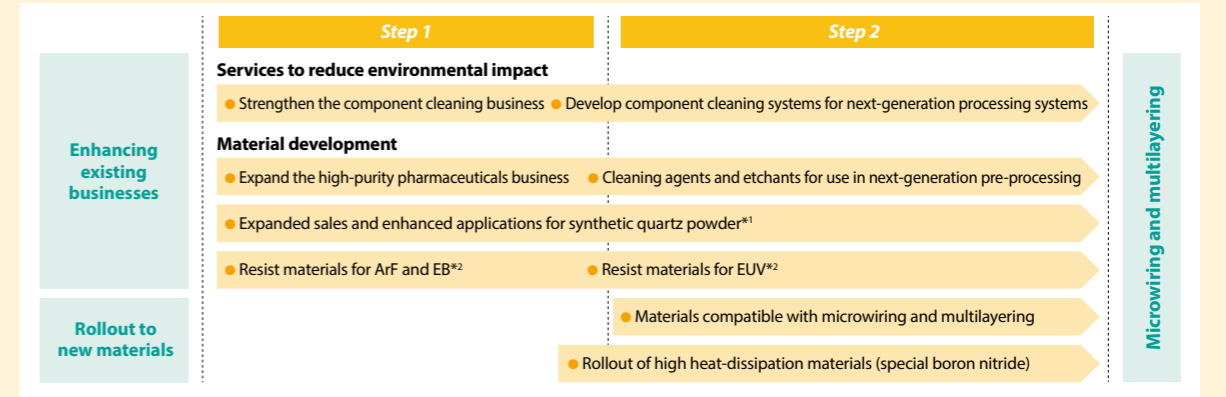
MCHC is working to enhance solutions across a wide range of products and services for semiconductor manufacturing.

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.

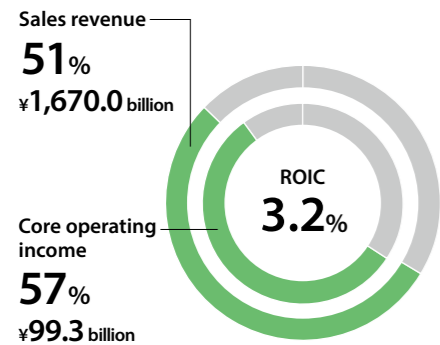
Example of use of coating-free DURABIO in automotive interior and exterior finish materials



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

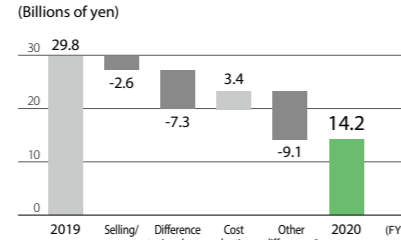
Industrial Materials Domain

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

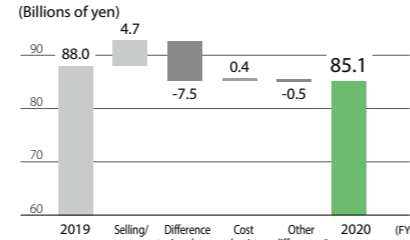
Factors underlying YoY change in core operating income (Billions of yen)



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

Industrial Gases segment

Factors underlying YoY change in core operating income (Billions of yen)



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.

<p>MMA</p> <ul style="list-style-type: none"> We use three manufacturing methods and hold the top share of the global MMA market. <p>Petrochemicals business</p> <ul style="list-style-type: none"> We have amassed advanced technologies across a broad product chain ranging from basic petrochemicals to derivatives. <p>Carbon Products business</p> <ul style="list-style-type: none"> We possess exceptional coking coal blending technologies and coke quality management technologies. <p>Industrial Gases</p> <ul style="list-style-type: none"> As a group, we hold the top share of Japan's industrial gases market and can supply these gases to markets around the world. 	<p>Strengths</p> <p>S</p>	<p>Weaknesses</p> <p>W</p>
<p>MMA</p> <ul style="list-style-type: none"> Our international operations have enough capacity to meet growing global demand. <p>Petrochemicals business</p> <ul style="list-style-type: none"> This business can leverage technology license agreements and proprietary catalysts in growing markets around the world. <p>Carbon Products business</p> <ul style="list-style-type: none"> We can tap into growing demand for coke as crude steel production expands in developing countries such as India. <p>Industrial Gases</p> <ul style="list-style-type: none"> 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. 	<p>Opportunities</p> <p>O</p>	<p>Threats</p> <p>T</p>

Financial results and main products

MMA

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

MMA and PMMA

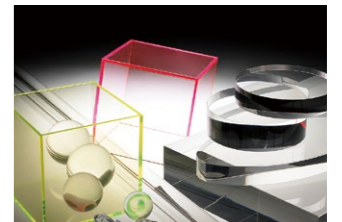
MMA* Our production capacity of this organic compound accounts for approximately 40% of total global capacity. We produce this through three methods*² using different raw materials, and are pursuing advancements in its manufacturing processes while leveraging cost competitiveness and access to raw materials 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.

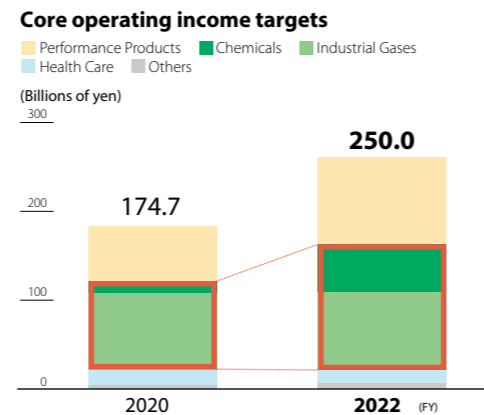


Industrial gas-related equipment and facilities Building on a long history of achievements, such as constructing Japan's first air separation units in 1935, we have earned a strong reputation around the world as a manufacturer of industrial gas-related equipment and facilities, including space-simulation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

Overview of Business Domains

APTSIS 25 Step 1

Policies	<ul style="list-style-type: none"> Accelerated reorganization and restructuring of risk businesses Business model reform to strengthen the business foundation
Key strategies	<ul style="list-style-type: none"> 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



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.



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.

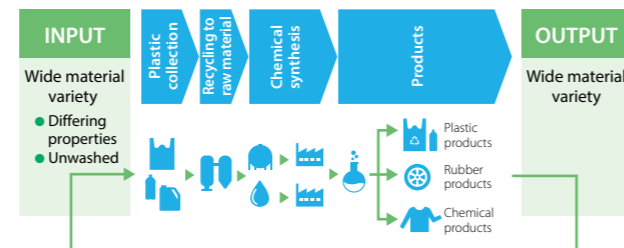
By ensuring that our business activities help address social challenges such as GHG reduction and the carbon cycle, we are committed to ongoing contributions to the realization of a sustainable society.

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.

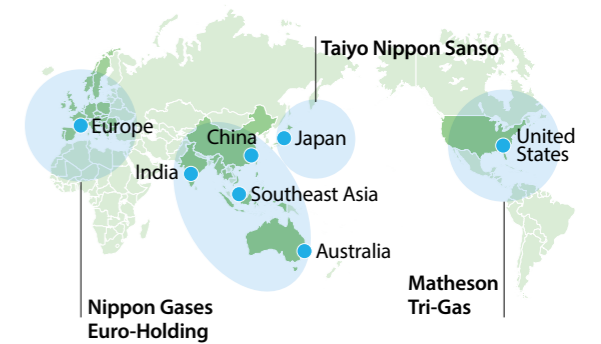
Envisioned plastic waste recycling process



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.

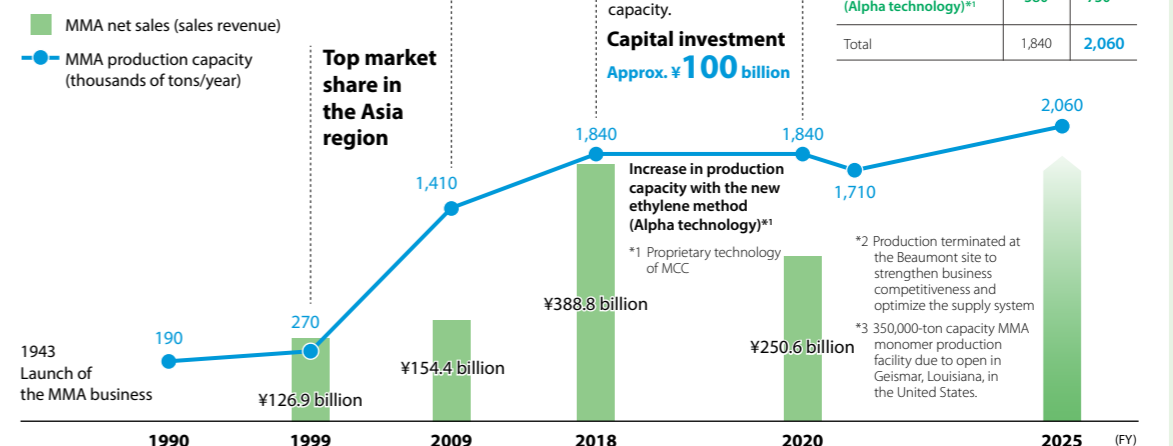
Capital investment
Approx. ¥100 billion

Worldwide demand for MMA in 2020
Three million tons plus

Share of world market: Approx. 40%

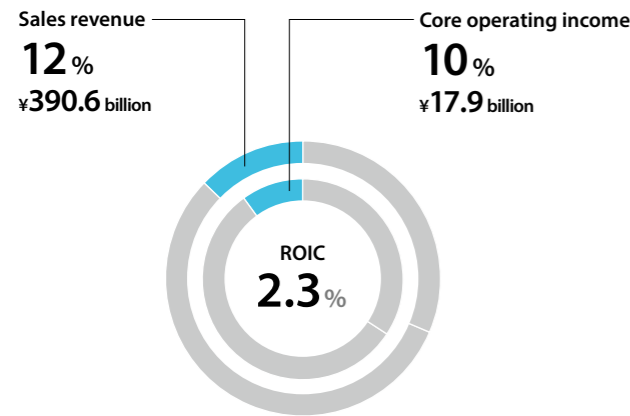
Plan for increased yearly MMA production capacity (Thousand tons)

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



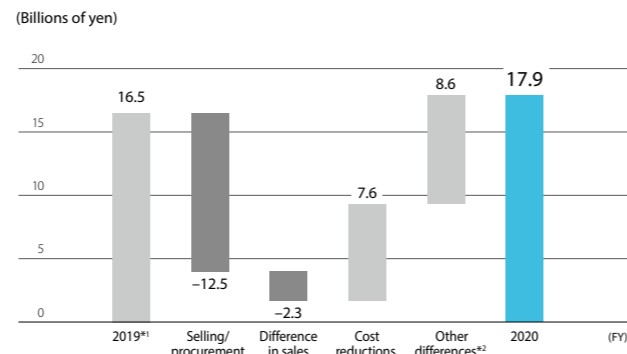
Health Care Domain

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



^{*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.

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.



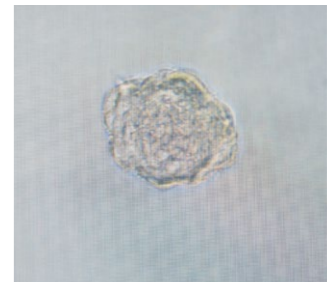
Life Science business

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

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.



Muse cells

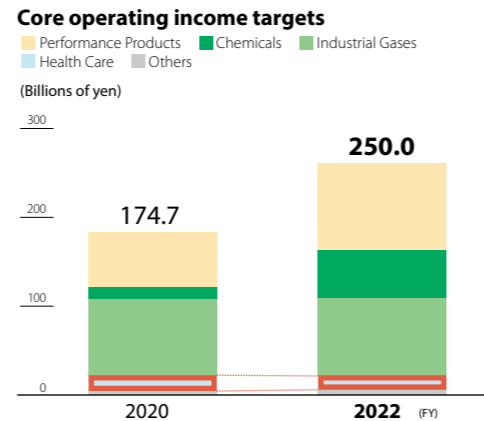


<p>Pharmaceuticals business</p> <ul style="list-style-type: none"> We have advanced drug discovery and IKUYAKU (drug fostering and evolution) capabilities. We have a strong presence in priority drug markets including central nervous system disorders and immuno-inflammatory diseases. <p>Life Science business</p> <ul style="list-style-type: none"> 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. 	<p>Strengths</p> <p>S</p>	<p>Pharmaceuticals business</p> <ul style="list-style-type: none"> Our expansion into global markets has been relatively slow, particularly in North America. <p>Life Science business</p> <ul style="list-style-type: none"> We need to increase technological capability to a sufficient level in the ICT domain. 	<p>Weaknesses</p> <p>W</p>
<p>Pharmaceuticals business</p> <ul style="list-style-type: none"> 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. <p>Life Science business</p> <ul style="list-style-type: none"> 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. 	<p>Opportunities</p> <p>O</p>	<p>Pharmaceuticals business</p> <ul style="list-style-type: none"> The probability of success with drug discovery is declining. R&D expenditures are increasing. Governments are taking various measures to control healthcare expenditures. <p>Life Science business</p> <ul style="list-style-type: none"> The medical ICT market is still in the developing stage. Governments are taking various measures to control healthcare expenditures. 	<p>Threats</p> <p>T</p>

Overview of Business Domains

APTSIS 25 Step 1

Policies	<ul style="list-style-type: none"> Rollout of precision medicine and “around the pill” solutions Acceleration of development and commercialization of regenerative medicine products
Key strategies	<ul style="list-style-type: none"> 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.



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.

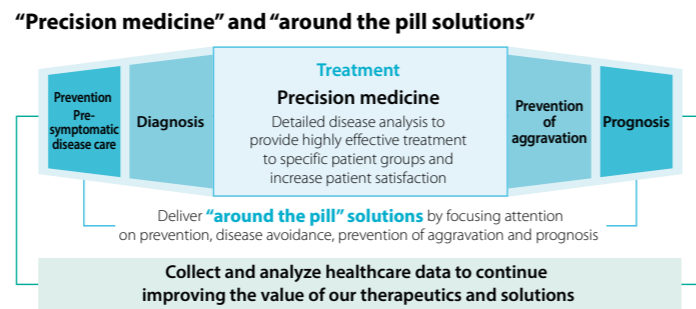
By concentrating and increasing R&D expenditures on precision medicine, focusing on central nervous system disorders and immuno-inflammatory diseases, we aim to increase the number of products brought to market starting from fiscal 2025. We are also contributing to infectious disease prevention with 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 sclerosis 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



Major development pipeline list

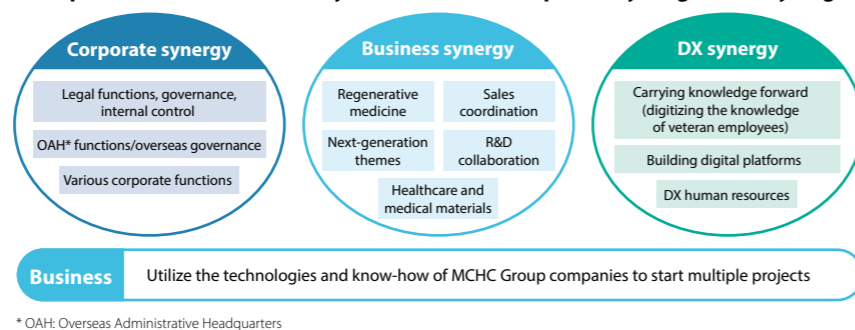
Research areas	Code and indications	Region	Stage
Central nervous system	MT-1186 (ALS/oral suspension)	Global	Phase 3
	ND0612 (Parkinson's disease)	Global	Phase 3
Immuno-inflammatory	MT-7117 (EPP/XLP*3)	Global	Phase 3
	MT-7117 (systemic sclerosis)	Global	Phase 2
Vaccines	MT-2766 (prophylaxis of COVID-19)	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



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.

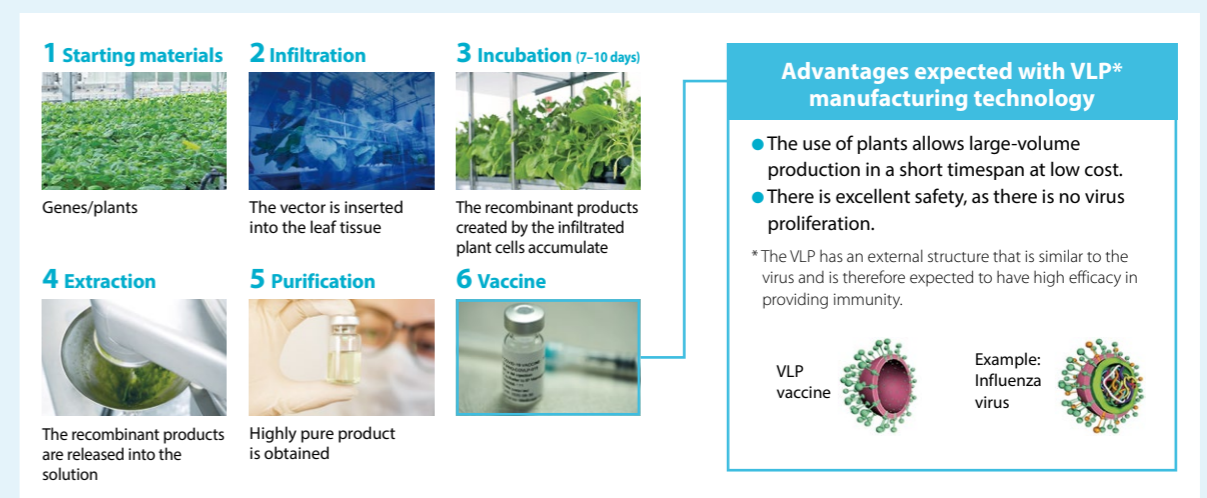
The VLP vaccine is a new type of vaccine produced using VLP manufacturing technology. With an external structure that is similar to the virus, the vaccine is expected to display strong efficacy in providing immunity. Moreover, as it does not contain genetic information, it does not result in virus proliferation 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)



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.

