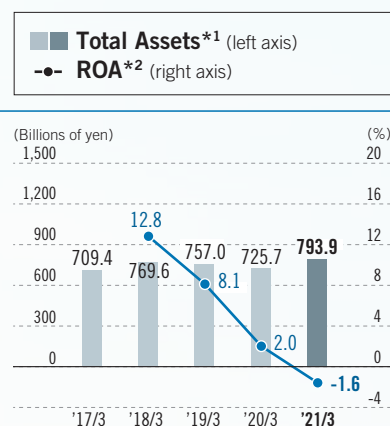
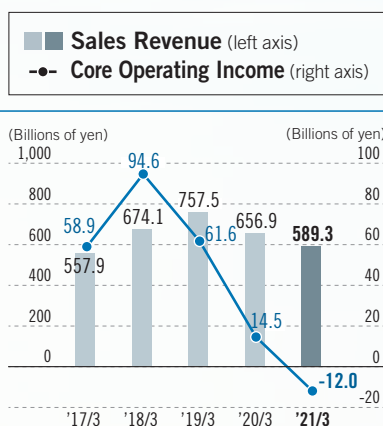
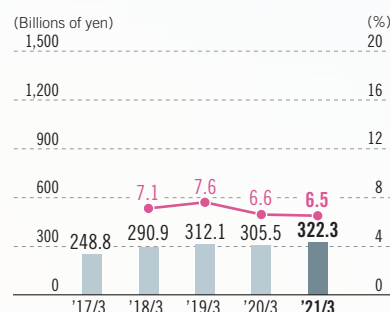
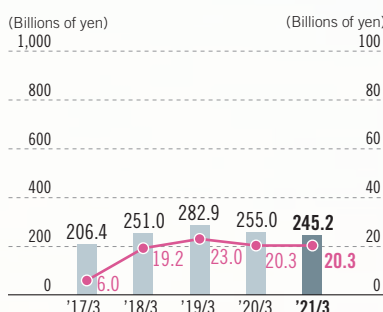


# Each Sector Situation

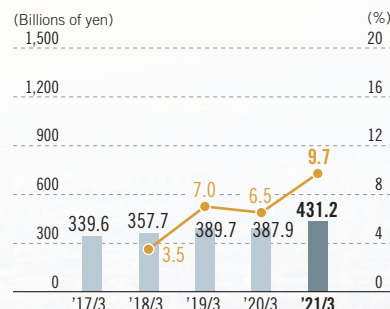
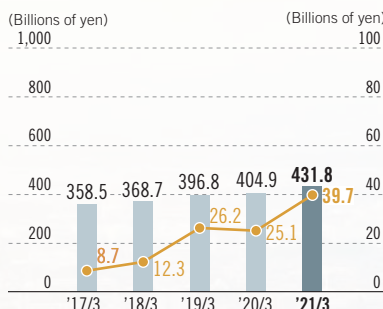
## Petrochemicals & Plastics P40



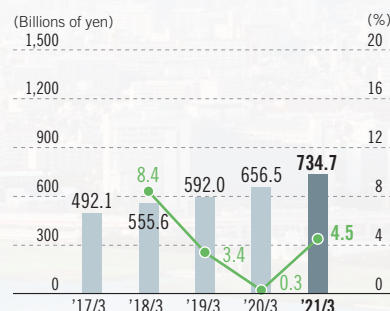
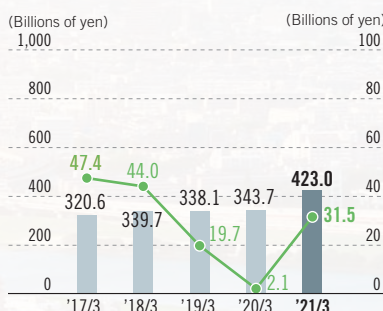
## Energy & Functional Materials P44



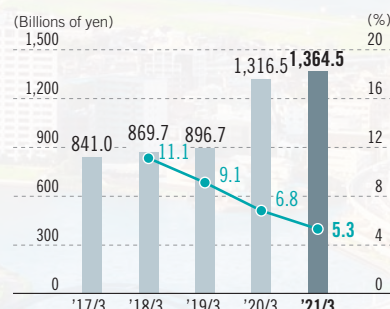
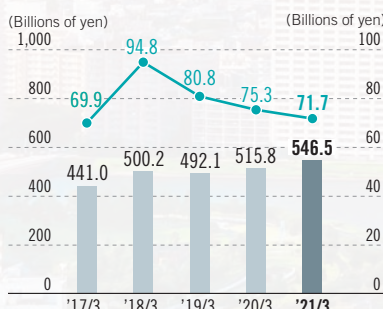
## IT-related Chemicals P48



## Health & Crop Sciences P52



## Pharmaceuticals P56



\*1 Because tentative treatment relating to a corporate acquisition was resolved in fiscal 2020, Sumitomo Chemical has retroactively revised its figures for fiscal 2019.

\*2 Beginning in fiscal 2017, the company converted its accounting standard to IFRS.

Alongside this change, figures for fiscal 2016 were restated using IFRS, but because a breakdown of net assets by sector at the beginning of the year was not created, the ROA was not calculated.

## Corporate Business Plan for FY2019-FY2021

## Action Plan

## Major Issues

## Financial Indicators

- Strengthen domestic business
- Expand capacity and enhance profitability of Singapore business
- Maintain stable operations at PRC phase I and make PRC phase II into a business that consistently contributes to the sector's performance
- Strengthen technology licensing business

- Restructuring of underperforming businesses
- R&D into carbon cycle chemistry to create a sustainable society

				Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
(Billions of yen)	FY2020	In Comparison to FY2019	FY2021 Forecast*2	
Sales revenue	589.3	-67.6	760.0	910.0
Core operating income	-12.0	-26.5	36.0	49.0
Sales revenue of SSS*1-designated products	78.5	-2.0	—	88.0

\*1 Sumika Sustainable Solutions \*2 Announced on May 13, 2021

- Expand sales of core products (battery materials, super engineering plastics, etc.), accelerate R&D
- Shift to high value-added products
- Improve profitability in underperforming businesses and products

- Create new businesses in the fields of environment and energy and high-performance materials

				Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
(Billions of yen)	FY2020	In Comparison to FY2019	FY2021 Forecast	
Sales revenue	245.2	-9.8	280.0	390.0
Core operating income	20.3	-0.1	19.0	31.0
Sales revenue of SSS-designated products	39.8	-8.0	—	95.0

- Increase added value in the polarizing film business
- Capture demand by aggressively investing in future market growth in the semiconductor materials business
- Expand touchscreen panel product portfolio

- Develop next-generation businesses
  - Smart mobility
  - Next-generation handsets
  - Sensor material

				Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
(Billions of yen)	FY2020	In Comparison to FY2019	FY2021 Forecast	
Sales revenue	431.8	+26.9	435.0	520.0
Core operating income	39.7	+14.6	40.0	35.0
Sales revenue of SSS-designated products	213.4	-18.2	—	158.0

- Strengthen and expand biorationals business
- Develop and launch new crop protection chemicals steadily
- Expand methionine sales and strengthen earnings power
- Accelerate the global expansion of the environmental health business
- Develop the nucleic acid medicine business and expand the application of the technology

- Establish a global footprint in the crop protection business

				Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
(Billions of yen)	FY2020	In Comparison to FY2019	FY2021 Forecast	
Sales revenue	423.0	+79.3	460.0	480.0
Core operating income	31.5	+29.5	38.0	75.0
Sales revenue of SSS-designated products	131.5	+11.7	—	184.0

- Strengthen innovation through new drug discovery approaches
- Promote development in the field of cancer treatments
- Explore frontier fields
- Develop the Theranostics business and strengthen the competitiveness of the existing radioactive diagnostics business

- Enhance drug development capabilities and improve the success rate in R&D
- Maintain earnings power after Latuda's loss of exclusivity

				Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
(Billions of yen)	FY2020	In Comparison to FY2019	FY2021 Forecast	
Sales revenue	546.5	+30.6	610.0	590.0
Core operating income	71.7	-3.6	67.0	94.0



# Petrochemicals & Plastics

## Primary Focus SDGs



## Provide Customers with New Solutions Based on High Value-added Products

### Business Activities

Sumitomo Chemical's Petrochemicals & Plastics Sector manufactures such products as polyethylene (PE), polypropylene (PP), and methyl methacrylate (MMA) using the various strengths of its manufacturing locations in Japan, Singapore, and Saudi Arabia, and offers them to a wide variety of industries, including automobiles, electric appliances, and food products.

### Core Competence

We are developing high value-added products in anticipation of customer needs, and we also provide a stable supply of high-quality products at our locations in Japan and Singapore. Our relationships of trust with core customers in the Asian market, cultivated over many years, are also a major strength of Sumitomo Chemical. In Saudi

Arabia, we are manufacturing cost-competitive products, taking advantage of the low prices of raw materials and fuel in that region.

### Basic Strategy

Currently, we are working to enhance our ability to offer solutions through high value-added products in Japan and Singapore and to achieve stable plant operations in Saudi Arabia.

### Initiatives in Fiscal 2020

The completion guarantee for the Rabigh Phase II Plant has been terminated. Moreover, in order to contribute to the creation of a post-carbon society and a circular economy, we are not only pushing forward with technology development relating to material recycling and chemical recycling, we are also advancing initiatives to have the results of that development deployed in society.

### Issues in the Future

Continuing stable operations at the plant in Rabigh, Saudi Arabia, including in the phase II section, remains an important challenge for us. We are developing high value-added uses of polyolefin in Japan and Singapore, and strengthening our license business. Furthermore, we are working on R&D on carbon cycle chemistry, including chemical recycling, to create a sustainable society.

### Long-term Vision

Going forward, we will not only continue to enhance our strengths in these three locations, but will also aim to consistently achieve a return on assets in excess of our cost of capital by working to streamline assets, including working capital.



**Noriaki Takeshita**  
Representative Director &  
Senior Managing  
Executive Officer

## SWOT Analyses of the Major Businesses

# S

### Strengths

- Global operation by leveraging the competitive advantages of the three bases in Japan, Singapore, and Saudi Arabia
- Strong relations with prominent customers in the Asian market
- Access to low-cost ethane feedstock
- Capabilities to develop high value-added products

# W

### Weaknesses

- Relatively small business size compared to the global majors
- Dependence on naphtha, a more expensive feedstock than ethane / shale gas

# O

### Opportunities

- Large and deep markets
- Steady growth in demand
- Increasing demand for chemical recycling, prompted by heightened awareness of sustainability

# T

### Threats

- Establishment of more cost-competitive new plants
- Cyclical business environment
- Country risks



## Business Introduction

### ■ Polyolefin Business [Polyethylene, Polypropylene]

#### Polyethylene (PE)

- Synthetic resin that is flexible, highly water- and chemical-resistant, and easy to process (Used in a wide range of products, including packaging materials, such as plastic wrap and food-safe tubes, wire coatings, and plastic film used for greenhouses)

#### Polypropylene (PP)

- Synthetic resin with a number of superior properties, including light weight, great workability, durability, heat resistance, and chemical resistance (Used in a wide range of applications, including automobile bumpers, instrument panels, food trays, and home appliances)

#### Market Environment

- Despite the impact of the spread of COVID-19, particularly in automotive-related areas, demand began to recover as we entered the second half of fiscal 2020
- With respect to global demand, we expect that for PE and PP, which are used in a wide range of applications, growth will continue at a rate of about 3-4% per year, alongside the growth in the economies of various countries.



Products made using polyethylene

#### Priority Measures

- Expand and strengthen our business in high value-added applications

##### PE Applications

include protective films for LCDs and water-resistant laminate for paper

##### PP Applications

include automobile components, electronic components, and food packaging film material

- Build and promote systems for resource circulation, including material recycling

### ■ Methyl Methacrylate (MMA) Business [MMA Monomer, MMA Polymer, MMA Sheets]

#### MMA polymer

- Materials with outstanding transparency and weather resistance (Widely used in optical components such as light guide plates for LED TVs, automotive components, display cases, and outdoor advertisements)

#### Market Environment

- Demand remains strong, and we expect steady sales going forward
- The Group's monomer production capacity is 400k tons/year, the second-largest market share in Asia (4th in the world)
- Prices are expected to fall for MTBE, the raw material for our production method, due to oversupply because of a fall in demand for gasoline. We expect that this will increase the relative competitive advantage of our production method.



Shield to block flying droplets made with methacrylic plastic

#### Priority Measures

- Strengthen our competitive ability across the entire MMA product chain, from monomers and polymers to the sheet business, as a major manufacturer in Asia
- Expand the functionality of acrylic sheets for preventing the spread of viruses and other microbes in collaboration with appropriate companies

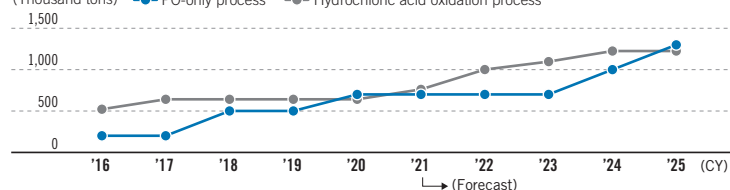
### ■ License Business

- Provision of licenses and sales of catalysts for production methods and technologies cultivated at our plants in Japan and at related companies outside Japan
- A lineup of technologies including not only the propylene oxide-only (PO-only) process for manufacturing PO, but also a hydrochloric acid oxidation process that significantly reduces energy costs and whose byproducts can be recycled as raw materials and a caprolactam process that does not produce ammonium sulfate as a byproduct

#### Actual

##### Sumitomo Chemical's Licensee Facilities

(Thousand tons) —●— PO-only process —●— Hydrochloric acid oxidation process



#### Priority Measures

- Expand our lineup of licenses and actively promote licensing of technologies that save energy or reduce environmental impact
- Secure ongoing stable income from the supply of catalysts



## Q&amp;A Environmental Strategy

**Q As the movement to reduce environmental impact expands, what is the strategy of the Petrochemicals & Plastics Sector ?**

**A** We are not only working to expand the scale of existing business, we are also focusing on initiatives such as shifting to higher value-added products and our licensing and catalyst business for technologies developed in-house. In addition, we are contributing to efforts to improve the environment, including reducing greenhouse gas emissions, by developing outstanding technology that reduces environmental impact. By commercializing these technologies, we aim to contribute to reducing the greenhouse gas emissions of society as a whole, while also creating ongoing profits.

**License / Catalyst**

- **Propylene Oxide (PO)-only Process**

The PO-only process, developed by Sumitomo Chemical, is the world's first successfully commercialized cumene-based PO-only production process, based on utilizing cumene recirculation. The process produces no byproducts, and when combined with a proprietary developed high-performance epoxidized catalyst, provides high yields, reduced energy costs, and high operational stability. This sort of technology license contributes to reducing environmental impact even outside of Sumitomo Chemical's factories.

- **Catalyst Business**

Sumitomo Chemical conducts development and sales for high-performance catalysts that maximize the effects of licensed technologies and contribute to reducing environmental impact. Because these catalysts can be expected to secure stable returns in addition to reducing greenhouse gas emissions, we are focusing on expanding this business.

**Technological Development / Catalyst**

- **Material Recycling and Chemical Recycling**

We are working to develop and commercialize material recycling technology, which turns used plastics and other wastes back into resources that can then be used in new products, and chemical recycling technology, which chemically converts trash and used plastics into the raw materials used for new plastics. P66

- **Effective Use of CO<sub>2</sub>**

Within our petrochemical complex in Singapore, we are considering combining propane dehydrogenation (PDH) technology, which produces propylene from propane, with a CO<sub>2</sub> fixation technology that synthesizes methanol very efficiently, using CO<sub>2</sub> as a raw material, alongside the hydrogen produced as a byproduct of the PDH process. If this initiative succeeds, this could be a new breakthrough that can both reduce environmental impact, by reducing the amount of CO<sub>2</sub> emitted from chemical plants and other facilities, and also improve economic performance by increasing the production of certain products.

## Status of Global Expansion

**Global Expansion Using the Strengths of Each Location**

The Petrochemicals & Plastics Sector has three major production locations: Singapore, Saudi Arabia, and Japan, and we are developing our business by utilizing the strengths of each location.

- **Singapore**

We expanded its business to Singapore in the 1970s, producing and selling petrochemical products. Currently, PCS<sup>\*1</sup> produces products such as ethylene and propylene, TPC<sup>\*2</sup> produces products such as polyethylene and polypropylene, and Sumitomo Chemical Asia produces MMA. We have developed high value-added products and produced stable supplies of high-quality products in Singapore for many years, building extremely strong relationships of trust with customers, while creating high brand value in the Asian market.

- **Saudi Arabia**

Petro Rabigh, a joint venture with Saudi Aramco, produces all sorts of petrochemical products. The strength of the Rabigh project, as shown on the next page, is its cost advantage due to utilizing ethane. We are focusing on stable production in order to maximize this advantage.

- **Japan**

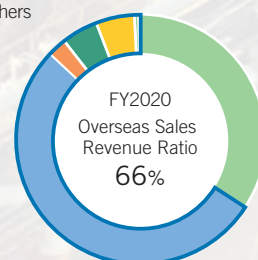
In addition to producing and selling products primarily aimed at customers in Japan, our facilities serve as centers for research and development, developing new technologies and high value-added products while also undertaking initiatives aimed at reducing environmental impact. In addition, as the core of our licensing business, our facilities in Japan also handle not only technology development, but also production, sales, and other duties relating to catalysts.

<sup>\*1</sup> Petrochemical Corporation of Singapore (Pte.) Ltd. (affiliated company)

<sup>\*2</sup> The Polyolefin Company (Singapore) Pte. Ltd. (consolidated subsidiary)

**Sales Revenue Ratio by Region**

■ Japan ■ Asia (including India) ■ North America ■ Europe  
■ Middle East and Africa ■ Central and South America  
■ Oceania and Others





## Value Creation Model: Rabigh Project

### Value Chain



### System for Providing Added Value

#### Competitive Advantages of Rabigh Project

Procuring ethane from Saudi Aramco as the main feedstock offers outstanding cost competitiveness, as raw material prices can be fixed at lower levels compared to competitors using naphtha as feedstock, and margins will expand as product prices increase, among other factors. In addition, it is the world's largest integrated complex, which leads to competitive advantages due to lower unit costs.

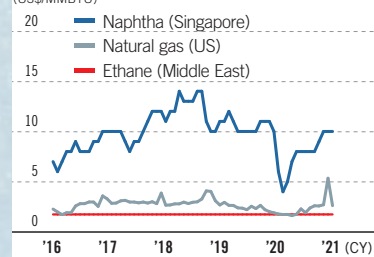
#### Major Processes Generating Competitive Advantages

Petro Rabigh produces products such as PP, PE, and PO, using technology licenses from Sumitomo Chemical, which boasts world-class technology. Moreover, the local staffs' operational technique is improving by receiving training at overseas facilities, particularly in Singapore. Moreover, Sumitomo Chemical Asia, which handles sales, has facilities throughout Asia, shortening delivery times and reducing logistics costs.

#### Providing Customer Value

Because there are risks of obstructions to procurement in the Middle East region of Asia, where logistics can be unstable, customers have a strong desire for accurate and stable product delivery. By having inventory in locations close to customers, we can meet these needs by offering sales with more reliable and shorter delivery times than competitors, securing a high level of trust. In addition, while it has the flexibility to change a certain volume of sales and customers according to market conditions in each region, by focusing more on continued sales to core customers, the company further increases the reliability of its stable supply. Through these efforts, Sumitomo Chemical Asia is working to build long-term relationships with customers.

Cost Difference of Petrochemical Feedstocks (US\$/MMBTU)



Operations at Petro Rabigh

### Added Value Provided to Society



### Contributing to Reducing Environmental Impact by Using Cutting-edge Technology in Plants

Petro Rabigh uses the breakthrough, environmentally friendly PO-only process to produce PO, which, compared with conventional production processes, reduces CO<sub>2</sub> emissions by 300 thousand tons of CO<sub>2</sub> for an annual production volume of 200 thousand tons of PO. We not only produce stable supplies of a product essential for society, we also use energy and resources efficiently throughout the plant with this sort of cutting-edge technology, thereby contributing to reducing environmental impact.

# Energy & Functional Materials

## Primary Focus SDGs



## Contribute to Solving Environmental and Energy Issues through Research and Development with a Long-term Perspective and the Resulting Innovative Technologies

### Business Activities

The Energy & Functional Materials Sector sells high-performance materials, such as battery materials and super engineering plastics, and provides solutions to improve the performance of eco-friendly products, such as electric vehicles.

### Core Competence

A major core competency of this sector is its global business development capability, as shown by products where we hold the top global market share, such as high-purity alumina and resorcinol, and also by our separators for lithium-ion secondary batteries, which offer world-class heat resistance. The above products are also the results of our other core competencies: our research and development capabilities as well as our evaluation, manufacturing, and process technologies.



赤堀金吾  
**Kingo Akahori**  
Representative Director &  
Senior Managing  
Executive Officer

### Basic Strategy

This sector's medium-term strategy is to continue to expend every effort in investing its management resources specifically in those fields in which Sumitomo Chemical can offer comparative advantages technologically, and where growth can be expected in those businesses. At the same time, we are working to restructure businesses that have become unprofitable.

### Initiatives in Fiscal 2020

In fiscal 2020, we opened an industry-academia joint research course with Kyoto University in the field of solid-type batteries, which are attracting attention as next-generation secondary batteries. As part of the course, we are jointly developing materials and underlying technologies for solid-type batteries through sample synthesis and performance assessment.

### Issues in the Future

For separators and cathode materials for battery components, we are accelerating development in order to commercialize next-generation secondary batteries, in addition to strengthening competitiveness with technological development. In super engineering plastics, we are working to promote the development and expand sales for applications in a variety of devices and parts for 5G and IoT platforms as well as automobile components and materials. We are thoroughly pursuing business opportunities, including M&A, from a medium- to long-term perspective to increase our presence, particularly in these growth areas.

### Long-term Vision

Our aim is to contribute to solving global environmental and energy issues through research and development with a long-term perspective and the resulting innovative technologies.

## SWOT Analyses of the Major Businesses

# S

### Strengths

- Superior product performance using differentiated technologies
- Reliability of products proved in use by customers

# W

### Weaknesses

- Relatively small business
- Cost competitiveness

# O

### Opportunities

- Sophistication of performance requirements against the backdrop of increasing battery capacity
- Expansion of the environment- and energy-related markets

# T

### Threats

- Market decline due to change in EV promotion policies
- Paradigm shift in secondary batteries



## Business Introduction

### ■ Advanced Polymers Business [Liquid Crystal Polymer (LCP) and Polyether Sulfone (PES)]

#### LCP

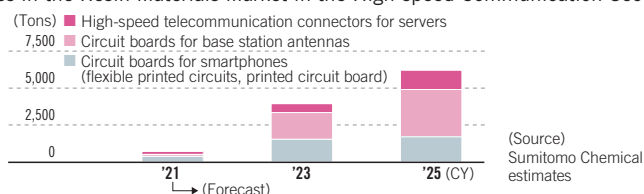
- LCP is a super engineering plastic, which features excellent heat resistance, fluidity, and dimensional stability, and that is mainly used in electronic components, such as connectors.

#### PES

- PES is a super engineering plastic, which features excellent heat resistance, creep resistance, dimensional stability, flame retardance, and water resistance, and that is used in applications such as carbon fiber composite materials in aircraft.

#### Market Environment

##### Changes in the Resin Materials Market in the High-speed Communication Sector



#### Priority Measures

##### LCP

- Development and sales for high-frequency-capable materials (including 5G applications)
- Contributing to making automobiles lighter to expand sales for automotive component applications

##### PES

- Development and sales for automobile components, high-performance membranes

### ■ Specialty Chemical Business [Resorcinol, High Polymer Additives, Dyes, and Emulsions]

#### Resorcinol

- Resorcinol is a raw material for various products such as tire adhesives, ultraviolet absorbers and so forth.

#### Market Environment

- Spread of COVID-19 and resultant lower business operations of our customers impacted our resorcinol business substantially. However, with our marketing efforts as well as recovery in global economy, the sales recovered in the second half of fiscal year 2020.
- From global perspective, we foresee that the resorcinol demand will continue organic growth and its structure will not change drastically. We also expect the demand and supply balance of resorcinol will remain to be relatively firm.



Resorcinol

#### Priority Measures

- With reliability of our dual plant system (Chiba and Oita) as well as advantage in our global sales reach through Sumitomo Chemical's Group Companies, we are committed to secure stable resorcinol supply to our customers all over the world.
- By diversifying our sales portfolio, we are building a solid and resilient business foundation that can confront turbulent change in business conditions.

### ■ Inorganic Materials Business [High-purity Alumina, Low Soda Alumina, Aluminum Hydroxide, and High-purity Aluminum]

#### High-purity Alumina

- Sumitomo Chemical's high-purity alumina has a purity of 99.99% or more, and is used in lithium-ion secondary battery components.

#### Market Environment

- Unit sales volumes are trending upward with the recovery in the semiconductor market and the production of automobiles
- Outside of Japan, there is an increasing need for use as a heat dissipation material



Products that use alumina

#### Priority Measures

- Expanding sales with new products, such as functional products and ultrafine particle products using technology that controls particle size and shape
- Meeting a broad range of needs, from semiconductors to the fields of energy and biotechnology, with a diversity of products

### ■ Battery Materials Business [Separators and Cathode Materials]

#### Separators

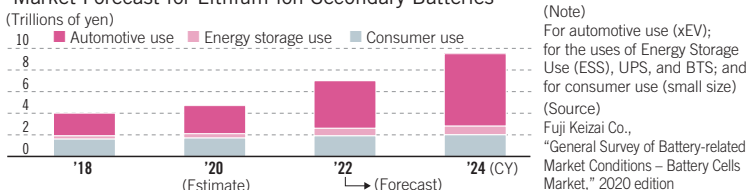
- Separators are safety components, isolating the positive and negative electrodes of batteries and ensuring ion conductivity between the electrodes by preserving the electrolyte and preventing short-circuits.

#### Cathode Materials

- Cathode materials are used in functional components, releasing and accepting lithium-ion when batteries are charged or discharged.

#### Market Environment

##### Market Forecast for Lithium-ion Secondary Batteries



#### Priority Measures

- With the global trend toward electric vehicles, expanding our battery materials business for lithium-ion secondary batteries by raising our cost competitiveness and meeting the needs for more sophisticated battery features
- Currently rapidly expanding production to meet customer demand
- Accelerating development to bring next-generation batteries into practical implementation



## Q&A Future Developments in Separators

### Q What kind of future developments are you thinking about for the separator business?

**A** Because of the impact of stricter environmental regulations in countries, the scale of the market for electric vehicles is projected to expand to sales of over 40 million vehicles in 2030, and demand for separators will expand accordingly.

There are two main issues to address for environmentally friendly vehicles to become widespread. The first is cruising distance, and lithium-ion secondary batteries are continuing to evolve, primarily with expanded capacity. At the same time, the requested characteristics of separators are being further raised, and there is an increasingly broad scope for leveraging the superiority of aramid coatings. The other major issue is cost, and there is a need to significantly reduce the price of lithium-ion secondary batteries, which account for over half a vehicle's cost. There is also a strong demand to reduce the cost of separators, and competition is becoming more severe with the emergence of ceramic coating separators and Chinese manufacturers. Accordingly, we are rethinking the materials used and the manufacturing process in order to significantly reduce costs.

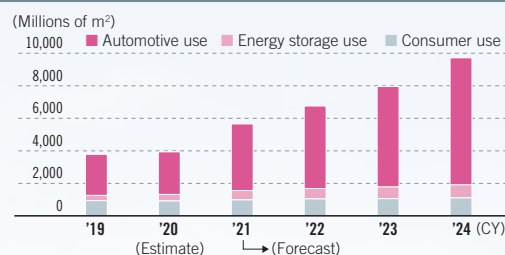
In addition to these initiatives, in order to meet a dramatic

expansion in future customer demand, we are quickly expanding our production capacity and promoting an expansion of our separator business.



Separators

#### Separator Market Size by Use



(Source) Fuji Keizai Co., "General Survey of Battery-related Market Conditions – Battery Materials Market," 2020 edition

## Status of Global Expansion

### Expanding our Business to Quickly Meet Customer Needs

In the Energy & Functional Materials Sector, Sumitomo Chemical has superior technology, and the business is being managed with a strategy of actively investing management resources in businesses that can be expected to grow and thoroughly pursuing business opportunities. In addition, to quickly meet the needs of customers outside of Japan, local Group companies have a marketing function and are efficiently conducting business development. For example, one of the sector's core businesses is super engineering plastics, for which over half of shipments are to China and other overseas customers. Using our design support technology, which leverages our molecular design technology and the characteristic of materials, we propose solutions that meet customer needs. In the future, we are considering further strengthening our overseas business development organization, including through alliances with other companies.

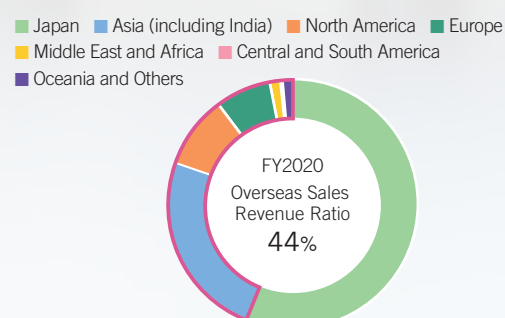


Super engineering plastics

#### Strategy and Areas of Focus for Global Expansion

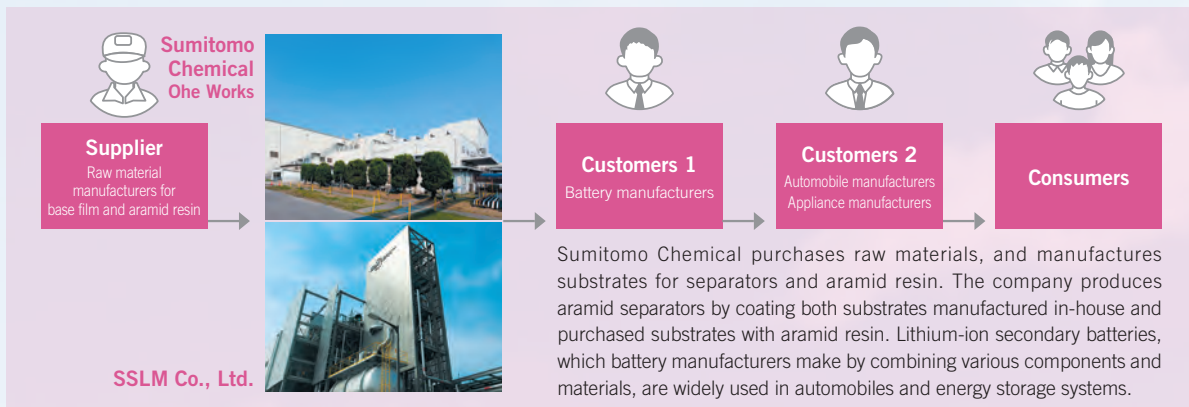
- **LCP**
  - In accordance with the rift between the US and China, expand 5G development in Asia, and develop a value chain in Europe and the US
  - Maintain and expand our share of the connector market, primarily in China
- **PES**
  - Expand our share in automobile component applications by leveraging use case examples, primarily in Europe and other promising electric vehicle markets
  - Expand share in dialysis membrane applications, primarily in Asia and the US
  - Expand use in high-performance film applications, such as for pharmaceutical companies

#### Sales Revenue Ratio by Region



## Value Creation Model: Separators

### Value Chain



### System for Providing Added Value

#### Sumitomo Chemical's Competitive Advantages

The use of coated separators has become mainstream for lithium-ion secondary batteries. Among separator coatings, there are mainly ceramic coatings and aramid coatings, and almost all producers of separators are making ceramic coating separators. On the other hand, our aramid coating separators were used earlier in automobiles compared to other companies' products, and they have a track record for many years as high-quality and high-performance separators. Compared to products from other companies, they have superior safety (heat resistance), and they have been made lighter, weighing just kilograms for each electric vehicle, delivering customers added value that is different from other companies. In order to further strengthen the superiority of our aramid separator, we are conducting research to enhance the strength of the separators and reduce their thickness.

#### Major Processes Generating Competitive Advantages

We are not only conducting research and development of separators but also working on improving productivity. We are capable of applying a uniform aramid coating with industry-leading speed, while maintaining high quality. Productivity at the plant of SSLM in South Korea has tripled since 2015 due to factors such as more advanced techniques, accumulated experience, and improvements in coating equipment. We expect further productivity improvement in the future.

#### Providing Customer Value

Customers and consumers need electric vehicles and other environmentally friendly vehicles with a long cruising range, and for that type of environmentally friendly vehicle, it is essential to have high-quality, high-performance batteries. Our direct customers, the battery manufacturers, seek to manufacture batteries that provide that performance at the lowest possible cost. For that reason, we provide high-safety (heat resistant) separators, and we are working to improve productivity to be able to provide products with superior cost competitiveness. We also periodically communicate with customers to hear what new needs they have, and then work to develop products that can meet those needs.

#### Added Value Provided to Society



#### Contributing to Measures against Climate Change through the Separator Business

With more rigorous environmental regulations being put in place all over the world, the shift to environmentally friendly vehicles like EV is accelerating. Environmentally friendly vehicles loaded with lithium-ion secondary batteries can reduce energy consumption as compared with gasoline cars. Separators are essential components in creating highly safe lithium-ion secondary batteries, and are indispensable for environmentally friendly vehicles to gain ground. Sumitomo Chemical contributes to measures against climate change through its separator business.



# IT-related Chemicals

## Primary Focus SDGs



## Deliver New Value that Responds to the Growth in the ICT Industry by Combining Our Material Development Capabilities with Our Optimization Technology

### Business Activities

The IT-related Chemicals Sector contributes to improving the performance and productivity of semiconductors and displays by providing highly functional display-related materials and high quality semiconductor materials.

### Core Competence

We have been working to build a market oriented global supply chain, utilizing it to develop and supply products. Our strength lies in this sort of supply system, our ability to develop materials as a diversified chemical manufacturer, as well as our processing technology cultivated in the display-related materials business.

### Basic Strategy

In order to respond to the generational shift in display technology from liquid crystal to organic

light-emitting diodes (OLEDs), we are working to expand our OLED display business and enhance the competitiveness of our LCD components business. In addition, we are focusing on developing semiconductor materials and expanding our production capacity in this area, which will support increasingly sophisticated semiconductor manufacturing technologies.

### Initiatives in Fiscal 2020

In the field of display-related materials, full-scale sales have started for polarizer with liquid crystal-coated retardation film which contribute to improving the picture quality of OLED displays. In addition, in the field of semiconductor materials, we have not only started operations at a new plant producing photoresists, we have also decided to expand production capacity even further.

### Issues in the Future

We will continue to develop and offer a wide range of materials with unique features for OLED displays based on our materials and product development capabilities. We will continue to reinforce our competitiveness in LCD materials and promote the optimization of our entire supply chain. In the semiconductor materials business, we will work to develop products for new uses and expand to new customers. We will also focus on fostering next-generation businesses that are compatible with 5G communications and smart mobility.

### Long-term Vision

Making the most of the strengths of us, we are continuing to improve our profitability by providing new materials and solutions that anticipate future growth in the ICT industry.



松井 正樹

**Masaki Matsui**

Representative Director &  
Senior Managing  
Executive Officer

## SWOT Analyses of the Major Businesses

# S

### Strengths

- Offering a wide range of display materials
- Global supply chains ever established on market needs
- Material development capabilities as a diversified chemical company
- Nano-scale analysis technology

# W

### Weaknesses

- Heavy reliance on some specific products
- High sensitivity to exchange rate movements

# O

### Opportunities

- Fast-growing OLED displays market
- Expanding semiconductor market due to full-scale spread of 5G, the shift to electric vehicles, and the advance of digital transformation

# T

### Threats

- Intensifying competition in the matured LCD market

## Business Introduction

### ■ Display Materials Business

#### LCD-related Materials Business

[Polarizing Film, Color Resists, etc.]

##### Polarizing Films

- Polarizing film is an indispensable component in displays, and contributes to better performance and higher display quality, including higher luminance, higher contrast and wider viewing angles.

##### Color Resists

- Color resists are red, green and blue color materials that form the color filter layers in displays. (Using proprietary dye technology, Sumitomo Chemical's color resists deliver high luminance and high color reproducibility in color filters.)

#### Priority Measures

- Design polarizing films that meet the quality requirements of display manufacturers
- Improve competitiveness by optimizing the global supply chain
- Focus on development and sales in fields such as ultra-large TVs and PIDs\*
- Achieve wide color gamut & high color reproduction (Color Resists)

\* Public Information Display

#### OLED Display-related Materials Business [Touchscreen Panels, Circularly Polarizing Film, Polymer Light-emitting Materials, Ag Etchant, etc.]

##### Touchscreen Panels

- These are locational input components installed in devices such as smartphones.

##### Circularly Polarizing Film

- This film limits the reflection of ambient light (sunlight or interior light) on displays to deliver the beautiful color produced by OLEDs.

##### Polymer Light-emitting Materials

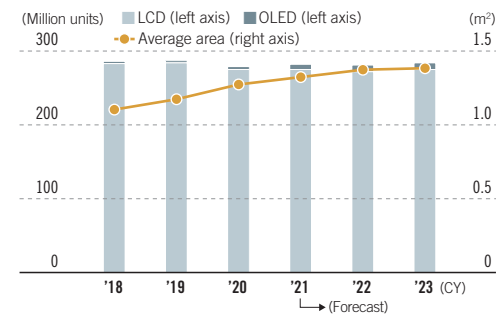
- Ink materials suitable for forming the picture elements of large-screen-size OLED displays with a printing method (contributing to mass production with lower costs and higher productivity for large displays)

#### Priority Measures

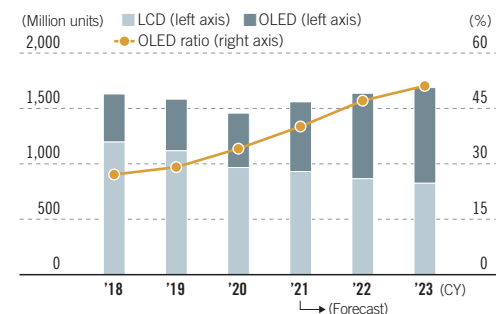
- Sales expansion by utilizing core materials developed in-house
- Develop products for flexible display (Propose materials that meet the requirements of display/device manufacturers)
- Further improve the lifetime of blue light-emitting material

#### Market Environment

##### Display Panel Market for TVs



##### Display Panel Market for Smartphones



(Source) DSCC "FPD Demand forecast" June 2021

### ■ Semiconductor Materials Business

[Photoresists, Processing Chemicals for Semiconductors, Compound Semiconductors, Aluminum Targets, etc.]

##### Photoresists

- Photoresists are photosensitive resins used in the process of creating highly dense/highly integrated circuit patterns on semiconductors and print substrates.

##### Processing Chemicals for Semiconductors

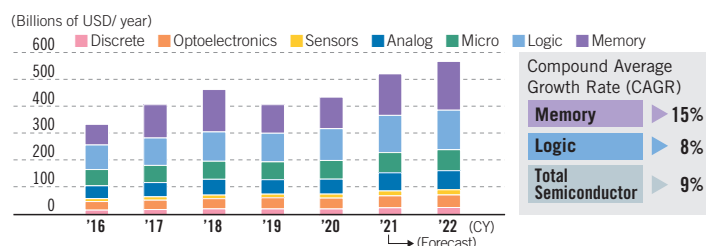
- High-purity chemicals used for cleaning and other applications in semiconductor circuit pattern formation and chip assembly

##### Compound Semiconductors

- Semiconductor made from a compound of multiple elements, which offer higher frequencies and better voltage endurance characteristics than ordinary silicon semiconductors

#### Market Environment

##### Semiconductor Market



(Source) WSTS Semiconductor Market Forecast Spring 2021

#### Priority Measures

- Capture demand by aggressively investing in future market growth in the semiconductor materials business
- Expand the lineup of our products, including photoresists for cutting-edge processes and compound semiconductors for power devices



## Q&A Meeting the Demand for Semiconductors

### Q What Specific Actions are You Taking to Reliably Capture Demand for Semiconductor Materials?

**A Background:** In the semiconductor market, demand is expected to grow for cutting-edge semiconductors going forward, due to background factors such as the evolution of artificial intelligence (AI) technology and the full-scale commercialization of next-generation communication systems (5G). With the expectation that EUV lithographic exposure, a new type of light source, will become dominant in this field, there will be demand for photoresists suited for even greater miniaturization in pattern formation.

**Our Strengths:** We have established excellent product design and evaluation techniques based on the organic synthesis technologies cultivated in our various fine chemical businesses, and we have ever expanded our business by utilizing our ability to respond to our customers quickly, which was realized on the basis of the concentration of manufacturing, research, and sales functions, primarily in our Osaka Works. In particular, we have a high global market share in photoresists for immersion ArF lithographic exposure, which is mainly used in the formation processes of miniaturized circuit, due to our performance advantages and reliability in quality. In addition, we not only expect to increase shipments of photoresists for EUV lithographic exposure,

to align with the mass production schedule of major customers that have decided to adopt our products, we are also continuing development of new EUV photoresists to accommodate even greater miniaturization needs for securing future orders.

**Specific Actions:** In fiscal 2019, we completed a new plant for cutting-edge photoresists, which began operations in fiscal 2020. In addition, in order to strengthen our semiconductor photoresist development and evaluation structures to handle cutting-edge processes, we decided to build a new facility at the Osaka Works and to deploy new evaluation equipments. We aim to complete these efforts by the first half of fiscal 2022. Moreover, we also decided to increase our production capacity for semiconductor photoresists aimed at cutting-edge processes, adding new production lines at the Osaka Works. These new production lines are planned to begin operations in the first half of fiscal 2022. Due to factors such as the ever increasing speed and volume of data transmission, the semiconductor market is expected to continue to grow going forward. Because we forecast that our production capacity will be strained by around 2025, we are considering further improving our business systems in view of long-term demand.

### Aiming for Dramatic Business Expansion

#### Semiconductor Business Sales Revenue: 1.5x\* by the Mid-2020s

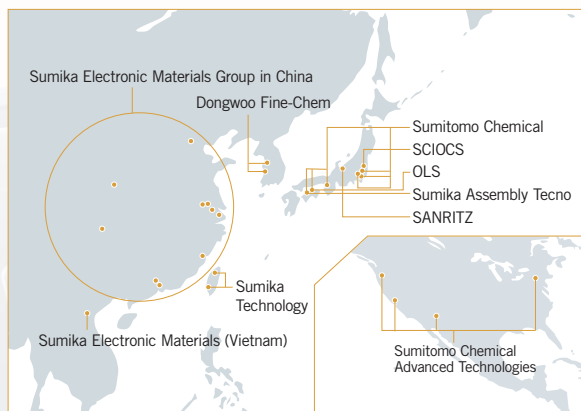
(Including photoresists, processing chemicals for semiconductors, and compound semiconductors)

\* Compared to results for FY2020

## Status of Global Expansion

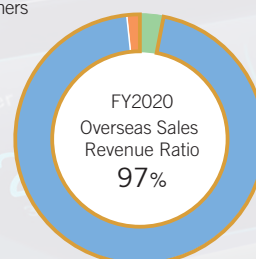
### Building a Market Oriented Supply Chain

We have worked to build a market oriented global supply chain, building good relationships with customers by establishing our production facilities close to customer manufacturing facilities, comprehending their needs and developing/supplying products as quickly as possible. Specifically, the Sumika Electronic Materials Group in China has about 10 facilities, which conduct their businesses in such a way as to respond to the needs of their respective customers. In recent years, we have strengthened local production capabilities, by taking measures such as converting XUYOU Electronic Materials (Wuxi) into a subsidiary in 2018, expanding production facilities for polarizing films, and expanding production capacity for processing chemicals for semiconductors in Xi'an and Changzhou. These achievements have become one of our company's strengths. As a result of building a business network centered in East Asia, the global center of display and semiconductor production, our sector has ever increased its sales income from outside Japan year by year. Within Japan, in addition to manufacturing display materials mainly at the Ohe Works and semiconductor materials mainly at the Osaka Works, we have also worked to strengthen our businesses in these fields, which are expected to grow going forward, for example, by establishing SCIOCS after acquisition of Hitachi Metals' compound semiconductor material business in 2015, or converting SANRITZ into a subsidiary in 2019, which has a competitive advantage in polarizing films for automobile use.



### Sales Revenue Ratio by Region

Japan Asia (including India) North America Europe  
Middle East and Africa Central and South America  
Oceania and Others



## Value Creation Model: Materials for OLED/Next-generation Displays

### Value Chain



### System for Providing Added Value

#### Sumitomo Chemical's Competitive Advantages

Even as we are going head-to-head against multiple competitors of polarizing film in improving quality, our unique strength is in the liquid crystal material used in circularly polarizing film for OLED displays. Our circularly polarizing film which incorporates the optical film made from this liquid crystal material, developed in-house, offers outstanding functionality to display real blacks by limiting reflections of ambient lights such as sunlight or indoor lighting on displays and constant color no matter what angle they are viewed from. For this reason, they contribute to the creation of OLED displays with extremely high image quality.



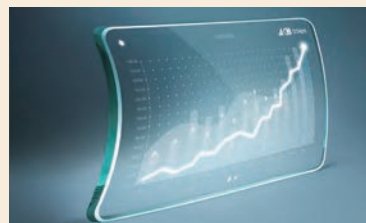
#### Major Processes Generating Competitive Advantages

We are aggressively conducting research on liquid crystal materials which can be coated on films. In order to develop retardation and polarizing functions using liquid crystal materials, the liquid crystal molecules must be systematically oriented in a specific direction. We are working to develop molecular designs that will achieve this sort of optical performance. Moreover, we are also manufacturing liquid crystal materials in-house, and optimizing optical designs for circularly polarizing film suitable for the various OLED displays of TVs and smartphones.



#### Providing Customer Value

Customers are designing next-generation displays in order to create entirely new devices. To reach the level of development requirements from our customers, we are proposing high-functionality materials, for flexible OLED displays, multi-functional flexible materials that realize foldable and even rollable displays, for large-sized OLED displays, polymer light emitting materials that will lead to improved display quality and lower production costs, and even for ultra-small, ultra-fine next-generation displays applicable for AR/VR/MR glasses, color conversion materials that will enhance the optical characteristics of them through quantum dots or color photoresists technologies.



#### Added Value Provided to Society



#### Creating More Abundant and Convenient Daily Lives for People

Displays are the interfaces between people and ICT, and will continue to evolve alongside changes in people's lifestyles and the progress in communications technology, part of the infrastructure of society. In addition to displays that provide even better portability or even more realistic viewing experiences, new displays, which are indispensable for technologies such as mixed reality, are being developed actively and these technologies even might change the nature of peoples' experiences. By developing and producing materials and components for OLED displays and next-generation displays, Sumitomo Chemical is contributing to the creation of new items that have never existed before, and thereby creating more abundant and more convenient daily lives for everyone.



# Health & Crop Sciences

## Primary Focus SDGs



## Contribute to Solving Global Issues related to Food, Health, Hygiene, and the Environment by Leveraging Our Excellent Research and Development Capabilities

### Business Activities

The Health & Crop Sciences Sector contributes to improving food productivity around the world by providing such specialized solutions as crop protection and enhancement products and agricultural materials, and methionine.

### Core Competence

We globally distribute not only excellent agrochemical products developed in-house, but also unique biorational crop protection and enhancement products and post-harvest solutions with high market shares. The strength of our crop protection business is in our lineup of unique crop protection products and the research and development capability that created it, as well as our global sales network. Moreover, in our methionine business, Sumitomo Chemical offers a stable supply, with integrated production from raw materials using advanced production technology.



**Nobuaki Mito**  
Representative Director &  
Senior Managing  
Executive Officer

### Basic Strategy

We are currently working on further enhancing the strength of our crop protection products and agricultural materials, expanding our global footprint (our own distribution network), and developing and launching new crop protection products. In addition, we are working on solidifying our position as the leader in the methionine business in Asia by increasing our competitiveness.

### Initiatives in Fiscal 2020

We completed the acquisition of Nufarm's South American agricultural business, and have been able to not only advance the integration process smoothly, despite it happening in the midst of COVID-19, but also launch our new fungicide INDIFLIN in both Japan and North America. In addition, in a move to strengthen the biorationals business, we worked to expand our dedicated sales organization around the world.

### Issues in the Future

We are accelerating the development of next-generation crop protection products to launch them as soon as possible, and we are focusing on maximizing synergies from integration in South America and India, where large-scale strategic investments were made. We are also working to expand businesses where Sumitomo Chemical has an advantage, such as biorationals and seed treatments. The competitiveness of our methionine business will be further strengthened through thoroughgoing rationalization.

### Long-term Vision

We aim to expand the scale of our businesses by contributing to solving global issues in food supplies, health and hygiene, and the environment, using our research and development capabilities as a foundation.

## SWOT Analyses of the Major Businesses

### S Strengths

- Excellent research and development capabilities and the robust development pipeline of crop protection chemicals and the biorationals
- Differentiated technologies and products in niche areas
- Products with high market share
- Alliances with major crop protection companies outside Japan
- Offering total solutions

### W Weaknesses

- Relatively small business size compared to the competing majors

### O Opportunities

- Increasing food demand due to the growing global population
- Growing agriculture-related businesses
- Increased demand in fields related to or downstream of the environmental health business
- Accelerating growth of the biorationals market due to intensifying regulation of chemical crop protection products

### T Threats

- Intensifying regulation of chemical crop protection products
- Increased competition with off-patent crop protection chemicals
- Full-scale entry into the field of biorationals by major crop protection companies outside Japan

## Business Introduction

### ■ Agrosolutions Business [Chemical Crop Protection, Biorationals, Fertilizers, Rice, etc.]

#### Chemical Crop Protection

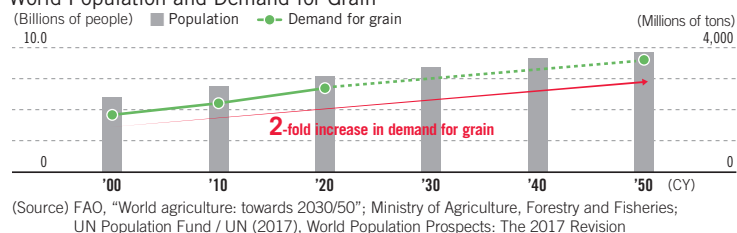
- Insecticides effective on a range of insects causing damage to crops
- Herbicides for a variety of crops
- Fungicides to help control diseases

#### Biorationals

- Products such as microorganism-based crop protection, plant growth regulators, and rhizosphere microbial materials, derived from natural sources

#### Market Environment

##### World Population and Demand for Grain



#### Priority Measures

- Expand the scale of our business in growth markets (South America and India) through acquisitions and other measures to strengthen our footprint
- Accelerate the development and launch of next-generation large-scale crop protection products
- Strengthen and expand seed treatment business
- Strengthen and expand biorational business, where high market growth is expected.

### ■ Environmental Health Business

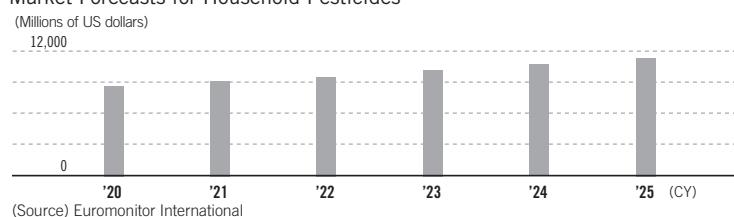
[Household Pesticides, Disease Control Insecticides, Products for Controlling Tropical Diseases, Veterinary Drugs, etc.]

#### Household Pesticides

- Insecticides for indoor and outdoor use (anti-mosquito incense, mosquito repellent, aerosol, etc.)
- Pyrethroid agents used in insect-repellent resin, and other devices

#### Market Environment

##### Market Forecasts for Household Pesticides



#### Priority Measures

- Strengthen ability to propose solutions in the active ingredient sales business
- Expand branded products business in the field of disease control pesticides for commercial use and other products for controlling tropical diseases
- Expand sales of botanical products lineup

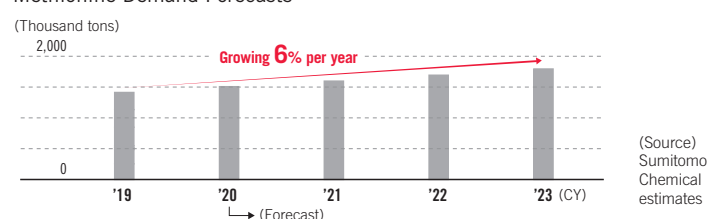
### ■ Feed Additives Business [Methionine]

#### Methionine

- Methionine mainly used in poultry feed (Methionine is one of the essential amino acids and acts to promote the growth of animals being raised.)

#### Market Environment

##### Methionine Demand Forecasts



#### Priority Measures

- Maintain stable supplies in line with market growth
- Thoroughly pursue cost rationalizations
- Expand product portfolio

### ■ Pharmaceuticals Business [Active Ingredients for Small Molecule Pharmaceuticals and Nucleic Acid Medicine, etc.]

#### Active Ingredients for Small Molecule Pharmaceuticals

- Pharmaceutical active ingredients and intermediates supplied to Japanese and foreign pharmaceutical companies

#### Active Ingredients for Nucleic Acid Medicine

- Active ingredients for nucleic acid medicine (pharmaceuticals that use DNA or RNA)

#### Market Environment

The market for pharmaceuticals, especially new drugs (patented drugs), is growing.

Pharmaceutical companies are concentrating management resources in new drug discovery, research and development, and sales.

**The market for outside contract manufacturing of active ingredients continues to grow.**

#### Priority Measures

- Enhance production capacity to respond to increased demand for small molecule pharmaceuticals
- Accelerate commercialization in the field of nucleic acid medicine

▶ [Investors' Handbook 2021 P63](#)



## Q&A Ranking among the Leading Global Producers

**Q** In recent years, the major crop protection companies outside Japan have undergone a consolidation, and the gap between the scale of Sumitomo Chemical's crop protection business and that of the major companies is widening, so how do you plan to compete going forward?

**A** With the mergers of Dow and DuPont in 2017 and Bayer and Monsanto in 2018, two major players were born. At the moment, however, we have no plans to emulate them and merge with another company. We will employ the following three strategies to secure a place among our global competitors.

### ① Compete on Our Research and Development Capabilities

Living things will inevitably develop resistances to crop protection products over the course of time. For this reason, it is necessary to continually develop new crop protection products, and research and development capabilities are extremely important to achieve this. The number of patents we hold compares favorably with those of major crop protection companies outside Japan, and we intend to compete going forward as a crop protection company based on our research and development capabilities.

▶ [Investors' Handbook 2021 P55](#)

### ② Compete on Our Extensive Global Footprint

Up until a few years ago, our global footprint did not measure up when compared with the major players, who have the ability to deliver products to all sorts of regions around the world. In recent years, however, in addition to our acquisition of Excel Crop Care in 2016, we also acquired the South American business of Nufarm in 2020, among other

initiatives, making steady progress in our efforts to strengthen our global footprint. In addition, we are not only selling the crop protection products we have developed using our own global footprint, we are also selling them as part of pest control systems offered by major crop protection companies outside Japan, enabling us to access an even broader range of regions.

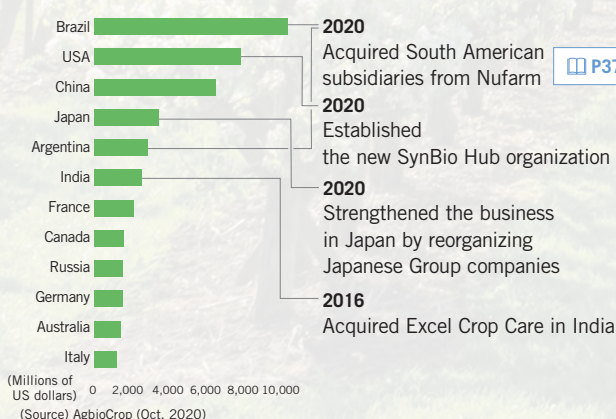
### ③ Compete on the Twin Pillars of Biorationals and Chemical Crop Protection Products

The mergers of the major players outside Japan seems to have been primarily aimed at strengthening their lineups of chemical crop protection products and genetically modified crops, but we have no intention of entering the field of genetically modified crops because the field requires large-scale investment, and is the main battleground of major crop protection companies outside Japan. We will utilize our unique research and development capabilities in the fields of chemical crop protection and in the biorationals market, where we are the world leader, competing with a distinctive product lineup as our weapon. The growth of the market for biorationals is expected to accelerate going forward, and we foresee that the major crop protection companies outside Japan will also enter this market in full force, and competition will escalate. We are focusing on strengthening our business even further in this field, securing our position as the leading company.

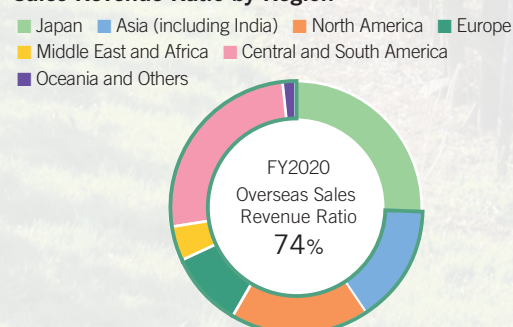
## Status of Global Expansion

The global expansion of our crop protection business began in the early 1960s when we started exporting the pesticide Sumithion to North America. Since then, following on from the establishment of Valent U.S.A. in 1988, we have been building up research, production, and sales facilities around the globe. Because climate and crops vary widely depending on the region, we have built a system that enables us to develop products suited for a particular region, and to respond quickly to the needs of the region. We have been expanding our facilities in the world's major crop protection markets, including the US and Europe, Asia, and South America, and of the countries with the six largest crop protection markets around the world, we are currently securing or strengthening our sales capabilities in five of them.

Crop Protection Market Size (2019)



Sales Revenue Ratio by Region





## Value Creation Model: Global Agrosolutions Business

### Value Chain



### System for Providing Added Value

#### Sumitomo Chemical's Competitive Advantages

There are many producers in the global crop protection market, from major producers in the U.S. and Europe to comparatively small producers. Crop Protection products differ significantly in needs by region and crops. Sumitomo Chemical pursues unique positioning in various markets around the world, by using its product portfolio consisting of chemical and biorational products for crop protection and enhancement. We are undertaking new solution development from a long-term perspective, from the discovery of novel lead compounds to the product development for end-users, and the proprietary products and technologies derived from this process are the foundation of our competitive advantage.



Health & Crop Sciences  
Research Laboratory

#### Major Processes Generating Competitive Advantages

In the discovery of novel lead compounds, which is important in developing new solutions, we search for active ingredients for new crop protection products. In this process, we evaluate not only a compound's efficacy but also its safety for people and the environment. We utilize our global research and development network so as to develop new solutions as soon as possible. In addition, in the product development for end-users, we are also putting effort into product development for new formulations and applications of existing active ingredients.



Training on using biorationals

#### Providing Customer Value

Farmers use crop protection products as they hope to improve the quality and yield of their agricultural crops. In addition, they also expect to make farming work more efficient, and improve profitability. At the same time, they also pursue safety and security, hoping that the crop protection products will not harm either their health or that of the consumers of the agricultural products. For this reason, we provide unique, highly effective products that meet customer needs. By creating solutions that reflect the needs of each region or crop, we contribute to the creation of new sustainable agricultural techniques.

#### Added Value Provided to Society



#### Contributing to a Stable Food Supply by Improving Food Productivity

Plant growth regulators, one of the products of our overseas crop protection business, act to enhance the fruit-bearing ability of fruits and vegetables, increase their size, and improve their quality. As they can adjust the flowering and maturity periods, plant growth regulators can help crop cultivation even in cold and dry regions, and contribute to increasing food production in various regions around the world. In the face of an increasing world population and a growing world economy, there has been an increasing demand for safe food. We are increasing food productivity by globally supplying unique materials, and we aim to contribute to a stable food supply.



# Pharmaceuticals

## Primary Focus SDGs



## Through the Autonomous Operations of Each Company, We Pursue the Maximum Synergy between Pharmaceuticals and Chemistry.

### Business Activities

Within the Pharmaceutical Sector of the Sumitomo Chemical Group, Sumitomo Dainippon Pharma Co., Ltd. develops and markets prescription drugs, and Nihon Medi-Physics Co., Ltd. develops diagnostic drugs, supporting people in leading healthy and active lives.

### Core Competence

In the prescription drug business, our core competency is our R&D capability, particularly in the areas of psychiatry & neurology, oncology, and regenerative medicine/cell therapy. In the diagnostic drug business, our core competencies are our solid experience and technologies cultivated over 50 years. In addition, our ability to cooperate with the Group to make the best use of the company's foundational technologies, including genome analysis and cell differentiation, is one of our major strengths.



重森隆志

**Takashi Shigemori**  
Senior Managing  
Executive Officer

### Basic Strategy

As part of our medium-term strategy, we are promoting active R&D and expanding our pipelines so that our business performance can recover quickly after the expiration of the sales exclusivity period for our main products. We are also promoting next-generation businesses, including regenerative cell medicine, frontier areas, and Theranostics.

### Synergy of Business and Technology

Sumitomo Dainippon Pharma has strong ties with Sumitomo Chemical in terms of its technological genealogy. For instance, Sumitomo Dainippon Pharma's Regenerative Medicine/Cell Therapy business has its roots in safety research for crop protection products at Sumitomo Chemical. Sumitomo Chemical's Bioscience Institute has incorporated Sumitomo Dainippon Pharma's genome technology to increase synergy in research and to cultivate new businesses. Chemistry and pharmaceuticals are intertwined, and have the potential to generate a variety of businesses.

### Issues in the Future

We will accelerate promotional efforts in the US with the aim of maximizing the product value of relugolix (treatment for advanced prostate cancer) and vibegron (treatment for overactive bladder (OAB)), which were both launched this year. We also aim to have these drugs approved and launched for other indications, as planned. In addition, we are also focusing on research and development to expand our pipeline of products that will carry the next generation.

### Long-term Vision

We aim to dedicate our efforts to better Quality of Life by making the maximum use of synergy as a Group and generating innovative medical and health care solutions.

## SWOT Analyses of the Major Businesses

**S**  
Strengths

- Drug research platform in the areas of psychiatry & neurology and oncology
- Development capabilities and manufacturing know-how for cellular medicine derived from allogeneic iPS cells
- Network with academia and startup
- Pipeline in development for psychiatry & neurology, oncology, and regenerative medicine/cell therapy
- Strong development and manufacturing capabilities for radioactive isotope labeling agents

**W**  
Weaknesses

- Limited ability to bear the burden of R&D costs
- Emergence of generic drugs due to the loss of exclusivity for major products

**O**  
Opportunities

- Innovation in healthcare technology
- Increase in demand for healthcare due to increasing health consciousness and calls for preventative medicine
- Progress in next-generation healthcare such as regenerative medicine/cell therapy

**T**  
Threats

- Accelerated implementation of medical expense control measures in Japan
- Changes in the health insurance systems overseas
- Consolidation in the pharmaceutical industry
- Increasing costs of drug discovery and acquisitions

## Business Introduction

### ■ Prescription Drugs and Diagnostics

#### Major Products

- LATUDA® (atypical antipsychotic)
- ORGOVYX® (treatment for advanced prostate cancer)
- GEMTESA® (treatment for overactive bladder (OAB))
- KYNMOBI® (treatment for off episodes in patients with Parkinson's disease)
- MYFEMBREE® (treatment for heavy menstrual bleeding associated with uterine fibroids)
- TWYMEEG® (treatment for type 2 diabetes)
- FDG Scan™ (diagnosis of malignant tumors used in PET scans)

#### Major Products in Development

- MYFEMBREE® (treatment for Endometriosis)
- GEMTESA® (treatment for overactive bladder (OAB) in men with benign prostatic hyperplasia (BPH))
- SEP-363856 (treatment for schizophrenia)
- SEP-4199 (treatment for bipolar I depression)
- DSP-7888 (WT1 cancer peptide vaccine for glioblastoma)

#### Priority Measures

- Maximize the product value of ORGOVYX® and MYFEMBREE® utilizing the development and commercialization agreement with Pfizer
- Maximize the product value of GEMTESA® utilizing the sales platforms of local companies in the US
- Promote the development of SEP-363856, SEP-4199, and DSP-7888

### ■ Regenerative Medicine/Cell Therapy

#### Cell Therapy Products

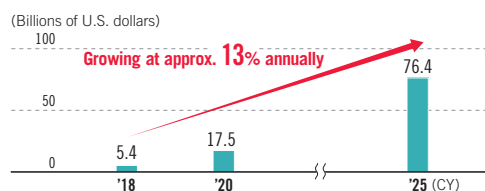
- Develop cell therapy products using iPS cells and cultivated thymus tissue from collaborations with universities and research institutions

#### Contract Development and Manufacturing Organization (CDMO)

- Established S-RACMO Co., Ltd. in September 2020
- Entered the contract development and manufacturing business for regenerative medicine and cell therapy products by utilizing the synergies between Sumitomo Chemical's basic technology for iPS and ES cells and its know-how with respect to contract manufacturing of pharmaceuticals as well as the know-how Sumitomo Dainippon Pharma has cultivated in the regenerative medicine and cell therapy business in areas such as advanced manufacturing method development and formulation development.

#### Market Environment

##### Projection of Global Demand for Regenerative and Cellular Medicine (Worldwide)



(Source) Created by Sumitomo Chemical based on a survey conducted by Deloitte

#### Priority Measures

- Definite launch of RVT-802 (treatment for pediatric congenital athymia) in the US
- Promote existing research and development projects, including age-related macular degeneration, Parkinson's disease, retinal pigment degeneration, spinal injuries, and renal failure
- Expand orders for the contract development and manufacturing organization business, achieve profitability as soon as possible

### ■ Frontier Business

#### Target Scope of Frontier Business

- Place priority on development and commercialization of highly novel solutions for society on a global basis.

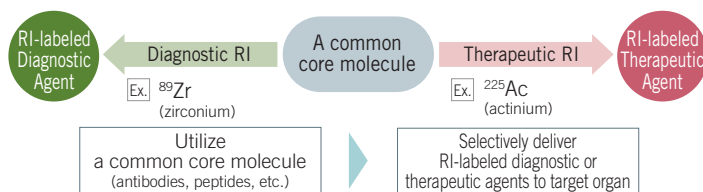


#### Priority Measures

- Enhance the foundations of core networks and technologies, focusing on areas that are expected to have synergies with the pharmaceutical business
- Promote development of multiple projects, including the development of a mobile app for managing type 2 diabetes

### ■ Theranostics

#### Business Overview



Adopted by AMED\*1 as CiCLE\*2

\*1 AMED: Japan Agency for Medical Research and Development

\*2 CiCLE: Cyclic Innovation for Clinical Empowerment

#### Priority Measures

- Development of new radiopharmaceuticals that integrate therapy and diagnosis (Theranostics) by fully utilizing the characteristics of nuclear medicine



## Q&amp;A Towards the “Post-LATUDA” Era

**Q** What sort of progress have you made in preparing for the post-Latuda era?

**A** We launched relugolix and vibegron in the US this year, which we acquired through our strategic alliance with Roivant. Going forward, we are aiming to maximize the product value of the two drugs as soon as possible. Beyond that, we are also pushing ahead even faster with research and development into promising future blockbusters, raising new pillars to support the income of our segment after the loss of the exclusivity period for Latuda® in the US.

**Development Status of Relugolix and Vibegron**

The sales exclusivity period for Latuda®, the core of the income of the Pharmaceuticals segment, will end in February 2023 in the US, and we are filling that hole in revenue primarily with relugolix and vibegron. We aim to maximize product value as soon as possible, and for relugolix, Myovant\*<sup>1</sup>, which handles the product, is collaborating with Pfizer on development and commercialization. In addition, for vibegron, we have made Urovant, which handles the product, into a wholly-owned subsidiary, and we aim to maximize the value of the product through collaboration on logistics and promotion using the sales platform of Sunovion, a US-based subsidiary.

\*1 Myovant Sciences Ltd. (“Myovant”) is listed on the New York Stock Exchange, and the Sumitomo Dainippon Pharma Group holds approximately 53% of the outstanding shares of Myovant. This material contains information about Myovant, which is based on information disclosed by Myovant.

**Aiming for Further Growth**

We are also making further progress in the development of new treatments to support our long-term growth. We are focusing on setting up sales of KYNMOBI® (treatment for off episodes in patients with Parkinson’s disease), which was launched in the US in September 2020. In addition, SEP-363856, which is expected to serve as a next-generation antipsychotic therapy\*<sup>2</sup> by the FDA, and we are making progress in development with a goal of launching the drug in the US in fiscal 2023, while also conducting trials to broaden its range of indications.

\*2 The FDA designates drug candidates as breakthrough therapies to expedite the development and review of drugs for serious or life-threatening conditions.

## Status of Global Expansion

## Regional Strategy Centering in Japan, North America and China

**Europe**

Business expansion through partnerships

**Japan**

Initiatives to optimize the structure to maintain sustainable revenue for business operations

**North America**

Establish post-LATUDA growth trajectory

**China & Asia**

Maximize sales/profits through partnerships with external parties and promotion of internal cost reduction, business expansion to geographical areas likely to contribute to our profits

**Central and South America**

Collaboration with partners

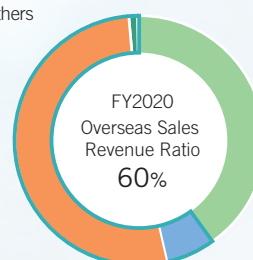
**Oceania**

Collaboration with partners

About 60% of the revenue in our Pharmaceuticals segment comes from outside Japan, and one of the features of our Pharmaceuticals segment is its global reach, centered in Japan, North America, and China. Sumitomo Dainippon Pharma had always aimed to expand to the US, beginning global development of Latuda® internally in 2007 while also building a foundation in the US with the acquisition of the former Sepracor (now Sunovion) in 2009, then successfully launching Latuda® in the US market in 2011. Since then, Latuda® has grown to be a blockbuster, and revenues from outside Japan increased significantly. Currently, we are focused on establishing a path to growth in view of the post-Latuda. In addition, growth in demand for pharmaceuticals throughout Asia has been significant, including China, which has the world’s second-highest level of demand, so it is a region where we expect sustained growth going forward. Currently we are building our sales structure to increase our presence in the market, enhancing the capabilities of our subsidiaries and strengthening collaboration with local partners. For other regions, we plan to maximize revenue by collaborating with partners.

## Sales Revenue Ratio by Region

■ Japan ■ Asia (including India) ■ North America ■ Europe  
■ Middle East and Africa ■ Central and South America  
■ Oceania and Others



## Value Creation Model: Sumitomo Dainippon Pharma

### Value Chain



### System for Providing Added Value

#### Sumitomo Dainippon Pharma's Competitive Advantages

While Sumitomo Dainippon Pharma is a smaller company than the major global pharmaceutical producers, its strength is its strong sales platform in the US, the region with the greatest demand for pharmaceuticals. In addition, Sumitomo Dainippon Pharma is at the forefront of development of regenerative medicine and cell therapy, which is expected to see market growth as cutting-edge healthcare, and is currently making progress in clinical development while also collaborating with academia and startups.

#### Major Processes Generating Competitive Advantages

Many employees of Sumitomo Dainippon Pharma are located in the US, and the company is establishing a post-Latuda path to growth through the development capabilities cultivated with Latuda® and through its sales capabilities, which utilize collaboration between facilities in the US. In addition, in the field of regenerative medicine and cell therapy, the company has both the Regenerative & Cellular Medicine Kobe Center, a research facility, and the SMaRT facility, the world's first commercial manufacturing facility dedicated to regenerative medicine and cell therapy products derived from allogenic iPS stem cells, and the company is utilizing both of these facilities to make progress in its research and development.

#### Providing Customer Value

Sumitomo Dainippon Pharma aims to contribute to improved quality of life for patients by creating revolutionary treatments and healthcare solutions in fields with high unmet medical needs, utilizing its abundant pipeline, drug discovery capabilities, cutting-edge technology and know-how, and its broad scientific network.



LATUDA®



Sunovion Pharmaceuticals Inc.



The facility dedicated to regenerative medicine and cell therapy products (SMaRT)

### Added Value Provided to Society



### Contributing to the Advancement of Cutting-edge Healthcare and Better Quality of Life for Patients

Sumitomo Dainippon Pharma contributes to the treatment of patients with various diseases by providing high-quality medicine and drug information. In addition, the company contributes to the development of advanced healthcare by utilizing the technologies and knowledge cultivated by Sumitomo Chemical over many years in the life science field. Through synergy between Sumitomo Dainippon Pharma and Sumitomo Chemical, we work on contributing to solving healthcare issues, one of the material issues to be addressed as management priorities.