## **SUMİTOMO CHEMICAL**

**Annual Report 2019** 



Change and Innovation 3.0

# For a Sustainable Future

## **Editorial Direction**

Since fiscal 2017, Sumitomo Chemical has adjusted the positioning of its annual report and CSR Report, reorganizing them as an integrated report, which is Súmitomo Chemical's new Annual Report. With the aim of communicating its sustained growth in a way that is easy to understand for shareholders and other investors, as well as a broad array of other stakeholders, the new Annual Report comprehensively brings together financial information and non-financial information. In addition to a report on financial results and information on the strengths of businesses and business strategies, the Annual Report includes information on Sumitomo Chemical's corporate governance system, and its environmental and corporate social responsibility efforts.

The Annual Report 2019 starts with an image of boarding a Sumitomo Chemical airship, which is also on the front cover. This year, the beginning of the new Corporate Business Plan, we added a dialogue between the Chairman of the Board and the Outside Directors, a CFO's message, and a section on ESG strategies to further enhance our content. We hope this Annual Report serves as a bridge to our stakeholders and communicates our efforts to create new value by mobilizing the entire Sumitomo Chemical Group.



The Guidance for Collaborative Value. Creation, put forth by the Ministry of Economy, Trade and Industry, is a handbook that serves as a shared language connecting companies and investors, systematically and comprehensively laying out the information that companies ought to convey to investors in order to raise the quality of information disclosure and of dialogue with investors. This report primarily relies on this guidance in the value creation models for sector information (starting on page 40).

#### Financial Statements in This Document

Beginning fiscal 2017, the Sumitomo Chemical Group is adopting international financial reporting standards (IFRS) in place of Japanese GAAP, which it previously used, and is therefore restating figures for the previous consolidated fiscal year using IFRS for comparative analysis. However, as the consolidated statement of financial position was not calculated for the sectors using IFRS at the beginning of fiscal 2016, the sectors' ROA for fiscal 2016 were not calculated.

#### Forward-looking Statements

Statements made in this annual report with respect to plans, strategies, and future performance that are not historical facts are forward-looking statements involving risks and uncertainties, Sumitomo Chemical cautions that a number of factors could cause actual results to differ materially from such statements including, but not limited to, general economic conditions in Sumitomo Chemical's markets, demand for, and competitive pricing pressure on, Sumitomo Chemical's products in the marketplace; Sumitomo Chemical's ability to continue to win acceptance for its products in these highly competitive markets; and movements of currency exchange rates.



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## **Three Reports of Sumitomo Chemical**



This report brings together our key information and aims to communicate Sumitomo Chemical's value creation story in a way that is easy to understand.



This report gives a detailed explanation of Sumitomo Chemical's businesses and products.

## Annual Report

https://www.sumitomo-chem.co.jp/ english/ir/library/annual\_report/

The survey can be found here.



This report provides sustainability information on Sumitomo Chemical from an environmental and social perspective and governance.

## **Sustainability Data Book**

https://www.sumitomo-chem.co.jp/ english/sustainability/library/

https://www.sumitomo-chem.co.jp/ english/ir/library/investors\_handbook/



# Creative Hybrid Chemistry for a Better Tomorrow



Takashi Shigemori

Director & Senior Managing Executive Officer Hiroshi Ueda Director & Executive Vice President Masaki Matsui Representative Director & Managing Executive Officer Ray Nishimoto Representative Director & Executive Vice President Masakazu Tokura Chairman of the Board

**Atsuko Muraki** Outside Director Motoshige Itoh
Outside Director

Hiroshi Tomono Outside Director Koichi Ikeda Outside Director





Keiichi Iwata

Representative Director & President

Noriaki Takeshita

Representative Director & Senior Managing Executive Officer Kingo Akahori

Representative Director & Managing Executive Officer Hiroshi Niinuma

Director & Senior Managing Executive Officer Kunio Nozaki

Standing Corporate Auditor Hiroaki Yoshida

Standing Corporate Auditor

Mitsuhiro Aso

Outside Corporate Auditor

Yoshitaka Kato

Outside Corporate Auditor

Michio Yoneda

Outside Corporate Auditor

## To Our Stakeholders

We Will Bring About Innovation with the Power of Chemistry, Contribute to Solving Issues Facing Society, and Achieve Sustained Growth for Our Company.

We at the Sumitomo Chemical Group have contributed to the development of society through our business, firmly committed to our credo, "Our businesses must benefit society at large, not just our own interests. (Jiri-Rita Koushi-Ichinyo)" Over more than 100 years since the company's founding, we have also continuously created new value by transforming our business portfolio to meet the changing needs of society.

The world now stands at a major turning point, where geopolitical risks have increased uncertainty and volatility, while significant innovations are taking place in the fields of digital technology and biotechnology. In the meantime, the concept of global sustainability, represented by the Sustainable Development Goals (SDGs), is expanding.

What we should do is to view these changes in society not as risks but as opportunities and contribute to solving issues facing society by bringing about innovation with the power of chemistry. We will utilize our ability to develop innovative solutions by leveraging the technological expertise in diverse areas that Sumitomo Chemical has cultivated as a diversified chemical company since its founding. We will also further promote our collaboration with academia and startup companies. By doing so, we will unleash the unlimited potential of chemistry and make innovation happen. And we will continue to help solve pressing societal issues facing people around the world in areas such as health care, the environment, food, natural resources and energy, thereby realizing long-term sustained growth for the Group.

We would like to ask you, our stakeholders, for your continued support and cooperation.

July 2019

十倉雅和

Masakazu Tokura Chairman of the Board



## Sumitomo Chemical's Philosophy

# Growing the Company and Contributing to Society with the Power of Chemistry

# The Sumitomo Spirit -Sumitomo Business Principles-

- 1. Sumitomo shall achieve prosperity based on solid foundation by placing prime importance on integrity and sound management in the conduct of its business.
- 2. Sumitomo's business interest must always be in harmony with public interest; Sumitomo shall adapt to good times and bad times but will not pursue immoral business.

## Sumitomo Chemical's Business Philosophy

- 1. We commit ourselves to creating new value by building on innovation.
- 2. We work to contribute to society through our business activities.
- 3. We develop a vibrant corporate culture and continue to be a company that society can trust.



## **Charter for Business Conduct**

- 1. We will respect Sumitomo's business philosophy and act as highly esteemed "good citizens."
- 2. We will observe national and international laws and regulations and will carry out activities according to our corporate rules.
- 3. We will develop and supply useful, safe products and technologies that will contribute extensively to the progress of society.
- 4. We will take voluntary and active initiatives to achieve zero-accident and zero-injury operations and to preserve the global environment.
- 5. We will conduct business transactions based on fair and free competition.
- 6. We will endeavor to make our workplaces sound and energetic.
- 7. Every one of us will make efforts to become a professional who has advanced skills and expertise in his or her field of responsibility.
- We will actively communicate with our various stakeholders such as shareholders, customers, and regional communities.
- 9. We, as a corporate member of an international society, will esteem the culture and customs of each region around the world and contribute to the development of those regions.
- 10. We will strive for the sound development of our Company through business activities conducted in accordance with the guiding principles stipulated hereinabove.

## Cover-page illustration



Sumitomo Chemical designed this cover-page illustration in 2015, when we celebrated the 100th anniversary of the commencement of our operations, to express our determination to set sail into an awaiting future of growth and challenges by making use of our 100-year history. With the power of chemistry, we will strive to resolve various challenges facing human society and open up a bright future like this ship that ventures into unknown seas.

## **100-year History**



# A Century of Sumitomo Chemical: Changing with the Times and Growing Diverse Businesses around the World

## > 1913



Sumitomo Fertilizer Manufactory

## The Sumitomo Fertilizer Manufactory was founded to prevent pollution caused by gas emissions from copper smelting

Sumitomo Chemical's start was removing harmful sulfur dioxide from the exhaust gas generated during copper smelting at the Besshi Copper Mine in the Shikoku region of Japan, which was the core business of Sumitomo, and manufacturing fertilizers from the exhaust gas.

## **)** 1944



Japan Dyestuff Manufacturing Company Kasugade Works

#### **Entering the fine chemicals business**

Sumitomo Chemical merged with Japan Dyestuff Manufacturing Company, which was engaged in the fine chemicals business, including dyes and pharmaceuticals.

## **>** 1953



Pynamin Plant (Torishima, Osaka)

# Entering the crop sciences business Started agricultural chemicals business from the launch of Pynamin, a household insecticide

## **>** 1958



Ethylene Plant (Ohe, Ehime)

#### **Entering the petrochemicals business**

We brought in technology from outside Japan, built an ethylene plant in the Ohe district of Ehime, and began full-scale operations.

- Net Sales / Sales Revenue\*1,2 1915-1977: Non-consolidated 1978-2018: Consolidated
- \*1 Since FY2016, Sumitomo Chemical has used IFRS.
- \*2 In FY1995, Sumitomo Chemical changed its fiscal year to end on March 31. Revenue from January-March 1995 has been added to FY1994.

1915 1920 1925 1930 1935 1940 1945 1950 1955 1960

Sumitomo Chemical's Transition

1915-1944 Building a Foundation as a Chemical Manufacturer 1945-1974
Growing into a Diversified Chemical Manufacturer

1954-1973

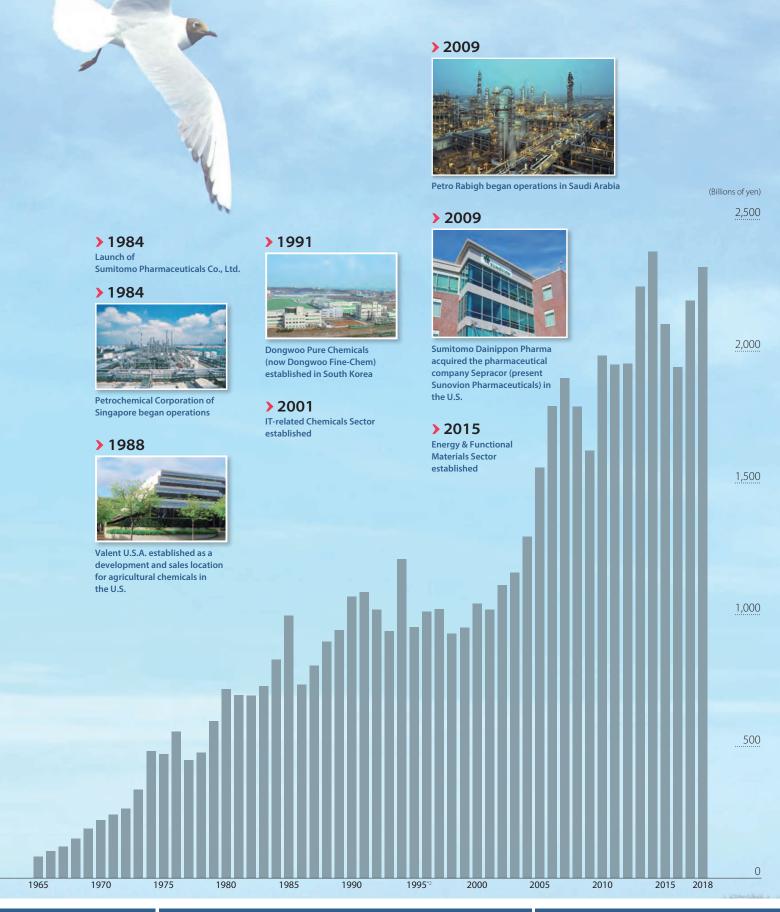
Social Trend

**1914-1918** World War I

1929 World Depression **1939-1945** World War **I** 

High economic growth period 1964

Tokyo Olympics



## 1975-2004 Expanding All Businesses Globally

## 2005-Deepening Global Business

1973 The first oil shock

1978 The second oil shock 1985 1989 Plaza Accord Fall of the Berlin Wall

Nikkei stock average 1987 up to historical highs Black Monday 1999 European single currency Euro birth

European debt crisis
2008

2012

2001 Terrorist attacks in the United States

9

## Flow of Value Creation

# Sumitomo Chemical's Approach to Creating New Value through **Innovative Technologies**

**Management Resources** 

**Strengths** (Core Competence)

**Challenges & Business Opportunities** 

## **Financial Capital**

Sound financial base

■ Total equity (fiscal 2018):

¥1,351.9 billion

11

## **Manufactured Capital**

**R&D** sites and production facilities around the world

As of April 1, 2019 Japan:

Overseas:

## **Intellectual Capital**

Technologies cultivated through a wide range of products development as a diversified chemical company

- R&D expenses (fiscal 2018): ¥163.5 billion
- Number of patents held (as of April 2019): 12,659

## **Human Capital**

**Employees with advanced technological** ability and know-how

As of March 31, 2019 Number of employees:

32,542

Number of research and

development employees: 3,937

## **Social and Relationship Capital**

Long-established relationships of trust with customers and overseas networks

Overseas sales revenue ratio (fiscal 2018): 64.9%

## **Natural Capital**

Fiscal 2018

Water usage: 944 million tons Energy (fuel, heat, and electricity)\*:

1,690 thousand kl

Hydrocarbon compounds\*:

1,676 thousand tons

Metals (excluding minor metals)\*: 121 thousand tons

Minor metals\*:

14 thousand tons

\* Sumitomo Chemical and Group Companies in Japan



Ability to develop innovative solutions by leveraging its technological expertise in diverse areas



Ability to reach global markets



Loyal employees

**Solve Issues Facing** Society

- Environment
- Food
- Resources and energy

**Improve** Quality of Life and **Build an Affluent** and Comfortable Society

- Comfortable life
- Health promotion

## Five Business Sectors Based on a Wide Range of Technologies Generate Synergies and Aim for Further Growth

## Petrochemicals & Plastics

**>** P44

- Polyethylene
- Polypropylene
- MMA, etc.

## **Energy & Functional Materials**

**P**48

- Materials for lithium-ion secondary batteries
- Super engineering plastics
- High-purity alumina, etc.

## **IT-related Chemicals**

P52

- Polarizing films
- Touchscreen panels
- Photoresist, etc.

## Health & Crop Sciences

**P**56

- Crop sciences products
- Environmental health products
- Feed additives
- Pharmaceutical chemicals, etc.

## **Pharmaceuticals**

**P**60

- Sumitomo Dainippon Pharma Co., Ltd.
- Nihon Medi-Physics Co., Ltd.

## Aiming to Be a Company Seen as Having a Conglomerate Premium

Going forward, solutions to issues facing society will involve not just isolated businesses or products, but combinations of many different things.

That is an area where we can display our unique strengths as a diversified chemical manufacturer with five business sectors.

Taking advantage of a conglomerate company operating a wide variety of businesses, we aim to be a company that is valued at a premium rather than at a discount.

## **Impact on Capitals**

## **Financial Capital**

	FY2017	FY2018
Core operating income (billions of yen)	262.7	204.3
ROE (%)	15.4	12.3
D/E ratio (times)	0.7	0.6

## **Manufactured Capital**

- Expanded capacity of a manufacturing facility for film-type touchscreen panels in Korea
- Completed the new methionine plant
- Expanded the global R&D facilities for health and crop science products such as Chemistry Research Center and Biorational Research Center
- Tanaka Chemical Corp. decided to expand production facilities for cathode materials.

## **Intellectual Capital**

- Number of new patent applications in fiscal 2018 (Non-consolidated): 2,955
- Established a digital innovation department for training data scientists and data engineers

## **Human Capital**

	FY2017	FY2018
Lost-workday incident rate (%)	0.26	0.58
Enhancement of leadership and management capabilities training and career development training (attendees)*1	75	839*2
Percentage of paid vacation days used (%)*1	67.2	71.8

<sup>\*1</sup> Sumitomo Chemical (Non-consolidated)

## Social and Relationship Capital

■ Had constructive dialogue with stakeholders

With investors	FY2017	FY2018
Individual meetings (attendees)	340	356
Small meetings with the President (attendees)	32	57
Overseas investor visits (times)	44	35
Dialogues with local residents (times)	40	42

## **Natural Capital**

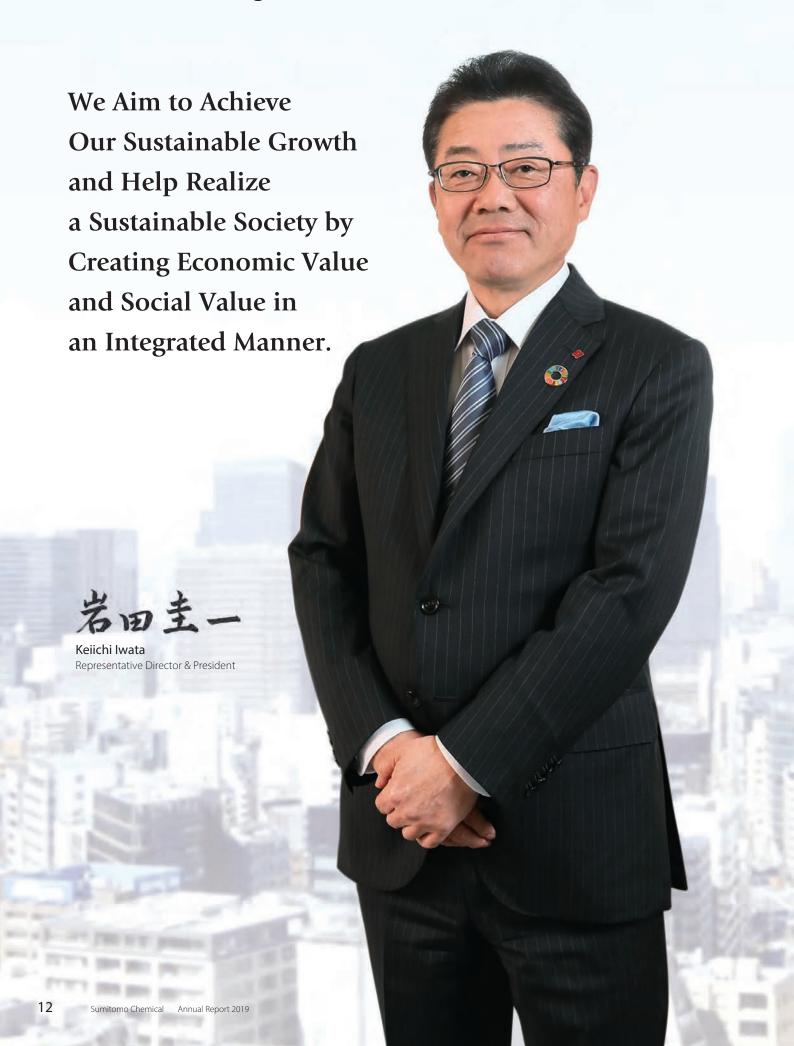
 Compatibility between manufacturing and reduction of greenhouse gas (GHG) and waste emissions

	FY2017	FY2018
GHG emission volume (thousand tons-CO <sub>2</sub> e)	7,758	7,258
Landfill disposal amount* (thousand tons)	21	23

<sup>\*</sup> Sumitomo Chemical and Group Companies in Japan

<sup>\*2</sup> Conducted multiple new training sessions

## President's Message



## Change and Innovation 3.0

## For a Sustainable Future

My goal is to transform Sumitomo Chemical into a company that is recognized for its conglomerate premium, by achieving business and technological synergies and realizing unique benefits only a diversified chemical company can deliver. We at Sumitomo Chemical will work to achieve sustainable growth and help build a sustainable society by creating economic value and social value in an integrated manner.

## My Goals as President

# My Role is to Further Refine Our Strengths and Pass Them on to the Next Generation.

I was appointed President in April 2019. When I was asked to take office, I wondered whether I was really qualified for the position, but I decided to take on the challenge, telling myself that it is time to give back to the company. Sumitomo Chemical's businesses are so diverse that we have relationships with a large number of people, including customers, business partners, and employees. Therefore, I feel the weight of my responsibility everyday.

We at Sumitomo Chemical boast strong power on the front line, an advantage cultivated over more than 100 years since the company was founded in 1913. In the area of manufacturing, for instance, the power on the front line means safe and stable operations and quality control. In other words, it is something that makes up the foundation of our business. This power on the front line exists not just in manufacturing but in research, sales and administrative departments, and has been created by all the sincere, day-to-day efforts put forth by each of our employees. This is our greatest strength. Going forward, it will be the backbone that supports the implementation of our strategy and our sustainable growth. Further refining our strengths to meet the needs of the times and passing them on to the next generation—this is the role that I, now serving as President of Sumitomo Chemical, should fulfill.

#### **Our Business Environment**

## Although We cannot Be Overly Optimistic, I Believe that We can Build a Bright Future through Our Efforts.

Before speaking of what I want to do as President, I would first like to share how I see the current economic environment and the circumstances facing us—the background against which I consider what to do.

Over the past few years, the world economy has generally been steady, led by the U.S. economy. Since last autumn, however, uncertainty has increased amid the rise of protectionism and competition for hegemony among various countries around the world, as well as the consequent trade conflicts.

In the business environment facing Sumitomo Chemical and the chemical industry as a whole, we are seeing the growing effects of new trends—trends different from those in the past that economic fluctuations could explain. For example, the IT-related Chemicals Sector is being strongly affected by the mobility revolution, including the concepts of "CASE\*1" and "MaaS\*2," which is transforming the market for smartphones and mobile devices as well as the automobile industry. In addition, we have to consider the effects of political factors such as trade conflicts. The Health & Crop Sciences Sector, meanwhile, is undergoing increasing effects of climate change. In light of these significant changes, our current business portfolio, which we have been working to improve to build up earning power that is resilient to external environmental factors, is by no means perfect.

If we have a sound sense of urgency, however, and respond with speed and agility to changes in business and technology, the environment will look totally different. As new technologies emerge and digital innovations advance, new value will be created at a dramatically accelerated pace, while society will need to resolve major problems relating to the environment and energy and other such challenges as defined by the SDGs. In these circumstances, chemistry will certainly have a greater role to play. This means there are many business opportunities for us as a diversified chemical company. I believe the time has come for a diversified chemical company to show its strength.

We cannot be overly optimistic, but we are in a position where we can build a bright future, depending on our own efforts. This is how I see the current business environment.

<sup>\*1</sup> Next-generation technologies for automobiles: connected, autonomous, shared, and electric.

<sup>\*2</sup> Mobility as a Service. A new move to integrate different types of transport services into a single mobility service that can be used based on demand.

## Becoming a Company Rich in Entrepreneurship and Diversity

## I Will Foster an Entrepreneurial Culture in which Taking on Challenges and Failing is Valued above Taking No Action.

In this business environment, what I want to achieve as President is to foster a corporate culture which is not only characterized by speed and agility, but is also rich in entrepreneurial spirit and diversity.

The entrepreneurial spirit is essentially to dislike losses due to failure to act. It seems to me that, up to now, Sumitomo Chemical has taken an approach of not blaming anyone who took on a challenge and failed, but also of not blaming anyone who took no action. I would like to add to this approach the idea that taking on challenges and failing is superior to taking no action.

I have been involved in Dongwoo Fine-Chem Co., Ltd. in South Korea since its establishment in 1991, when it got its start with only 40 employees and without much knowhow on the semiconductor manufacturing process. It took about a



decade before the company was able to produce products of the same quality as our Japanese plants can offer. Today, Dongwoo Fine-Chem is a highly profitable company, employing 3,000 people. Before reaching this point, however, the company faced a series of challenges and failures that truly tested our entrepreneurial spirit. Nonetheless, the members of Dongwoo Fine-Chem have always been positive, and have always taken on the challenge of being one step ahead, with a sense of speed described as 'pari-pari,' which means 'hurry, hurry' in Korean. I would like to entrench that kind of attitude in our corporate culture —taking on challenges with a willingness to accept losses and without fear of failure.

In addition, diversity can be a source of new ideas and innovation. We have long treasured a corporate culture that enables free and open discussion. In this rapidly changing business environment, diversity is becoming even more important. Belgium, where I used to work, is a country rich in diversity that has been fostered through its history. China, South Korea, and Taiwan, where we have particularly close ties in the business of our IT-related Chemicals Sector, each have different cultural and historical backgrounds, so the way of doing things is almost completely different from one another. When people with such different backgrounds gather and work together, new ideas will be created and success will follow if they can respect each other's ways of thinking and flexibly take in each other's good points. I want to foster a corporate culture in which diversity among individual employees will naturally thrive.

## **Further Increasing Our Conglomerate Premium**

# By Realizing Unique Benefits Only a Diversified Chemical Company can Deliver, I Aim to Further Increase Our Corporate Value.

Another thing I want to accomplish as President is to realize a conglomerate premium. Because we operate in a variety of businesses as a diversified chemical company, we are often faced with a "conglomerate discount," which means that we are not valued properly for our business as a whole and are often undervalued. To overcome this situation, we must not only reinforce our existing businesses, but by achieving comprehensive synergies we must also develop and strengthen businesses that support our next generation. I would like to talk about specific issues regarding how to implement this.

First, the short-term challenge for the next one to two years is to make sure to realize the returns on the major investments we have made, including the capital expenditure and investment of 650 billion yen (cumulative total over three years) decided in the previous Corporate Business Plan period of fiscal 2016 to 2018. Our portfolio has very promising products. For example, there are a range of products that are expected to grow dramatically in the future, such as materials and components related to automobiles, 5G communication and flexible displays. Our light-emitting materials, used as the light source for OLED displays, are particularly promising. The new materials—compatible with the printing method, the mainstream process for mass production of next-generation large displays—have resulted from over 30 years of our development efforts.

Our long-term challenge is to accelerate the creation of next-generation businesses, a major initiative set out in our current Corporate Business Plan. This is an effort to sow the seeds of next-generation businesses that have the potential to become future growth drivers and grow them to their next stages. In the field of chemicals, it takes at least 10 years to launch a new business. We need to take action, constantly anticipating technological and demand trends five or ten years into the future. We have selected four priority areas for the creation of next-generation businesses: health care, reduction of environmental impact, food, and ICT. These are areas in which we can leverage our strengths in technology and help solve issues facing society.

To be more specific, as we take on this major initiative, we will build an innovation ecosystem. In other words, within our company we will create a system in which innovation occurs spontaneously and continually. There are three key points in this effort. The first is back-casting. This is an effort to change our thought process. Rather than start from where we are and work to make improvements, we start with what the future should be like and work backwards to consider what is needed to achieve that form of future. The second is speed. I would like to take action with a sense of speed and actively incorporate what it takes to speed up, including new digital technologies. The third is open innovation. We do not have all the technologies necessary to solve the societal issues we need to tackle. Instead of trying to do everything on our own, we will partner effectively, promoting collaboration with academia and startup companies, while also leveraging M&A opportunities.

Through these efforts, we will achieve synergies in our various businesses and technologies and realize unique benefits only a diversified chemical company can deliver, namely a "conglomerate premium." And by doing so, we will create economic value and social value in an integrated manner and aim to realize our sustainable growth while also helping to build a sustainable society.



## To Shareholders and Investors

# Our Aim is to Make Sumitomo Chemical a Company that You can Be Proud of as Shareholder.

I believe that you, our shareholders and investors, are important stakeholders, and we are constantly aware of your existence in our daily business and management activities. Regarding shareholder return, we will continue to pay stable dividends, with a target dividend payout ratio of around 30% for the time being. The remaining 70% of retained earnings, after paying dividends, will be invested in new growth opportunities in the areas of health care, reduction of environmental impact, food, and ICT. By doing so, we aim to maintain a sound financial position and achieve sustainable profit growth.

Sumitomo Chemical's history began with manufacturing fertilizers from harmful gas emitted from copper smelting operations, aiming to solve the environmental problem of air pollution while helping to increase agricultural output. Since then, we have been committed to creating new value through the power of chemistry and solving societal issues. In addition, our business is founded on the Sumitomo business principle—the principle we always live by—"Our businesses must benefit society at large, not just our own interests. (Jiri-Rita Koushi-Ichinyo)"

Working in the chemical industry in this era when chemistry's role and importance are continuing to increase, we at Sumitomo Chemical will not only work to achieve our own profit growth, but will also continue to strive to solve major issues facing society through our businesses. And by contributing to solving societal issues, we aim to make Sumitomo Chemical a company that you can be proud of and pleased with as shareholder.

We would appreciate your continued understanding and support.

## CFO's Message

We Aim to Achieve
a Robust Financial Structure through
the Creation of Cash Flows
as Planned and Disciplined
Management of Costs and Assets.

重森隆ふ

**Takashi Shigemori**Director & Senior Managing Executive Officer



## **Basic Policy**

Sumitomo Chemical is aiming to steadily achieve its targets for ROE, ROI, and other financial indicators, and sustainably improve corporate value. By rationalization and streamlining costs, shortening the cash conversion cycle (CCC), and controlling the balance of interest-bearing liabilities and the D/E ratio, we will continue to maintain the soundness of our financial base while expanding and strengthening our business through active growth investments.

## **Key Financial Performance Indicators**

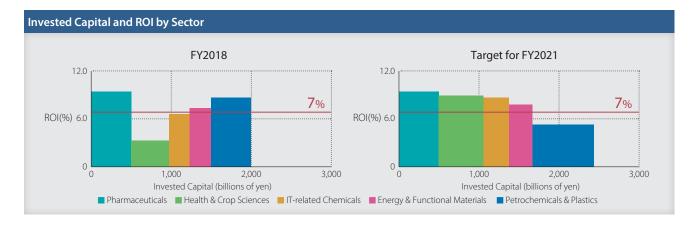
Since 1999, we have been implementing management accounting with an awareness of capital costs in order to improve capital efficiency, such as ROE and ROI. For example, we have been reporting the net profit of each business sector after deducting shareholder capital costs. Currently, ROI

for each sector is an important performance management indicator

Our target of ROE of 10%, a key financial performance indicator, was established based on a policy of implementing projects that we believe can make an important contribution to the solution of societal issues, as long as they are predicted to be profitable, reflecting our concept of contributing to the realization of a sustainable society through our business activities. In terms of ROI, we set a minimum target of 7%, in order to exceed our weighted average capital cost (WACC).

Our target D/E ratio is an approximately 0.7 times, in order to maintain our current credit rating, which enables flexible funding.

In each individual investment decision, decisions about new capital investments or acquisitions are made after sufficient consideration of estimates of indicators such as net value



(NPV), internal revenue rate (IRR), and payback period, taking full account of the strategic significance and characteristics of the project. We also regularly follow up on the results of capital investments and acquisitions already implemented.

## **Progress of the Corporate Business Plan**

In the previous Corporate Business Plan (FY2016-FY2018), we increased our earning power, and our profits achieved recordhigh levels in fiscal 2017. At the same time, as a result of steady cost reductions, business restructuring and CCC improvement efforts, total free cash flow amounted to 146.1 billion yen over the three years. In addition, as of the end of March 2019, the balance of interest-bearing liabilities rose to 839.5 billion yen, and the D/E ratio was approximately 0.6 times.

In the new Corporate Business Plan (FY2019-FY2021), we will steadily collect cash from the investments we have already implemented and control costs and assets through disciplined operations. At the same time, by continuing active investments, including investing in the Rabigh Phase  $\rm I\!I$  project, cash flows from investing activities are expected to be 815 billion yen. Based on this assumption, we believe that the balance

of interest-bearing liabilities will be less than 1.1 trillion yen and the D/E ratio will be about 0.7 times, so we will be able to maintain financial soundness. Both ROE and ROI are expected to exceed their target levels, with 12.5% and 7.1%, respectively.

## **Shareholder Return**

We consider shareholder return as one of our priority management issues. We have made it a policy to maintain stable dividend payments, giving due consideration to our business performance, the dividend payout ratio for each fiscal period, the level of retained earnings necessary for future growth, and other relevant factors. We aim to maintain a dividend payout ratio of around 30% over the medium-to long-term. The annual dividend in fiscal 2018 was 22 yen (dividend payout ratio 30.5%), and our planned annual dividend for fiscal 2019 is 22 yen (dividend payout ratio 36.0%), the same as that in fiscal 2018. We will continue to sustainably improve corporate value by improving capital efficiency and strengthening our financial structures, thereby meeting the expectations of our shareholders.

Our Policy for the Corp	orate Business Plar	1	-		
1. Generate o	ash flow from alrea	ady implemented capita	l expe	nditures and investment	ts as planned
2. Manage co	osts and assets thro	ugh disciplined financia	l opera	ations	
W F: : ID (	1 2 4		_		
Key Financial Performa ROE	nce indicators ROI	D/E ratio		Dividend payout ratio	Profit growth
Over 10%	Over 7%			Approx. 30%	Over 7% per year
7 Approx. 30 % Over 7 % per year					
Cash Flow Targets		_			
Cash Flow Targets					(Billions of yei
Cash Flow Targets		FY2013-FY2015		FY2016-FY2018	· ·
	ng activities	FY2013-FY2015 716.4		FY2016-FY2018 687.2	· ·
Cash flows from operatin					FY2019-FY2021 Target
Cash flows from operatin		716.4		687.2	FY2019-FY2021 Target
Cash flows from operatir Cash flows from investin Free cash flows	g activities	716.4 (245.5)		687.2 (541.1)	740.0 (815.0)* (75.0)
Cash flows from operatir Cash flows from investin Free cash flows	g activities	716.4 (245.5)		687.2 (541.1)	740.0 (815.0)* (75.0)
Cash Flow Targets  Cash flows from operating Cash flows from investing Free cash flows Including investment in Rabigh Planting Interest-bearing liabilitie	g activities  nase II project	716.4 (245.5) 470.9		687.2 (541.1) 146.1	(815.0)*

# FY2019-FY2021 Corporate Business Plan

## Change and Innovation 3.0: For a Sustainable Future

The new Corporate Business Plan began in April. The slogan for the plan, "Change and Innovation 3.0: For a Sustainable Future," incorporates the meaning of contributing to the creation of a sustainable society through solving issues facing society, which we will do by dramatically improving productivity through digital transformation and by accelerating innovation with a focus on the coming "Society 5.0" (ultra-smart society).

It was in fiscal 2013 that we created the Corporate Business Plan slogan "Change and Innovation," and in the past six years, we have steadily moved forward, enhancing our financial strength in phase 1 and further improving our business portfolio in phase 2. For the new Corporate Business Plan, which will be phase 3, we have set six basic policies, including "Accelerate the development of next-generation businesses" and "Improve productivity through digital innovation."

With regard to "Accelerate the development of nextgeneration businesses," we have set out four focus areas, which are Healthcare, Reducing Environmental Impact, Food, and ICT. Through collaboration with partners, such as start-up companies and academic institutions, we aim to not only speed up the development and industrial implementation of new technologies, but also to create continuing innovation, including

Transition of the Corporate Business Plan "Change and Innovation" from FY2013

## FY2013-FY2015

# For the Next Hundredth Anniversary

Strengthening the Foundations of Our Business, with the Aim of Achieving Sustained Growth Over the Next 100 Years

**Basic Policy** 

**Develop Next-generation Businesses** 

**Restructure Businesses** 

**Enhance Financial Strength** 

FY2016-FY2018

## Create New Value

Become a more resilient Sumitomo Chemical that achieves sustained growth

Accelerate the Launch of Next-generation Businesses

**Further Improve Business Portfolio** 

**Generate More Cash Flow** 

**Promote Globally Integrated Management** 

Ensure Full and Strict Compliance, Establish and Maintain Safe and Stable Operations

	(Billions of yen)
	FY2015
Net sales	2,101.8
Operating income	164.4
(Equity in earnings of affiliates)	20.2
Ordinary income	171.2
Net income	81.5
Naphtha price (yen/KL)	42,800
Exchange rate (yen/US\$)	120.15

	(Billions of y
Sales revenue	2,318.6
Core operating income	204.3
Net income attributable to owners of the parent	118.0
Naphtha price (yen/KL)	49,500
Exchange rate (yen/US\$)	110.92

evaluating and implementing systems and organizations to investigate new research areas and commercialize them.

With regard to "Improve productivity through digital transformation," we are setting up large-scale databases, especially databases tied to productivity technology and to R&D, and we are promoting high-level activities using tools such as analytics technologies. In these ways, we aim to dramatically improve productivity on the ground in manufacturing, including increasing the stability of operations and quality. In R&D, we will work on initiatives such as shortening material search and design periods through broader application of materials informatics (MI), as well as creating new insights that cannot be reached through empirical development.

With regard to "Further improve business portfolio" and

"Build a more robust financial structure," we will steadily collect cash flows from the capital investments and loans that we have implemented. We will also enhance our financial strength by rationalization and improvement of the cash conversion cycle (CCC).

With regard to "Employ, develop and leverage human resources for sustainable growth" and "Ensure full and strict compliance and maintain safe and stable operations," we will continue to strengthen these initiatives because they serve as a source of strength for sustainably maintaining our businesses and for achieving further growth.

We will work on these initiatives in the Corporate Business Plan, and achieve sustained growth for Sumitomo Chemical and build a sustainable society by creating both economic and social value.

## FY2019-FY2021

## For a Sustainable Future

Contributing to the Creation of a Sustainable Society by Accelerating Innovation

Accelerate the Development of Next-generation Businesses	<b>&gt;</b> P22		
Improve Productivity through Digital Innovation	<b>&gt;</b> P68		
Further Improve Business Portfolio			
Build a More Robust Financial Structure	<b>&gt;</b> P18		
Employ, Develop and Leverage Human Resources for Sustainable Growth			
Ensure Full and Strict Compliance and Maintain Safe and Stable Operations			

	(Billions of yen)  FY2021 Target
Sales revenue	2,950.0
Core operating income	280.0
Net income attributable to owners of the parent	150.0
Naphtha price (yen/KL)	51,000
Exchange rate (yen/US\$)	110.00

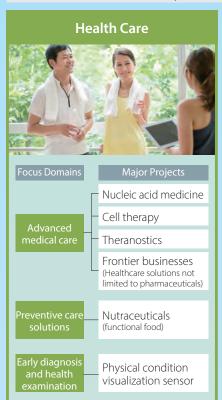
	FY2021 Target	Targets Consistently achieve the following targets
ROE (%)	12.5	Over 10%
ROI (%)	7.1	Over 7%
D/E ratio (times)	0.7	Approx. 0.7 times
Dividend payout ratio (%)	_	Approx. 30%
Profit growth* (%)	13	Over 7% per year

\* Annual growth rate of profit attributable to owners of the parent from fiscal 2015

## FY2019-FY2021 Corporate Business Plan

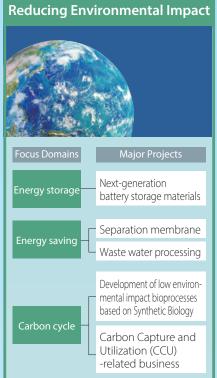
## Accelerate the Development of Next-generation Businesses

Focus Domains in the Four Priority Areas

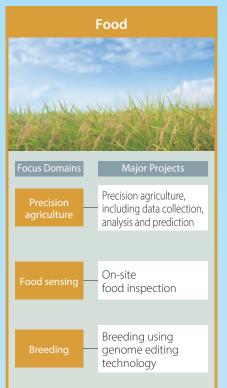


With the advent of a super-aging society, the reduction of medical and nursing costs, the improvement of QoL, and the extension of healthy life expectancy will be important social issues. We will continue to contribute to solving these social issues in the future by making use of our accumulated technologies and expertise in the health and crop sciences business and pharmaceutical business.

Specifically, we will combine the organic synthesis and biological mechanism analysis technologies with other technologies that we have developed over the years, and work on the development of advanced medical services, such as nucleic acid medicine, cell therapies, and theranostics (the fusion of therapy and diagnostics) that use radioactive isotopes. We will also develop preventive care solutions, such as functional foods, as well as techniques for early diagnosis and health checkups.



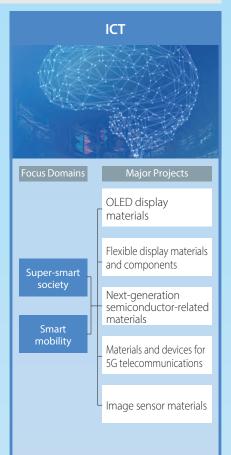
In recent years, interest in measures to combat global warming has rapidly increased, including the Paris Agreement and the circular economy. Environmental conservation issues, such as plastic waste, are also urgent social issues. We will contribute to the solution of these social issues by developing technologies that contribute to reducing the impact on the environment, while utilizing organic synthesis, polymer synthesis, and catalyst design technologies that have been developed up to now, while also actively incorporating external technologies. In the field of energy storage, we are advancing the development of materials for next-generation batteries and solid batteries that help reduce greenhouse gases. In the field of energy savings, we will work to develop CO<sub>2</sub> separation membranes to improve energy efficiency and waste water treatment processes with less environmental impact. In the area of carbon cycle, we will also develop bioprocesses utilizing synthetic biology, and develop the manufacturing processes of chemical products through CCU.



The world's population is expected to reach 9.8 billion by 2050, and due to concerns over food shortages caused by population growth, there is a need for efficient food production with a limited labor force and farmland. In addition, with regard to the issue of food loss, it is necessary to reduce the lead time from production to consumption, and to visualize safety and security.

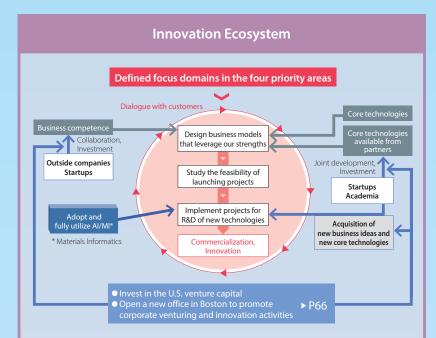
We will accelerate the development and provision of solutions based on precision agriculture, such as effective spraying of pesticides and fertilizers and prediction of yields, by utilizing data science, while developing farming and other techniques we have developed over many years in the health and crop science businesses to achieve efficient food production. We will also develop practical on-site food inspection technology at each distribution stage of food products, and develop improved varieties using genome editing technology.

We will work with startup companies and academic institutions to speed up development and commercialization in four priority areas and to create continuous innovation.



We are developing various ICT-related materials to contribute to Society 5.0 (ultra-smart society) and smart mobility.

We are developing inkjet printable OLED display materials and flexible display materials and components, such as window film. For 5G telecommunications, we will develop high frequency substrate materials (liquid crystal polymers) for semiconductor packages and develop compound semiconductor materials, such as GaN (gallium nitride) epiwafers. We will also work on the development of organic photodiode materials for the next-generation of optical image sensor devices.



In order to ensure that R&D and business development in the four priority areas will steadily lead to the creation of next-generation businesses, we will construct an innovation ecosystem (a system that creates continuous innovation), as shown in the diagram above.

First, we will determine areas we need to strengthen in the four priority areas and distinguish the core technologies that we have and core technologies available from partners in order to design business models that take advantage of our strengths in each of the four priority areas. We will consider the feasibility of potential projects by determining whether we can acquire any needed technologies through collaboration with startups and academia, and whether we can supplement any deficiencies in business competencies through partnerships with, or investments in, external companies and startups.

At each stage of the promotion of the project, close communication with related departments within the company, as well as with external partners and clients, will be made, and feedback will be appropriately reflected in order to shorten the development period. In addition, digital technologies, such as Al and materials informatics, will be fully utilized to accelerate development. Furthermore, we will incorporate new ideas and technologies that have emerged into our promotion of projects and our communication with partners, leading to the creation of continuous innovation.



## **ESG Strategies**

This section introduces the various ESG initiatives that the Sumitomo Chemical Group is strategically pursuing.



## Strategy 2

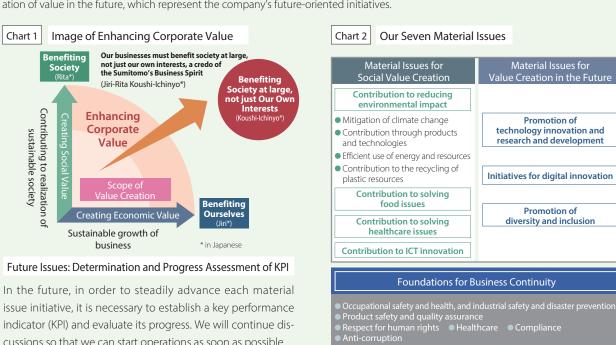
## **Identifying the Most Important Issues for Management Initiatives**



## Seven Material Issues Identified

The basic principles for promoting sustainability define our efforts of promoting sustainability as "contributing to the establishment of a sustainable society while achieving the sustainable growth of our business," thereby aiming to enhance our corporate value (Chart 1).

The seven material issues (Chart 2) have been identified to serve as beacons navigating our initiatives towards contributing to the establishment of a sustainable society in March 2019. They focus on issues of material importance mainly from two perspectives: those for the creation of social value, which are initiatives directly related to Sumitomo Chemical's current businesses, and others for the creation of value in the future, which represent the company's future-oriented initiatives.



cussions so that we can start operations as soon as possible.

## Promoting Disclosure of Information on Addressing Climate Change



## **Initiatives for TCFD recommendations**

## Objectives of TCFD Recommendations

- Supporting companies to disclose information about climate-related risks and opportunities
- Stabilizing the financial market by smooth transition to a low-carbon society



#### Sumitomo Chemical's Efforts

Sumitomo Chemical has viewed global climate change as one of the highest-priority challenges facing society, and to solve this problem, Sumitomo Chemical is actively working to reduce greenhouse gases by taking advantage of the technology we have cultivated as a diversified chemical company. We hope to secure the trust of society by using the framework of TCFD recommendations and actively communicating our efforts, with the recognition that disclosing information on addressing climate change reflects the demands of the

current era.

We consider that initiatives to implement the TCFD recommendations around the world have just begun. We hope to contribute to the development of guidance through dialogue with investors and companies while also learning best practices through participation in external initiatives. We will also strive to enhance our disclosure of climate-related risks and opportunities, while also considering better governance practices in addressing climate change.

## Our Efforts through Participation in External Initiatives

June 2017	Supported TCFD recommendations concurrently with their publication		
From August to December 2018	Joined in the TCFD Study Group led by the Ministry of Economy, Trade and Industry (METI) This group studied the way in which Japanese companies disclose information to evaluate their strengths.  December 2018: METI issued TCFD guidance		
Since December 2018	Joined WBCSD* TCFD Preparer Forum  July 2019: WBCSD issued TCFD chemical sector guidance  *World Business Council for Sustainable Development		
Since May 2019	Joined the TCFD consortium established by Japanese industrial and financial communities		

## TCFD related Disclosure in the Annual Report 2019

Recommended Disclosure Items in TCFD Recommendations	Required Content	Disclosure in the Annual Report 2019	Referenced Page
Governance	A designated executive responsible for addressing climate change, and explanation of the governance structure	Deliberations by such formal groups as the Management Meeting, Sustainability Promotion Committee, and Responsible Care Committee	P70-71 P84-85
Risk Management	A climate-related risk assessment process	A process in which climate-related risk is assessed as one of the principal risks	P70-71
Strategy	Explanations of business strategies to address climate-related risks and opportunities	Responding to risks: Initiatives to achieve Science Based Targets and others	P26-27
Metrics and Targets	Explanations of targets and progress in response to climate-related risks and opportunities	Seizing business opportunities: Sumika Sustainable Solutions and others	P70-71

## **Responding to Climate-related Risks**

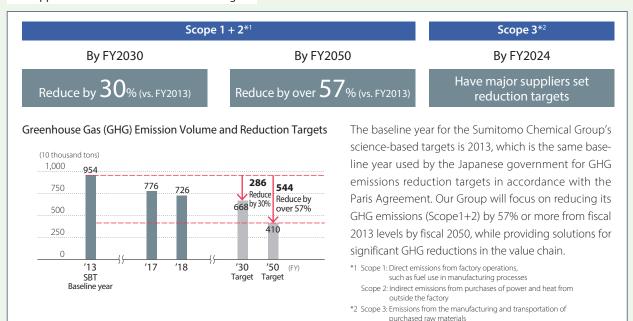


## Gained Approval from the Science Based Targets Initiative

Science-based targets (SBTs) are greenhouse gas emissions reduction targets set by companies, based on climate science, to meet the 2015 Paris Agreement goal of keeping the increase in global average temperatures to below 2°C compared to pre-industrial temperatures. In October 2018, Sumitomo Chemical gained approval from the Science Based Targets initiative for the company's Group-wide greenhouse gas emissions reduction targets. Sumitomo Chemical is the first diversified chemical company in the world to have obtained this approval.



#### **Our Approved GHG Emissions Reduction Targets**



## Concrete Initiatives

## Establishment of Niihama LNG Co., Ltd.

In April 2018, Sumitomo Chemical established Niihama LNG Co., Ltd. with Tokyo Gas Engineering Solutions Corporation, Shikoku Electric Power Company, Incorporated, Sumitomo Joint Electric Power Co., Ltd., and Shikoku Gas Co., Ltd. The main business of the company is to construct a new liquefied natural gas facility at the Sumitomo Chemical Ehime Works, and then to supply gas to the Sumitomo Chemical Ehime Works' premises and the natural gas-fired power plant established by Sumitomo Joint Electric Power Co., Ltd. The new facility is scheduled to commence operations in February 2022. The five companies will utilize their business know-how to the fullest extent, promoting greater use of environmentally friendly natural gas, and stable and efficient energy utilization.

## Sumitomo Joint Electric Power Launched Carbon Dioxide Production and Supply Business

\*3 Suppliers accounting for 90% of purchased raw materials by weight

In July 2018, Sumitomo Joint Electric Power Co., Ltd., a Sumitomo Chemical Group company, began separating and recovering carbon dioxide (CO<sub>2</sub>) from the exhaust gas from Unit 3 of the Niihama West Thermal Power Station, and manufacturing CO<sub>2</sub> for use as a secondary raw material for the methionine production facility at the Sumitomo Chemical Ehime Works, which was expanded in 2018. This project is the first attempt in Japan to utilize the CO<sub>2</sub> of coal-fired thermal

power plants. By effectively utilizing CO<sub>2</sub> generated at thermal power stations, we can reduce CO<sub>2</sub> emissions.



## Quantifying the Contributions of Businesses to Global Environmental Issues

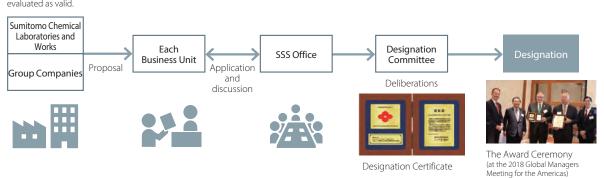
## Sumika Sustainable Solutions

As a concrete initiative to contribute to reducing environmental impact, which is one of our material issues, we have designated those of our products and technologies that contribute to such issues as global warming countermeasures, reducing environmental burdens, and effective use of resources, as Sumika Sustainable Solutions (SSS). By promoting the development and widespread use of these products and technologies, the Sumitomo Chemical Group is offering solutions that will help build a sustainable society and striving to create both economic and social value. In addition, we quantify our contribution to global environmental issues by calculating sales revenues of SSS-designated products and technologies and the amount they contribute to the reduction of greenhouse gases.

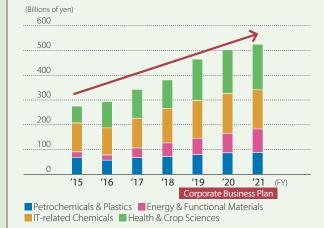
۸۷۵۵	Designation Descriptores
Area	Designation Requirements
Addressing Climate Change	Contribute to reducing greenhouse gas emissions
	Products or materials used in the creation of alternative energy
	Use biomass-derived raw materials
	Contribute to adapting to the climate change impacts
Reducing Environmental Impact	Contribute to reducing waste, hazardous substances, and other environmental burdens
	Contribute to reducing environmental impact in food production
Effective Use of Resources	Contribute to the realization of recycling and resource saving
	Contribute to the efficient use of water resources

## **SSS Designation Process**

The Designation Committee officially designates products and technologies as SSS after they have been proposed for certification by laboratories, production facilities, or Group companies. In addition, the designated cases have been verified by a third-party institution, and the results of the internal designation have been evaluated as valid.

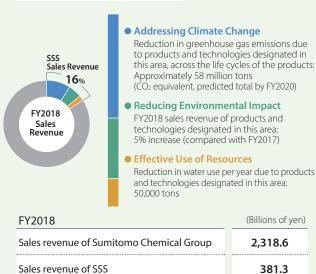


## Sales Revenue of Designated Products and Technologies



A total of 48 products and technologies have been designated so far, and Sumitomo Chemical aims to quickly double their sales revenue compared with FY2015.

## Breakdown by Designation Area



## **Responding to Plastic Waste Issues**



## Collaboration with Companies Involved in the Plastic Value Chain

#### Sumitomo Chemical's Efforts

Plastics make our lives convenient and rich as materials used for a variety of applications, ranging from vehicles and airplanes to consumer products, but they have major challenges for post-use disposal and reuse. To solve these issues, it is necessary for companies involved in the plastic value chain to work together to consider and promote innovations to solve them, and to consider and promote global initiatives in such areas as waste plastic recovery, building infrastructure for processing, education and dialogue, and measures to prevent their discharge to the ocean.

Sumitomo Chemical, in addition to its efforts as an individual company, has been working to advocate for contributory measures based on scientific perspectives while collecting the latest findings by organizing these issues into (1) the problems related to the use, disposal and recovery of plastics; (2) the problem of microplastics; and (3) the problem of plastic substitutes.

## Our Efforts through R&D and Products

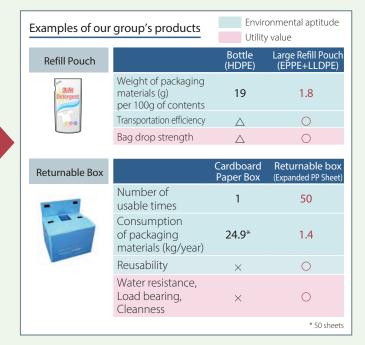
## The Direction of R&D in Petrochemicals & Plastic Sector

We strive to promote R&D of plastic products that contribute to 3Rs (reduce, reuse, recycle), and to enhance their environmental appropriateness and utility value.

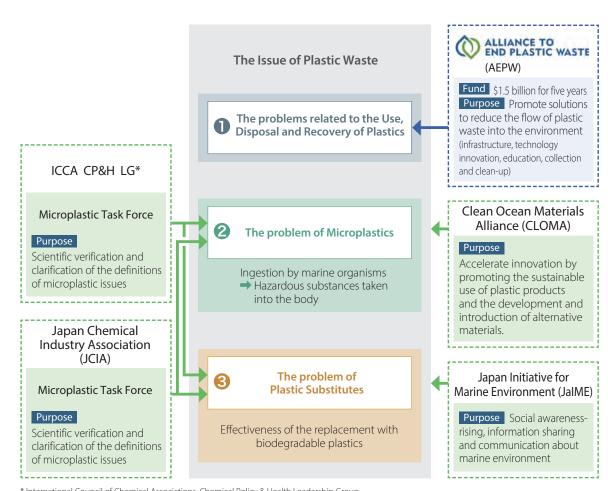


Longer Product Life

Promotion of Reusable Products



## Our Efforts through Participation in External Initiatives



<sup>\*</sup> International Council of Chemical Associations, Chemical Policy & Health Leadership Group

Sumitomo Chemical is participating as a founding member in the Alliance to End Plastic Waste (AEPW), which was launched in January 2019, a global initiative that promotes efforts to reduce and prevent plastic waste. We are planning and implementing individual projects in cooperation with companies and other organizations, especially AEPW members involved in the value chain of plastics.

We are also actively participating in the Clean Ocean

Materials Alliance (CLOMA) and Japan Initiatives for Marine Environment as efforts to reduce marine plastic waste, and we are considering plans for contributing to the resolution of these issues.

In addition, we are participating in the International Council of Chemical Associations (ICCA) and the Japan Chemical Industry Association (JCIA), and are working together in discussions on microplastic substitutes based on sound science.

## One Year at Sumitomo Chemical

In fiscal 2018, the last year of the previous Corporate Business Plan, profits decreased compared with the previous year, when the company achieved record profits. At the same time, Sumitomo Chemical has steadily promoted initiatives leading to future growth, including the completion of a high-purity chemicals plant for semiconductors and the start of commercial production at the new methionine plant. It was also a year in which the company promoted efforts to maintain the sustainability of the company itself and of society as a whole, including establishing the Sustainability Promotion Committee and identifying material issues.

## **News Items by Business Sector**

#### Pharmaceuticals

Sumitomo Dainippon Pharma launched LONHALA® MAGNAIR®, a treatment for chronic obstructive pulmonary disease (COPD) in the U.S.



## **Petrochemicals & Plastics**

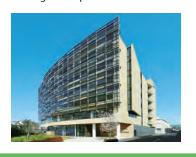
Developed PMMA-based light and strong transparent resin.



Made a polarizing film manufacturing company in Wuxi, China into a subsidiary.

#### Health & Crop Sciences

Newly established Chemistry Research Center (CRC) in Takarazuka and began its operations.



## Pharmaceuticals

Sumitomo Dainippon Pharma obtained approval in Japan for TRERIEF, a therapeutic agent for Parkinson's disease, to add an additional indication of parkinsonism in dementia with Lewy bodies.

## **Health & Crop Sciences**

Biorational Research Center (BRC) in the U.S. started operation.



2018

**P**24

April

May

June

July

August

September

October

## **Company-wide News Items**

**Established** the "Sustainability Promotion Committee"

## Third Sustainable Tree Project Conducted

Sumitomo Chemical's Sustainable Tree is a project in which Japan and overseas employees can post to a dedicated website about how they can contribute to bringing about a sustainable society, focusing on the SDGs. Through this website, the company introduces

its outstanding initiatives, products, and technologies, leading to mutual awareness-raising and information exchange among organizations and employees.



The Sumitomo Chemical **Group's Greenhouse Gas Reduction Targets** Approved by the Science **Based Targets Initiative** 



**P**26, 70–71

## **Energy & Functional Materials**

Tanaka Chemical Corp. decided to expand production facilities and infrastructure facilities for cathode materials for lithium-ion secondary batteries.



## Health & Crop Sciences

Completed the new methionine plant.



## Health & Crop Sciences

Decided to merge two group companies in India, aiming to increase its presence in the fast growing crop protection market there.

#### Nihon Me

#### Pharmaceuticals

Started a physician-led study of Parkinson's disease using iPS cell-derived dopamine neural progenitor cells, in which Dainippon Sumitomo Pharma Co., Ltd. is working in cooperation with the iPS Cell Research Institute (CiRA) of Kyoto University to find practical applications.

## Petrochemicals & Plastics

The Polyolefin Company (TPC) remodeled part of its line and began full-scale production of polypropylene for separators for batteries.

#### IT-related Chemicals

Invested ¥5 billion in JOLED Inc. by way of acquiring some of JOLED's new shares issued through third-party allocation.

#### IT-related Chemicals

Expanded capacity of a manufacturing facility for film-type touchscreen panels in Korea.

## Pharmaceuticals

Nihon Medi-Physics started construction of CRADLE, a drug discovery facility, in its Chiba location to promote early realization of "theranostics" (fusion of therapeutics and diagnostics).



## **Energy & Functional Materials**

Tanaka Chemical Corp. decided to expand its plant buildings and production facilities for cathode materials for lithium-ion secondary batteries.

Completed a high-purity chemicals plant for semiconductors in Changzhou, China.

## Health & Crop Sciences

Invested in Nileworks, an agricultural drone company, by partial underwriting of a private placement of new shares totaling about 1.6 billion yen.



November December 2019 January February March

## Sumitomo Chemical Acquires CDP's Highest Rating in Corporate Climate Action Survey

CDP is an international non–governmental organization that promotes initiatives by companies and governments toward reduction of greenhouse gas emissions, management of water resources, and conservation of forests. In the CDP's 2018 survey, 126 global companies and 20 Japanese companies were named to the Climate A List, selected

from among about 7,000 companies that disclosed information on their climate change–related activities. Sumitomo Chemical is one of the 20 Japanese companies on the A List.



Material Issues Identified for Sustainable Value Creation

**P**24

## Received a 2018 Best IR Award from the Japan Investor Relations Association (JIRA)

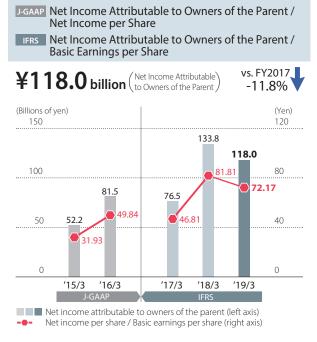
Sumitomo Chemical received a 23rd Best IR Award from the Japan Investor Relations Association. In fiscal 2015, the company received the IR Special Award, but this is the first time it has received a Best IR Award. The purpose of the Best IR Award is to select and recognize companies that have achieved excellent results, including deeply understanding the purpose of IR, actively engaging in IR activities, and gaining the high support of market participants.

## **Financial and Non-Financial Highlights**

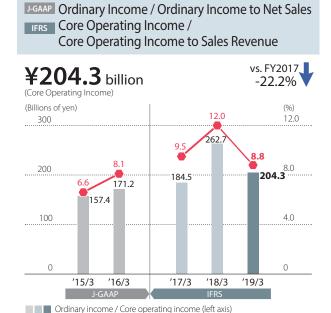
## **Financial Highlights**



Sales revenue increased by 128.1 billion yen from the previous fiscal year due to an increase in shipments accompanying business expansion and a rise in product prices in the Petrochemical & Plastics Sector in line with a rise in raw material prices.



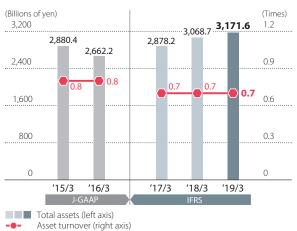
Net income attributable to owners of the parent decreased by 15.8 billion yen compared to the previous fiscal year due to a deterioration in core operating income, despite an improvement in foreign exchange gains and losses and a decrease in the burden of income taxes.



Despite increased shipments in the IT-related Chemicals Sector and the Energy & Functional Materials Sector, core operating income declined by 58.4 billion yen from the previous fiscal year due to the impact of periodic maintenance shutdowns conducted in fiscal 2018 and decreased shipments of agrochemicals caused by extreme weather in North America.

Ordinary income ratio to net sales / Core operating income to sales revenue (right axis)

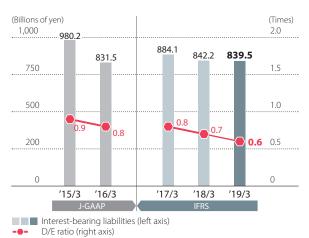




Total assets increased by 102.9 billion yen from the end of the previous fiscal year due to increases in inventories and property, plant and equipment.

## Interest-bearing Liabilities / D/E Ratio





Interest-bearing liabilities remained almost unchanged from the end of the previous fiscal year. On the other hand, due to an increase in retained earnings, total assets increased and the D/E ratio improved.

## ROE / ROI

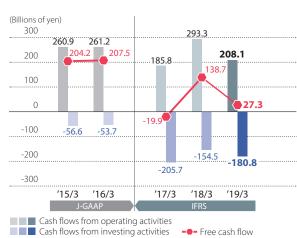


ROE exceeded the goal of 10%, while ROI exceeded the goal of 7%. However, both ROE and ROI declined from the previous fiscal year due to a deterioration in business performance.

## Cash Flows from Operating Activities / Cash Flows from Investing Activities / Free Cash Flow

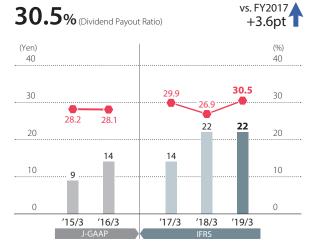






Cash flows from operating activities decreased by 85.1 billion yen from the previous fiscal year due to an increase in working capital and a deterioration in business performance. Cash flows from investing activities increased by 26.3 billion yen due to an increase in payments for the purchase of fixed assets. As a result, free cash flow decreased by 111.4 billion yen.

## Dividend Payout Ratio / Cash Dividends per Share



Cash dividends per share (left axis)

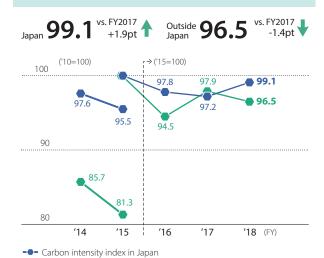
Dividend payout ratio (right axis)

In fiscal 2018, the company paid a full year dividend of 22 yen per share. Consequently, the dividend payout ratio was 30.5%.

## **Non-Financial Highlights**

## Carbon Intensity Index in Japan\* / Carbon Intensity Index outside Japan\*





The reason for the deterioration from the previous fiscal year in the intensity index of  $CO_2$  emissions in Japan in fiscal 2018 is a decline in the capacity utilization rate because of periodic maintenance of factories and other factors. Sumitomo Chemical is working to improve this index, both inside and outside Japan, putting greater focus on saving energy.

\* Index reflects the total production plants of Sumitomo Chemical and its major Group companies that share CO<sub>2</sub> emission intensity index reduction goals.

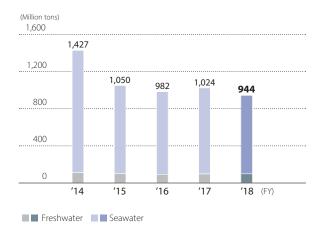
## Water Usage



## 944 million tons

--- Carbon intensity index outside Japan





We will work to reduce water usage through effective use of water, depending on the application, while endeavoring to assess risks to water supplies. Seawater is used for cooling plants and other facilities.

## Greenhouse Gas (GHG) Emission Volume

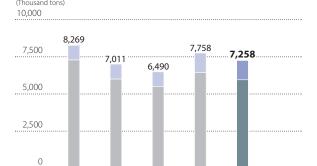


7,258 thousand tons



'18 (FY)

GHG Protocol Standards



′16

17

Greenhouse gas emission volume in Japan
Greenhouse gas emission volume outside Japan

15

′14

The main factors contributing to the year-on-year decline in GHG emissions in fiscal 2018 were the temporary impact of periodic maintenance at Sumitomo Joint Electric Power Co., Ltd., our Group company. We will continue our efforts to achieve the targets certified by the Science Based Targets initiative in the future.

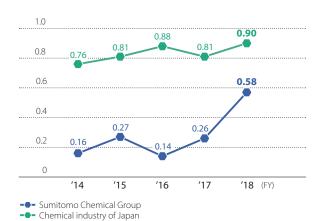
## Lost-workday Incident Rate\*



0.58

measures

vs. FY2017 +0.32pt



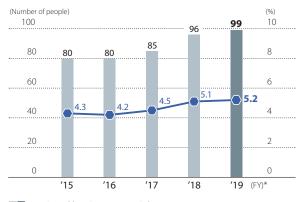
The frequency rate of lost-workday incidents for fiscal 2018 was 0.58, which was far worse than our target of 0.1. We will thoroughly investigate the cause and implement basic safety rules to take preventive

\* Indicates the frequency of industrial incidents as the number of deaths and injuries per one million hours of total work time.

## Number of Female Managers / Percentage of Female Managers (Non-consolidated)







Number of female managers (left axis)

- Percentage of female managers (right axis)

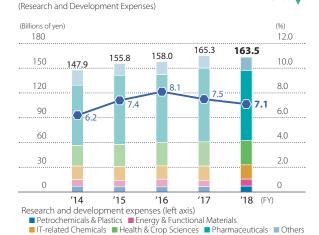
In order to promote the advancement of female employees, Sumitomo Chemical has set a goal of at least 10% of female employees in positions equivalent to managers or above.

\* All numbers as of April 1 of that year

## Research and Development Expenses / Ratio of R&D Expenses to Sales Revenue

# ¥163.5 billion

vs. FY2017 -1.1%

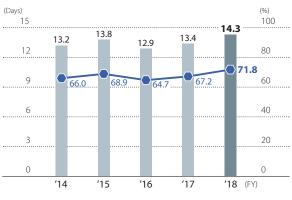


R&D expenses for the previous Corporate Business Plan (FY2016-FY2018) amounted to 486.8 billion yen. The new Corporate Business Plan (FY2019-FY2021), which began in fiscal 2019, is expected to spend approximately ¥540 billion, primarily in specialty chemicals in the Pharmaceuticals Sector and the Health & Crop Sciences Sector.

--- Ratio of R&D expenses to sales revenue (right axis)

#### Number of Days of Paid Vacation Used / Percentage of Paid Vacation Days Used (Non-consolidated)





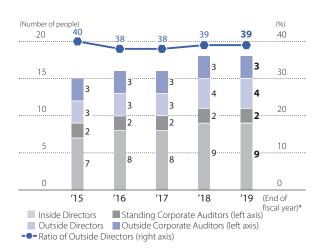
Number of days of paid vacation used (left axis)

Percentage of paid vacation days used (right axis)

Sumitomo Chemical has set numerical targets formulated in March 2018 for promoting the use of annual paid holidays in its action plan to reform workstyles. In fiscal 2018, we achieved our target of an average of 70% per year.

## Directors / Outside Directors / Ratio of Outside Directors and Corporate Auditors

4 (Number of Outside Directors)



With the goal of further strengthening the Board of Directors' oversight and advisory functions to increase the transparency and objectivity of management, in June 2018 we added one outside director, increasing the total number to four (including one female director). As a result, of the 18 total members of the Board of Directors and the Board of Corporate Auditors, seven are outside members.

<sup>\*</sup> FY2019 only as of July 1



Masakazu Tokura, who was appointed Chairman of the Board in April 2019, welcomed two of Sumitomo Chemical's Outside Directors, Koichi Ikeda and Hiroshi Tomono. They reviewed the previous Corporate Business Plan and frankly discussed expectations and challenges for the new Corporate Business Plan, as well as the evolution of corporate governance and the election of a new President.

P20-: Corporate Business Plan

Masakazu Tokura
Chairman of the Board

Koichi Ikeda Outside Director Hiroshi Tomono
Outside Director

# Corporate Business Plan Phases 1 and 2: Producing Steady Achievements

**Tokura** Mr. Ikeda and Mr. Tomono, you were both appointed to be directors in June 2015. Mr. Ikeda, you have provided guidance for nine years since your appointment as a corporate auditor in June 2011, and Mr. Tomono, you have provided guidance for five years.

**Ikeda** When you became President, Mr. Tokura, the top priority was to enhance financial strength. At that time, new businesses and growth strategies were prevalent in many Corporate Business Plans. However, Sumitomo Chemical's first priority was to improve its financial position, and it was able to steadily achieve this goal. As a result, I believe this was the best strategy.

**Tomono** I joined the discussion of the Corporate Business

Plan starting in Phase 2. I think the most outstanding part of Sumitomo Chemical's Corporate Business Plan is that it is a combined plan over a period of nine years (3 Phases of three years each). We have decided on priorities every three years with continuity and without disruption, and have produced results for Phase 1 (FY2013-FY2015) and Phase 2 (FY2016-FY2018).

**Ikeda** Phase 1 has achieved dramatic results, prioritizing enhancing financial strength, and Phase 2 has upgraded our portfolio from bulk chemicals to specialty chemicals. The Energy & Functional Materials Sector appeared to be a bunch of different businesses thrown together when it was launched in 2015, but has grown tremendously over the three years of Phase 2. I once again felt how important it is for companies to set out ideas not only using words, but also by first creating a model in this way.

**Tokura** When we decided to launch another business after the IT-related Chemicals Sector, we considered what businesses we should undertake. We have reached the conclusion that energy and the environment will be the main sources of our business. In response, we created a box for the 'Energy & Functional Materials Sector,' and presented a vision of nurturing and developing businesses in this sector. The IT-related Chemicals Sector and the Energy & Functional Materials Sector have steadily expanded their business scale thanks to the efforts of employees on the ground, although they are still in the process of development.

## Improved the Effectiveness of Governance

**Tomono** So far, we have withdrawn from some of our businesses. As a manager, I have experienced this many times, but it is still difficult in a variety of aspects, including cost and employment. This is why it is important that we have organized processes that are acceptable not only to the Board of Directors, but also to the front-line employees who have worked so hard.

**Ikeda** In this sense, I have a strong impression of withdrawing from the DPF\*1 business. Over the years, Sumitomo Chemical's corporate governance has evolved, and the Board of Directors has begun to actively discuss business risks. I believe that DPF was the first case where the business sector's report, which is the basis for discussion, was a good deal more candid.

**Tokura** We withdrew from the DPF business in November 2017, but we had begun the 'Rotation Report'\*<sup>2</sup> system before then, in fiscal 2015. In fiscal 2016, the Board of Directors began reporting on issues discussed at the Management Meetings and other internal meetings, and it may be said that improvements to fill gaps in information for both inside and Outside Directors have been effective.

**Tomono** Since fiscal 2018, in addition to reporting on the points discussed in the Management Meeting, we have also been talking about the background and context, such as how the original plan changed as a result of the discussion. After understanding that, members of the Board of Directors can decide whether to enter or exit the business.

**Ikeda** We have introduced a series of measures to revitalize the deliberations of the Board of Directors by incorporating requests from Outside Directors. Monitoring of business execution has also become much easier.

# Expectations and Issues for the Corporate Business Plan Phase 3

**Tomono** Regarding Phase 3 (see p.20), even as Outside Director, we received frequent reports starting from the development stage. I feel that this plan was thoroughly discussed within the company, in light of your confidence from succeeding with Phase 1 and 2, and what you have learned from failures. What should be done is well crafted, so the remaining issue is how we should do it. Because the circumstances surrounding Phase 3 are quite different, it is not possible to draw on previous successful experiences. Therefore, it is vital that we not be led astray by past successes, and that we do not focus too much on self-reliance, but rather make good use of external resources.

**Tokura** It is exactly what you pointed out. However, this is easy to say but difficult to do. It is very difficult to change familiar work methods and ideas. Therefore, in order to begin by building a model here as well, we are rapidly moving forward, setting up an Innovation Ecosystem with various startups, and creating innovation centers overseas. Through these initiatives, we aim to accelerate the creation of next-generation businesses.

**Tomono** Another key element of Phase 3 is improving productivity through digital innovation. This involves raising the productivity of plants or improving the efficiency of work in internal departments, and I believe that promoting this in a broader and deeper context will lead to better results.

**Tokura** We understand that. First, we will build a solid data foundation with our existing assets at the core—our organizations and personnel in computational science and process safety engineering—and use that to improve productivity. We included this in our basic policy with the intention of starting from here. Neither the Innovation Ecosystem nor digital innovation will be finished in the next three years, but it is time-consuming so I would like to do it by trial and error, prioritizing speed.

<sup>\*1</sup> Diesel particulate filter (DPF):

Aluminum titanate particulate removal filters for diesel engines. Sumitomo Chemical had manufactured and sold DPF since September 2011. However, we judged it difficult to secure stable earnings over the medium to long term, and announced our withdrawal in November 2017.

<sup>\*2</sup> Rotation Report:

Comprehensive and systematic reporting over a significant amount of time for each sector.



I think the fact that the Nomination Advisory Committee was able to hold effective discussions merits high praise.

— Koichi Ikeda

# Selected the Next President with Transparency and Objectivity

**Tokura** In April this year, I was appointed Chairman of the Board, and Mr. Iwata was appointed to be the new President. We have a non-mandatory Nomination Advisory Committee, which consists of six members: all four Outside Directors, the Chairman of the Board, and the President. In deliberations by the Nomination Advisory Committee, you both actively participated in the discussion.

**Ikeda** For most companies, the Nomination Advisory Committee and the Remuneration Advisory Committee are still non-mandatory. Moreover, there are still few examples of committees functioning effectively. This is the first time at Sumitomo Chemical that the Nomination Advisory Committee, which includes Outside Directors as members, has considered and selected the new President. This is groundbreaking and deserves praise.

**Tokura** Sumitomo Chemical appoints a President by spending plenty of time deliberating matters in the Nomination Advisory Committee, which then advises the Board of Directors. In order to make deliberations by the Nomination Advisory Committee meaningful, it is necessary for the members of the committee to look in advance at potential candidates for the position of President. Therefore, from an early stage, Sumitomo Chemical has worked to increase the number of opportunities for potential candidates to talk with Outside Directors who are members of the Nomination Advisory Committee. This has meant that, where possible, we have had executives below the level of managing executive officer report to the board—in other words, executives who could be candidates to become directors.

**Ikeda** I believe that transparency and objectivity are required of the Nomination Advisory Committee. The appointment of a new president, at least from the standpoint of outside directors, tends to be sudden, but Sumitomo Chemical took a considerable amount of time on this occasion. I think the selection process was reasonable.

**Tomono** I think that taking our time and going through necessary processes helped to increase the transparency of our processes and foster a sense of acceptance among the people involved. As for the content of the deliberations, the next President's qualifications were central.

**Tokura** Yes. Amid the dramatic changes in the business climate, we have focused on examining what qualities are required of the next President. As a result, we all agreed that bold and precise leadership and decisive action are required to lead the company, and discussed several candidates based on this common awareness. We are a company that operates in the diversified chemical field, which has a wide range of businesses. The next President was expected to have the ability to formulate a vision and make proposals regarding what kind of company Sumitomo Chemical aims to be in the future. Furthermore, we are a company with manufacturing, sales, and research functions supported by a large number of employees, both in Japan and overseas in various regions. The next President would need to be a person with the qualities and abilities, including character and insight, to lead this sort of organization. As a result of deliberations from these perspectives, we concluded that Mr. Iwata was the best candidate for the next President, and as a Nomination Advisory Committee, we advised the Board of Directors to this effect. The Board of Directors then resolved and finalized the decision

**Tomono** During this series of processes, Mr. Ikeda and I have thoroughly communicated our experiences as presidents, despite the fact that our industries and business formats differ from those of Sumitomo Chemical. In that sense, I believe that we have fulfilled our role.

## **Future Expectations for Sumitomo Chemical**

**Ikeda** The chemical industry—and this may be true of the diversified chemical industry in particular—is not highly valued by the stock market. I expect the new President and Chairman of the Board, under the new structure, to undertake activities which further expand the strengths and benefits unique to a diversified chemical company, and activities which grow the pesticides and pharmaceuticals businesses.

**Tomono** I believe that we are currently in the process of starting to think about the next 100 years. As the pace of change in the business environment is accelerating, if we imagine what Sumitomo Chemical would like to be 80 years from now, or in other words, around 2100, instead of 100 years, we could lead to concrete business growth in the sense that you mentioned, Mr. Ikeda.

**Ikeda** Looking at Sumitomo Chemical, I feel that companies are established on the history and assets that people have built. Speaking to globalization, over the years, we have been expanding overseas in a way that is closely linked to local communities. I believe that this kind of foundation enables us to consider the next stage of our growth.

**Tokura** Sumitomo Chemical has passed on its philosophy, in the form of the Sumitomo Business Principle, "Our businesses must benefit society at large, not just our own interests. (Jiri-Rita Koushi-Ichinyo)" which emphasizes the importance of earning the trust of society, for about 100 years since its founding. We aim to realize sustainable growth by addressing societal issues by making the most of our three core abilities: our ability to develop innovative solutions by leveraging our technological expertise in diverse areas, our loyal employees, and our ability to reach global markets, which you mentioned earlier, Mr. Ikeda. Corporate governance is the foundation of these efforts, and there is no end to improving or strengthening corporate governance. As Chairman of the Board, I will continue to work to improve the effectiveness of the system. Thank you very much for meeting with me today.



I believe that we are currently in the process of starting to think about the next 100 years.

— Hiroshi Tomono

We are committed to solving societal issues and achieving sustainable growth.

— Masakazu Tokura



# **Sector Information**

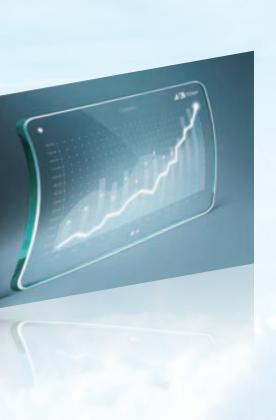
# Taking on Challenges without Limits Will Change the Future

At the end of 1915, when Sumitomo Chemical began manufacturing fertilizer, the company only had about 160 employees. Since then, five business sectors have been born from the wide range of technologies we have developed over many years, as we grew into a diversified chemical manufacturer with about 30,000 employees. The following pages introduce each business sector's initiatives.

- **42** Each Sector Situation
- 44 Petrochemicals & Plastics
- 48 Energy & Functional Materials
- 52 IT-related Chemicals
- 56 Health & Crop Sciences
- **60** Pharmaceuticals



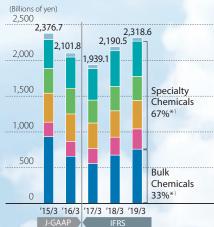






# J-GAAP Net Sales by Business Sector IFRS Sales Revenue by Business Sector

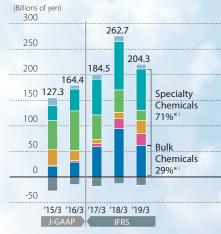
- Petrochemicals & Plastics ■ Energy & Functional Materials
- ■IT-related Chemicals Health & Crop Sciences
- ■Pharmaceuticals ■Others



# J-GAAP Operating Income by Business Sector

IFRS Core Operating Income by Business Sector\*2

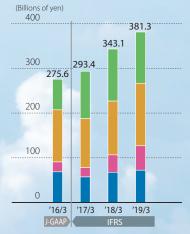
- Petrochemicals & Plastics
- ■Energy & Functional Materials
- ■IT-related Chemicals Health & Crop Sciences
  ■Pharmaceuticals Others Elimination



#### J-GAAP SSS\*3 Sales by Business Sector

IFRS SSS Sales Revenue by **Business Sector** 

- Petrochemicals & Plastics
- Energy & Functional Materials
- ■IT-related Chemicals
- Health & Crop Sciences



#### Change in Business Sector Classification Methods

As of April 1, 2015, the Basic Chemicals Sector was eliminated and businesses in this sector were split and transferred to the Petrochemicals & Plastics Sector and the Energy & Functional Materials Sector that was established as a new business sector. In addition, a part of businesses in the Petrochemicals & Plastics Sector was transferred to the Energy & Functional Materials Sector. Inorganic chemicals, raw materials for synthetic fibers, organic chemicals, and methyl methacrylate that had been included in the Basic Chemicals Sector were transferred to the Petrochemicals & Plastics Sector. Alumina products, aluminum, functional materials, additives, and dyes that had also been included in the Basic Chemicals Sector were transferred to the Energy & Functional Materials Sector. In addition, synthetic rubber that had been included in the Petrochemicals & Plastics Sector was transferred to the Energy & Functional Materials Sector. The business sector categorization of one of the consolidated subsidiaries has been changed. For comparison, the figures for fiscal 2014 have been adjusted to reflect the organizational revision as of April 1, 2015, except for return on assets in the Petrochemicals & Plastics Sector, the Energy & Functional Materials Sector, and the Health & Crop Sciences Sector.

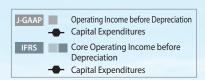
To further strengthen the Energy & Functional Materials business, as of April 1, 2016, battery materials and engineering plastics that had been included in the IT-related Chemicals Sector were transferred to the Energy & Functional Materials Sector. For comparison, the figures for fiscal 2015 have been adjusted to reflect the organizational revision as of April 1, 2016, except for return on assets in the Energy & Functional Materials Sector, and the IT-related Chemicals Sector.

- \*1 Percentages exclude "Others" and various adjustments.
- \*2 Figures on top of each bar in the graph include eliminations. \*3 Sumika Sustainable Solutions

# **Each Sector Situation**

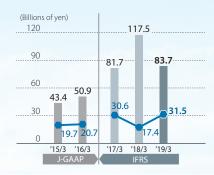




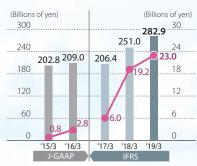






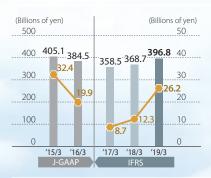








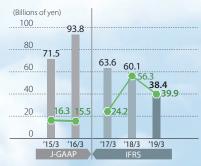






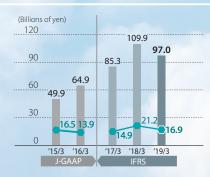














(Billions of yen) (%)
800 760.7 769.6 757.0 16
600 12.8 12
400 3.3 4.0 4

0 15/3 '16/3 17/3 '18/3 '19/3
J-GAAP IFRS

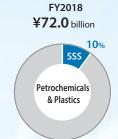


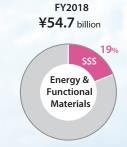






Sumika Sustainable Solutions (SSS) Sales Revenue / Composition of Sales Revenue











#### **Primary Focus SDGs**













#### **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.

#### **Fundamental 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.

#### Priority Initiatives in Fiscal 2018

In fiscal 2018, we began shipping all products at our Rabigh Phase II plant in Saudi Arabia. In Singapore, we also promoted higher value-added products by remodeling polypropylene facilities, replacing some of our previous general-purpose products, such as automobile components, with high value-added products, such as food packaging.

#### Issues in the Future

Our greatest issue at present is getting production at the Rabigh Phase II Project in Saudi Arabia on track as soon as possible to mobilize its initially planned capabilities. We aim to ensure the completion of technology transfer to local personnel and to achieve stable plant operations. Moreover, in Japan and Singapore, we are continuing to put effort into developing high value-added applications for polyolefin, while enhancing our licensing business. In addition, we will work on research and development in carbon cycle chemistry in order to realize a sustainable society.

#### Long-term Vision

Going forward, Sumitomo Chemical 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.

#### Corporate Business Plan for FY2019-FY2021

#### Action Plan

#### Strengthen domestic business

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

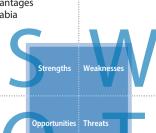
#### Major Issues

- Restructuring of underperforming businesses
- R&D into carbon cycle chemistry, including carbon capture and utilization technologies, to create a sustainable society

(Billions of yen)	FY2018	In Comparison to FY2017	Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
Sales revenue	757.5	+83.4	910.0
Core operating income	61.6	-33.0	49.0
Sales revenue of SSS*	72.0	+4.6	88.0
		* Sur	nika Sustainable Solutions

#### **SWOT Analyses of the Major Businesses**

- 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
- Large and deep markets
- Steady growth in demand



- Relatively small business size compared to the global majors
- Dependence on naphtha, a more expensive feedstock than ethane / shale gas
- Establishment of more cost-competitive new plants
- Cyclical business environment
- Country risks

## Overview of the Major Businesses

#### Polyolefin Business (Polyethylene and Polypropylene)

We operate polyethylene (PE) and polypropylene (PP) manufacturing facilities in Japan, Singapore, and Saudi Arabia with a combined production capacity of 1.66 million tons per year for PE and 1.68 million tons per year for PP.

#### **Market Situation**

Global PE demand is estimated at 100 million tons per year, and that of PP is estimated at 70 million tons per year. Demand for both PE and PP is expected to grow at an annual rate of 4%.

#### **Business Situation**

We aim to further enhance the profitability of our PE business by expanding our business in high value-added applications, such as water-resistant laminate for paper and protective films for LCDs. We are enhancing our PP business in high value-added applications, such as PP compounds for use in automotive components, film materials for high-quality electronic components, and film materials for food packaging.



Products made using polyethylene

#### MMA Business

We manufacture and sell MMA monomers and polymers, and MMA sheets. MMA polymer, which offers outstanding transparency and weather resistance, is an excellent material for a broad range of uses, such as light-guide plates for LED televisions and other optical components, as well as automotive applications, showcases, and outdoor signboards.

#### **Market Situation**

MMA monomer demand is estimated at 3.7 million tons per year, and is expected to grow at an annual rate of 3% to 4%.

#### **Business Situation**

As Asia's major MMA producer, we continue to enhance the competitiveness of its entire MMA product chain, from monomers and polymers to the sheet business.



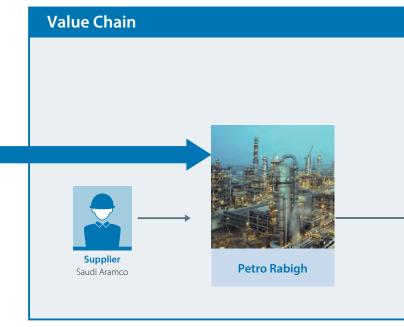
A large aquarium tank made using MMA

# Petrochemicals & Plastics

# Value Creation Model: Rabigh Project

# **System for Providing Added Value**





#### **Competitive Advantages of Rabigh Project**

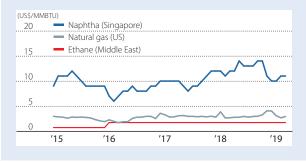
#### Competitive Conditions in the Market

Because the field of petrochemical products is extremely broad, connected with the necessities of life – food, clothing, and shelter – the market is incredibly vast, with massive numbers of players. Petro Rabigh's ethylene production capacity is 1.6 million tons per year.

#### ■ Competitive Advantages

Among a large number of players, Petro Rabigh has outstanding cost competitiveness compared to other companies using naphtha as a feedstock by sourcing cost-competitive ethane from Saudi Aramco for its major feedstock. In addition, because it is a world-scale integrated complex, the company has a low unit cost as another competitive advantage.

#### Cost Difference of Petrochemical Feedstocks



#### **Major Processes Generating Competitive Advantages**

**Production:** Petro Rabigh produces products such as PP, PE, and PO (propylene oxide), using technology licenses from Sumitomo Chemical, which boasts world-class technology. Moreover, the local staffs' operational technique is improving dramatically by receiving training at overseas facilities, particularly in Singapore.

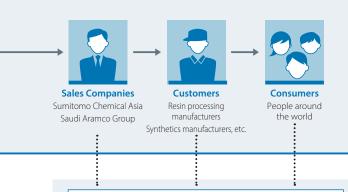
**Sales:** Sumitomo Chemical Asia has taken on the role of supplying products produced by Petro Rabigh in Saudi Arabia to countries across Asia. The company has shortened delivery times and reduced logistics costs by establishing stocking points throughout Asia.

## Earnings Structure and Role in Driving Income

The margins for petrochemical products change depending on the supply and demand balance for each of the various products. On the other hand, because the prices for ethane feedstock are fixed, margins for petrochemical products produced at Petro Rabigh expand when product prices increase, compared with companies that use naphtha as a feedstock. In order to increase the profitability of Petro Rabigh, the company is endeavoring to continue safe and stable operations. In addition, the Phase II plant has begun production of all its products, and we are working to achieve stable operations, with the aim of contributing to earnings as soon as possible.

Petro Rabigh produces a variety of petroleum and petrochemical products using crude oil and cost-competitive

ethane from Saudi Aramco as its primary feedstocks.



#### **Customer and Consumer Needs**

There are cases when customers in regions in Asia and the Middle East have to maintain a significant amount of inventory because there is a risk of difficulty in procuring petrochemical products due to unstable logistic arrangements in this region. Moreover, in cases when customers switch suppliers, it is a burden on customers to adjust the products' processing methods used in customer factories. For these reasons, customers demand accurate and stable product deliveries.



#### **Providing Customer Value**

Sumitomo Chemical Asia, which sells products from Petro Rabigh, offers more reliable product deliveries than the competition, as well as short delivery times, because it has warehouses in locations near its customers. This means it is able to provide a stable supply, and to earn a high degree of trust from customers. 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.

# **Added Value Provided to Society**



# Supporting the Foundation of Peoples' Daily Lives and Strengthening Friendly Relations between Japan and Saudi Arabia

Products produced by Petro Rabigh form the foundation of a wide range of industries, including automobiles, electric appliances, food products, and other daily necessities. In addition, the company is not only contributing to the development of Saudi Arabia by creating employment in the country, it is also contributing to the strengthening of friendly relations between Japan and Saudi Arabia, the world's largest oil producer.

#### **Sumika Sustainable Solutions**

The propylene oxide-only (PO-only) process has been designated as one of the Sumika Sustainable Solutions. This PO-only technology is a ground-breaking, environmentally friendly process that uses heat effectively and limits wastewater, without producing byproducts.



Propylene oxide-only process plant (Chiba)



#### **Business Activities**

The Energy & Functional Materials Sector was created in 2015 by integrating related businesses that had been spread across multiple business units within Sumitomo Chemical, with the goal of developing and strengthening businesses in the fields of the environment and energy. By selling high-performance materials, such as battery materials and super-engineering plastics, we provide solutions that contribute to improving 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 results of our other core competencies: our research and development capabilities as well as our evaluation, manufacturing, and process technologies.

#### **Fundamental 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.

#### Priority Initiatives in Fiscal 2018

In fiscal 2018, we expanded sales of separators, which are experiencing rapid growth due to demand for electric vehicle applications, and began shipments from our new plant of polyether sulfone, which is experiencing growth in demand for aircraft and automotive applications. In addition, we increased production capacity at our resorcinol plants, which continue to operate at high levels, by modifying their facilities in response to strong demand.

#### Issues in the Future

By focusing management resources on new research and development in the fields where Sumitomo Chemical has comparative advantages, and where long-term growth can be expected, we will actively work to develop the core businesses of this sector. In addition, to reliably record profits we are continuing our efforts to improve our earnings capacity for all businesses. Moreover, in our efforts to develop core businesses from a medium to long-term perspective, we aim to promote the development of our  $CO_2$  separation membrane business, which is a promising technology for reducing greenhouse gas emissions, a major global issue.

#### 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.

Corporate Business Plan for FY2019-FY2021			
Action Plan	Major Issues		
<ul> <li>Expand sales of core products (battery materials, super engineering plastics, etc.), accelerate R&amp;D</li> <li>Shift to high value-added products</li> <li>Improve profitability in underperforming businesses and products</li> </ul>	<ul> <li>Create new businesses in the fields of environment and energy and high-performance materials (CO<sub>2</sub> separation membranes, etc.)</li> </ul>		

(Billions of yen)	FY2018	In Comparison to FY2017	Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
Sales revenue	282.9	+31.9	390.0
Core operating income	23.0	+3.8	31.0
Sales revenue of SSS*	54.7	+15.8	95.0
		* Sur	nika Sustainable Solutions

#### **SWOT Analyses of the Major Businesses**

Superior product performance using differentiated technologies
 Reliability of products proved in use by customers
 Strengths Weaknesses
 Cost competitiveness
 Sophistication of performance requirements against the backdrop of increasing battery capacity
 Expansion of the environment- and
 Market decline due to change in EV promotion policies
 Paradigm shift in secondary batteries

#### **Overview of the Major Businesses**

#### Advanced Polymers Business

energy-related markets

Sumitomo Chemical manufactures and sells super engineering plastics, including liquid crystal polymer (LCP) and polyethersulfone (PES). LCP is used mainly in connectors and other electronic components, and PES is used mainly in carbon fiber composite materials in aircraft, because of their heat resistance, dimensional stability, fluidity, and flame retardance.

#### **Business Situation**

Demand for LCP and PES is expanding, as they are expected to reduce the weight of products for downstream applications and reduce the cost of processing. In addition, we are pioneering new applications that take advantage of these features, including use in automotive components.



Super engineering plastics

#### Resorcinol Business

We manufacture and sell resorcinol, which is used as a bonding agent between tire rubber and reinforcing materials, and as a raw material for a wood adhesive used in construction.

#### **Business Situation**

Worldwide demand for resorcinol is estimated at 60,000 tons per year. As the world's top manufacturer of resorcinol, we have an

annual production capacity of over 30,000 tons and supply highly cost-competitive resorcinol by taking advantage of our outstanding manufacturing technology and production capacity.



Resorcinol

#### Inorganic Materials Business

We manufacture and sell high-purity alumina for lithium-ion secondary battery components, low-soda alumina for glass substrates for products such as liquid crystal displays, aluminum hydroxide for artificial marble, and high-purity aluminum for electrolytic capacitors and semiconductor wiring materials.

#### **Business Situation**

Alumina, a high-performance inorganic material that uses

advanced technologies to control physical properties such as particle size and shape, is being used in lithium-ion secondary batteries, which are indispensable for the widespread use of eco-friendly cars, such as electric vehicles, and we are working to expand sales.



Alumina products

#### ■ Battery Materials Business

We manufacture and sell separators for lithium-ion secondary batteries and cathode materials.

#### **Business Situation**

Our separators have been highly esteemed by battery manufacturers for their outstanding heat resistance, reliability and safety, and demand is growing for applications such as electric vehicles, because they are particularly suited for high-capacity batteries. At the SSLM plant in South Korea, established in the fall of 2016, we have expanded production capacity in stages. With regard to the

cathode materials, we converted Tanaka Chemical Corporation into a subsidiary company in 2016. We are pushing forward with an expansion of production capacity and development of new products with high capacity and low electric resistance for applications in eco-friendly vehicles.



Pervio® separators for lithium-ion secondary batteries

# Energy & Functional Materials

# Value Creation Model: **Separators**

## **Major Management Resources (Input)**

#### Intellectual Capital

Sumitomo Chemical holds a basic patent for the aramid coating process. With this patent, we are able to provide added value to customers that is unlike that of ceramic separators from other companies.

#### Human Capital

Sumitomo Chemical has operators with advanced techniques and experience to produce high quality products. We are focusing on technical guidance from veteran to novice operators so as to pass on the techniques.



Inspecting separators at the Ohe Works

# Sumitomo Chemical's Competitive Advantages

#### Competitive Conditions in the Market

The use of coated separators has become mainstream for automotive lithium-ion secondary batteries. In addition to Sumitomo Chemical's aramid separators, coated separators also include ceramic separators, and the majority of the several dozen separator manufacturers around the world manufacture ceramic separators. However, there are only a limited number of manufacturers capable of producing separators used for high capacity automotive batteries like ours.

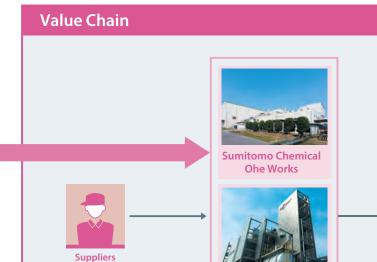
#### Competitive Advantages

Since our aramid separator is superior to ceramic separators in safety (heat resistance) and can reduce the overall weight of an electric vehicle by a couple of kilograms, it is highly regarded by customers.

#### ■ Initiatives to Enhance Competitive Advantages

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. In addition, we are working on development to improve the performance of the separators by using the optimal composition of aramid resin.

# **System for Providing Added Value**



SSLM Co., Ltd.

#### **Major Processes Generating Competitive Advantages**

Raw material manufacturers

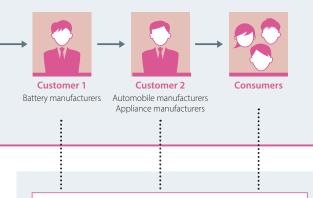
for base film and aramid resin

**Production:** Sumitomo Chemical is 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.

#### **Earnings Structure and Role in Driving Income**

With the spread of eco-friendly vehicles, the separator market is also expanding. Sumitomo Chemical aims to expand sales through increased demand from existing customers and through reaching out to new customers. In addition, we are considering increasing the production capacity of our in-house base film, which offers outstanding cost competitiveness.

Sumitomo Chemical purchases raw materials such as base film and aramid resin, and produces aramid separators by coating the base film with aramid resin. Battery manufacturers combine them with other materials to produce lithium-ion secondary batteries. The final product is widely used in applications like electric vehicles and ESS (energy storage systems).



#### **Customer and Consumer Needs**

Customers and consumers are demanding ecofriendly vehicles with long cruising ranges and low fuel consumption. Safe, high capacity batteries are indispensable for that sort of vehicle. For this reason, our direct customers, the battery manufacturers, seek to manufacture batteries that provide that performance at the lowest possible cost.



## **Providing Customer Value**

In order for battery manufacturers to make safe, high capacity products, Sumitomo Chemical provides thin separators with high heat resistance. Furthermore, we strive to improve productivity in order to provide products with outstanding cost competitiveness. In addition, the company elicits new needs from customers in regular meetings, and works to develop products to meet those needs.

# **Added Value Provided to Society**



# Contributing to Climate Change Countermeasures and the Spread of Eco-friendly Vehicles through the Separator Business

The shift to eco-friendly vehicles is accelerating due to the strengthening of environmental regulations around the world. Under these circumstances, separators are indispensable to the spread of these vehicles. Sumitomo Chemical contributes to climate change countermeasures through our separator business.

#### **Sumika Sustainable Solutions**

Separators, essential components in producing high density, high capacity and safe lithium-ion secondary batteries, have been designated as one of the Sumika Sustainable Solutions. Eco-friendly vehicles featuring lithium-ion secondary batteries can reduce energy consumption in comparison to gasoline-powered cars.



Pervio® separators for lithium-ion secondary batteries



#### **Business Activities**

Sumitomo Chemical's IT-related Chemicals Sector contributes to innovation in display technology by providing display manufacturers with highly functional materials that contribute to improved display performance. In addition, the sector contributes to improving semiconductor performance and productivity by providing high-quality semiconductor materials to semiconductor manufacturers.

#### Core Competence

Locating our production centers near customer manufacturing sites, we strive to foster good relationships with customers, to be quick to apprehend their needs, and to build market needsdriven supply chains that reflect these needs in the development and supply of products. The advantages our company brings to this field are this development and supply approach, our material development capability as a diversified chemicals manufacturer, our product development ability, as well as our processing technology in the display materials business.

#### **Fundamental Strategy**

Now, in order to respond to the generational shift in display technology from LCD to OLED, we are working to expand our OLED business and transform the cost structure of our LCD components business. In addition, we are also focusing on developing semiconductor materials that support increasingly sophisticated semiconductor manufacturing technologies, as well as expanding our production capacity.

#### **Corporate Business Plan for FY2019-FY2021**

#### Action Plan

- Structural reform of polarizing film
   business
- Secure returns from the investment in the semiconductor materials business
- Expand touchscreen panel product portfolio

#### Major Issues

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

#### Priority Initiatives in Fiscal 2018

In fiscal 2018, we not only expanded sales of polarizing films for OLED displays, we also made progress in the development of components for flexible displays. As for LCD components, we expanded sales of polarizing films for TVs, which are becoming increasingly large in size, and expanded sales of polarizing films for full-screen smartphones.

#### Issues in the Future

Going forward, by developing new products and expanding production capacity at the appropriate times, we aim to expand our polarizing film businesses and touchscreen panel business for OLED displays. As for LCD components, we will continue to improve our cost competitiveness, and we also aim to expand our business in the Chinese market, which is expected to grow. Moreover, we are working to pioneer new applications and develop new customers in the semiconductor materials business. We will also nurture next-generation businesses, such as smart mobility and next-generation devices.

#### Long-term Vision

In this way, utilizing Sumitomo Chemical's strengths, we will expand the scale of our business and increase profitability by providing new materials and solutions that anticipate developments in the ICT industry.

(Billions of yen)	FY2018	In Comparison to FY2017	Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
Sales revenue	396.8	+28.1	520.0
Core operating income	26.2	+13.9	35.0
Sales revenue of SSS*	139.8	+19.5	158.0
		* Sumika Sustainable Solutions	

#### **SWOT Analyses of the Major Businesses**

- Offering a wide range of display materials
- Established market needs-driven global supply chains
- Material development capabilities as a diversified chemical company
- Nano-level micro surface analysis technology

• Fast-growing organic LED displays market

Expanding Chinese semiconductor market

Rising demand for flexible displays

- Strengths Weaknesses

  Opportunities Threats
- Heavy reliance on some specific products
- High sensitivity to exchange rate movements
- Intensifying competition in the maturing LCD market

# Overview of the Major Businesses

#### OLED-related Materials Business

Sumitomo Chemical provides OLED components, such as touchscreen panels, circular polarizing films, and Ag etchant.

#### **Business Situation**

The use of OLED displays in smartphones is expanding, and we are focusing on expanding sales of touchscreen panels and circular polarizing films. We have a high market share in these products. In addition, we are working to develop materials for foldable displays, which are attracting attention as next-generation displays. In addition to materials such as window films, which replace cover glass, flexible touchscreen panels, and polarizing films, we are working to develop products that will integrate the functions of multiple materials into a single material in the future, aiming to further expand our OLED materials business. We are also working to commercialize polymer OLED materials that will enable the manufacture of large-scale OLED displays at low cost.

# 240-

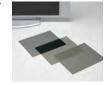
#### LCD-related Materials Business

Sumitomo Chemical offers a wide range of LCD components, including polarizing films, color filters, and color resists.

#### **Business Situation**

We operate production facilities in various countries in East Asia, and have forged strategic partnerships as a prime supplier for major LCD manufacturers. We are focusing on expanding sales of high value-added products, such as polarizing films for ultralarge TVs, by utilizing competitive in-house materials, such as acrylic polarizer protective films. We are also working to improve

the productivity of polarizing films by consolidating production items between production sites.



Polarizing films

#### Semiconductor Materials Business

Sumitomo Chemical offers a variety of semiconductor materials, such as photoresists, aluminum sputtering targets, compound semiconductor materials, and high-purity chemicals used in semiconductor manufacturing, including sulfuric acid, hydrogen peroxide solution, and ammonia water.

#### **Business Situation**

Photoresists are photosensitive resins used in semiconductor manufacturing processes. As semiconductor manufacturers are adopting processes to etch finer circuits, we are working to develop cutting-edge ArF immersion photoresists, and have the largest share of the global market for this product. We also anticipate growth in sales of GaN epiwafers and GaAs epiwafers for high frequency devices used in 5G communication wireless base stations and 5G devices.

Photoresists

# IT-related Chemicals

# Value Creation Model: Circularly Polarizing Film for OLED Displays

# **Major Management Resources (Input)**

#### Intellectual Capital

Sumitomo Chemical conducts research and development based on compound synthesis technology developed through the development of a wide range of products as a diversified chemical manufacturer.

Social and Relationship Capital We connect product design with a timely grasp of customer needs, using relationships of trust with customers developed over many years.



# **System for Providing Added Value**

## **Value Chain**

#### [OLED Displays Currently on the Market]

Sumitomo Chemical manufactures liquid crystal coated-type retardation film based on proprietary technology, processes it into the final product, circularly polarizing film, and ships it to customers.



#### Sumitomo Chemical's Competitive Advantages

#### Competitive Conditions in the Market

Several companies that manufacture polarizing film are competing to improve quality in anticipation of adoption for use in flexible OLED displays.

#### Competitive Advantages

Sumitomo Chemical's unique strength is a liquid crystal material that can be used for circularly polarizing film for OLED displays. This liquid-crystal material, developed in-house, offers outstanding functionality, including preventing reflections from light sources such as sunlight or indoor lighting, and displaying real blacks that do not change 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.

#### ■ Initiatives to Enhance Competitive Advantages

Sumitomo Chemical is pushing ahead every day on the development of liquid crystal materials that will contribute to even better image quality for OLED displays. In addition, in order to meet demand that is expected to grow in the future, the company is considering economically superior synthesis processes and manufacturing facility, with the goal of also improving cost competitiveness.

## **Major Processes Generating Competitive Advantages**

Research: Sumitomo Chemical is conducting research on liquid crystal materials that can coat films. In order to produce phase contrast and polarizing functionality using liquid crystal materials, the liquid crystal molecules that are the raw material must be systematically oriented in a specific direction. Sumitomo Chemical is working to develop molecular designs that will achieve this. Moreover, the company is also devising production processes to manufacture the newly developed liquid crystal material and coat it onto film without harming its functionality.

#### **Earnings Structure and Role in Driving Income**

The market for OLED displays (on a revenue basis) is expected to expand even further going forward. It is anticipated that in 2025, the OLED TV market will be five times its current level, while the market for smartphones using OLED displays will be about 1.4 times its current level. Sumitomo Chemical will increase its earnings capacity by expanding sales and improving productivity.

# **Added Value Provided to Society**

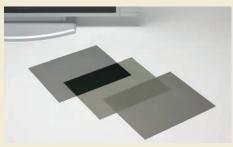


# **Creating More Affluent and Convenient Lives for People**

By developing and manufacturing circularly polarizing films for OLED displays, Sumitomo Chemical is contributing to the creation of entirely new products. The company will continue to provide new materials and solutions going forward, enabling people to lead more affluent and convenient lives.

#### **Sumika Sustainable Solutions**

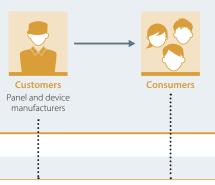
The UV adhesive curing process in polarizing film manufacturing has been designated as one of the Sumika Sustainable Solutions. Manufacturing polarizing film, which is made by pasting together multiple sheets of film, previously used a great deal of electricity in the heated drying process for the water-soluble glue. By adopting a UV adhesive curing process that uses ultraviolet curing technology, Sumitomo Chemical was able to significantly reduce the amount of power consumed in this process.



Polarizing films

#### [Next-generation Flexible Displays]

We provide panel manufacturers with circularly polarizing film featuring liquid crystal coated-type retardation film, and the panel manufacturers work to develop foldable displays, which are expected to be the next-generation display technology.



#### **Customer and Consumer Needs**

Customers are continuing to develop foldable smartphones, which have not yet been launched, and devices using panels that can be rolled up like paper or cloth. Because this cannot be done using existing circularly polarizing films, panel manufacturers need a next-generation circularly polarizing film.



#### **Providing Customer Value**

Customers are designing next-generation displays in order to create entirely new devices. For this reason, Sumitomo Chemical is working with customers to repeatedly conduct trial and error process for circularly polarizing film, which is a component of these new devices, in an effort to provide the performance customers need in terms of thinness and strength when bent.



#### **Business Activities**

Sumitomo Chemical's 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

Sumitomo Chemical globally distributes not only excellent chemical crop protection products developed in-house, but also unique biorational crop protection/enhancement products and post-harvest solutions with high market shares. In addition to our range of unique crop protection products and the research and development capabilities that have been creating them, the strength of Sumitomo Chemical's Crop Protection and Enhancement business lies in its global distribution channels. And in our methionine business, Sumitomo Chemical offers a stable supply, with integrated production from raw materials using advanced production technology.

#### **Fundamental Strategy**

Currently, Sumitomo Chemical is working on further enhancing the strength of our crop protection products and agricultural materials, expanding our global footprint (our own distribution network), and maximizing earnings of existing products. In addition, we have expanded our methionine production capacity, in an effort to solidify our position as the leader in this business in Asia.

#### Priority Initiatives in Fiscal 2018

In fiscal 2018, we continued development of next-generation crop protection products and submitted registration applications in various countries. We also further strengthened our research and development capabilities, beginning operations at the newly established Chemistry Research Center in Japan, which serves as our global discovery and innovation base, and at the Biorational Research Center in the U.S., which serves as a research and development base for our biorational business. In addition, the new methionine plant was completed and began shipments.

#### Issues in the Future

Sumitomo Chemical aims to accelerate the development of nextgeneration crop protection products to enable the earliest market launch and will also work on expanding our biorational and post-harvest businesses where we have competitive advantages. Furthermore, we will seek to expand our business opportunities further by strengthening collaborations with our partners from which we have acquired shares or with which we have formed alliances. We are also working to further strengthen our global sales structure for methionine, as we have increased its production capacity.

#### Long-term Vision

We continue to aim to expand the scale of our businesses by contributing to solving global issues related to food, health, hygiene, and the environment by leveraging our research and development capabilities.

#### Corporate Business Plan for FY2019-FY2021

#### **Action Plan**

- 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

#### Major Issues

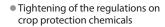
- Establish a global footprint in the crop protection business
- Further strengthen the crop protection business (agriculture-related supplies, precision agriculture)

(Billions of yen)	FY2018	In Comparison to FY2017	Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
Sales revenue	338.1	-1.6	480.0
Core operating income	19.7	-24.2	75.0
Sales revenue of SSS*	114.7	-1.8	184.0
		* Sur	nika Sustainable Solutions

#### **SWOT Analyses of the Major Businesses**

- 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 overseas agrochemical companies
- Offering total solutions
- Increasing food demand due to the growing global population
- Growing agriculture-related businesses
- Opportunities in peripheral and downstream segments of the household insecticide business

- Relatively small business size compared to the competing majors
- Need to strengthen global sales channels



- Increased competition with off-patent crop protection chemicals
- Consolidation in the major agrochemical companies

#### **Overview of the Major Businesses**

#### AgroSolutions Business

We offer various crop protection products around the world, such as insecticides effective on a range of insects causing damage to crops, herbicides for a variety of crops, fungicides to help control diseases, and plant growth regulators which improve yields and the quality of crops.

#### Business Situation (Crop Protection and Fertilizer Business in Japan)

In our crop protection and fertilizer business in Japan, we are aiming to increase our market share and broaden the scope of our business by developing attractive new products in-house, in-licensing new products, etc. We also offer comprehensive support for farmers' operations, from production to sale, by providing a wide range of agriculture-related supplies, technologies, and know-how. As part of our business as a total solutions provider, we engage in the rice business to produce and sell rice.

#### Business Situation (Overseas Agrosolutions Business)

We are enhancing collaboration and increasing investments to expand our overseas agrosolutions business. Besides mutually distributing crop protection products with Australian crop protection company Nufarm Limited, in which Sumitomo Chemical has a stake, in 31 countries (as of June 2019) we are actively collaborating with several major crop protection companies in both distribution and development. In India, we have decided to merge our two Group companies, aiming to increase our presence in the fast growing crop protection market there.



Agrosolution products

#### Environmental Health Business

Our environmental health business offers household and public hygiene insecticides, products for control of infectious diseases, and ectoparasiticides for use in the animal health field, thus contributing to safe and comfortable living environments through Household insecticides our worldwide businesses.



#### Feed Additives Business

Our feed additives business engages in the manufacture and sale of methionine, which is an essential amino acid used primarily as a feed additive in chicken and other poultry farming.

#### **Business Situation**

The global methionine market is estimated at 1.3 million tons annually, and is expected to grow at an annual rate of about 6% due to

the growth of the world population and the spread of meat-eating cultures in emerging countries. In fiscal 2018, we increased our methionine annual production capacity by 100,000 tons, to 250,000 tons. We will expand sales to new customers and further solidify our position as Asia's top supplier.



DL-methionine. Methionine hydroxy analog

We supply pharmaceutical companies in Japan and overseas with APIs and their intermediates. We aim to further expand our business by conducting contract manufacturing of oligonucleotides

for nucleic acid therapeutics. (Nucleic acid therapeutics are an emerging class of therapeutics for treating unmet medical needs. They are capable of targeting a disease at the genetic level by preventing the expression of disease-causing proteins.)



Active pharmaceutical ingredients (APIs)

# Health & Crop Sciences

# Value Creation Model: **Global Agrosolutions Business**

# Major Management Resources (Input)

## Intellectual Capital

Sumitomo Chemical is conducting research and development based on the knowledge regarding chemical and biorational crop protection products, which it obtained after its many years of research and development activities.

#### Human Capital

Personnel located around the world are conducting research and development using a global network.



The Chemistry Research Center, a global discovery and innovation base for the Health and Crop Sciences Sector

#### Sumitomo Chemical's Competitive Advantages

#### ■ Competitive Conditions in the Market

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.

#### Competitive Advantages

Sumitomo Chemical is committed to research and development, working on everything from the discovery of novel lead compounds to the product development for end users from a long-term perspective in order to provide new solutions. These efforts enable Sumitomo Chemical to obtain proprietary products and technologies, which is the foundation of its competitive advantages.

#### ■ Initiatives to Enhance Competitive Advantages

In 2018, Sumitomo Chemical established the Chemistry Research Center, a synthesis research building at the Health & Crop Sciences Research Laboratory, integrating research functions ranging from novel compound discovery to commercial manufacturing process development. In the U.S., a new biorational research and development facility started operations, thus promoting more efficient and accelerated development. In addition, the company established a research center in Brazil in 2016, a field testing station in the western U.S. in 2017, and a new test facility at Makabe Agriculture Research Center in Japan in 2018, where tests are conducted in a wider range of environments, thereby accelerating development of new products.

# **System for Providing Added Value**

# Value Chain Valent Raw material producers Valent Biosciences LLC, Osage Plant Sumitomo Chemical Group Production of compounds and formulations

## **Major Processes Generating Competitive Advantages**

**Research:** In discovery research, Sumitomo Chemical searches 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, we are also putting effort into product development for new formulations and applications of existing active ingredients.

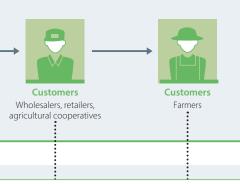


Health & Crop Sciences Research Laboratory

## **Earnings Structure and Role in Driving Income**

The scale of the global crop protection market is about USD60 billion, and it is expected to grow at an annual rate of about 3%. In order to improve its earnings rate, Sumitomo Chemical aims to continuously launch highly effective products that meet the needs of the market, using the advanced technology obtained in research and development. In 2018, we continued development of next-generation crop protection products and submitted registration applications in various countries. We plan to launch these products in 2020 and beyond.

Sumitomo Chemical provides crop protection products through research and development, registrations, and manufacturing. These products are sold through wholesalers and retailers, and are used by farmers.



#### **Customer and Consumer Needs**

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.



#### **Providing Customer Value**

Sumitomo Chemical offers unique, effective products that meet customer needs and creates solutions that match the needs of every region and crop, which contribute to developing new, sustainable agricultural technologies.



Training on using biorationals

# **Added Value Provided to Society**



# Contributing to a Stable Food Supply by Improving Agricultural Productivity

With the growth in the world population and the development of the global economy, the need for a safe and secure food supply has been increasing. The crop protection and enhancement products Sumitomo Chemical provides around the world are aiming to contribute to a stable food supply by improving agricultural productivity.

#### **Sumika Sustainable Solutions**

Plant growth regulators (PGRs), a set of the products from a Sumitomo Chemical's global agrosolutions business, have been certified as Sumika Sustainable Solutions. PGRs have such effects as improving fruit set, size and quality of fruits and vegetables. In addition, as the timing of flowering and ripening of crops can be adjusted by PGRs, they are effective in cultivating crops in areas where cooling or droughts caused by climate change has progressed, thereby contributing to an increase in food production around the world.



From Valent Biosciences' product summary



#### Corporate Business Plan for FY2019-FY2021

#### Action Plan

#### Strengthen innovation through new drug discovery approaches

- Launch new products in oncology
- Explore frontier fields
- Develop Theranostics business and strengthen the competitiveness of existing radioactive diagnostics business

#### Major Issues

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

(Billions of yen)	FY2018	In Comparison to FY2017	Corporate Business Plan for FY2019-FY2021: Sector Goals FY2021 Target
Sales revenue	492.1	-8.1	590.0
Core operating income	80.8	-14.0	94.0

## **Overview of the Major Subsidiaries**

#### ■ Sumitomo Dainippon Pharma

Sumitomo Dainippon Pharma Co., Ltd. is reshaping the foundations of its business by establishing growth engines and building a flexible and efficient organization as it prepares for future changes and the "post-LATUDA®" era, after it loses exclusivity in the U.S.

#### **Management Vision**

Sumitomo Dainippon Pharma aims to continually discover excellent pharmaceutical products, conducting research and development activities not only in such focus areas as psychiatry & neurology, oncology, and regenerative medicine/cell therapy, but also in infectious diseases and vaccines. Furthermore, the company is exploring frontier businesses in healthcare areas not limited to pharmaceuticals so as to contribute to the wide-ranging well-being of people. Thus, the company aspires to establish a position as a global specialized player in the focused areas.

#### **Business Situation**

 Sales of the company's blockbuster product LATUDA®, an atypical antipsychotic agent, were robust in the U.S., at approximately 1.7 billion USD in fiscal 2018. Generic versions of LATUDA® may enter the market commencing February 2023 pursuant to the

- settlements of the consolidated patent infringement lawsuit regarding abbreviated new drug applications. The company is continuing to develop products, preparing for the loss of exclusivity of LATUDA®.
- The company aims to launch dasotraline (binge eating disorder (BED)) and apomorphine (OFF episodes associated with Parkinson's disease) in the U.S. during fiscal 2020.
- Sumitomo Dainippon Pharma is also developing napabucasin, which was added to its development pipeline by the 2012 acquisition of Boston Biomedical, Inc. and is conducting a Phase 3 trial in colorectal cancer. The company expects it to become a blockbuster product, with launch targeted in the U.S. and Japan in fiscal 2021.
- SEP-363856 is an antipsychotic agent with a novel, non-D<sub>2</sub> mechanism of action, distinct from currently marketed antipsychotics. It has received Breakthrough Therapy Designation\* from the U.S. Food and Drug Administration (FDA), based on positive results from its Phase 2 trial for the treatment of schizophrenia. Development is underway with the goal of launching in fiscal 2023 in the U.S.

<sup>\*</sup> Breakthrough Therapy Designation is intended to expedite the development and review of drugs for serious or life-threatening conditions.

#### **SWOT Analyses of the Major Businesses**

- 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 biotech companies
- Pipeline in development for psychiatry & neurology, oncology, and regenerative medicine/cell therapy
- Strong development and manufacturing capabilities for radioactive isotope labeling agents
- Innovation in healthcare technology
- Increasing health awareness

- Limited capabilities to bear the burden of R&D costs
- Emergence of generic drugs due to the loss of exclusivity for major products
- Accelerated implementation of medical expense control measures in Japan
- Changes in the health insurance systems overseas
- Consolidation in the pharmaceutical industry

#### Initiatives with Cutting-edge Technology

- Sumitomo Dainippon Pharma is applying iPS cell technology to drug discovery, while also working on research and development of regenerative medicine/cell therapy. In the U.S., it is working with SanBio Inc. Their Phase 2b clinical trial for a cell therapy product for chronic stroke has been completed, and future development plans are under consideration.
- The company is also working with universities and research institutes to develop cell therapy products using iPS cells for age-related macular degeneration, Parkinson's disease, retinitis pigmentosa, and spinal cord injury. The company also began joint research and development of a renal regenerative medicine using iPS cells.
- In March 2018, the world's first commercial manufacturing plant dedicated to allogeneic iPS cell-derived regenerative medicine/cell therapy products, called the Sumitomo Dainippon Manufacturing Plant for Regenerative Medicine & Cell Therapy (SMaRT), began operations.



Sumitomo Dainippon Manufacturing Plant for Regenerative Medicine & Cell Therapy (SMaRT)

#### ■ Nihon Medi-Physics

Nihon Medi-Physics Co., Ltd. (NMP) is a leading company in Japan in the highly specialized field of nuclear medicine.

#### Overview of the Company

NMP engages in the development, manufacture, and sale of radiopharmaceuticals, which are used for diagnosis to identify disease conditions and affected areas, chiefly for malignant tumors, cerebrovascular disease, and heart disease. In addition to diagnostic pharmaceuticals, NMP also offers therapeutic products, such as a medical device for brachytherapy for prostate cancer.

#### **Main Products**

Threats

The company's main product is FDG scan Injectable for PET (positron emission tomography) procedures, which are effective in the early detection of malignant tumors. The half–life of the radioisotope (18F) used in this product lasts for about 110 minutes, and therefore NMP established the 11th manufacturing facility for PET products so as to ensure reliable delivery to various medical institutions across Japan. Shipments began in January 2019.

#### **Business Situation**

- In November 2017, NMP began sales of Vizamyl®, an imaging agent used in amyloid PET scans, which visualizes β-amyloid neuritic plaque density in patients with cognitive impairment who are suspected to have Alzheimer's disease.
- When the Japan Agency for Medical Research and Development (AMED) was accepting projects under its Cyclic Innovation for Clinical Empowerment (CiCLE) program, one of the research topics adopted for support was "Development of therapeutic agents with alpha-emitting radionuclide and companion diagnostic agents in parallel with establishment of new drug development base to make the concept of Theranostics into a reality," and NMP aims to develop new radiopharmaceuticals that bring together diagnostics and therapeutics (Theranostics), using the characteristics of nuclear medicine.
- The construction of the CRADLE building, a drug discovery facility to put into practice the Theranostics concept, has begun and will be completed in September 2019.
- NMP is also working to develop new business areas beyond its existing business, such as enhanced medical solution services

using digital technology and creating partnerships to advance the market for nuclear medicine in Asia.



Completion image of the CRADLE building

# **Pharmaceuticals**

# Value Creation Model: Sumitomo Dainippon Pharma

# **Major Management Resources (Input)**

#### Intellectual Capital

Research and development capabilities, in order to discover new drugs, and intellectual property, such as patents and licenses, are the source of income.

Social and Relationship Capital Besides good relationships with universities and other institutions that contribute to the development of new drugs, good relationships with authorities and healthcare professionals support global business development.

Human Capital Outstanding personnel support all business activities, including the research and development of new drugs, production, and sales.

#### Sumitomo Dainippon Pharma's Competitive Advantages

#### Competitive Conditions in the Market

The global pharmaceutical market is over 1.1 trillion USD, and has grown at an annual rate of about 3% over the last five years.\* Within that, significant market growth is expected in the specialty pharmaceutical market, aimed at specific illnesses and requiring a prescription from a specialist. Numerous pharmaceutical manufacturers are participating in this massive market, particularly in the U.S. and Europe, engaging in fierce competition in the development of new drugs.

#### Competitive Advantages

Although the scale of Sumitomo Dainippon Pharma is small compared to major global pharmaceutical manufacturers, the company has strong research and development capabilities in the psychiatry & neurology area, where it has built up knowledge over many years. In addition, by concentrating management resources into research and development in the oncology area, where there are many unmet medical needs, the company aims to discover revolutionary new drugs. Moreover, the company is a global leader in research and development in regenerative medicine and cell therapy, which is attracting attention as a next-generation treatment method.

#### Initiatives to Enhance Competitive Advantages

Sumitomo Dainippon Pharma is leveraging its core competencies to forge ahead with drug discovery research based on its proprietary drug discovery platforms established by constantly incorporating cutting-edge technologies in the psychiatry & neurology area. In oncology, the company accelerates research and development by promoting a networked approach to drug discovery that integrates internal (Sumitomo Dainippon Pharma and its U.S. subsidiary) and external parties, and that also integrates research and development. In the regenerative medicine and cell therapy area, the company aims to achieve early commercialization by developing a unique growth model where we pursue advanced industrialization/manufacturing technologies and cutting-edge science through the open innovation strategy, and is promoting multiple R&D projects.

# **System for Providing Added Value**



**Value Chain** 

Suppliers
Chemical manufacturers
Manufacturers of drug raw materials
and intermediate materials



Sumitomo Dainippon Pharma

#### **Major Processes Generating Competitive Advantages**

**Research:** By searching for candidate compounds for new drugs, Sumitomo Dainippon Pharma takes on the first step of drug discovery. It not only works to promote innovation within the company, but also actively promotes joint research with research institutions, such as universities inside and outside Japan, as well as alliances with biotech companies, working to discover revolutionary treatments.

**Development:** The company scientifically evaluates the effectiveness and safety of development candidates discovered in the laboratory through preclinical and clinical studies. It aims to efficiently promote development, and obtain speedy approval of new drugs.

**Production and Quality Management:** The company provides stable supplies of pharmaceuticals of reliable quality. In addition, it maintains a quality assurance system supporting the safety and security of its pharmaceuticals.

**Sales and Information Provision:** The company has sales locations in Japan, the U.S., and China, providing information necessary for the proper use of its pharmaceuticals.

#### **Earnings Structure and Role in Driving Income**

While pharmaceuticals discovered in-house can provide high returns in the period when exclusive sales are possible due to patents or other intellectual property, profitability deteriorates significantly once a patent has expired. For this reason, Sumitomo Dainippon Pharma hopes to maintain and improve income by continually developing and launching new drugs.

<sup>\* (</sup>Source) Created based on the IQVIA World Review 2008-2018, Copyright © 2019 IQVIA (unauthorized reproduction prohibited)

(Source) Japan Pharmaceutical Manufacturers Association DATA BOOK 2019

# Added Value Provided to Society

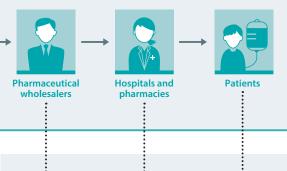


# Contributing to the Advancement of Medical Science and the Improvement of Quality of Life of Patients

Sumitomo Dainippon Pharma contributes to the treatments of patients with a variety of illnesses by providing high-quality pharmaceuticals and pharmaceutical information. In addition, the company contributes to the development of medicine by generating further innovation through collaboration with organizations in academia and with biotech companies. Furthermore, the company also works to provide healthcare in countries and regions where receiving necessary medical treatment is difficult, both through research and development of its own products and through collaboration with such bodies as government institutions and international organizations.



Sumitomo Dainippon Pharma manufactures the pharmaceuticals it has developed using medical raw materials and intermediate materials, and then supplies them to hospitals and pharmacies via pharmaceutical wholesalers. In addition, it provides pharmaceutical information to medical professionals so that its pharmaceuticals will be used properly.



#### **Customer and Consumer Needs**

Medical professionals and patients demand pharmaceuticals with higher therapeutic effectiveness, fewer adverse reactions, and in easier to use forms. In addition, there is a strong demand for the development of new drugs for diseases that have no effective treatment method at the present time. Moreover, it is also essential to provide information leading to safer and more effective treatment of illnesses, enabling medical professionals to properly use the pharmaceuticals.



#### **Providing Customer Value**

Sumitomo Dainippon Pharma is concentrating research and development resources into the fields of psychiatry & neurology, oncology, and regenerative medicine/cell therapy, where unmet medical needs are high. By discovering new revolutionary drugs, the company aims to contribute to the advancement of medical science and the improvement of quality of life of patients. In addition, the company earns the trust of medical professionals by both providing a stable supply of the pharmaceuticals it discovers, and by providing timely and accurate information about those pharmaceuticals.

# **Value Creation Platform**

# Fostering Trust and Confidence Supports an Abundant Future

Sumitomo Chemical aims to achieve sustained growth and a sustainable society by creating both economic and social value. To this end, value creation platforms — initiatives in R&D, human resources, addressing climate change, and strengthening corporate governance are essential and indispensable. The following pages introduce these various initiatives.

- 66 Research and Development
- **68** Digital Innovation
- 70 Addressing Climate Change
- 72 Human Rights
- 74 Human Resource Strategy
- 76 Environmental Protection / Product Stewardship, Product Safety, and Quality Assurance / Occupational Safety and Health, Industrial Safety and Disaster Prevention
- 77 Dialogue with Shareholders and Investors

#### Corporate Governance

- **78** Board of Directors and Corporate Auditors
- **81** Corporate Governance
- 90 Compliance
- 91 Anti-corruption













# **Research and Development**

## **Basic Policy**

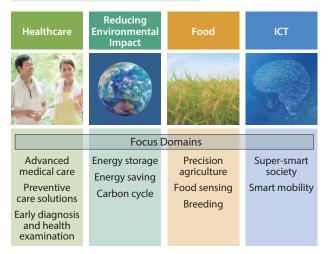
Amid increasing uncertainty about the business environment surrounding Sumitomo Chemical, the role played by the chemical industry in solving societal issues such as the environment, energy and food issues is enormous, and our business opportunities are expanding. Our research and development is based on the following basic policies: (1) early market launch of development items; (2) building the foundation of

next-generation businesses; (3) building and operating the system to continuously create innovation; and (4) promoting R&D based on business (conversion) strategies and intellectual property strategies. The new Corporate Business Plan, which began in April 2019, will focus on accelerating the development of next-generation businesses in line with these basic policies under the slogan "Change and Innovation 3.0 — For a Sustainable Future."

## **New Corporate Business Plan Initiatives**

In the new Corporate Business Plan, "Accelerating the development of next-generation businesses" is one of our basic policies. For this reason, we have established four priority areas, "Healthcare," "Reducing environmental impact," "Food," and "ICT," that should be addressed in order to solve issues related to the creation of sustainable societies through our business activities. In each of these priority areas, we are working on projects that enable us to demonstrate our core competence and where we can expect long-term expansion of business opportunities. In addition, we will promote R&D by implementing and thoroughly utilizing not only Al/MI in R&D sites but strengthening open innovation in cooperation with academia and startups.

#### Medium- to Long-term Priority Areas



## **Topics 1** Initiatives for Accelerating Open Innovation

In the Cambridge area of Boston, Massachusetts, the United States, the world's largest innovation hub with a concentration of world-class universities and startups, we established our Corporate Venturing & Innovation Office (CVI) as a new base for innovation. In addition, we are investing as a limited partner in investment funds operated by Cultivian Sandbox Venture Partners III, a pioneer venture capital firm in the next generation of food and agricultural

technologies. As a result, we will strengthen startups in the U.S., cooperate with academia, and explore business opportunities.



Cambridge Innovation Center where CVI is based



Shared communication space

# Topics 2 Partnership with Zymergen in Developing High-performance Materials **Zymergen**

We began a multi-year partnership with Zymergen to bring new specialty materials to the market. Zymergen is a company with outstanding technologies that can create new compounds that are sustainable and renewable through synthetic biological methods. The combination of Zymergen's technologies with our material-development

capabilities, which we have cultivated as a leading supplier in the electronics field, enables us to provide superior products that are both high-performance and environmentally friendly, which is not possible with conventional methods. Through these efforts, we aim for further development in the field of electronics and other fields.

## **Intellectual Property**

#### **Basic Policy**

Sumitomo Chemical conducts intellectual property (IP) activities in accordance with the following basic policies.

#### IP Activities:

- 1. Be in line with the business strategy
- 2. Create global business value
- 3. Strive for the utilization of all results of research and technology development
- 4. Observe the law and respect rights

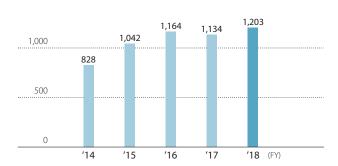
While respecting the valid patents of third parties, we are working to acquire and protect "wider, stronger, faster-registered and longer-lasting" patents globally for the results of our research and technology development, and we then strategically promote our business activities as well as those of our Group companies and ultimately maximize our business value.

#### **Operating IP Activities**

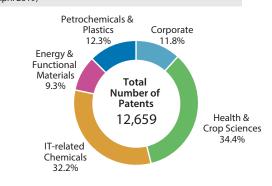
IP search and analysis play an important role in R&D and commercialization. We use rapidly advancing IP search software and Al technologies to search and analyze current development in related technologies and the patents of other companies, and also to construct our own patent portfolio. As competition becomes increasingly complex and intense and globalization of our Group businesses is progressing, it is becoming increasingly important to conduct timely and accurate search and analyses, applications and protection of intellectual property rights, including patents, in a manner consistent with the way of each business. Conducting these activities in cooperation with our Group companies in Japan and overseas, we are working to apply for and prosecute intellectual property rights overseas, including in Asia, the Americas, and Europe, and make them the foundation of our business activities including third-party licensing.

#### **Number of Domestic Patent Applications**

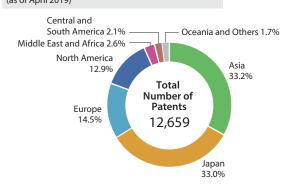
(Number) 1,500



# Number of Patents Held by Sector (Non-consolidated) (as of April 2019)



# Patents Held by Region (Non-consolidated) (as of April 2019)



# **Digital Innovation**

# We Will Work to Improve Productivity through Digital Innovation.

It can be said that the world is now in a major period of change. With the development of the global economy, people's lives are becoming more convenient and rich, but major issues such as greenhouse gases, marine plastics, and food are emerging that stand in the way of creating a sustainable society. On the other hand, the rapid development of technologies such as biotechnology and AI has been remarkable, and it is possible this will lead us to unexplored areas that were previously considered impossible. Under these circumstances, we believe that the chemical industry plays a major role in creating new value through innovation.

The new Corporate Business Plan, which began in April 2019, focuses on "Accelerating the development of next-generation businesses" and "Improving productivity through digital innovation" to promote it. Since the previous Corporate Business Plan, some digital technologies have been introduced on a trial basis in the fields of plants, R&D, supply chain management, and offices. However, the new Corporate Business Plan aims to achieve dramatic improvements in productivity through more full-scale digital innovations.



**Hiroshi Ueda**Director &
Executive Vice President

#### Initiatives for Digital Innovation

#### **Previous Initiatives** Higher-performance production by leveraging AI and IoT Commencement of **Digital Plant** introduction of AI and IoT More efficient, higher-performance R&D by leveraging AI/MI Start of utilization of **Digital R&D** Materials Informatics (MI) Full-scale introduction of S/4HANA Job standardization and work style reform Higher-performance production and sales planning **Digital SCM** Partial introduction of S/4HANA (including Marketing) Full use of robotics More active communication **Paperless Digital Office** Introduction of Office365

**Next Steps** 

IT-related Investment during the New Corporate Business Plan (FY2019-FY2021) Period:  $\pm 60$  billion

# Improving Productivity through Digital Innovation

#### **Plant**

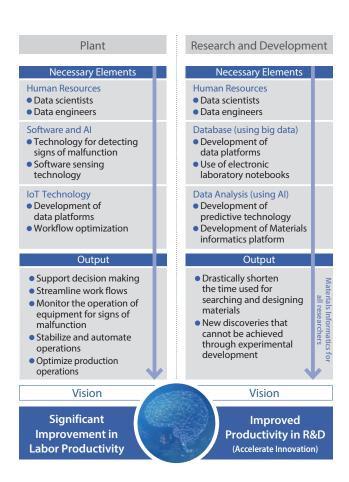
In Japan, the labor population is expected to decline drastically due to the declining birthrate and aging population, and the construction of a plant management system capable of achieving high labor productivity at manufacturing sites has become an urgent necessity. Aiming to dramatically improve labor productivity, we will introduce IoT technologies, such as drones, wearable equipment, and various sensors, as well as platforms and analysis technologies necessary for analysis of operational data to manufacturing sites. We will continue to develop digital human resources that can utilize these technologies to a high degree.

#### **Research and Development**

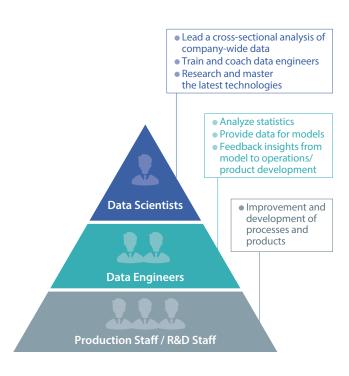
Amid increasing uncertainty about the business environment, R&D needs to be made more efficient and sophisticated. We will promote innovation in data-driven research and development to significantly shorten the material search and design period and to seek new discoveries that cannot be achieved through empirical development. Specifically, we will make use of MI, build the data base necessary for MI, and acquire and train digital human resources.

# Digital and Data Science Innovation Department Established

In April 2019, we established the Digital and Data Science Innovation Department, a group of internal data analysis and simulation specialists (data scientists), in order to increase the sophistication of R&D, manufacturing technologies, and sales activities through the use of large-scale data. The Digital and Data Science Innovation Dept. will take the lead in analyzing R&D, manufacturing technologies, sales, and other data, and solve issues in various areas. These will improve the efficiency, sophistication, and acceleration of operations. In the area of human resource development, we will develop both data scientists with advanced data analysis techniques and data engineers with advanced domain knowledge in the field of R&D and production processes who can also analyze data. Over the next three years, we aim to train around 20 data scientists and 150 data engineers. We will promote the transformation of our data-driven business processes, centered on the Digital and Data Science Innovation Dept., and strongly promote the creation of new value.



#### Role of Digital Human Resources



# **Addressing Climate Change**

The Sumitomo Chemical Group is working to solve the climate change issue, which has a major impact on our lives on a global scale, by both responding to risks and seize opportunities making use of our technological capabilities as a diversified chemical company.

#### **Governance and Risk Assessment**

The President is responsible for promoting climate-change measures, together with the executive officer of Responsible Care. In March 2018, medium- to long-term plans for greenhouse gas (GHG) reductions were deliberated at our management meeting and we agreed to establish science-based targets (SBTs) in accordance with the Science Based Targets

initiative. The Sustainability Promotion Committee and the Responsible Care Committee periodically deliberate and decide on measures to deal with climate change. The Responsible Care Committee also assesses and monitors the risks of climate-related challenges.

## Strategies: Responding to Risks and Seizing Opportunities

The Sumitomo Chemical Group has established a dedicated organization in the Responsible Care Department to deal with climate change. The organization identifies and analyzes the risks and opportunities posed by climate change issues to the Sumitomo Chemical Group's business over the medium- to long-term, including the size, scope of impacts, and other issues. In addition, we are implementing measures to respond to risks through initiatives for achieving our SBTs, and striving to seize new business opportunities through the development

and spread of products and technologies designated as Sumika Sustainable Solutions. Concrete initiatives are reported to management meetings, the Sustainability Promotion Committee, the Responsible Care Committee, the Plant Managers' Meetings, and the Group-wide President Meetings. In order to steadily implement these initiatives, we hold meetings linking factories, research laboratories, business sectors, and Group companies, and have established a framework for prompt information sharing.

#### Risks

#### Transition risks

- Increases in tax burden due to the introduction and increase of carbon prices
- Increases in manufacturing costs associated with the increase in energy taxes
- Higher logistics costs due to higher energy prices

#### Physical risks

- Damage to production facilities due to wind and flood damage caused by abnormal weather
- Decline in sales of related businesses due to changes in crop cultivation in various regions worldwide due to abnormal weather conditions

#### Opportunities

- Expanding the market for products that contribute to reducing GHG emissions
- Expanding the market for products that adapt to climate change impacts
- Expanding the market for low-carbon processes
- Fostering new businesses in the field of climate change countermeasures through R&D and digital innovation

#### Responding to Risks

- Initiatives for achieving our SBTs
  - Revision of the internal carbon price system to strengthen energy conservation and promote investment in GHG emissions reduction
- Fuel conversion (Niihama LNG Station, renewable energy utilization, etc.)
- Introduction of innovative low-carbon technologies
- $\bullet$  Initiatives to raise awareness within the Group and foster momentum
- Approaching major suppliers about setting GHG emissions reduction targets
- Strengthening measures against wind and flood damage at production bases

#### Initiatives for Seizing Opportunities

- Expansion of sales of products designated as Sumika Sustainable Solutions
- Products that contribute to reducing GHG emissions
- Products, components, and materials used in connection with the creation of new forms of energy
- $\bullet$  Products that contribute to adaptation to climate change impacts
- Expanding licensing revenues for low-carbon process technologies
- $\bullet$  Acquisition of investment funds through information disclosure

## **Scenario Analysis**

TCFD recommendations call on businesses to analyze scenarios and disclose the potential impacts of climate change on their businesses in the future.

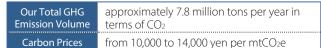
Since our Group belongs to the energy-intensive chemical industry, greenhouse gas (GHG) emissions are large, and if carbon prices are introduced, the impact on our business will be relatively large compared to other industries.

• Future carbon prices in developed countries, including Japan

(According to the "World Energy Outlook (WEO) 450 Scenario," published by the International Energy Agency (IEA), in line with the 2°C target of the Paris Agreement)

2030	\$100 per metric ton of carbon-dioxide equivalent (mtCO2e)
2040	\$140 per mtCO2e

• Assuming the situation in 2040 is as follows





Our total costs due to GHG emissions would have increased by approximately 73 to 102 billion yen per year.

Although the above is just one estimate, the fact that we quantified and understood the magnitude of mid-to long-term risks was a major factor in encouraging our Group to respond to risks. In the future, we will continue to identify the latest external scenarios, share knowledge with chemical companies around the world, and proceed with scenario analysis.

## **Metrics and Targets**

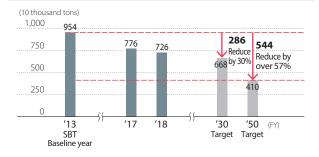
## **Responding to Risks**

See P26 "ESG Strategies 4"

## **Our Approved GHG Emissions Reduction Targets**



## **GHG Emission Volume and Reduction Targets**

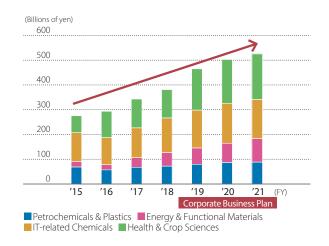


Our Group will focus on reducing its GHG emissions (Scope1+2) by 57% or more from fiscal 2013 levels by fiscal 2050, while providing solutions for significant GHG reductions in the value chain.

## **Initiatives for Seizing Opportunities**

See P27 "ESG Strategies 5"

## Sales Revenue of Designated Products and Technologies



FY2018	(Billions of yen)
Sales revenue of Sumitomo Chemical Group	2,318.6
Sales revenue of SSS	381.3

We aim to quickly double the sales revenue of designated products and technologies compared with FY2015.

## **Human Rights**

## **Approach to Human Rights**

Sumitomo Chemical regards respect for human rights as one of the foundations for ensuring sustainability of its business. In April 2019, we established the "Sumitomo Chemical Group Human Rights Policy" and the "Human Rights Promotion Committee," a committee tasked to promote human rights, based on the Universal Declaration of Human Rights, the International Labor Organization Declaration on Fundamental

Principles and Rights at Work, the Ten Principles of the United Nations Global Compact, and the United Nations Guiding Principles on Business and Human Rights. In order to ensure that the Group as a whole is committed to respecting human rights, we make every effort to ensure that all Group companies in Japan and overseas are fully aware of our basic policies.

## Sumitomo Chemical Group Human Rights Policy (Effective April 1, 2019)

This policy was formulated based on the advice of outside human rights experts with practical experience.

Sumitomo Chemical Group (Sumitomo Chemical Co., Ltd. and its Group Companies) has put in place this Human Rights Policy ("Policy") to demonstrate its commitment to international standards on human rights. All directors, executive officers and employees ("Personnel") of the Sumitomo Chemical Group will uphold this Policy.

### 1. Our Position on Human Rights

### (1) Compliance with Standards, Laws and Regulations

We support and respect international standards on human rights, such as the Universal Declaration of Human Rights, International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work, and promote respect for human rights in line with the United Nations Guiding Principles on Business and Human Rights. Sumitomo Chemical Co., Ltd. is a signatory to the United Nations Global Compact and supports its Ten Principles, which include human rights and labor.

We comply with applicable laws and regulations in countries and regions where we operate, and where local laws and regulations conflict with international standards, we will seek ways to honor the principles of internationally recognized human rights.

## (2) Respect for Human Rights in Our Business Activities

We do not discriminate against individuals based on employment status, age, sex, ethnic or social origin, ancestry, nationality, disability, religion, beliefs, marital status, or any other status. We do not tolerate any form of harassment, including sexual harassment or workplace bullying. We also respect fundamental labor rights including freedom of association and the right to collective bargaining, and prohibit forced labor or child labor.

We are committed to respecting human rights in our business activities and also strive to avoid contributing to infringement of human rights. In order to prevent and mitigate human rights risks related to our business activities, we will take necessary measures, including ensuring compliance with the Compliance Manual (the Sumitomo Chemical Code of Business Conduct) and other relevant policies and guidelines. We are also committed to understanding our impact on local communities and aim for harmonious coexistence with these communities.

We expect our business partners, including our suppliers, and other relevant stakeholders to act in line with the principles in

this Policy, and we will seek ways to work with them to promote respect for human rights.

## 2. Our Approach to Human Rights Issues

## (1) Providing Education and Raising Awareness

We will provide appropriate education and training to our Personnel so that this Policy is understood and effectively implemented.

## (2) Human Rights Due Diligence

We will identify adverse human rights impacts, and seek to prevent or mitigate such impacts through our human rights due diligence framework.

## (3) Responding to Identified Human Rights Impacts

We will engage with relevant stakeholders in order to address actual or potential adverse human rights impacts.

## (4) Remedy

Where we identify that we have caused or contributed to adverse human rights impacts, we will endeavor to remediate such impacts through appropriate processes.

## (5) Grievance Mechanisms

We have grievance mechanisms in place in the form of the Speak-Up Reporting System (whistle-blowing channels) in order to address concerns about activities that may adversely impact human rights or any other concerns raised about our business activities. These channels are available for anyone having involvement in Sumitomo Chemical Group's business activities, including its business partners as well as Sumitomo Chemical Group Personnel and their families. We will continuously seek to optimize our grievance mechanisms.

## (6) Disclosure

We will report on our efforts to respect human rights including through our website, integrated report, Sustainability Data Book, and other relevant channels.

## Promotion System: Human Rights Promotion Committee

In order to fulfill its responsibility to respect human rights throughout the value chain, Sumitomo Chemical has established the Human Rights Promotion Committee as the organization to promote activities in accordance with its policies. Since this committee is an initiative that spans the entire value chain, the representatives from a wide range of relevant departments are called into the committee. The Executive Officer in charge of corporate sectors is the committee's Chairman, and the Executive Officers in charge of the Planning & Coordination Offices in each business sector participate as committee members to ensure the effectiveness of the committee.

## **Roles of the Committee**

- (1) Promotion of Human Rights Awareness
- (2) Formulation and implementation of the following proposals regarding respect for human rights throughout the value chain of the entire Sumitomo Chemical Group:
  - Formulation and publication of policies required by the Guiding Principles on Business and Human Rights and relevant national laws
  - Identification of human rights issues by conducting risk assessment across the entire value chain; and taking appropriate actions including remedial measures that are commensurate with the specific issue or risk (human rights due diligence and remedy)

## Promotion System



## **Human Rights Due Diligence and Remedy**

The Sumitomo Chemical Group has established a human rights due diligence framework in accordance with the Guiding Principles on Business and Human Rights, in addition to its previous initiatives for CSR procurement, with the aim of ensuring respect for human rights through business activities. Human rights due diligence is a continuous effort to identify potential adverse human rights impacts throughout the value chain through our Group's business activities, to prevent and remediate such adverse impacts, and to disclose information on the details of responses and results to the public. The CSR Dept., Legal Dept., Procurement Dept., and Logistics Dept. are working together to

ensure that the entire value chain is thoroughly checked under this human rights due diligence framework.

In fiscal 2019, in addition to previous initiatives, we plan to identify risks by establishing risk indicators based on the nature of our business and the regional characteristics of the Sumitomo Chemical Group's business activities and conducting investigations. In addition, we plan to identify risks through investigations involving external experts including additional on-site investigations when necessary. If, through this human rights due diligence process, it is determined that the Group's business activities are causing or contributing to adverse human rights impact, we will engage with relevant stakeholders and endeavor to rectify and remediate such impact through appropriate processes.

## Overview of Human Rights Due Diligence Initiatives

STEP1
Setting
risk indicators

STEP2

Identifying high-risk business models STEP3

Discussions with external experts

STEP4

Risk mapping and setting priorities

STEP5

Additional on-site investigation (if necessary)

STEP6

Execution of remedies (if necessary)

## **Human Resource Strategy**

## Contributing to the Sustainable Growth of the Sumitomo Chemical Group by Employing, Developing and Leveraging Human Resources.

'People' are a major source of corporate competitiveness, and securing highly motivated and capable personnel is the foundation of business operations.

In addition, our business environment has become more complex and sophisticated due to the recent expansion of our business domains and advances in technological innovation. In these circumstances, it has become extremely important to secure personnel with broad knowledge and diverse skills, and to focus on training so that employees can maximize their abilities.

Against this backdrop, the current Corporate Business Plan sets forth employing, developing and leveraging human resources to support sustainable development as one of its basic policies.

Based on this policy, we are strengthening our recruitment capabilities dramatically and effectively promoting the current personnel and training systems based on the basic philosophy of "development and growth." We are also working to create an environment in which diverse personnel can work healthily and energetically.



**Hiroshi Niinuma**Director &
Senior Managing Executive Officer

## **Human Resource System**

Sumitomo Chemical has introduced a human resource system in which employee treatment is based the content of each person's work, the magnitude of their responsibilities, and the achievements they have accomplished, as well as the abilities and activities they displayed in the process. Through this system, employees with motivation and abilities are able to take on the challenge of a higher role as soon as possible, thereby fostering their willingness to grow voluntarily.

## **Career Development Field (CDF)**

The company has established CDFs as categories according to the different careers that each employee desires, and we are systematically allocating and training employees based on their desired career direction. At the same time, employees themselves are also proactive in thinking about their careers, thereby further encouraging employees to develop and grow.

## <Implementation of CDF> Incorporating Career Visions into the System

Field X	A career in which the employee takes on a specified role, while also working on tasks that support the maintenance and development of Sumitomo Chemical's business over the medium to long term.
Field Y	A career in which the employee works on tasks that contribute to the development of business as a professional, within a role with a defined scope.
Field Z	A career in which the employee works on a variety of tasks supporting things like the development of new technology and the increasing sophistication and complexity of business.

## **Careers for Specialists**

The company has introduced a system that enables specialists with advanced expertise to further demonstrate their abilities and deliver results not only in conventional line job categories such as section managers and department managers, but also in increasingly complex areas such as business and research and development.

## **Careers for Specialists**

Associates

Associates refers to those who have particularly outstanding expert knowledge or capabilities, who are hard to replace in specific fields, and who can be expected to continue to make significant contributions in their field using that expertise

Fellows

Fellows refers to those who, among the Sumitomo Chemical researchers who have produced particularly outstanding research results on the basis of their high-level expertise, and who are also recognized for their achievements outside the company, are expected to contribute significantly to the research activities of Sumitomo Chemical in the future

## **Human Resources Development**

Based on the policy of developing human resources to support sustainable growth, Sumitomo Chemical is promoting various measures that contribute to the growth of each and every employee. As concrete measures for human resource development and education, the company is developing various educational programs based on an educational system organized from the perspectives of fostering awareness of the development of subordinates and their own growth awareness, strengthening the links between education and practical work, strengthening global human resource development measures, and fostering management personnel in digitalization. In addition, we provide IT literacy education to all employees to improve the productivity of each employee.

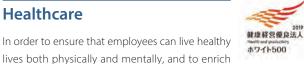
## **Diversity and Inclusion**

Sumitomo Chemical has set forth diversity promotion as one of its seven material issues. As part of these efforts, Sumitomo Chemical is actively implementing measures that focus on promoting the activities of female employees, people with disabilities, and the elderly.

For female employees, we signed the Empowerment Principles for Women (WEPs), jointly prepared by the United Nations Global Compact and the UNWOMEN, and as numerical targets for our company, we have set forth the goals of having women make up at least 10% of employees in positions equivalent to managers or above, and of having 50% or more of male employees take childcare leave. We are promoting efforts to achieve these goals by establishing nursery centers and expanding and educating employees about childcare and nursing care-related systems.

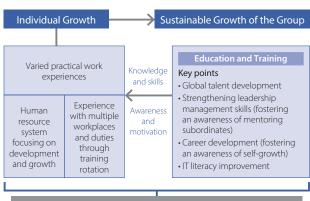
For persons with disabilities, Sumika Partners Co., Ltd., a special subsidiary, began operations in April 2018, and we are working to expand employment opportunities for persons with disabilities who are motivated to work, including four of our Group companies

## Healthcare



their lives, Sumitomo Chemical is promoting a variety of health maintenance and promotion measures, including medical staff providing health guidance for employees under the supervision of the company-wide General Industrial Physician. In collaboration with the Health Insurance Union, the company analyzes the results of regular health examinations and other information to determine trends in the health status of employees, and then formulates and implements measures, and evaluates the effectiveness of these measures. We also actively support health maintenance and improvement for employees working outside Japan by providing local medical consultations. In recognition of these initiatives, Sumitomo Chemical was certified as a Certified Health & Productivity Management Outstanding Organization in both 2018 and 2019.

## Human Resource Development to Support Sustainable Growth



Strengthening the Links between Education and Practical Work

receiving special approval from affiliated companies as of June 2019.

For the elderly, by appropriately reflecting the motivation and abilities of each person, and by adopting a system that enables a variety of work styles, many employees are able to continue to work after reaching retirement age.

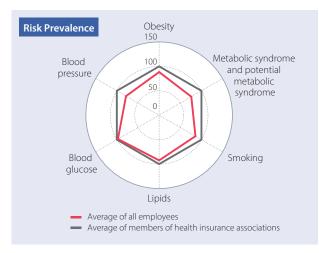
## Achievements in Diversity and Inclusion (Non-consolidated)

	Fiscal 2018	Fiscal 2019
Number of female managers *1	96	99
Percentage of female managers among managers (%) *1	5.1	5.2
Employment rate of people with disabilities (%) *2	2.24	2.41
Reemployment rate of retirees (%) *3	92.6	

<sup>\*1</sup> Total number and percentage of employees in positions equivalent to managers or above. As of April 1 of that year

## \*3 As of March 31 of that year

## Analysis of the Results of Medical Examinations and Answers to Questionnaires (FY2017)



<sup>\*2</sup> As of June 1 of that year

## Environmental Protection / Product Stewardship, Product Safety, and Quality Assurance / Occupational Safety and Health, Industrial Safety and Disaster Prevention

## **Environmental Protection**

## **Environmental Protection Activities Rooted in Local Communities**

The Sumitomo Chemical Group has set common targets for environmental protection and is working to reduce environmental impact throughout the Group. Specifically, we have set targets in each field, such as protection of air and water environments, resource saving and waste reduction, appropriate management of chemical substances, preservation of biodiversity, and protection of the soil environment. We are working to enhance our efforts to achieve these goals at each business site. In the future, we will continue to focus on environmental protection activities rooted in local communities and strive to secure the trust of society, which is a major prerequisite for continuing our business.

## Product Stewardship, Product Safety, and Quality Assurance

## For the Safety and Peace of Mind of Our Customers

The Sumitomo Chemical Group estimates the degree of impact our chemical products have in terms of safety on people and the environment throughout their lifecycle, and promotes activities to protect people's health and the environment based on those risks. As part of its Eco-First Commitments, Sumitomo Chemical is currently carrying out risk assessments of the chemical substances that the company produces and offers for sale in quantities of 1 ton or more. The company is publishing the results of these assessments as safety summaries.\* The company is reassessing whether the products it sells are of sufficient quality so that customers can use them safely, incorporating information from these assessments. Going forward, we will continue to thoroughly implement day-to-day management so that we can deliver products and services of such quality that customers around the world can use them with peace of mind.

## Occupational Safety and Health, Industrial Safety and Disaster Prevention

## **Initiatives to Ensure Safety at All Group Workplaces**

The Sumitomo Chemical Group aims to achieve zero labor accidents across all workplaces through safety measures. Specifically, we are striving to further improve safety activities through education and training for employees in accordance with the Group's common Safety Ground Rules, and through thorough safety management to minimize damage in the event of a large-scale earthquake. Through dialogue with local communities, we explain our efforts to ensure safety to our neighbors, thereby deepening mutual understanding.

## Performance Targets and Results for FY2018 (Sumitomo Chemical's Non-consolidated Production Plants)

Target	Maintaining a 60% reduction in total emissions of substances subject to the PRTR* (emissions into the air and water) compared to fiscal 2008
Result	90.1% reduction compared to fiscal 2008

\* Chemical Substances Control Promotion Law "PRTR: Pollutant Release and Transfer Register"

Target	Maintaining an 80% reduction in landfill volume of industrial waste compared to fiscal 2000
Result	84.0% reduction compared to fiscal 2000

See the "Environmental Protection" chapter of the Sustainability Data Book 2019

## **Eco-First Commitments**



Commitment Example	We will promote the management of chemical substances, using proprietary technology, and risk communications in an appropriate and proactive manner.
Performance Result	We have completed hazard assessments for all substances in our initial plan, and published safety summaries for 43 materials.

Since November 2008, Sumitomo Chemical has participated in the Eco-First Program of Japan's Ministry of the Environment as the only Japanese diversified chemical company. We disclose the progress of these initiatives and regularly report them to the Ministry of the Environment.

See the "Product Stewardship, Product Safety, and Quality Assurance" chapter of the Sustainability Data Book 2019

Status of Dialogues with Local Communities for FY2018 (Sumitomo Chemical's Non-consolidated Business Locations)

Number of Dialogues Held

42

Number of Participants

701



A local dialogue



A tour of a plant

See the "Occupational Safety and Health, Industrial Safety and Disaster Prevention" chapter of the Sustainability Data Book 2019

<sup>\*</sup> Documents that record safety information for chemical substances

## Dialogue with Shareholders and Investors

## **Basic Policy**

Sumitomo Chemical provides planned, effective, and strategic communications with shareholders and other investors regarding our management policies, business strategies, and performance trends, so as to fulfill our accountability to shareholders and maintain and raise market confidence, while endeavoring to convey an accurate understanding of the company that will be reflected properly in the stock price and in higher corporate value.

## **Achievements**

Every year, we hold a briefing session about current priority management issues and business strategy by the President, as well as individual business strategy briefing sessions by representative directors. In fiscal 2018, we explained the growth strategy for the agro solutions and environmental health business in the Health & Crop Sciences Sector. In terms of the tours of production facilities in Japan and overseas for institutional investors and analysts held every year, in fiscal 2018, we guided them to factories and research laboratories in Singapore and Osaka and let them see firsthand the front lines of our business sites.

Since fiscal 2016, we have arranged opportunities for directors who are in charge of a sector or head-office function to meet with investors and analysts and directly exchange views several times a year. Not only does management offer explanations, it also directly receives frank opinions from investors and analysts. This has led to constructive dialogues on our issues and the vision we should aim for, and mutual understanding is advancing year by year.

In fiscal 2018, we also increased the number of individual investors' meetings, and endeavored to further deepen individual investors' understanding of us.



FY2019-FY2021 Corporate Business Plan briefing in March 2019



A tour of the Osaka Area in March 2019

## **Summary of IR Activities (FY2018)**

## **Briefing Sessions**

	Times Held	Attendees
Current priority management issues and business strategy	2	214
Business Strategy	1	87
Corporate Business Plan	1	106
	Times Held	Attendees
Conference Calls (Financial results briefings, etc.)	5	506

## Individual Meetings (Institutional Investors and Analysts)

Attendees	
356*	* Including participants in the domestic and overseas conference

## Investors Visits

	Times Held
Overseas	35
Japan	6

## **Small Meetings**

	Times Held	Attendees
Small meetings with the President	3	57
Small meetings with representative director of business sectors	4	91

## Tours of Production Facilities for Institutional Investors and Analysts

Times Held	Attendees
2	38

## Individual Investors' Meetings

Times Held	Attendees
12	approx. 640

## **Board of Directors and Corporate Auditors**

(As of July 1, 2019)

In the career summary, '-' indicates their current positions in Sumitomo Chemical and important concurrent positions Sumitomo Chemical shares held by directors are as of March 31, 2019.

Attendance at Board of Directors or Board of Corporate Auditors meetings is for fiscal 2018.

## **Board of Directors**



Masakazu Tokura Chairman of the Board Birth date: July 10, 1950

■ Number of shares held: 228 thousand ■ Attendance status Board of Directors: 13/13 times (100%)

1974 Joined Sumitomo Chemical Co., Ltd.

1998 General Manager, Planning & Coordination Office Fine Chemicals Sector

2000 General Manager, Corporate Planning & Coordination Office

2003 Executive Officer

2006 Managing Executive Officer

2008 Representative Director & Managing Executive Officer

2009 Representative Director & Senior Managing Executive Officer

2011 Representative Director & President

2019-Chairman of the Board



Keiichi Iwata

Representative Director & President Birth date: October 11, 1957

■ Number of shares held: 89 thousand ■ Attendance status Board of Directors: 10/10 times\* (100%)

1982 Joined Sumitomo Chemical Co., Ltd. 2004 General Manager, Planning & Coordination Office, IT-related Chemicals Sector

2010 Executive Officer

2013 Managing Executive Officer

2018 Senior Managing Executive Officer

2018 Representative Director & Senior Managing Executive Officer

2019-Representative Director & President

\* Number of Board of Directors meetings held after Mr. Iwata's appointment



Ray Nishimoto Representative Director

Birth date: April 23, 1957

■ Number of shares held: 71 thousand Attendance status
Board of Directors:
13/13 times (100%)

Health & Crop Sciences Sector

1980 Joined Sumitomo Chemical Co., Ltd.

2006 General Manager, Planning & Coordination Office, Agricultural Chemicals Sector

2009 Executive Officer

2011 Managing Executive Officer

2013 Representative Director & Managing Executive Officer

2015 Representative Director & Senior Managing Executive Officer

2019- Representative Director & Executive Vice President

2010-Chairman, Vector Health International Ltd.

2013-Chairman, Valent U.S.A. LLC Chairman, Valent BioSciences LLC



Noriaki Takeshita Representative Director Birth date: July 23, 1958

■ Number of shares held: 54 thousand Attendance status
Board of Directors:
13/13 times (100%)

Rabigh Project, Petrochemicals & Plastics Sector

1982 Joined Sumitomo Chemical Co., Ltd.

2005 Rabigh Refining and Petrochemical Company

2010 Executive Officer

2013 Managing Executive Officer

2017 Representative Director & Managing Executive Officer

2018-Representative Director & Senior Managing Executive Officer

2016- Deputy Chairman, Rabigh Refining and Petrochemical Company



Masaki Matsui Representative Director Birth date: August 3, 1960

■ Number of shares held: 25 thousand

## ewly appointed

IT-related Chemicals Sector, PLED Business Planning Office, Electronic Devices Development Center

1985 Joined Sumitomo Chemical Co., Ltd.

2011 General Manager, Planning & Coordination Office, IT-related Chemicals Sector

2013 Executive Officer

2017 Managing Executive Officer

2019-Representative Director & Managing Executive Officer

2017-Chairman, Sumika Technology Co., Ltd.



Kingo Akahori Representative Director

Birth date: August 2, 1957

■ Number of shares held: 24 thousand

Newly appointed

Energy & Functional Materials Sector

1983 Joined Sumitomo Chemical Co., Ltd.

2009 General Manager, Battery Materials Division

2015 Associate Officer

2016 Executive Officer

2018 Managing Executive Officer

2019- Representative Director & Managing Executive Officer



Hiroshi Ueda Director Birth date: August 5, 1956

■ Number of shares held: 83 thousand ■ Attendance status Attendance Status
Board of Directors:

13/13 times (100%)

Research Planning and Coordination, Digital and Data Science Innovation,
Process & Production Technology & Safety Planning, Production & Safety Fundamental Technology Center, Intellectual Property, Responsible Care, Industrial Technology & Research Laboratory, Environmental Health Science Laboratory, Advanced Materials Development Laboratory, Bioscience Research Laboratory

1982 Joined Sumitomo Chemical Co., Ltd.

2006 Director, Process & Production Technology Center

2008 Associate Officer

2009 Executive Officer

2011 Managing Executive Officer

2016 Senior Managing Executive Officer

2016 Representative Director & Senior Managing Executive Officer

2018 Director & Senior Managing Executive Officer

2019- Director & Executive Vice President



Hiroshi Niinuma Director Birth date: March 5, 1958

■ Number of shares held: 65 thousand ■ Attendance status 

General Affairs, Legal, CSR, Internal Control and Audit, Human Resources, Osaka Office Administration, Corporate Communications, Procurement, Logistics

1981 Joined Sumitomo Chemical Co., Ltd.

2009 General Manager, General Affairs Dept.

2010 Executive Officer

2013 Managing Executive Officer 2018 Senior Managing Executive Officer

2018- Director & Senior Managing Executive Officer 2017-Outside Director, Sumitomo Seika Chemicals Co., Ltd.

\* Number of Board of Directors meetings held after



Takashi Shigemori

Birth date: October 3, 1958

■ Number of shares held: 11 thousand

Newly appointed

Corporate Business Development, Corporate Planning, IT Innovation, Accounting, Finance

1983 Joined Sumitomo Chemical Co., Ltd.

2010 Rabigh Refining and Petrochemical Company

2012 Executive Officer

2016 Managing Executive Officer

2019 Senior Managing Executive Officer

2019- Director & Senior Managing Executive Officer

2016-Director, Rabigh Refining and Petrochemical Company 2017- President, Japan-Singapore Petrochemicals Co., Ltd.

## **Outside Director**



Koichi Ikeda Director Birth date: April 21, 1940

Number of shares held: 0 ■ Attendance status Board of Directors: 13/13 times (100%)



2006 Representative Director & Chairman & CEO, Asahi Breweries, Ltd.

2010 Advisor, Asahi Breweries, Ltd. 2011 Outside Corporate Auditor, Sumitomo Chemical Co., Ltd.

2011- Advisor, Asahi Group Holdings, Ltd.

2015- Outside Director, Sumitomo Chemical Co., Ltd.



Hiroshi Tomono Director Birth date: July 13, 1945

Number of shares held: 0 ■ Attendance status Board of Directors: 12/13 times (92%)

1971 Joined Sumitomo Metal Industries, Ltd. 2005 Representative Director & President. Sumitomo Metal Industries, Ltd.

2012 Representative Director & President & COO, Nippon Steel & Sumitomo Metal Corporation

2014 Representative Director & Vice Chairman,

Nippon Steel & Sumitomo Metal Corporation 2015 Director & Advisor. Nippon Steel & Sumitomo Metal Corporation

2015-Outside Director. Sumitomo Chemical Co., Ltd.

Nippon Steel & Sumitomo Metal Corporation present Nippon Steel Corporation)

2016-Outside Director, Japan Nuclear Fuel Limited



Motoshige Itoh Director Birth date: December 19, 1951

■ Number of shares held: 0 ■ Attendance status Board of Directors: 10/10 times\* (100%)

1993 Professor, Faculty of Economics, The University of Tokyo

1996 Professor, Graduate School of Economics, The University of Tokyo

2007 Dean, Graduate School of Economics, Faculty of Economics, The University of Tokyo 2015-Outside Director, East Japan Railway Company

2016-Professor Faculty of International Social Sciences, Gakushuin University

2016-Outside Corporate Áuditor, Hagoromo Foods Corporation

2018-Outside Director, The Shizuoka Bank, Ltd. 2018-Outside Director, Sumitomo Chemical Co., Ltd.

\* Number of Board of Directors meetings held after Mr. Itoh's appointment



Atsuko Muraki Director Birth date: December 28, 1955

Number of shares held: 0 ■ Attendance status Board of Directors: 10/10 times\* (100%)

1978 Joined Ministry of Labour (Currently Ministry of Health Labour and Welfare) 2005 Counsellor for Policy Evaluation, Minister's Secretariat

of Ministry of Health Labour and Welfare 2006 Deputy Director-General, Equal Employment, Children and Families Bureau of Ministry of Health Labour and Welfare

2008 Director-General, Equal Employment, Children and Families Bureau of Ministry of

Health Labour and Welfare 2010 Director-General for Policies on Cohesive Society, Cabinet Office

2012 Director-General, Social Welfare and War Victims' Relief Bureau of Ministry of Health Labour and Welfare

2013 Vice Minister, Health Labour and Welfare of Ministry of Health Labour and Welfare 2015 Retired from Ministry of Health Labour and Welfare

2016- Outside Director, ITOCHU Corporation 2018- Outside Director, Sumitomo Chemical Co., Ltd. 2019- Outside Director, Sompo Holdings, Inc

\* Number of Board of Directors meetings held after Ms. Muraki's appointment

## **Corporate Auditors**



Kunio Nozaki Standing Corporate Auditor Birth date: October 29, 1956

■ Number of shares held: 78 thousand

## Newly appointed

1979 Joined Sumitomo Chemical Co., Ltd. 2002 General Manager, Finance & Accounting Office 2007 Executive Officer

2009 Managing Executive Officer

2014 Senior Managing Executive Officer

2014 Representative Director & Senior Managing Executive Officer

2018 Director & Senior Managing Executive Officer

2019 Director

2019-Corporate Auditor



Hiroaki Yoshida Standing Corporate Auditor

Birth date: March 2, 1956 ■ Number of shares Inches.
■ Attendance status
Board of Directors: 13/13 times (100%)
Board of Corporate Auditors:
14/14 times (100%)

1980 Joined Sumitomo Chemical Co., Ltd.

2012 General Manager, Planning & Coordination Office, Rabigh Project & General Manager, Planning & Coordination Office, Petrochemicals & Plastics Sector

2015-Corporate Auditor

## **Outside Corporate Auditor**



Mitsuhiro Aso Corporate Auditor

Birth date: June 26, 1949

■ Number of shares held: 0 Attendance status
Board of Directors: 13/13 times (100%)
Board of Corporate Auditors: Auditors: 14/14 times (100%

1975 Prosecutor

2010 Superintending Prosecutor of the Fukuoka High Public Prosecutors Office

2012 Retirement as Prosecutor

2012-Registration of Attorneys

2013-Outside Corporate Auditor, Sumitomo Chemical Co., Ltd.

2019-Outside Director, Sumitomo Mitsui Trust Holdings, Inc.



Yoshitaka Kato

Corporate Auditor Birth date: September 17, 1951

■ Number of shares held: 0 Attendance status
Board of Directors:
Board of Corporate A 12/13 times (92%) 14/14 times (100%)

1978-Registered as a certified public accountant 2008 CEO of Ernst & Young ShinNihon LLC 2014 Left Ernst & Young ShinNihon LLC

2015-Outside Corporate Auditor, Sumitomo Chemical Co., Ltd. 2015-Outside Corporate Auditor, Mitsui Fudosan Co., Ltd.

2016-Outside Corporate Auditor, Sumitomo Corporation



Michio Yoneda

Corporate Auditor Birth date: June 14, 1949

■ Number of shares held: 2 thousand ■ Attendance status
Board of Directors:10/10 times\* (100%)
Board of Corporate Auditors\*:
10/10 times (100%)

1973 Joined Bank of Japan

1998 General Manager, Sapporo Branch of Bank of Japan

2000 Resigned as General Manager, Sapporo Branch of Bank of Japan

2000 Executive Director, Osaka Securities Exchange (Currently Japan Exchange Group, Inc.)

2003 President & CEO, Osaka Securities Exchange Co., Ltd.

2013 Director & Representative Executive Officer, Group COO, Japan Exchange Group, Inc. Director, Tokyo Stock Exchange, Inc.

2015 Resigned as Director & Representative Executive Officer, Group COO, Japan Exchange Group, Inc. Resigned as Director, Tokyo Stock Exchange, Inc

2016-Outside Director, Kawasaki Heavy Industries, Ltd. 2018-Outside Director, Asahi Broadcasting Group Holdings Corporation 2018- Outside Corporate Auditor, Sumitomo Chemical Co., Ltd.

\* Number of Board of Directors and Corporate Auditors meetings held after Mr. Yoneda's appointment

## **Executive Officers**

## President

### Keiichi Iwata

## **Executive Vice President**

## Ray Nishimoto

## Hiroshi Ueda

Health & Crop Sciences Sector

Research Planning and Coordination, Digital and Data Science Innovation, Process & Production Technology & Safety Planning, Production & Safety Fundamental Technology Center, Intellectual Property, Responsible Care, Industrial Technology & Research Laboratory, Environmental Health Science Laboratory, Advanced Materials Development Laboratory, Bioscience Research Laboratory

## **Senior Managing Executive Officer**

### Noriaki Takeshita

### Hiroshi Niinuma

## Takashi Shigemori

Rabigh Project, Petrochemicals & Plastics Sector General Affairs, Legal, CSR, Internal Control and Audit, Human Resources, Osaka Office Administration,

Corporate Communications, Procurement, Logistics

Corporate Business Development, Corporate Planning, IT Innovation, Accounting, Finance

## **Managing Executive Officer**

## Masaki Matsui

IT-related Chemicals Sector, PLED Business Planning Office, Electronic Devices Development Center

## Kingo Akahori

Energy & Functional Materials Sector

## Marc Vermeire

Sumitomo Chemical Europe S.A./N.V., Special mission related to the Corporate Business Development Dept. and the Corporate Planning Dept.

## Kazuyuki Nuki

AgroSolutions Div. - Japan, Environmental Health Div

## Keiichi Sakata

Corporate Planning Dept., IT Innovation Dept.

## Motoyuki Sakai

Sumitomo Chemical Asia Pte Ltd

## Yoshiaki Oda

Corporate Business Development Dept., Intellectual Property Dept.

## Nobuaki Mito

Health & Crop Sciences Sector Planning & Coordination Office, Pharmaceutical Chemicals Div., Health & Crop Sciences Research Laboratory

## Soji Sakamoto

Basic Materials Div., Industrial Chemicals Div., Resin-related Business Development Dept., Polyolefins Div., Automotive Materials Div.

## Yoshihiro Miyoshi

Digital and Data Science Innovation Dept., Process & Production Technology & Safety Planning Dept., Production & Safety Fundamental Technology Center, Responsible Care Dept.

## **Executive Officer**

## Atsuko Hirooka

Environmental Health Div., Animal Nutrition Div.

## Seiji Takeuchi

Rabigh Refining and Petrochemical Company

## Andrew Lee

Valent U.S.A. LLC, Valent BioSciences LLC

## Naoyuki Inoue

Rabigh Refining and Petrochemical Company

## Yasuaki Sasaki

Inorganic Materials Div., Advanced Polymers Div.

## Keigo Sasaki

Corporate Communications Dept., Accounting Dept., Finance Dept.

## Kenji Ohno

General Affairs Dept., Legal Dept., CSR Dept., Internal Control and Audit Dept.

## Shinichiro Nagata

Ehime Works

## Yoshizumi Sasaki

Rabigh Refining and Petrochemical Company

## Ichiro Kosaka

Energy & Functional Materials Sector Planning & Coordination Office, Specialty Chemicals Div.

## Masaya Naito

Procurement Dept., Logistics Dept.

## Takanari Yamaguchi

Optical Materials Div.

## Akira Iwasaki

Energy & Functional Materials Sector Planning & Coordination Office

## Hirokazu Murata

Oita Works, Misawa Works

## Isao Kurimoto

Research Planning and Coordination Dept., Digital and Data Science Innovation Dept., Industrial Technology & Research Laboratory, Advanced Materials Development Laboratory, PLED Business Planning Office

## Koichi Ogino

Chiba Works

## Kimitoshi Umeda

Health & Crop Sciences Sector Quality Assurance Office, AgroSolutions Div. – International

## Inho Rha

Dongwoo Fine-Chem Co., Ltd

## Akira Nakanishi

IT-related Chemicals Sector Planning & Coordination Office

## Masao Shimizu

Human Resources Dept., Osaka Office Administration Dept.

## **Corporate Governance**

## **Corporate Governance Initiatives**

Sumitomo Chemical has been committed to continual efforts to improve corporate governance. In response to demands for further raising the governance level, including application of the Corporate Governance Code, we are taking measures to achieve the optimal governing structure and decision-making processes, while remaining faithful to the intent and spirit of the Code.

## **Basic Stance**

Sumitomo Chemical cherishes deeply the Sumitomo Spirit which has been passed down through generations over nearly 400 years, the basic teaching of which is, among others, not to seek its own interests alone, but to contribute to society through its business activities. In accord with this business credo, the company strives to take on challenges constantly of creating new value by capitalizing on its proprietary technologies toward achieving the company's sustained growth while at the same time cultivating corporate culture full of vigor and growing as a company that earns trust from the public at large. Recognizing that highly effective corporate governance is vital to attaining these ends, the company keeps working to further enhance its corporate governance in accordance with the following policies and principles, centering particularly on closer cooperation with shareholders and various other stakeholders, faster decision-making, proper oversight of business execution, enhanced systems of compliance and internal control, and active dialogue with stakeholders.

- Sumitomo Chemical not only shall respect the rights of shareholders, but shall endeavor to provide an environment where shareholders can exercise their rights smoothly and also to ensure the effectively equal treatment of shareholders.
- Recognizing that cooperation with various stakeholders, including employees, customers, business partners, creditors, and local communities, is essential to sustained growth, Sumitomo Chemical shall proactively work to fulfill its corporate social responsibility and strive to cultivate corporate culture of a company that can be trusted by society.
- As part of efforts to build a foundation for constructive dialogue with stakeholders, Sumitomo Chemical shall endeavor to provide information that is highly reliable and useful to recipients.
- Sumitomo Chemical's Board of Directors shall fulfill its role and mission properly, based on their fiduciary responsibilities and accountability to shareholders and recognizing the important role of Independent Outside Directors & Auditors, through such measures as presenting appropriate corporate management policies and business strategies that have taken into account changing socioeconomic conditions, and conducting highly effective oversight over the execution of business.
- Sumitomo Chemical shall endeavor to promote constructive dialogue with shareholders with the aim of seeking to attain the company's sustained growth and to enhance corporate value in the medium to long term.

Sumitomo Chemical has prepared Corporate Governance Guidelines. These Guidelines can be viewed on Sumitomo Chemical's website. https://www.sumitomo-chem.co.jp/english/company/governance.html

## Measures to Date for Strengthening Corporate Governance

	Date	Major Initiatives	Board Composition	Appointment of Board Members	Executive Remuneration	Other
2003	June	Introduced Executive Officer system (reduced number of Directors from 25 to 10)				•
	July	Established Compliance Committee				
2004	June	Eliminated system of retirement benefits for Directors and Corporate Auditors				
2007	May	Established Internal Control Committee			•	
	September	Established Remuneration Advisory Group				
2010	September	Established Nomination Advisory Group				
2011	November	Drew up standards for appointment of independent outside directors				
2012	June	Appointed 1 outside director				
2015	June	Selected 3 outside directors (increased by 2)		-		
	October	Established Remuneration Advisory Committee in place of Remuneration Advisory Group			•	
		Established Nomination Advisory Committee in place of Director Nomination Advisory Group		•		
2016	December	Formulated Sumitomo Chemical Corporate Governance Guidelines				
2018	June	Selected 4 outside directors (including one woman) (increased by 1)				

## Recent Initiatives to Strengthen Corporate Governance

## Further Strengthening of the Board of Directors' Oversight and Advisory Functions

With the goal of further strengthening the Board of Directors' oversight and advisory functions to increase the transparency and objectivity of management, in June 2018 we added one outside director, increasing the total number to four (including one female director). As a result, of the 18 total members of the Board of Directors and the Board of Corporate Auditors, seven are outside members. Outside Directors have experience in a wide range of fields, including corporate management, economics, government, the legal profession, and accounting. We will continue to further revitalize the Board of Directors, leveraging these perspectives.

## Board Composition (As of July 1, 2019)



	Inside	Outside
Director	9	4 (including one female director)
Corporate Auditor	2	3

## Changes in the Operation of the Board of Directors

After the implementation of Japan's Corporate Governance Code, we changed the operation of the Board of Directors to place greater emphasis on deliberating management policies, business strategy, and important matters of business execution, and on oversight of that execution. Specifically, we are enhancing reporting on the status of business execution for each Executive Officer. Depending on the content of each report, we have established several reporting methods. For example, for large-scale projects, we share details with the Board of Directors at an early stage and discuss the direction of the projects. In this way, meaningful discussions are held that contribute to sustainable development and rapid and decisive decision-making.

## **Utilizing Outside Director Roles**

To make maximum use of the oversight and advisory functions of the Outside Directors, it is essential to minimize asymmetries in information between inside and Outside Directors. The measures including those listed below have been implemented to revitalize board deliberation.

## Measures to Make Maximum Use of Outside Director Functions

Specific Measures	Frequency	Description
Briefings prior to Board of Directors meetings	Every month	Outside Directors gather together in advance of Board of Directors meetings to receive a detailed briefing from the relevant departments, along with a Q&A session, on issues to be discussed at the Board of Directors meeting.
Reporting on issues discussed in internal meetings	Every month	Explanations are provided on the points of discussion at internal meetings, and on how the views expressed at the meetings are reflected in the proposal before the Board, for issues such as the launch of a business or an acquisition.
Reporting on important matters to the Board of Directors at an early stage	In each case	Important matters, such as management direction, M&A transactions, or large-scale projects, are reported to the Board of Directors at an early stage of consideration so that the Board's intentions can be reflected.
Outside Directors & Corporate Auditors meetings	Once a year	Based on such materials as the results of surveys on the effectiveness of the Board of Directors, meetings consisting of the Chairman of the Board, the President and the Outside Directors and Corporate Auditors are held to enable a frank exchange of views.
Meetings with Outside Directors and Corporate Auditors only*1	Twice a year	After Board of Directors meetings, meetings consisting of only Outside Directors and Corporate Auditors are held to exchange opinions freely.
Meetings between Outside Directors and Corporate Auditors and major sectors*1	Six times a year	After Board of Directors meetings, meetings are held between the executives and employees of the department in charge of the Rotation Report*2 for that Board of Directors meeting and the Outside Directors and Corporate Auditors, enabling them to exchange opinions freely and honestly.
Visits to production sites	Twice a year	Visits are made to our production sites both inside and outside Japan.

<sup>\*1</sup> Beginning in FY2019

<sup>\*2</sup> Rotation Report: Comprehensive and systematic reporting over a significant amount of time for each sector.

## Assessing the Effectiveness of the Board of Directors

## Assessment Method

Sumitomo Chemical's Board of Directors carries out analyses and appraisals regarding the effectiveness of the Board of Directors through exchanges of opinions at meetings attended by Outside Directors, Outside Corporate Auditors, the Chairman of the Board, and the President, as well as at Management Meetings attended by inside directors, while taking into account survey results from all Directors and Corporate Auditors and opinions expressed by the Board of Corporate Auditors. Based on these opinions, the Board of Directors works to improve its effectiveness every year.

## Assessment for Fiscal 2018 and Improvements over the Previous Fiscal Year

The effectiveness of the Board of Directors is assessed from a variety of perspectives, including its composition, its operation, the deliberations and reporting at the Board of Directors meetings, its oversight of business execution, and the operations of the non-mandatory Nomination Advisory Committee and Remuneration Advisory Committee. At the end of fiscal 2018, we confirmed that improvements were steadily being made each year, and that the level was generally favorable. We also confirmed that we will continue various initiatives aimed at increasing corporate value going forward.

## Initiatives Addressing Areas for Improvement from the Previous Fiscal Year

- Strengthening supervision through reporting and discussions on important matters relating to Group companies
- Holding discussions on long-term strategies throughout the drafting of the new Corporate Business Plan
- Further sharing of internal discussions with Outside Directors and Corporate Auditors

## Toward the Future

We will again discuss the roles of inside and Outside Directors and Corporate Auditors and take the following measures. In order to further revitalize the activity of the Board of Directors, we will allot more time for Board of Directors meetings to allow more room for discussion, provide detailed explanations of the background of internal discussions on deliberations and other matters, and further clarify the points of discussion in the explanations. In order for Outside Directors and Corporate Auditors to properly fulfill their roles and duties, we will also provide meetings consisting solely of independent Outside Directors and Corporate Auditors and forums where they can frankly exchange their opinions with a wide range of employees.

## **Visit to Production Sites by Outside Directors and Corporate Auditors**

In order for Outside Directors and Corporate Auditors to improve their understanding of our business, Sumitomo Chemical provides them with opportunities to visit our production sites both inside and outside Japan each year. In fiscal 2018, they visited the Ehime Works and a Group company in Saudi Arabia. They have expressed the opinion that this initiative is extremely valuable, enabling them to get a deeper understanding of our business.





Visit to Ehime Works in September 2018

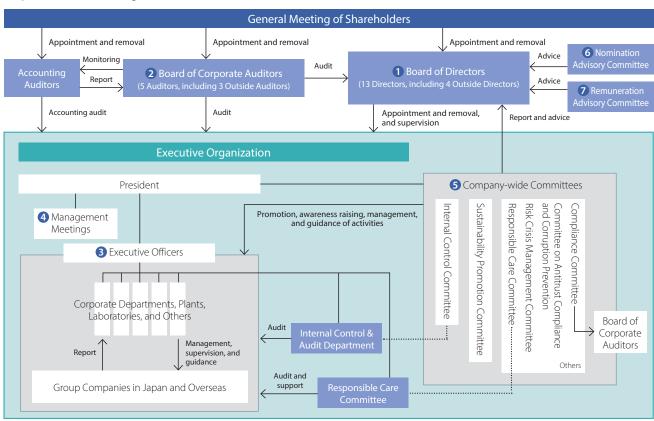
Visit to a Group company in Saudi Arabia in February 2019

## PDCA Cycle for Further Improving the Effectiveness of the Board of Directors



## **Current Corporate Governance Organization**

Corporate Governance Organization (As of July 1, 2019)



## **Organizational Structure**

## Board of Directors

The Sumitomo Chemical Board of Directors decides important matters concerning the company's management, including management policy and business strategies, in accordance with the law, the Articles of Incorporation, and the Board of Directors' own rules. It also receives reports from Directors and others on the performance of duties, financial situation, and operating results, and oversees the performance of duties by each Director.

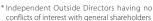
To ensure the effectiveness of the Board of Directors, assessments and analyses are conducted annually and the results are followed up on in subsequent meetings. In accordance with the Nomination Advisory Committee's advice, candidates for Director are nominated by the Board of Directors and are elected once a year at the General Meeting of Shareholders.

## Overview of the Board of Directors

Chairperson	Chairman of the Board The Chairman of the Board does not concurrently serv Executive Officer.	
Number of Persons	13	
Frequency Monthly in principle		Special meetings of the Board of Directors are convened as needed.
The Term of Office of Directors	One year	The term of office of Directors is one year, in order to establish clear administrative responsibility and roles for Directors.

## Breakdown of 13 Directors

Inside	9	0	9
Outside*	3	1	4
Total	12	1	13





## 2 Board of Corporate Auditors

We have a Corporate Auditor system, with a Board of Corporate Auditors consisting of five Corporate Auditors, including three Outside Corporate Auditors. The Corporate Auditors and the Board of Corporate Auditors play a vital role in our corporate governance by auditing the performance of duties by Directors in accordance with the law and the Articles of Incorporation. The Board of Corporate Auditors meets monthly as a rule and strives to obtain timely information, including important compliance-related information.

Standing Corporate Auditors and Outside Auditors attend meetings of the Board of Directors and the Board of Corporate Auditors. In conducting their audits, they receive reports and explanations as needed from the Internal Control & Audit Department, operating divisions, and accounting auditors. In addition, Standing Corporate Auditors attend meetings of the Internal Control Committee and other important company meetings.

The results of audits and the objective views of Outside Auditors are appropriately reflected in internal audits, corporate auditors' audits, and accounting audits, so as to raise the effectiveness and efficiency of auditing.

The Corporate Auditors' Office has been established with staff dedicated to providing assistance in auditing functions under the direction of Corporate Auditors.

## Breakdown of 5 Corporate Auditors

Inside	2	→ Outsid	de		
Outside*	3			Corporate Auditors	
	rate Auditors having no th general shareholders	o		5	Inside 2

## Management Organizations for Decision-making, Execution, and Auditing

## 3 Executive Officers

We have appointed Executive Officers to expedite the implementation of business operations. Executive Officers are responsible for carrying out operations in accordance with the policies adopted by the Board of Directors. The term of office for Executive Officers is one year.

## Breakdown of 36 Directors

	Male	Female	Total
Japanese	32	1	33
Non-Japanese	3	0	3
Total	35	1	36

## 4 Management Meetings

Management Meetings support the decision-making of our management by providing a forum for deliberation on such vital matters as corporate strategy and capital investment, including matters to be deliberated in the Board of Directors and reports to be made to the Board. Management Meetings consist of the Executive Officers who are in charge of or who supervise key management functions, the Standing Corporate Auditor, and the Chairman of the Board. In principle, the meetings are held 24 times a year.

## **5** Committees

We have established internal meetings (committees) to deliberate on important matters concerning the management of the company, and the Group from a broad and diverse range of viewpoints. The content of these meetings is reported to the Board of Directors as needed, and the committees receive instructions from the Board of Directors in an effort to enhance business execution and oversight functions. Several of these committees are attended by the Standing Corporate Auditor, who serves as an observer, including the Internal Control Committee, the Compliance Committee, and the Responsible Care Committee.

We regard the promotion of sustainability as a core issue for the entire Group. In 2018, we expanded the CSR Promotion Committee and established a new Sustainability Promotion Committee to further strengthen our sustainability initiatives. The Responsible Care Committee also examines specific measures to address climate change and other environmental issues.

Name	Purpose	Number of Meetings in Fiscal 2018
Internal Control Committee	Deliberates on measures to build and improve a proper internal control system	3
Sustainability Promotion Committee	Comprehensively reviews the Group's sustainability promotion activities and examines the Group's contributions to sustainability at a high level, with the aim of accelerating the Group's efforts to solve societal issues, such as the SDGs.	2
Responsible Care Committee	Deliberates on annual policies, Corporate Business Plans, and specific measures, and analyzes and evaluates the results of measures to address climate change and other environmental issues.	1
Risk and Crisis Management Committee	Deliberates on policies for specific risks and crises, such as earthquakes, wind and flood damage caused by extreme weather, pandemics, and breakdowns in public security.	1*
Compliance Committee	Deliberates on the Group's compliance policies and action plans, and the status of the operation of the compliance system, including responses to internal reports and the results of activities.	1

<sup>\*</sup> Subcommittee meetings on specific key themes

## **Executive Nomination and Remuneration**

## **6** Nomination Advisory Committee

The Nomination Advisory Committee was established in October 2015 to act as an advisory body to the Board of Directors on the selection of top management and on the appointment of directors and auditors. The committee is made up of Outside Directors and Sumitomo Chemical representative directors. Regular meetings are held annually and ad hoc meetings are convened as needed. With a majority of members being Outside Directors, the committee advises the Board of Directors on the appointment of officers, with the purpose of ensuring more transparency, fairness, and openness in the process of appointing officers and bringing greater clarity to the process.

## **7** Remuneration Advisory Committee

The Remuneration Advisory Committee was established in October 2015, as an advisory body to the Board of Directors on the remuneration system, remuneration levels, and other related matters, for top management and Directors. The committee is made up of Outside Directors and Sumitomo Chemical representative directors. It holds regular meetings annually and convenes ad hoc meetings as needed. With a majority of members being Outside Directors, the committee advises the Board of Directors in deciding the executive officer remuneration system and levels, in order to achieve greater transparency, fairness, and openness.

## Directors' and Corporate Auditors' Remuneration in Fiscal 2018

(Millions of yen)

701	<b>.</b>	Breakdown of		
Title	Total	Basic Remuneration	Bonuses	Number of people
Directors (excluding Outside Directors)	¥728	¥553	¥175	10
Standing Corporate Auditors	¥ 78	¥ 78	¥ —	2
Outside Directors and Corporate Auditors	¥108	¥ 93	¥ 14	9

Composition of the Nomination Advisory Committee and the Remuneration Advisory Committee and Attendance Status (Meetings Attended / Meetings Held)

		Nomination Advisory Committee	Remuneration Advisory Committee	The Committee Members of the Nomination Advisory Committee and the Remuneration Advisory Committee in Fiscal 20°		
Chairman of the Board	Osamu Ishitobi (Chairman)	5/5 times (100%)	2/2 times (100%)	Chairman of the Board	Masakazu Tokura (Chairman)	
Representative Director & President	Masakazu Tokura	5/5 times (100%)	2/2 times (100%)	Representative Director & President	Keiichi Iwata	
Outside Director	Koichi Ikeda	5/5 times (100%)	2/2 times (100%)	Outside Director	Koichi Ikeda	
Outside Director	Hiroshi Tomono	5/5 times (100%)	2/2 times (100%)	Outside Director	Hiroshi Tomono	
Outside Director	Motoshige Itoh	5/5 times (100%)	2/2 times (100%)	Outside Director	Motoshige Itoh	
Outside Director	Atsuko Muraki	5/5 times (100%)	2/2 times (100%)	Outside Director	Atsuko Muraki	

## Major Activities in the Nomination Advisory Committee and the Remuneration Advisory Committee in Fiscal 2018

Nomination Advisory Committee	<ul> <li>Discussions on candidates to be the next President</li> <li>Discussions on officers for fiscal 2019</li> <li>Discussions on the Counselor system</li> </ul>
Remuneration Advisory Committee	<ul> <li>Discussions on revising the policy for determining the remuneration of executive officers</li> <li>Discussions on how basic remuneration should change</li> <li>Discussions on basic remuneration for fiscal 2018</li> <li>Discussion on the calculation method for the bonuses of officers upon adoption of IFRS</li> <li>Discussions on the payment of bonuses to officers for fiscal 2018</li> </ul>

## Policies and Procedures for Determining Remuneration of Senior Management and Directors

## 1. Basic Policy for Remuneration of Directors, etc.

- (1) The remuneration of senior management and directors (hereinafter "Directors etc.") shall consist of basic compensation and bonuses.
- (2) Basic compensation is designed to serve as an incentive for the actions of Directors, etc. to contribute to the company's sustainable growth, rather than aiming for short-term or sub-optimal effects.
- (3) The scale of bonuses shall largely reflect the company's consolidated financial results for a fiscal year in order to heighten incentives to achieve the annual targets of business plans.
- (4) Remuneration shall be set at levels which are designed to be objectively competitive to attract and retain outstanding talent while taking into consideration such factors as the scale and content of the company's business. Based on surveys by a third-party organization and other materials, such levels shall be checked annually for objective appropriateness.

### 2. Mechanisms of Each Remuneration Element

### (1) Basic Compensation

The level of basic compensation shall be determined based on the policy described in section 1(4) above.

While basic compensation for each year shall be fixed, the company will adopt a mechanism whereby basic compensation levels would be changed in the event that the company's position has changed, in terms of the company's size, earnings capacity, and outside evaluations, from a comprehensive and medium- to long-term perspective.

As main indicators for determining whether there has been a change in the company position, the company will apply the following: 1 in terms of the company's size, sales revenue, total assets and market capitalization, (2) in terms of earnings capacity, net income (attributable to the parent company), ROE, ROI and D/E ratio, and 3 in terms of outside evaluations, credit ratings and the ESG index selected by the GPIF (Government Pension Investment Fund).

The amounts to be paid to each person will be determined in accordance with the base amount set for each position.

### (2) Bonuses

Bonuses shall be paid on the condition that performance for that fiscal year exceeds a particular level and shall be determined based on the bonus calculation formula (performance indicator x coefficient).

In order to reflect the current earnings capacity of the relevant business year (including financial activities) in the value of bonuses, the company will use the combined value of consolidated core operating profit and financial profit and loss as the performance indicator in the bonus calculation formula. In addition, the company will set the coefficient of the calculation formula so that it will get larger as the position of a person gets

## (3) Percentages of Fixed Remuneration (Basic Compensation) and Performance-linked Remuneration (Bonuses)

The company will set the bonus calculation formula such that the bonuses of Directors (excluding Outside Directors) accounts for roughly 30% of total remuneration when the consolidated performance goal (core operating profit) for the latest fiscal year of the Corporate Business Plan (fiscal years 2019 to 2021) is achieved.

## Conceptual Diagram of the Remuneration of Directors



Based on the factors for determination described below, the company will change the amount of remuneration when it is determinable that the company's position has changed from a comprehensive and medium- to long-term perspective.

Factors for Determination	Major Indicators					
Company's size	Sales revenue Total assets Market capitalization					
Earnings capacity	Current income (belonging to the parent company) ROE ROI D/E ratio					
Outside evaluations						
* The amount to be paid to each person will be determined by each position						

The amount of bonuses will be determined by the calculation formula based on the following consolidated performance indicator.

Consolidated performance indicator	Core operating profit plus financial profit and loss
Calculation formula	Consolidated performance indicator  X  Coefficient*1

<sup>\*1</sup> The Company will arrange so that the higher the position, the larger the

## 3. Procedures for determining remuneration of Directors, etc.

The remuneration amount of Directors shall be set at a level not higher than the upper limit for total remuneration prescribed by the resolution of the 125th General Meeting of Shareholders, held on June 23, 2006 (i.e. 1 billion yen or less per year). Furthermore, the specific amount of remuneration for each Director or other officer shall be determined by the Chairman of the Board, as authorized by the Board of Directors, based on the standard advised by the Remuneration Advisory Committee.

<sup>\*2</sup> If a consolidated performance indicator does not exceed a particular level, bonuses will not be paid.

Visit our website for details on the Basic Policy for the Enhancement of the Internal Control System.

https://www.sumitomo-chem.co.jp/english/company/governance/

## **Internal Control**

## **Status of Development of Internal Control System**

Sumitomo Chemical established its Basic Policy for the Enhancement of the Internal Control System by a resolution of the Board of Directors, creating a system to ensure the appropriateness of its operations as stipulated in the Companies Act.

As stated in the basic concept of this policy, we recognize that the development of an internal control system is a necessary process for maintaining a sound organization and should be actively utilized to achieve business objectives. To continuously enhance our internal control system, we have formed the Internal Control Committee, which is chaired by the President and consists of Executive Officers responsible for and in charge of each business sector and corporate department. Meetings of the committee are held three times a year, with additional meetings held as needed.

At Sumitomo Chemical, the Internal Control Committee plays a central role in discussing various measures based on the basic policy described above. The committee also operates a PDCA cycle by monitoring the implementation status of those measures, and constantly inspects and strengthens the Group's internal control system in response to changes in the Group's business and operating environment, ensuring that the Group's internal control system can function effectively.

The Standing Corporate Auditors are involved in the committee as observers, and the committee's operations are conducted by the Internal Control & Audit Department, which is separated from other business activities. Summaries of the matters covered in the committee are reported to the Board of Corporate Auditors after each meeting. These summaries are then reported to the Board of Directors for deliberation.

## **Timely Disclosure**

The Corporate Communications Department is in charge of working in conjunction with other relevant departments to continually disclose necessary information in a timely manner. In addition to items requiring disclosure under Japan's Financial Instruments and Exchange Act and under stock exchange regulations, we also actively disclose information that may be considered material to the decisions of investors.

We endeavor to build stronger relationships of trust with society and capital markets by publishing documentation in accordance with the rules stipulated by the security exchanges in Japan, including reports on the company's corporate governance philosophy and system, and notifications showing that Outside Directors and Corporate Auditors have no existing conflicts of interest with general shareholders. These documents are available on the website of Japan Exchange Group Inc

## **Internal Audits**

As part of its internal control monitoring activities, Sumitomo Chemical has established a dedicated organization within the company to conduct internal audits, in addition to audits by the Corporate Auditor and Financial Statement auditors. The Internal Control & Audit Department conducts internal audits for all matters related to the execution of operations by the company and its Group companies, and dedicated audit teams for the Responsible Care Department conduct Responsible Care auditing from the perspective of safety, environment, and quality throughout the life cycle of chemical products. Internal audits and Responsible Care audits are coordinated with each other as needed.

## 1 Internal Audits

The Internal Control & Audit Department organizes teams of several employees who conduct internal audits on Sumitomo Chemical and its major Group companies once every two to five years from the following perspectives: (1) effective and efficient operations; (2) reliability of financial reporting; and (3) compliance with relevant laws and statutes in all business activities.

The department also reports the results of internal audits to the Internal Audit Liaison Meeting, which is held on a quarterly basis and is attended by the Standing Corporate Auditors and a number of departments, including the Legal Department, the Human Resources Department, and the planning & coordination office of each business sector. The department also reports to the Internal Control Committee once every six months in order to share issues and to promote the lateral deployment of measures. In addition, in accordance with the Financial Instruments and Exchange Act, the department evaluates the effectiveness of internal control over the Sumitomo Chemical Group's financial reporting, and also reports on the status of its evaluations to the Internal Control Committee.

## 2 Responsible Care Audits

The Responsible Care Department organizes teams of dedicated employees to conduct responsible care audits on each of our business sites and on major Group companies every one to three years, in principle, from the following perspectives: ensuring safety, environmental protection, and health throughout the entire life cycle of chemical products, as well as determining whether internal controls related to maintaining and improving quality are in place and functioning properly.

Through these audits, we are striving to support the improvement of Responsible Care management in accordance with the size, type of business, and characteristics of each business site and Group company. Issues discovered during the audit and the progress of improvements are reported internally every time and to the Responsible Care Committee when it meets once a year.

Visit our website for details on business risk.

https://www.sumitomo-chem.co.jp/english/ir/policy/risk\_factors.html

## **Risk Management**

Sumitomo Chemical seeks to improve and enhance our risk management system to detect, at an early stage, risks that have the possibility of hindering the achievement of business objectives and to prevent them from occurring as well as to minimize damage when they do occur.

## **Risk Management Organization**

As part of its standard duties, each of the Group's organizations is taking various measures to appropriately manage the risks associated with its business operations. In addition, the Internal Control Committee deliberates on Group-wide priority risk management policy as a basis for supporting and ensuring thorough implementation of these measures by each organization. Moreover, the committee oversees the implementation of measures undertaken by each organization based on this policy.

## Promotion of Group-wide Priority Risk Assessment and Countermeasures

Every year, approximately 120 major organizations, both in Sumitomo Chemical and Group companies in Japan and overseas, conduct risk evaluations, assessing the probability of occurrence and the potential impact of various risks that could hinder the achievement of business objectives. These results are then aggregated to create a Group-wide priority risk map. Based on this risk map, the Internal Control Committee identifies priority risks that require Group-wide countermeasures. In addition, our risk response coordination organizations, which have been established for each priority risk, formulate a response plan for the entire Group, and each organization of the Group implements countermeasures in accordance with this plan. Moreover, the committee regularly receives reports on the progress of countermeasures and provides necessary instructions.

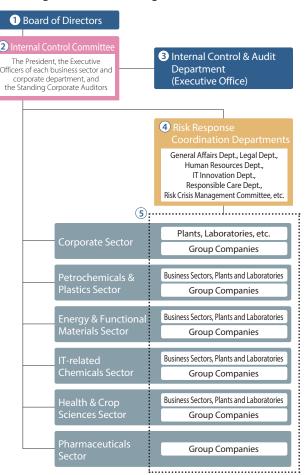
## To Review and Strengthen the Effectiveness of Risk Management

In this way, we conduct a PDCA cycle for risk management every fiscal year, centered on the Internal Control Committee. In doing so, we are constantly inspecting and strengthening risk management in response to changes in our business and the surrounding environment so that risk management functions effectively. Summaries of the matters covered in the committee are reported to the Board of Corporate Auditors after each meeting. These summaries are then reported to the Board of Directors for deliberation.

## **Cross-organizational Risks and Crisis Response**

We established the Risk and Crisis Management Committee to deliberate risks and crisis response policies that affect multiple business sites, departments, and Group companies, such as large-scale disasters (earthquakes, storms, floods, etc.), pandemics, deterioration of security in Japan or overseas (terrorism, riots, wars, etc.), and other issues.

## Risk Management Promotion Organization



- Board of Directors
  - The Board ensures the effectiveness of risk management by deliberating and supervising the activities of the Internal Control Committee.
- 2 Internal Control Committee (Chaired by the President)
  - The committee deliberates on policies related to risk management for the entire Sumitomo Chemical Group, and supervises the efforts of each organization based on these policies.
- 3 Internal Control & Audit Department
  - As the executive office of the Internal Control Committee, this department monitors the risk management activities of each department and Group company of the Sumitomo Chemical Group.
- 4 Risk Response Coordination Departments
  - Each organization plans and promotes Group-wide countermeasures for the risks assigned to it, in cooperation with each department and Group company.
- 5 Each Department and Group Company
  - These organizations are the main drivers of risk management.
  - The organizations develop and implement countermeasures for the risks affecting their own organization or company.

## **Compliance**

## **Basic Policy**

The Sumitomo Chemical Group places compliance at the bedrock of its corporate management. As we engage in business in many parts of the world, all of the companies in the Sumitomo Chemical Group are devoting earnest efforts to stay in strict compliance with not only laws and regulations, but also ethical principles in a business environment. Both the spirit and the letter of ensuring compliance in business activities have consistently been enshrined at Sumitomo Chemical ever since the company was founded. This unwavering resolve towards compliance is embodied succinctly in the "Sumitomo Chemical Charter for Business Conduct," which serves as the guideline of conduct for every employee to abide by and constitutes the backbone of our day-to-day compliance activities. In recent years, in particular, companies are expected to fulfill their societal responsibilities more than ever before. Given the circumstances, all companies in the Sumitomo Chemical Group are making concerted efforts to further compliance activities, under the strong leadership of top management, to further enhance compliance in the Group's business activities on a global basis.

## Compliance System at the Sumitomo Chemical Group

## (1) Compliance Committee

Sumitomo Chemical has established a Compliance Committee chaired by the President and holds a Compliance Committee meeting at least once a year (or more frequently as needed). Details discussed by the committee are reported to Board of Directors and Board of Corporate Auditors, and the committee then receives feedback from them. The committee establishes overarching principles of compliance from a global perspective, and then works with each business sector and Group company, both in Japan and abroad, to build and operate their compliance systems locally in the required manner, according to those global principles.

## (2) Group Compliance Structure Focused on Effectiveness (Think globally, Manage regionally, Act locally)

As business globalizes, it becomes more important that the operation of a corporation's compliance system be fine-tuned to situations specific to individual countries or companies. In light of this, we have established Regional Legal & Compliance Offices (RLCOs) in Sumitomo Chemical's major business regions. The RLCOs, grasping the concrete needs and tasks of their respective Group companies, provide hands-on support and guidance to them, such as helping to set and implement necessary internal rules and procedures, building a company's compliance system, and assisting in its operations.

## Compliance System at Sumitomo Chemical Group



## (3) Introducing and Operating a Compliance System for the Company and its Group Companies

To ensure thorough compliance throughout the entire Sumitomo Chemical Group, it is important that Sumitomo Chemical and its Group companies establish and operate their own compliance systems. Sumitomo Chemical and its Group companies are engaged in the following activities.

- ① Establishing and operating the Compliance Committee (including responding to internal reports and conducting compliance violation investigations)
- 2 Introducing and regularly reviewing the Code of Ethics
- ③ Introducing and operating the Internal Reporting system (the Speak-Up Reporting System)
- ① Conducting compliance activities (education, training, etc.) based on a compliance risk assessment of each Group company

## (4) Internal Reporting System (Speak-Up Reporting System)

In order to detect any compliance violations as early as possible or to prevent them from occurring in the future, the Sumitomo Chemical Group has introduced an internal reporting system (the Speak-Up Reporting System) that allows management executives or company employees (including contract employees), or their family members, management executives or employees of Group companies, or their family members, or anyone involved in Sumitomo Chemical's businesses (trading partners and others) to report a compliance violation or a suspected violation directly to the Compliance Committee or to external lawyers, either by name or anonymously. An investigation based on an Internal Report is carried out with utmost consideration to protecting the privacy of the person reporting and maintaining confidentiality of the information provided, and maximum care is taken to ensure that a person who has made a report will never be put at any disadvantage on the grounds of having made the report, including dismissal, transfer, or discrimination. In addition, we clearly state the above in our company rules. The entire Sumitomo Chemical Group is promoting the use of the Internal Reporting System. As a result, the number of the reports for the entire Sumitomo Chemical Group in fiscal 2018 increased by 51 from the previous year, to 149. Reports and compliance violations are reported to the Board of Corporate Auditors on a regular basis.

<sup>\*</sup> Detailed compliance initiatives are elaborated in the Sustainability Data Book 2019.

## **Anti-corruption**

## **Basic Policy**

As corporations expand activities across national boundaries, promoting fair competition becomes increasingly important in the supply of goods and services in the international marketplace. As is evident from the ever tightening laws and regulations in the world designed to prevent corruption, such as the FCPA in the U.S. and the Bribery Act of 2010 in the U.K., there is a growing awareness globally that corrupt conduct, such as bribery, should be eliminated by any means necessary. Under the circumstances, Sumitomo Chemical has positioned the prevention of corruption in all its forms, including bribery of public officials, excessive business entertainment and gift-giving, collusion, embezzlement, and breaches of trust as one of the most important issues in ensuring thorough compliance. We are striving to ensure a sustainable and sound corporate climate by enhancing our internal organization to appropriately respond to corruption risks to prevent the occurrence of corruption.

## Committee on Antitrust Compliance and Corruption Prevention

In 2012, we established the Committee on Antitrust Compliance and Corruption Prevention (chaired by the company's President) to establish and manage anti-corruption systems for Group companies in Japan and overseas under the guidance and supervision of the Board of Directors and Board of Corporate Auditors.

In the President's own messages, the committee states its policy and commitment to prohibit all forms of corruption, including bribery of public officials by management executives or employees, excessive entertainment and gift-giving, collusion, embezzlement, and breaches of trust. In addition, we have formulated a corruption prevention manual that contains detailed anti-corruption rules. The manual has been disseminated to all Group companies in Japan and overseas, and has been posted on the company intranet, and periodic training sessions are conducted to ensure thorough compliance among the employees of the company and its Group companies.

Further, we conduct assessments of anti-corruption regulations and corruption risks in each country, such as the status of transactions and the countries in which our trading partners are located. Based on the results of these assessments, we decide on policies to strengthen measures to prevent corruption, and apply them to the company and all Group companies.

## **Initiatives in the Supply Chain**

In order to prevent corruption in the Group's supply chain, we are making our agents, consultants, distributors, and other business partners aware of our anti-corruption policy by holding regular training sessions when initially engaging or renewing a contract, or at business meetings and other occasions. We also ask our partners to pledge to comply with the policy. In addition, as part of our due diligence procedures, we ask business partners to submit written responses detailing their company's profile and any past corruption problems, and assess the risk of corruption based on these responses. Moreover, when we engage a business partner for business with a high risk of corruption, such as in a public tender transaction or in a developing country, a more detailed risk assessment is carried out, including on-site interviews with the business partner conducted by an outside expert. If it is judged that there is a risk of corruption as a result of the assessment, we conduct awareness-raising activities concerning the prevention of corruption for such business partners, asking them to implement corrective measures such as strengthening the internal rules and organization to prevent corruption, and offering our support for such efforts. (The company does not engage business partners if the implementation of remedial measures is refused or if there is a strong concern about corruption detected through the assessment process.)

## Other Measures

In addition to the above-mentioned measures, we are striving to prevent corruption through the application of internal rules on business entertainment and gift-giving, and the strict application of approval procedures for business decisions and payment.

We have also established and operate an internal reporting system (the Speak-Up Reporting System, which allows anonymous reporting) that can be used by anyone involved in our business, including business and trading partners, in order to quickly identify corruption or the threat of corruption, to prevent compliance violations from occurring, and to rectify them as soon as possible. We also inform management executives or employees of Group companies, and business and trading partners, about the use of this system.

Management executives and employees whose corrupt conduct has been confirmed are subject to disciplinary action in light of internal rules. Business and trading partners are requested to rectify such actions, and other measures are taken, such as the suspension of transactions.

## **Corporate Data**

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## Chemistry Research Center (CRC) in Takarazuka, Hyogo Prefecture, Japan

CRC is a synthesis research building newly built on the premises of the Health & Crop Sciences Research Laboratory. The CRC building was completed in May 2018. The CRC serves as Sumitomo Chemical's new global R&D base principally for discovery of and innovation in crop protection chemicals and household & public hygiene insecticides. The CRC features an advanced space design to create an inspiring environment where researchers can actively communicate with each other and generate innovative ideas. In addition, the company intends to further accelerate new compound invention and new product development by consolidating the company's organic synthesis research functions within Japan into the CRC, from discovery research for novel compounds to production process research, which have previously been located in separate facilities, both in the Takarazuka area and elsewhere.





## **Financial Review**

## 1. Results of Operations

## (1) Sales revenue

Sales revenue increased by \$128.1 billion from \$2,190.5 billion for the fiscal year ended March 31, 2018 to \$2,318.6 billion (US\$20,890 million) for the fiscal year ended March 31, 2019. This is mainly due to the increase in sales quantity associated with business expansion, which has the most significant impact on the increase in sales revenue, and the increase in selling price due to the increase in raw material purchase price.

## (2) Core operating income / Operating income

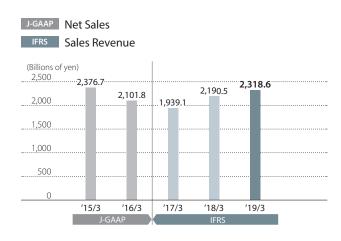
Core operating income decreased by ¥58.4 billion from ¥262.7 billion for the fiscal year ended March 31, 2018 to ¥204.3 billion (US\$1,841 million) for the fiscal year ended March 31, 2019 due to the following reasons: the deterioration in share of profit of investments accounted for using the equity method, such as Petrochemical Corporation of Singapore (Pte.) Ltd. and Rabigh Refining and Petrochemical Company and the impact of periodic plant maintenance at the Chiba Works in Japan and in Singapore in the Petrochemicals & Plastics Segments,

the margin erosion in methionine and reduced shipments of crop protection chemicals due to inclement weather in North America in the Health & Crop Sciences Segment, the impact of the drug price revisions in Japan and a one-time gain recorded in the previous fiscal year on the transfer of a business in the Pharmaceuticals Segment, and others.

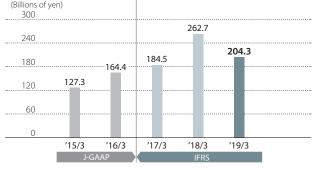
Loss from non-recurring factors, which is deducted from Operating income when calculating Core operating income, increased by ¥9.5 billion from ¥11.8 billion for the fiscal year ended March 31, 2018 to ¥21.3 billion for the fiscal year ended March 31, 2019 due to the large amount of impairment losses recorded in the fiscal year ended March 31, 2019. As a result, Operating income decreased by ¥68.0 billion from ¥250.9 billion for the fiscal year ended March 31, 2018 to ¥183.0 billion (US\$1,649 million) for the fiscal year ended March 31, 2019.

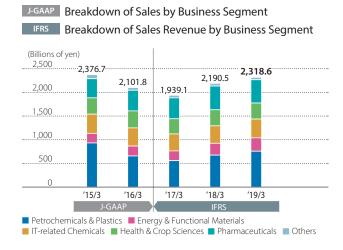
## (3) Finance income and Finance expenses / Income before taxes

Finance income and Finance expenses increased by ¥15.5 billion from a loss of ¥10.1 billion for the fiscal year ended March 31, 2018 to gain of ¥5.4 billion for the fiscal year ended March 31,

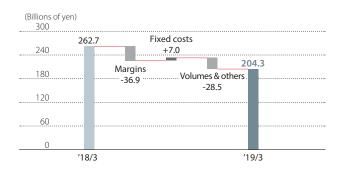








## Change in Core Operating Income: '18/3 vs. '19/3



2019 due to depreciation of the Japanese yen toward the end of the current fiscal year and recorded a large amount of exchange gains. As a result, Income before taxes decreased by ¥52.4 billion from ¥240.8 billion for the fiscal year ended March 31, 2018 to ¥188.4 billion for the fiscal year ended March 31, 2019.

## (4) Income tax expenses / Net income attributable to owners of the parent and Net income attributable to non-controlling interests

Income tax expenses were ¥35.9 billion for the fiscal year ended March 31, 2019, and the ratio of Income tax expenses to income before taxes after applying the tax effect accounting equaled 19.1%.

As a result, Net income was ¥152.5 billion for the fiscal year ended March 2019.

Net income attributable to non-controlling interests decreased by ¥9.9 billion from ¥44.4 billion for the fiscal year ended March 31, 2018 to ¥34.5 billion for the fiscal year ended March 31, 2019, which mainly represents net income attributable to non-controlling interests of consolidated subsidiaries, such as Sumitomo Dainippon Pharma Co., Ltd. or

Japan-Singapore Petrochemicals Co., Ltd.

As a result, Net income attributable to owners of the parent decreased by ¥15.8 billion from ¥133.8 billion for the fiscal year ended March 31, 2018 to ¥118.0 billion for the fiscal year ended March 31, 2019.

## (5) Dividends

The interim dividend was ¥11 per share and the year-end dividend was ¥11. As a result, the full year dividend for fiscal 2018 was ¥22 per share.

## 2. Segment Information

## (1) Petrochemicals & Plastics

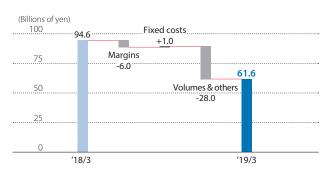
Market conditions for petrochemical products rose because of higher feedstock prices. Market conditions for raw materials for synthetic fibers and methyl methacrylate (MMA) also improved. In addition, shipments of products increased from the Rabigh Phase II project in this fiscal year. As a result, the segment's sales revenue grew by ¥83.4 billion compared with the previous fiscal

## **Results by Business Segment**

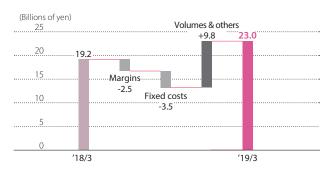
Fiscal years ended March 31, 2019 and 2018

								(Millions of yer
	Petrochemicals & Plastics	Energy & Functional Materials	IT-related Chemicals	Health & Crop Sciences	Pharmaceuticals	Others	Adjustments & Elimination	Consolidated
Year ended March 31, 2019								
Sales revenue	¥757,529	¥282,850	¥396,839	¥338,094	¥492,130	¥51,130	¥ —	¥2,318,572
Core operating income	61,610	22,959	26,227	19,716	80,764	9,422	(16,446)	204,252
Core operating income ratio (%)	8.1	8.1	6.6	5.8	16.4	18.4	<del>-</del>	8.8
Core operating income growth (%)	(34.9)	19.6	112.5	(55.2)	(14.8)	(14.7)	<del>-</del>	(22.2)
Year ended March 31, 2018								
Sales revenue	¥674,116	¥250,988	¥368,709	¥339,698	¥500,227	¥56,771	¥ —	¥2,190,509
Core operating income	94,567	19,189	12,341	43,964	94,786	11,052	(13,205)	262,694
Core operating income ratio (%)	14.0	7.6	3.3	12.9	18.9	19.5		12.0

## Petrochemicals & Plastics Change in Core Operating Income: '18/3 vs. '19/3



## Energy & Functional Materials Change in Core Operating Income: '18/3 vs. '19/3



year, to ¥757.5 billion. Core operating income declined by ¥33.0 billion compared with the previous fiscal year, to ¥61.6 billion, due to factors such as the impact of periodic plant maintenance at the Chiba Works in Japan and in Singapore, as well as margin erosion for petrochemical products.

## (2) Energy & Functional Materials

Shipments of separators for lithium-ion secondary batteries rose on higher demand. Shipments of high purity alumina also increased, primarily for use in battery materials. As a result, the segment's sales revenue increased by ¥31.9 billion compared with the previous fiscal year, to ¥282.9 billion, and core operating income grew by ¥3.8 billion, to ¥23.0 billion.

## (3) IT-related Chemicals

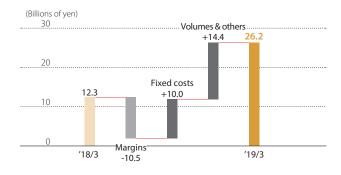
Although selling price of polarizing film declined, shipments increased due to growth in demand for TV and mobile applications. Shipments of touchscreen panels also increased due to growth in demand. As a result, the segment's sales revenue increased by ¥28.1 billion compared with the previous fiscal

year, to ¥396.8 billion, and core operating income rose by ¥13.9 billion, to ¥26.2 billion.

## (4) Health & Crop Sciences

Shipments of crop protection chemicals decreased due to factors such as frequent extreme weather in North America toward the end of this fiscal year, and revenue from feed additive methionine fell due to declining market conditions. Moreover, while there was an increase in sales due to the recent consolidation of agriculture-related retail businesses in Japan, depreciation of emerging market currencies had a negative effect on sales from subsidiaries outside Japan in yen terms. As a result, the segment's sales revenue fell by ¥1.6 billion compared with the previous fiscal year, to ¥338.1 billion. Core operating income declined by ¥24.2 billion, to ¥19.7 billion, compared with the previous fiscal year, due to factors including margin erosion in methionine and reduced shipments of crop protection chemicals.

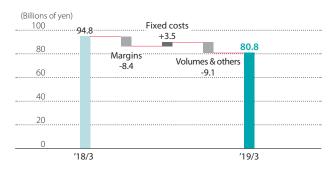
## IT-related Chemicals Change in Core Operating Income: '18/3 vs. '19/3



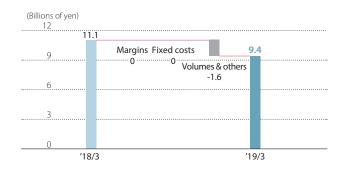
## Health & Crop Sciences Change in Core Operating Income: '18/3 vs. '19/3



## Pharmaceuticals Change in Core Operating Income: '18/3 vs. '19/3



Others Change in Core Operating Income: '18/3 vs. '19/3



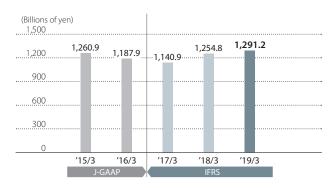
## (5) Pharmaceuticals

In North America, sales of Latuda® (atypical antipsychotic), Aptiom® (antiepileptic drug), and other treatments increased. On the other hand, results in Japan were adversely impacted by drug price revisions instituted by Japan's National Health Insurance. As a result, the segment's sales revenue declined by ¥8.1 billion compared with the previous fiscal year, to ¥492.1 billion. Because of the impact of the drug price revisions, and because a one-time gain was recorded in the previous fiscal year on the transfer of a business, core operating income declined by ¥14.0 billion, to ¥80.8 billion.

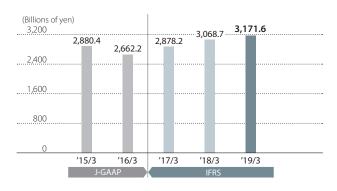
## (6) Others

In addition to the above five segments, the Sumitomo Chemical Group engages in supplying electrical power and steam, providing services for the design, engineering, and construction management of chemical plants, providing transport and warehousing, and conducting materials and environmental analysis. The segment's sales revenue declined by ¥5.6 billion from the previous fiscal year, to ¥51.1 billion, and core operating income declined by ¥1.6 billion, to ¥9.4 billion.

## **Total Current Assets**



## **Total Assets**



## 3. Financial Position

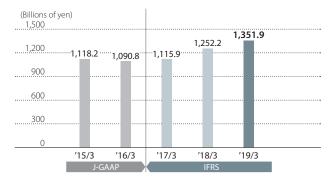
Total assets as of March 31, 2019 increased by ¥102.9 billion, to ¥3,171.6 billion (US\$28,576 million) from ¥3,068.7 billion as of March 31, 2018. Current assets as of March 31, 2019 amounted to ¥1,291.2 billion (US\$11,634 million), a 2.9% increase from ¥1,254.8 billion as of March 31, 2018, due mainly to an increase of Property, plant and equipment, and Inventories. Non-current assets as of March 31, 2019 amounted to ¥1,880.4 billion (US\$16,942 million), a 3.7% increase from ¥1,813.9 billion as of March 31, 2018.

Current liabilities as of March 31, 2019 were ¥1,005.1 billion (US\$9,056 million), a 2.3% decrease from ¥1,029.0 billion as of March 31, 2018. The current ratio was 128.5%, compared with 122.0% as of March 31, 2018.

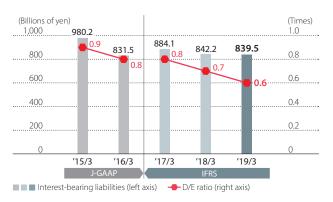
Non-current liabilities as of March 31, 2019 were ¥814.6 billion (US\$7,339 million), a 3.4% increase from ¥787.5 billion as of March 31, 2018.

Interest-bearing liabilities (short-term and long-term bank loans, corporate bonds, and commercial paper) as of March 31, 2019 amounted to ¥839.5 billion (US\$7,564 million), compared with ¥842.2 billion as of March 31, 2018.

## J-GAAP Net Assets IFRS Total Equity



## Interest-bearing Liabilities / D/E Ratio



Total equity was ¥1,351.9 billion (US\$12,180 million) as of March 31, 2019, an 8.0% increase from ¥1,252.2 billion as of March 31, 2018, mainly because retained earnings increased. The ratio of net worth to total assets stood at 31.5% as of March 31, 2019, compared with 30.2% as of March 31, 2018.

There were 1,635,013,610 shares issued and outstanding (excluding treasury shares) as of March 31, 2019. Retained earnings amounted to ¥820.5 billion (US\$7,392 million), an 11.0% increase from ¥738.9 billion as of March 31, 2018.

## 4. Cash Flows

Net cash provided by operating activities in the year ended March 31, 2019 was ¥208.1 billion, a decrease of ¥85.1 billion compared to the previous fiscal year, due chiefly to a rise in working capital and a decrease in income before taxes. Net cash used in investing activities was ¥180.8 billion, an increase in cash outflows of ¥26.3 billion compared to the previous fiscal year, due mainly to an increase in outflows for the purchase of fixed assets. This resulted in free cash flow of ¥27.3 billion for the year ended March 31, 2019, compared with ¥138.7 billion for the previous fiscal year. Net cash used in financing activities was ¥60.9 billion. The balance of cash and cash equivalents at the end of the fiscal year fell by ¥30.3 billion from the previous fiscal year, to ¥201.7 billion.

## **Breakdown of Capital Expenditures**

(Billions of yen, %) J-GAAP Years ended March 31 2015 2016 2017 2017 2018 2019 New plants and expansions: Petrochemicals & Plastics ¥ 2.5 3% ¥ 1.8 2% ¥ 1.5 3.2 4% 6.4 Energy & Functional Materials 10.0 1.1 10 11.8 9 14.3 9 13.0 8 IT-related Chemicals 12.9 15 22.1 21 29.5 23 21.3 13 28.3 17 Health & Crop Sciences 10.6 13 6.4 6 12.1 9 38.0 24 22.9 14 2 Pharmaceuticals 1.6 2 1.9 2 2.8 3.7 2 6.1 4 Others 0.9 1 0.7 1 1 4 1.2 6.0 8.6 5 Subtotal ¥29.6 35% ¥ 43.0 41% ¥ 58.9 45% ¥ 86.5 54% ¥ 85.4 52% Rationalization of production processes 45 5 83 8 35 3 27 2 2.8 2 7 Research and development 8.3 10 7.4 7.4 6 12.1 8 13.6 8 Maintenance and renewal 22.7 27 19 217 21 252 313 20 43.9 27 Others 27 19.1 23 23.3 22 35.0 26.2 16 17.9 11 ¥84.2 100% ¥103.8 ¥130.1 100% ¥158.8 ¥163.7 100% Total 100% ¥136.3 --% 100%

## 5. Capital Expenditures

In the year ended March 31, 2019, the Companies' capital expenditures totaled ¥163.7 billion (US\$1,475 million), which includes investments for new installations and the expansion of manufacturing facilities as well as investments for streamlining existing facilities.

Major facilities completed in the fiscal year ended March 31, 2019 included the new installation of the manufacturing facility for processing chemicals for semiconductors in China in the IT-related Chemicals Segment, the expansion of the company's production facility for methionine and the new synthesis research laboratory in the Health & Crop Sciences Segment. Major facilities under construction in the fiscal year ended March 31, 2019 included the expansion of the manufacturing facility for processing chemicals for semiconductors in China in the IT-related Chemicals Segment.

Broken down by segment, capital expenditures in the Petrochemicals & Plastics Segment were ¥31.5 billion (US\$284 million), ¥24.3 billion (US\$219 million) in the Energy & Functional Materials Segment, ¥33.6 billion (US\$303 million) in the IT-related Chemicals Segment, ¥39.9 billion (US\$359 million) in the Health & Crop Sciences Segment, ¥16.9 billion (US\$152 million) in the Pharmaceuticals Segment, and ¥17.6 billion (US\$159 million) in the Others Segment.

## 6. Research and Development

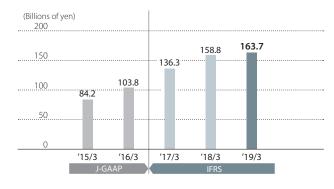
The Companies' basic R&D policy is to establish superior proprietary technologies that will contribute to profitability and business expansion. To maximize overall efficiency, the Companies proactively promote collaborative R&D and outsourcing through closer cooperation, while each subsidiary performs its own R&D activities.

In the fiscal year ended March 31, 2019, the Companies focused R&D resources on 1) Environment and Energy; 2) ICT (Information & Communication Technology); and 3) Life Science as part of the fiscal 2016-2018 Corporate Business Plan.

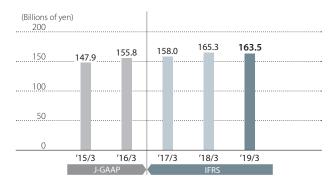
In addition, the Companies are promoting cross-sectoral projects for the development of new businesses.

R&D expenses were ¥163.5 billion (US\$1,473 million), down 1.1% from the fiscal year ended March 31, 2018.

## **Capital Expenditures**



## Research and Development Expenses



## **Consolidated Financial Statements**

## **Consolidated Statement of Financial Position**

Sumitomo Chemical Company, Limited and Consolidated Subsidiaries March 31, 2019 and 2018

	Million	Millions of yen			
	March 31, 2019	March 31, 2018	March 31, 2019		
Assets					
Current assets:					
Cash and cash equivalents	¥ 201,678	¥ 231,929	\$ 1,817,083		
Trade and other receivables	549,992	530,571	4,955,329		
Other financial assets	5,352	6,720	48,221		
Inventories	489,266	446,801	4,408,199		
Other current assets	44,935	38,797	404,856		
Total current assets	1,291,223	1,254,818	11,633,688		
Non-current assets:					
Property, plant and equipment	735,918	675,745	6,630,489		
Goodwill	126,838	122,849	1,142,788		
Intangible assets	216,664	232,629	1,952,104		
Investments accounted for using the equity method	299,044	294,370	2,694,333		
Other financial assets	323,392	316,888	2,913,704		
Retirement benefit assets	69,392	67,693	625,209		
Deferred tax assets	70,587	62,146	635,976		
Other non-current assets	38,560	41,547	347,419		
Total non-current assets	1,880,395	1,813,867	16,942,022		
Total assets	¥3,171,618	¥3,068,685	\$28,575,710		

Visit our website for notes to Consolidated Financial Statements. https://www.sumitomo-chem.co.jp/english/ir/library/financial\_results/files/docs/SCR19\_FS\_single\_190614.pdf

	Million	s of yen	Thousands of US dollars
	March 31, 2019	March 31, 2018	March 31, 2019
Liabilities and equity			
Liabilities			
Current liabilities:			
Bonds and borrowings	¥ 256,565	¥ 289,190	\$2,311,605
Trade and other payables	482,858	486,832	4,350,464
Other financial liabilities	50,735	52,244	457,113
Income taxes payable	29,715	28,078	267,727
Provisions	101,340	94,796	913,055
Other current liabilities	83,921	77,810	756,113
Total current liabilities	1,005,134	1,028,950	9,056,077
Non-current liabilities:			
Bonds and borrowings	582,965	552,971	5,252,410
Other financial liabilities	87,616	96,655	789,404
Retirement benefit liabilities	43,981	39,871	396,261
Provisions	22,698	24,620	204,505
Deferred tax liabilities	51,171	58,404	461,042
Other non-current liabilities	26,167	15,000	235,760
Total non-current liabilities	814,598	787,521	7,339,382
Total liabilities	1,819,732	1,816,471	16,395,459
Equity			
Share capital	89,699	89,699	808,172
Capital surplus	20,438	21,688	184,143
Retained earnings	820,454	738,882	7,392,143
Treasury shares	(8,322)	(8,296)	(74,980)
Other components of equity	76,433	85,168	688,648
Equity attributable to owners of the parent	998,702	927,141	8,998,126
Non-controlling interests	353,184	325,073	3,182,125
Total equity	1,351,886	1,252,214	12,180,251
Fotal liabilities and equity	¥3,171,618	¥3,068,685	\$28,575,710

## **Consolidated Statement of Profit or Loss**

Sumitomo Chemical Company, Limited and Consolidated Subsidiaries Years ended March 31, 2019 and 2018

	Million	Millions of yen		
	2019	2018	2019	
Sales revenue	¥2,318,572	¥2,190,509	\$20,889,918	
Cost of sales	(1,576,299)	(1,440,635)	(14,202,171)	
Gross profit	742,273	749,874	6,687,747	
Selling, general and administrative expenses	(590,062)	(557,888)	(5,316,353)	
Other operating income	11,154	25,262	100,496	
Other operating expenses	(17,594)	(21,644)	(158,519)	
Share of profit of investments accounted for using the equity method	37,201	55,319	335,174	
Operating income	182,972	250,923	1,648,545	
Finance income	16,615	11,542	149,698	
Finance expenses	(11,217)	(21,654)	(101,063)	
Income before taxes	188,370	240,811	1,697,180	
Income tax expenses	(35,904)	(62,653)	(323,489)	
Net income	152,466	178,158	1,373,691	
Net income attributable to:				
Owners of the parent	117,992	133,768	1,063,086	
Non-controlling interests	34,474	44,390	310,605	
Net income	¥ 152,466	¥ 178,158	\$1,373,691	
	Ye	en	US dollars	
Earnings per share:				
Basic earnings per share	¥72.17	¥81.81	\$0.650	
Diluted earnings per share	72.12	81.77	0.650	

## **Consolidated Statement of Comprehensive Income** Sumitomo Chemical Company, Limited and Consolidated Subsidiaries Years ended March 31, 2019 and 2018

	Millions	Thousands of US dollars		
	2019	2018	2019	
Net income	¥152,466	¥178,158	\$1,373,691	
Other comprehensive income:				
Items that will not be reclassified to profit or loss				
Remeasurements of financial assets measured at fair value through other comprehensive income	(7,341)	18,236	(66,141)	
Remeasurements of defined benefit plans	667	4,975	6,010	
Share of other comprehensive income of investments accounted for using the equity method	1,496	455	13,479	
Total items that will not be reclassified to profit or loss	(5,178)	23,666	(46,652)	
Items that may be subsequently reclassified to profit or loss				
Cash flow hedge	561	2,349	5,054	
Exchange differences on translation of foreign operations	4,782	(16,907)	43,085	
Share of other comprehensive income of investments accounted for using the equity method	(4,485)	(2,705)	(40,409)	
Total items that may be subsequently reclassified to profit or loss	858	(17,263)	7,730	
Other comprehensive income, net of taxes	(4,320)	6,403	(38,922)	
Total comprehensive income	148,146	184,561	1,334,769	
Total comprehensive income attributable to:				
Owners of the parent	110,448	142,421	995,117	
Non-controlling interests	37,698	42,140	339,652	
Total comprehensive income	¥148,146	¥184,561	\$1,334,769	

## **Consolidated Statement of Changes in Equity** Sumitomo Chemical Company, Limited and Consolidated Subsidiaries

Years ended March 31, 2019 and 2018

rears ended March 31, 2019 a	IIIU 2016											
						Millions of yer						
				E	quity attributable t	o owners of the pare						
						Other componer	nts of equit			_		
	Share capital	Capital surplus	Retained earnings	Treasury shares	Remeasurements of financial assets measured at fair value through other comprehensive income	Remeasurements of defined benefit plans	hedges	operations	Total	Equity attributable to owners of the parent	Non- controlling interests	Total equity
Balance as at April 1, 2017 Cumulative effects of changes in accounting policies	¥89,699	¥22,105	¥623,508	¥(8,228)	¥92,984	¥ —	¥(4,924)	¥ (2,532)	¥85,528	¥812,612	¥303,291	¥1,115,903
		22.105		(0.220)			(4.02.4)	(2.522)	05.530	012 (12	202 204	1 115 002
Restated balance as at April 1, 2017 Net income	89,699	22,105	623,508 133,768	(8,228)	92,984	_	(4,924)	(2,532)	85,528	812,612 133,768	303,291 44,390	1,115,903 178,158
Other comprehensive income			133,/00		13,673	6,390	2,072	(13,482)	8,653	8,653	(2,250)	6,403
Total comprehensive income		_	133,768	_	13,673	6,390	2,072	(13,482)	8,653	142,421	42,140	184,561
Purchase of treasury shares	_	_		(68)			2,072	(15, 102)		(68)		(68)
Disposal of treasury shares	_	0	_	0	_	_	_	_	_	0	_	0
Dividends	_	_	(27,797)	_	_	_	_		_	(27,797)	(15,569)	(43,366)
Changes in interest in subsidiaries	_	(417)		_	_	_	_	_	_	(417)	(4,789)	(5,206)
Transfer from other components of equity to												
retained earnings	_	_	9,034	_	(2,644)	(6,390)	_	_	(9,034)		_	_
Others, net			369		21				21	390		390
Total transactions with owners		(417)	(18,394)	(68)	(2,623)	(6,390)			(9,013)	(27,892)	(20,358)	(48,250)
Balance as at March 31, 2018	¥89,699	¥21,688	¥738,882	¥(8,296)	¥104,034	¥ —	¥(2,852)	¥(16,014)	¥85,168	¥927,141	¥325,073	¥1,252,214
Balance as at April 1, 2018	¥89,699	¥21,688	¥738,882	¥(8,296)	¥104,034	¥ —	¥(2,852)	¥(16,014)	¥85,168	¥927,141	¥325,073	¥1,252,214
Cumulative effects of	107,077	121,000	1750,002	1 (0,270)	1101,031		1(2,032)	1(10,011)	105,100	1727,111	1323,013	11,232,211
changes in accounting policies	_	_	60	_	_	_	_	_	_	60	169	229
Restated balance as at April 1, 2018	89,699	21,688	738,942	(8,296)	104,034	_	(2,852)	(16,014)	85,168	927,201	325,242	1,252,443
Net income	_	_	117,992	_	_	_	_	_	_	117,992	34,474	152,466
Other comprehensive income	_	_	_	_	(5,410)	1,343	1,001	(4,478)	(7,544)	(7,544)	3,224	(4,320)
Total comprehensive income	_	_	117,992	_	(5,410)	1,343	1,001	(4,478)	(7,544)	110,448	37,698	148,146
Purchase of treasury shares	_	_	_	(27)	_	_	_	_	_	(27)	_	(27)
Disposal of treasury shares	_	0	_	1	_	_	_	_	_	1	_	1
Dividends	_	_	(37,606)	_	_	_	_	_	_	(37,606)	(13,524)	(51,130)
Changes in interest in												
subsidiaries	_	(1,250)	_	_	_	_	_	_	_	(1,250)	3,123	1,873
Transfer from other												
components of equity to retained earnings			1,301		42	(1,343)			(1,301)			
Others, net			(175)		110	(1,545)			(1,301)	(65)	645	580
Total transactions with avenue		(1.250)	(1/3)	(20)	110	(1.242)			(1 101)	(03)	(0.754)	(40.702)

lotal transactions with owners	_	(1,250)	(36,480)	(26)	152	(1,343)	_	_	(1,191)	(38,947)	(9,/56)	(48,/03)
Balance as at March 31, 2019	¥89,699	¥20,438	¥820,454	¥(8,322)	¥ 98,776	¥ —	¥(1,851)	¥(20,492)	¥76,433	¥998,702	¥353,184	¥1,351,886
						Thousands of US of	dollars					
Balance as at April 1, 2018	\$808,172	\$195,405	\$6,657,194	\$(74,745)	\$937,328	\$ —	\$(25,696)	\$(144,283)	\$767,349	\$8,353,375	\$2,928,849	\$11,282,224
Cumulative effects of												
changes in accounting policies	_	_	541	_	_	_	_	_	_	541	1,522	2,063
Restated balance as at April 1, 2018	808,172	195,405	6,657,735	(74,745)	937,328	_	(25,696)	(144,283)	767,349	8,353,916	2,930,371	11,284,287
Net income	_	_	1,063,087		_	_	_	_	_	1,063,087	310,604	1,373,691
Other comprehensive income	_	_	_		(48,743)	12,100	9,019	(40,346)	(67,970)	(67,970)	29,048	(38,922)
Total comprehensive income	_	_	1,063,087	_	(48,743)	12,100	9,019	(40,346)	(67,970)	995,117	339,652	1,334,769
Purchase of treasury shares	_	_	_	(243)	_	_	_	_	_	(243)	_	(243)
Disposal of treasury shares	_	3	_	9	_	_	_	_	_	12	_	12
Dividends	_	_	(338,823)	_	_	_	_	_	_	(338,823)	(121,849)	(460,672)
Changes in interest in												
subsidiaries	_	(11,263)	_	_	_	_	_	_	_	(11,263)	28,138	16,875
Transfer from other												
components of equity to												
retained earnings	_	_	11,722	_	378	(12,100)	_	_	(11,722)	_	_	_
Others, net	_	_	(1,577)		991	_	_	_	991	(586)	5,811	5,225
Total transactions with owners		(11,260)	(328,678)	(234)	1,369	(12,100)	_	_	(10,731)	(350,903)	(87,900)	(438,803)
Balance as at March 31, 2019	\$808,172	\$184,145	\$7,392,144	\$(74,979)	\$889,954	\$ —	\$(16,677)	\$(184,629)	\$688,648	\$8,998,130	\$3,182,123	\$12,180,253

152

(1,250) (36,480)

(26)

(1,343)

(1,191)

(38,947)

(9,756)

Total transactions with owners

## **Consolidated Statement of Cash Flows**

Sumitomo Chemical Company, Limited and Consolidated Subsidiaries Years ended March 31, 2019 and 2018

Income before taxes		Thousan Millions of yen US doll			
Income before taxes		2019	2018	2019	
Depreciation and amortization   112,495   107,103   1,013,560   Impairment loss   24,639   12,2378   221,939   22,939   12,2378   221,939   34,777   (26,750)   34,7201   (26,750)   (36,751)   (35,319)   (35,319)   (35,319)   (35,319)   (35,319)   (35,319)   (35,319)   (36,	Cash flows from operating activities:				
Impairment loss   24,639   12,378   221,993   Reversal of impairment loss   2,969   13,477   26,6750   Share of profit of investments accounted for using the equity method   37,201   55,319   3335,174   Interest and dividend income   10,0849   10,101   97,748   10,623   10,646   95,711   Business structure improvement expenses   9,067   14,210   81,692   13,692   14,003   10,646   95,711   Business structure improvement expenses   9,067   14,210   81,692   13,693   10,646   95,711   10,623   10,646   10,623   10,623   10,646   10,623	Income before taxes	¥188,370	¥240,811	\$1,697,180	
Reversal of impairment loss	Depreciation and amortization	112,495	107,103	1,013,560	
Share of profit of investments accounted for using the equity method interest and dividend income (10,849) (10,101) (97,748) (10,101) (10,23) (10,646) (97,748) (10,101) (10,623) (10,646) (97,748) (10,102) (10,623) (10,646) (97,748) (10,102) (10,623) (10,646) (97,748) (10,102) (10,623) (10,646) (10,102) (10,623) (10,646) (10,102) (10,623)	Impairment loss	24,639	12,378	221,993	
Share of profit of investments accounted for using the equity method interest and dividend income (10,849) (10,101) (97,748) (10,101) (10,23) (10,646) (97,748) (10,101) (10,623) (10,646) (97,748) (10,102) (10,623) (10,646) (97,748) (10,102) (10,623) (10,646) (97,748) (10,102) (10,623) (10,646) (10,102) (10,623) (10,646) (10,102) (10,623)		(2,969)	(3,477)	(26,750)	
Interest and dividend income   (10,849) (10,101) (97,748   Interest expenses   10,623   10,646   95,711   95,	Share of profit of investments accounted for using the equity method	(37,201)	(55,319)	(335,174)	
Business structure improvement expenses         9,067         14,210         81,692           Changes in filt value of contingent consideration         (8,950)         (8,383)         (8,0638)           Gain on sale of property, plant and equipment         (11,434)         (6,801)         (12,920)           Increase in trade receivables         (26,600)         (24,617)         (239,661)           Increase in trade payables         (18,673)         35,607         (168,240)           Increase in provisions         4,124         10,514         37,157           Others, net         38,041         (7,170)         342,742           Subtotal         245,070         297,755         2,208,037           Interest and dividends received         32,999         41,742         297,315           Interest paid         (10,940)         (10,534)         (98,567)           Income taxes paid         (50,161)         (8,747)         (45,1942)           Business structure improvement expenses paid         (8,825)         (6,986)         (79,512)           Net cash provided by operating activities         208,143         293,250         1,875,331           Cash flows from investing activities         (174,816)         (14,2207)         (1,575,061)           Proceeds from sale of prope	Interest and dividend income	(10,849)	(10,101)	(97,748)	
Changes in fair value of contingent consideration         (8,950)         (8,383)         (80,638)           Gain on sale of property, plant and equipment         (1,434)         (6,801)         (12,920)           Increase in trade receivables         (26,600)         (24,617)         (239,661)           Increase in trade receivables         (35,613)         (55,626)         (320,867)           Increase in trade payables         (18,673)         73,607         (168,240)           Increase in trade payables         (18,673)         73,607         (168,240)           Others, net         38,041         (7,170)         342,742           Subtotal         245,070         297,775         2,208,037           Interest and dividends received         32,999         41,742         297,315           Interest paid         (10,940)         (10,934)         (98,567)           Income taxes paid         (8,825)         (6,986)         (79,512)           Net cash provided by operating activities         208,143         293,250         1,875,331           Cash flows from investing activities         208,143         293,250         1,875,331           Purchase of property, plant and equipment, and intangible assets         (174,816)         (149,207)         (1,575,061)           P	Interest expenses	10,623	10,646	95,711	
Gain on sale of property, plant and equipment         (1,434)         (6,801)         (12,920)           Increase in trade receivables         (26,600)         (24,617)         (39,661)         (55,626)         (320,867)           Increase in inventories         (18,673)         73,607         (168,240)           Increase in provisions         4,124         10,514         37,157           Others, net         38,041         (7,170)         342,742           Subtotal         245,070         297,775         2,208,037           Interest and dividends received         32,999         41,742         297,315           Income taxes paid         (50,161)         (28,747)         (451,942)           Business structure improvement expenses paid         (8,825)         (6,986)         (79,512)           Net cash provided by operating activities         208,143         293,250         1,875,331           Cash flows from investing activities         208,143         293,250         1,875,331           Cash flows from investing activities         (17,4816)         (149,207)         (1,575,061)           Purchase of property, plant and equipment, and intangible assets         (17,4816)         (149,207)         (1,575,061)           Proceeds from isvale of property, plant and equipment, and intangible assets	Business structure improvement expenses	9,067	14,210	81,692	
Increase in trade receivables   (26,600)   (24,617)   (239,661)   Increase in inventories   (35,613)   (55,626)   (320,867)   (186,73)   73,007   (168,240)   Increase in trade payables   (18,673)   73,007   (168,240)   Increase in provisions   4,124   10,514   37,157   Others, net   38,041   (7,170)   342,742   245,070   297,775   2,208,037   Interest and dividends received   32,999   41,742   297,315   Interest paid   (10,940)   (10,534)   (98,567)   Income taxes paid   (8,825)   (6,986)   (79,512)   Net cash provided by operating activities   208,143   293,250   1,875,331   Value of the provided by operating activities   208,143   293,250   1,875,331   Value of the provided by operating activities   Value of the provided by va	Changes in fair value of contingent consideration	(8,950)	(8,383)	(80,638)	
Increase in inventories	Gain on sale of property, plant and equipment	(1,434)	(6,801)	(12,920)	
Increase in trade payables   (18,673)   73,607   (168,240)     Increase in provisions   4,124   10,514   37,157     Others, net   38,041   (7,170)   342,742     Subtotal   245,070   297,775   2,208,037     Interest and dividends received   32,999   41,742   297,315     Interest paid   (10,940)   (10,534)   (98,567)     Income taxes paid   (50,161)   (28,747)   (451,942)     Business structure improvement expenses paid   (8,825)   (6,986)   (79,512)     Net cash provided by operating activities   208,143   293,250   1,875,331      Cash flows from investing activities   208,143   293,250   1,875,331      Cash flows from sale of property, plant and equipment, and intangible assets   4,010   10,200   36,129     Purchase of investments in subsidiaries   3,348   (13,236)   (30,165)     Purchase of other financial assets   9,126   (14,276)   (82,224)     Proceeds from sales and redemption of other financial assets   2,420   6,092   21,804     Others, net   23   5,907   208     Net cash used in investing activities   23   5,907   208     Net cash used in investing activities   28,651     Net increase (decrease) of commercial paper   (4,000)   34,000   (36,039)     Proceeds from financing activities   3,180   (82,586)   28,651     Net increase (decrease) of commercial paper   (4,000)   34,000   (36,039)     Proceeds from issuance of bonds   49,725   39,790   448,013     Redemption of bonds   (77,000)   (55,000)   (693,756)     Repayments of long-term borrowings   (67,871)   (58,984)   (611,506)     Proceeds from issuance of bonds   (37,606)   (77,977)   (338,823)     Redemption of bonds   (37,606)   (77,977)   (338,823)     Cash dividends paid to non-cont	Increase in trade receivables	(26,600)	(24,617)	(239,661)	
Increase in provisions   4,124   10,514   37,157   Others, net   38,041   (7,170)   342,742   32,04037   Interest and dividends received   32,070   297,775   2,208,037   Interest and dividends received   32,099   41,742   297,315   Interest paid   (10,940)   (10,534)   (98,567)   Income taxes paid   (50,161)   (28,747)   (451,942)   Business structure improvement expenses paid   (8,825)   (6,986)   (79,512)   Net cash provided by operating activities   208,143   293,250   1,875,331   Cash flows from investing activities   208,143   293,250   1,875,331   Cash flows from investing activities   208,143   293,250   1,875,331   Cash flows from investing activities   208,143   293,250   1,875,361   Proceeds from sale of property, plant and equipment, and intangible assets   (174,816)   (149,207)   (1,575,061)   Proceeds from sale of property, plant and equipment, and intangible assets   4,010   10,200   36,129   Purchase of investments in subsidiaries   (3,348)   (13,236)   (30,165)   Proceeds from sales and redemption of other financial assets   (9,126)   (14,276)   (82,224)   Proceeds from sales and redemption of other financial assets   2,420   6,092   21,804   Others, net   23   5,907   208   Net cash used in investing activities   (180,837)   (154,520)   (1,629,309)   Cash flows from financing activities   (180,837)   (154,520)   (1,629,309)   Cash flows from financing activities   (80,651)   (1,629,309)   Cash flows from financing activities   (80,651)   (80,603)   (80,	Increase in inventories	(35,613)	(55,626)	(320,867)	
Others, net         38,041         (7,170)         342,742           Subtotal         245,070         297,775         2,208,037           Interest and dividends received         32,999         41,742         297,315           Interest paid         (10,940)         (10,534)         (98,567)           Income taxes paid         (50,161)         (28,747)         (451,942)           Business structure improvement expenses paid         (8,825)         (6,986)         (79,512)           Net cash provided by operating activities         208,143         293,250         1,875,331           Cash flows from investing activities:         Value         (174,816)         (149,207)         (1,575,061)           Purchase of property, plant and equipment, and intangible assets         4,010         10,200         36,129           Purchase of investments in subsidiaries         (3,348)         (13,236)         (30,165)           Purchase of other financial assets         (9,126)         (14,276)         (82,224)           Proceeds from sales and redemption of other financial assets         2,420         6,092         21,804           Others, net         23         5,907         208           Net cash used in investing activities         (180,837)         (154,520)         (1,629,309) <td>Increase in trade payables</td> <td>(18,673)</td> <td>73,607</td> <td>(168,240)</td>	Increase in trade payables	(18,673)	73,607	(168,240)	
Subtotal         245,070         297,775         2,208,037           Interest and dividends received         32,999         41,742         297,315           Interest paid         (10,940)         (10,534)         (98,567)           Income taxes paid         (50,161)         (28,747)         (451,942)           Business structure improvement expenses paid         (8,825)         (6,986)         (79,512)           Net cash provided by operating activities         208,143         293,250         1,875,331           Cash flows from investing activities:         (174,816)         (149,207)         (1,575,061)           Purchase of property, plant and equipment, and intangible assets         4,010         10,200         36,129           Purchase of investments in subsidiaries         (3,348)         (13,236)         (30,165)           Purchase of other financial assets         (9,126)         (14,276)         (82,224)           Proceeds from sales and redemption of other financial assets         2,420         6,092         21,804           Others, net         23         5,907         208           Net cash used in investing activities         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities         3,180         (82,586)         28,651 </td <td>Increase in provisions</td> <td>4,124</td> <td>10,514</td> <td>37,157</td>	Increase in provisions	4,124	10,514	37,157	
Interest and dividends received   32,999   41,742   297,315     Interest paid   (10,940)   (10,534)   (98,567)     Incrome taxes paid   (50,161)   (28,747)   (451,942)     Business structure improvement expenses paid   (8,825)   (6,986)   (79,512)     Net cash provided by operating activities   208,143   293,250   1,875,331     Cash flows from investing activities   Purchase of property, plant and equipment, and intangible assets   4,010   10,200   36,129     Purchase of investments in subsidiaries   (13,348)   (13,236)   (30,165)     Purchase of other financial assets   (9,126)   (14,276)   (82,224)     Purchase of other financial assets   (9,126)   (14,276)   (82,224)     Proceeds from sales and redemption of other financial assets   2,420   (6,092   21,804     Others, net   23   5,907   208     Net cash used in investing activities   (180,837)   (154,520)   (1,629,309)     Cash flows from financing activities   (180,837)   (154,520)   (1,629,309)     Cash dividends paid   (190,80)   (190	Others, net	38,041	(7,170)	342,742	
Interest paid   (10,940)   (10,534)   (98,567)   Income taxes paid   (50,161)   (28,747)   (451,942)   Business structure improvement expenses paid   (8,825)   (6,986)   (79,512)   Net cash provided by operating activities   208,143   293,250   1,875,331     Cash flows from investing activities   Cash flows from investing activities   Cash flows from sale of property, plant and equipment, and intangible assets   (174,816)   (149,207)   (1,575,061)   Proceeds from sale of property, plant and equipment, and intangible assets   4,010   10,200   36,129   Purchase of investments in subsidiaries   (3,348)   (13,235)   (30,165)   Purchase of investments in subsidiaries   (9,126)   (14,276)   (82,224)   Proceeds from sales and redemption of other financial assets   (9,126)   (14,276)   (82,224)   Proceeds from sales and redemption of other financial assets   (180,837)   (154,520)   (1,629,309)     Cash flows from financing activities   23   5,907   208   Value of the cash used in investing activities   Value of the cash used in investing activities   Value of the cash used in increase in short-term borrowings   3,180   (82,586)   28,651   Value of the cash used in proceeds from sing activities   Value of the cash used in increase in short-term borrowings   89,190   81,690   803,586   Repayments of long-term borrowings   89,190   81,690   803,586   Repayments of long-term borrowings   (67,871)   (58,984)   (611,506)   Proceeds from issuance of bonds   49,725   39,790   448,013   Redemption of bonds   (37,7000)   (55,000)   (693,756)   (77,000)	Subtotal	245,070	297,775	2,208,037	
Income taxes paid   (50,161) (28,747) (451,942)     Business structure improvement expenses paid (8,825) (6,986) (79,512)     Net cash provided by operating activities (208,143) 293,250 1,875,331     Cash flows from investing activities:     Purchase of property, plant and equipment, and intangible assets (174,816) (149,207) (1,575,061)     Proceeds from sale of property, plant and equipment, and intangible assets (3,348) (13,236) (30,165)     Purchase of investments in subsidiaries (3,348) (13,236) (30,165)     Purchase of other financial assets (9,126) (14,276) (82,224)     Proceeds from sales and redemption of other financial assets (9,126) (14,276) (82,224)     Proceeds from sales and redemption of other financial assets (2,420) (6,092) (21,804)     Others, net (23 5,907) (154,520) (1,629,309)     Cash flows from financing activities (180,837) (154,520) (1,629,309)     Cash flows from financing activities (82,246) (180,837) (154,520) (1,629,309)     Cash flows from financing activities (82,246) (180,837) (180,837) (180,837) (180,839)     Proceeds from long-term borrowings (87,871) (88,984) (611,506)     Proceeds from issuance of bonds (97,900) (55,000) (693,756)     Repayments of long-term borrowings (67,871) (88,984) (611,506)     Proceeds from issuance of bonds (77,000) (55,000) (693,756)     Repayments of lease obligations (31,75) (3,281) (28,600)     Cash dividends paid to non-controlling interests (13,521) (15,569) (121,822)     Payments for acquisition of subsidiaries' interests from non-controlling interests (2,205) (6,588) (19,867)     Others, net (94,264) (548,392) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868) (19,867) (19,868	Interest and dividends received	32,999	41,742	297,315	
Business structure improvement expenses paid         (8,825)         (6,986)         (79,512)           Net cash provided by operating activities         208,143         293,250         1,875,331           Cash flows from investing activities:         Urchase of property, plant and equipment, and intangible assets         (174,816)         (149,207)         (1,575,061)           Proceeds from sale of property, plant and equipment, and intangible assets         4,010         10,200         36,129           Purchase of investments in subsidiaries         (3,348)         (13,236)         (30,165)           Purchase of other financial assets         (9,126)         (14,276)         (82,224)           Proceeds from sales and redemption of other financial assets         2,420         6,092         21,804           Others, net         23         5,907         208           Net cash used in investing activities         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities:         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities         3,180         (82,586)         28,651           Net (decrease) increase in short-term borrowings         3,180         (82,586)         28,651           Net (decrease) increase in short-term borrowings         89,190         81,	Interest paid	(10,940)	(10,534)	(98,567)	
Net cash provided by operating activities:         208,143         293,250         1,875,331           Cash flows from investing activities:         Purchase of property, plant and equipment, and intangible assets         (174,816)         (149,207)         (1,575,061)           Proceeds from sale of property, plant and equipment, and intangible assets         4,010         10,200         36,129           Purchase of investments in subsidiaries         (3,348)         (13,236)         (30,165)           Purchase of other financial assets         (9,126)         (14,276)         (82,224)           Proceeds from sales and redemption of other financial assets         2,420         6,092         21,804           Others, net         23         5,907         208           Net cash used in investing activities         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities:         3,180         (82,586)         28,651           Net (decrease) increase in short-term borrowings         3,180         (82,586)         28,651           Net (decrease) increase in short-term borrowings         3,180         (82,586)         28,651           Net increase (decrease) of commercial paper         (4,000)         34,000         36,009           Proceeds from long-term borrowings         89,190         81,690	Income taxes paid	(50,161)	(28,747)	(451,942)	
Cash flows from investing activities:           Purchase of property, plant and equipment, and intangible assets         (174,816)         (149,207)         (1,575,061)           Proceeds from sale of property, plant and equipment, and intangible assets         4,010         10,200         36,129           Purchase of investments in subsidiaries         (3,348)         (13,236)         (30,165)           Purchase of other financial assets         (9,126)         (14,276)         (82,224)           Proceeds from sales and redemption of other financial assets         2,420         6,092         21,804           Others, net         23         5,907         208           Net cash used in investing activities         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities:         S         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities:         S         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities:         S         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities:         S         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities:         S         (82,861)         28,651         (82,86	Business structure improvement expenses paid	(8,825)	(6,986)	(79,512)	
Purchase of property, plant and equipment, and intangible assets         (174,816)         (149,207)         (1,575,061)           Proceeds from sale of property, plant and equipment, and intangible assets         4,010         10,200         36,129           Purchase of investments in subsidiaries         (3,348)         (13,236)         (30,165)           Purchase of other financial assets         (9,126)         (14,276)         (82,224)           Proceeds from sales and redemption of other financial assets         2,420         6,092         21,804           Others, net         23         5,907         208           Net cash used in investing activities         (180,837)         (154,520)         (1,629,309)           Cash flows from financing activities         (4,000)         34,000         (36,039)           Proceeds from financing activities         (67,871)         (58,984)         (611,506) <t< td=""><td>Net cash provided by operating activities</td><td>208,143</td><td>293,250</td><td>1,875,331</td></t<>	Net cash provided by operating activities	208,143	293,250	1,875,331	
Cash lows from financing activities:       (180,837)       (154,520)       (1,629,309)         Cash flows from financing activities:       3,180       (82,586)       28,651         Net increase in short-term borrowings       3,180       (82,586)       28,651         Net increase (decrease) of commercial paper       (4,000)       34,000       (36,039)         Proceeds from long-term borrowings       89,190       81,690       803,586         Repayments of long-term borrowings       (67,871)       (58,984)       (611,506)         Proceeds from issuance of bonds       (67,871)       (58,984)       (611,506)         Proceeds from issuance of bonds       (77,000)       (55,000)       (693,756)         Repayments of lease obligations       (3,175)       (3,281)       (28,006)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate chan	Proceeds from sale of property, plant and equipment, and intangible assets Purchase of investments in subsidiaries Purchase of other financial assets	4,010 (3,348) (9,126)	10,200 (13,236) (14,276)	36,129 (30,165) (82,224)	
Cash flows from financing activities:         Net (decrease) increase in short-term borrowings       3,180       (82,586)       28,651         Net increase (decrease) of commercial paper       (4,000)       34,000       (36,039)         Proceeds from long-term borrowings       89,190       81,690       803,586         Repayments of long-term borrowings       (67,871)       (58,984)       (611,506)         Proceeds from issuance of bonds       49,725       39,790       448,013         Redemption of bonds       (77,000)       (55,000)       (693,756)         Repayments of lease obligations       (3,175)       (3,281)       (28,606)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)<		23	5,907	208	
Net (decrease) increase in short-term borrowings       3,180       (82,586)       28,651         Net increase (decrease) of commercial paper       (4,000)       34,000       (36,039)         Proceeds from long-term borrowings       89,190       81,690       803,586         Repayments of long-term borrowings       (67,871)       (58,984)       (611,506)         Proceeds from issuance of bonds       49,725       39,790       448,013         Redemption of bonds       (77,000)       (55,000)       (693,756)         Repayments of lease obligations       (3,175)       (3,281)       (28,606)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cas	Net cash used in investing activities	(180,837)	(154,520)	(1,629,309)	
Net (decrease) increase in short-term borrowings       3,180       (82,586)       28,651         Net increase (decrease) of commercial paper       (4,000)       34,000       (36,039)         Proceeds from long-term borrowings       89,190       81,690       803,586         Repayments of long-term borrowings       (67,871)       (58,984)       (611,506)         Proceeds from issuance of bonds       49,725       39,790       448,013         Redemption of bonds       (77,000)       (55,000)       (693,756)         Repayments of lease obligations       (3,175)       (3,281)       (28,606)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cas					
Net increase (decrease) of commercial paper       (4,000)       34,000       (36,039)         Proceeds from long-term borrowings       89,190       81,690       803,586         Repayments of long-term borrowings       (67,871)       (58,984)       (611,506)         Proceeds from issuance of bonds       49,725       39,790       448,013         Redemption of bonds       (77,000)       (55,000)       (693,756)         Repayments of lease obligations       (3,175)       (3,281)       (28,606)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cash and cash equivalents at beginning of year       231,929       193,295       2,089,639	_		(00.504)		
Proceeds from long-term borrowings       89,190       81,690       803,586         Repayments of long-term borrowings       (67,871)       (58,984)       (611,506)         Proceeds from issuance of bonds       49,725       39,790       448,013         Redemption of bonds       (77,000)       (55,000)       (693,756)         Repayments of lease obligations       (3,175)       (3,281)       (28,606)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cash and cash equivalents at beginning of year       231,929       193,295       2,089,639	9				
Repayments of long-term borrowings       (67,871)       (58,984)       (611,506)         Proceeds from issuance of bonds       49,725       39,790       448,013         Redemption of bonds       (77,000)       (55,000)       (693,756)         Repayments of lease obligations       (3,175)       (3,281)       (28,606)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cash and cash equivalents at beginning of year       231,929       193,295       2,089,639					
Proceeds from issuance of bonds       49,725       39,790       448,013         Redemption of bonds       (77,000)       (55,000)       (693,756)         Repayments of lease obligations       (3,175)       (3,281)       (28,606)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cash and cash equivalents at beginning of year       231,929       193,295       2,089,639					
Redemption of bonds       (77,000)       (55,000)       (693,756)         Repayments of lease obligations       (3,175)       (3,281)       (28,606)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cash and cash equivalents at beginning of year       231,929       193,295       2,089,639					
Repayments of lease obligations       (3,175)       (3,281)       (28,606)         Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cash and cash equivalents at beginning of year       231,929       193,295       2,089,639					
Cash dividends paid       (37,606)       (27,797)       (338,823)         Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cash and cash equivalents at beginning of year       231,929       193,295       2,089,639	·				
Cash dividends paid to non-controlling interests       (13,521)       (15,569)       (121,822)         Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cash and cash equivalents at beginning of year       231,929       193,295       2,089,639					
Payments for acquisition of subsidiaries' interests from non-controlling interests       (2,205)       (6,588)       (19,867)         Others, net       2,417       61       21,777         Net cash used in financing activities       (60,866)       (94,264)       (548,392)         Effect of exchange rate changes on cash and cash equivalents       3,309       (5,832)       29,814         Net increase (decrease) in cash and cash equivalents       (30,251)       38,634       (272,556)         Cash and cash equivalents at beginning of year       231,929       193,295       2,089,639	· ·				
Others, net         2,417         61         21,777           Net cash used in financing activities         (60,866)         (94,264)         (548,392)           Effect of exchange rate changes on cash and cash equivalents         3,309         (5,832)         29,814           Net increase (decrease) in cash and cash equivalents         (30,251)         38,634         (272,556)           Cash and cash equivalents at beginning of year         231,929         193,295         2,089,639					
Net cash used in financing activities         (60,866)         (94,264)         (548,392)           Effect of exchange rate changes on cash and cash equivalents         3,309         (5,832)         29,814           Net increase (decrease) in cash and cash equivalents         (30,251)         38,634         (272,556)           Cash and cash equivalents at beginning of year         231,929         193,295         2,089,639	· · · · · · · · · · · · · · · · · · ·				
Effect of exchange rate changes on cash and cash equivalents3,309(5,832)29,814Net increase (decrease) in cash and cash equivalents(30,251)38,634(272,556)Cash and cash equivalents at beginning of year231,929193,2952,089,639					
Net increase (decrease) in cash and cash equivalents(30,251)38,634(272,556)Cash and cash equivalents at beginning of year231,929193,2952,089,639	-				
Cash and cash equivalents at beginning of year 231,929 193,295 2,089,639					
	·				
	Cash and cash equivalents at end of year				

## **External Evaluation**

## **ESG-related Evaluations**



### FTSE4Good Index Series

This is a series of indexes designed by FTSE Russell, a global index provider. The indices consist of companies selected from among the world's leading companies for demonstrating strong ESG practices.



### **FTSE Blossom Japan Index**

This is an index designed by FTSE Russell, a global index provider. It consists of selected Japanese companies demonstrating strong ESG practices. FTSE selects these companies from among the stocks constituting the FTSE Japan Index, and the index is designed to reflect the distribution of industries in the Japanese stock market.



## MSCI Japan ESG Leaders Index

This is an index designed by MSCI, which provides a variety of tools to support institutional investors around the world in making investment decisions. From among the stocks constituting the MSCI Japan IMI Top 500 Index, MSCI selects those companies that excel in ESG evaluation.



## MSCI Japan Empowering Women Index (WIN)

This is an index designed by MSCI, which provides a variety of tools to support institutional investors around the world in making investment decisions. MSCI selects the companies that are active in encouraging and promoting women's participation in the workplace.



### **S&P/JPX Carbon Efficient Index**

This is an index designed by S&P Dow Jones Indices. It is designed to select TOPIX stocks so that companies that disclose carbon efficiency and environmental data constitute a high proportion of the index. Our evaluation puts us in the third decile, and our information disclosure status is rated as "disclosed."



### CDP "Climate A List 2018"

Sumitomo Chemical was selected for the CDP's highest-rated "Climate A List 2018" as a company demonstrating excellent performance in responding to the issue of climate change. In the CDP's 2018 survey, 126 global companies, including 20 Japanese companies, were named to the Climate A List, selected from among about 7,000 companies that disclosed information on their climate change–related activities.



## Health & Productivity Management Outstanding Organization in 2019

This system was established by the Ministry of Economy, Trade and Industry in 2016, and presents awards to corporations that are practicing excellent health management, based on measures to promote health promoted by Nippon Kenko Kaigi. We have been certified for the second consecutive year since 2018.

## **Topics**

## Feed Additive Methionine Logistics Operations Certified by Government as "Comprehensive Efficiency Plan"

In April 2019, Sumitomo Chemical, The Sumitomo Warehouse Co., Ltd., and Shikoku Kaihatsu Ferry Co., Ltd. jointly received a "Comprehensive Efficiency Plan" certification from Japan's Ministry of Land, Infrastructure, Transport and Tourism with respect to the companies' certain business plan involving domestic transportation by ship in Japan of feed additive methionine produced at Sumitomo Chemical's Ehime Works. This certification is issued in accordance with "Act on Advancement of Integration and Streamlining of Distribution Business"

The Act stipulates, among others, certifying selected business projects or initiatives as a "Comprehensive Efficiency Plan," along with the provision of related supportive measures, where rationalized transportation of materials will make their distribution operations more efficient while at the same time lessening environmental impact

or reducing required manpower during the course of materials distribution. If the certification is granted, business operators are entitled to receive various benefits, including special tax treatment.

The tripartite business plan certified by the Ministry encompasses operations for transporting of methionine nearly the entire distance by ship from the Ehime Works to Kobe Port, with respect to the expanded production of methionine.\* In granting the certification, the Ministry dully recognized the distinctive advantages resulting from the business plan that CO<sub>2</sub> emissions will be lowered by approximately 55%, truck transportation will be reduced by approximately 94%, and truck drivers' working hours will drop by approximately 91%, all compared with equivalent instances of the methionine transported to Kobe Port entirely by land.

\* Sumitomo Chemical expanded the production capacity of methionine at the Ehime Works in October 2018 from approximately 150,000 metric tons per annum to approximately 250,000 metric tons per annum.

Storage, handling, distribution processing Sumitomo Chemical Kobe Port Case of Land **Ehime Works Container Terminal** 10 ton truck **Transportation** Niihama City, Ehime Pref.) approx, 250 km (Kobe City, Hyogo Pref.) Comprehensive Efficiency (Modal Shift) Storage, handling, distribution processing **Kobe Port Ferry Terminal** Niihama Port **Kobe Port** Sumitomo Chemical Ferry including chassis 20 ton truck Certified (Kobe City, Hyogo Pref.) **Ferry Terminal** approx, 10 km Ehime Works **Logistics Flow** (Niihama City, Ehime Pref.) approx. 220 km (Kobe City, Hyogo Pref.) 20 ton truck Niihama City, Ehime Pref.) approx. 9 kn Domestic vessels, container only approx. 220 km

# Corporate Data

## Introduction to the Contents of the Sustainability Data Book 2019

The Sustainability Data Book provides sustainability information for Sumitomo Chemical from an environmental and social perspective, as well as information on Sumitomo Chemical's governance. More detailed information on sustainability is available in the data book.

- Editorial Policy
- Report Profile

## For a Sustainable Future

- President's Message
- Corporate Philosophy
- What Sumitomo Chemical Group Strives to Be
- Material Issues and Foundations for Business Continuity
- Corporate Business Plan (FY2019 FY2021) and Sustainability
- Sustainability Promotion System
- Sustainability Promotion Activities / Performance (Non-Financial Highlights)
- Participation in Initiatives
- Communication with Stakeholders

## Governance

- Corporate Governance
- Internal Control
- Risk Management
- Compliance
  - Internal Reporting System (Speak-Up Reporting System)
- Anti-corruption
- Responsible Care
- Information Security
- Governance: Supplementary Data
  - 1 Corporate Governance
  - 2 Compliance
  - Tax Transparency

## **Environment**

- Environmental Activity Goals and Results
- Addressing Climate Change
- Environmental Protection
  - Protecting the Atmospheric Environment
  - Protecting the Aquatic Environment
  - Resource Saving and Waste Reduction
  - Biodiversity Preservation Initiatives
  - Appropriate Management of Chemical Substances
  - Protecting the Soil Environment
- Environmental Activities: Supplementary Data
  - 1 Addressing Climate Change
  - 2 Environmental Protection

## **Society (Social Activities)**

- Social Activity Goals and Results
- Respect for Human Rights
- Procurement
- Human Resources Management
  - Human Resources Development
  - Diversity and Inclusion
  - Healthcare
- Occupational Safety and Health / Industrial Safety and Disaster Prevention
- Product Stewardship / Product Safety / Quality Assurance
- Responsibility to Our Customers
  - Initiative for Access to Healthcare
- Local Communities
- Social Activities: Supplementary Data
  - 1 Human Resources
  - 2 Occupational Safety and Health / Industrial Safety and Disaster Prevention
  - 3 Product Stewardship / Product Safety / Quality Assurance
  - 4 Social Contributions
- List of Policies
- Calculation Standards for Environmental and Social Data Indicators
- Independent Assurance Report
- GRI standards reference table

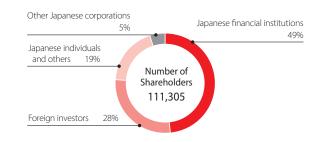
## **Corporate and Investor Information**

(As of March 31, 2019)

Paid-in Capital	¥89.7 billion
Number of Employees	Non-consolidated: 6,096 Consolidated: 32,542
Common Stock	Authorized: 5,000,000,000 shares Issued: 1,655,446,177 shares
Settlement Date	March 31
Stock Transaction Units	100-share units*
Ordinary General Meeting of Shareholders	Within three months from the next day of the settlement date
Number of Shareholders	111,305
Listings	Tokyo
Transfer Agent and Registrar	Sumitomo Mitsui Trust Bank, Limited Stock Transfer Agency Division 4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8233, Japan
Independent Certified Public Accountants	KPMG AZSA LLC

<sup>\*</sup> Sumitomo Chemical changed the number of shares in each share unit from 1,000 shares to 100 shares on October 1, 2018.

## Distribution of Shareholders



## **Major Shareholders**

Major Shareholders	Number of Shares Held (1,000 shares)	Shareholding Ratio (%)*
The Master Trust Bank of Japan, Ltd. (Trust Account)	119,779	7.32
Japan Trustee Services Bank, Ltd. (Trust Account)	99,913	6.11
Sumitomo Life Insurance Company	71,000	4.34
Nippon Life Insurance Company	41,031	2.50
Japan Trustee Services Bank, Ltd. (Trust Account No.4)	32,849	2.00
Japan Trustee Services Bank, Ltd. (Trust Account No.5)	30,238	1.84
Japan Trustee Services Bank, Ltd. (Trust Account No.7)	29,601	1.81
JPMorgan Securities Japan Co., Ltd.	29,310	1.79
Sumitomo Mitsui Banking Corporation	29,225	1.78
Japan Trustee Services Bank, Ltd. (Sumitomo Mitsui Trust Bank, Ltd. Retrust Account / Sumitomo Life Insurance Company Employee Pension Trust Account)	29,000	1.77

<sup>\*</sup> Percentage of shares held to the total number of shares issued and outstanding shares (excluding treasury shares)

## **Dividend Policy**

We consider shareholder return as one of our priority management issues and have made it a policy to maintain stable dividend payment, giving due consideration to our business performance and a dividend payout ratio for each fiscal period, the level of retained earnings necessary for future growth, and other relevant factors. We aim to maintain a dividend payout ratio of around 30% over the medium to long term.

The full year dividend for fiscal 2018 was ¥22 per share, unchanged from the previous fiscal year.

## IR Calendar\*

Fiscal 2018 (Year ending March 31, 2019)					
May 2019	Fiscal 2018 Financial Results				
June 2019	138th Ordinary General Meeting of Shareholders				

Fiscal 2019 (Year ending March 31, 2020)					
July 2019	1st Quarter Financial Results				
October 2019	2nd Quarter Financial Results				
January 2020	3rd Quarter Financial Results				
May 2020	Fiscal 2019 Financial Results				
June 2020	139th Ordinary General Meeting of Shareholders				

<sup>\*</sup> This schedule is subject to change.

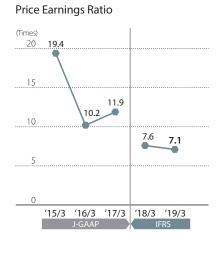


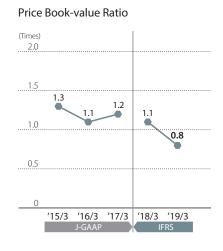
	J-GAAP			IFRS	
Fiscal Year	2014	2015	2016	2017	2018
Share price high (yen)	631	798	682	882	684
Share price low (yen)	333	441	396	574	485
Share price at year-end (yen)	618	509	622	620	515
Cumulative trading volume (1,000 shares)	2,489,166	2,785,335	2,515,006	2,418,727	2,369,928

Fiscal Year	2014	2015	2016	2017	2018
Shares outstanding (1,000 shares)	1,655,446	1,655,446	1,655,446	1,655,446	1,655,446
Market capitalization (billions of yen)	1,023	843	1,030	1,026	853
Net income per share*1 (yen)	31.93	49.84	52.31	81.81	72.17
Net assets per share*2 (yen)	484.17	469.25	501.98	567.04	610.82
Price earnings ratio (PER) (times)	19.4	10.2	11.9	7.6	7.1
Price book-value ratio (PBR) *3 (times)	1.3	1.1	1.2	1.1	0.8
Cash dividends per share (yen)	9	14	14	22	22
Ratio of shares owned by foreign investors to shares outstanding (%)	35.7	35.5	33.0	30.3	27.6

<sup>\*1</sup> IFRS/Basic Earnings per Share (yen) 
\*2 IFRS/Equity attributable to owners of the parent per share (yen) 
\*3 Figures at the end of FY2017 are calculated using IFRS

# Market Capitalization (Billions of yen) 1,200 1,023 1,030 1,026 900 853 843 600 0 '15/3 '16/3 '17/3 '18/3 '19/3





## SUMITOMO CHEMICAL COMPANY, LIMITED

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As a Responsible Care company, Sumitomo Chemical voluntarily implements policies that take safety, the environment, and health into consideration in all processes, from chemical substance development to disposal. The Responsible Care mark and logo may only be used by companies that are members of the Japan Responsible Care Council.