

ESG Strategies

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

Strategy 1

Committing to Promoting Sustainability

Sustainability Promotion Committee

Established	April 2018
Purpose	① Oversee the Group's sustainability promotion activities ② Comprehensively verify contributions to sustainability ③ Accelerate efforts to solve issues in society, including the SDGs
Organization	Chairman President of Sumitomo Chemical
	Members Executive officers responsible for each business sector, Executive officers responsible for each secretariat department, and Presidents of regional headquarters
	Secretariat CSR Dept., Legal Dept., Corporate Planning Dept., Human Resources Dept., Responsible Care Dept., Research Planning and Coordination Dept., Corporate Communications Dept., Logistics Dept. and Procurement Dept.
Meetings	Twice a year

Basic principles established for promoting sustainability and incorporated them into Sumitomo Chemical's corporate philosophy

Established the Basic Principles for Promoting Sustainability

A Committee Meeting



By positioning the basic principles for promoting sustainability next to our Business Philosophy, we demonstrate our management commitment to promoting sustainability.

Strategy 2

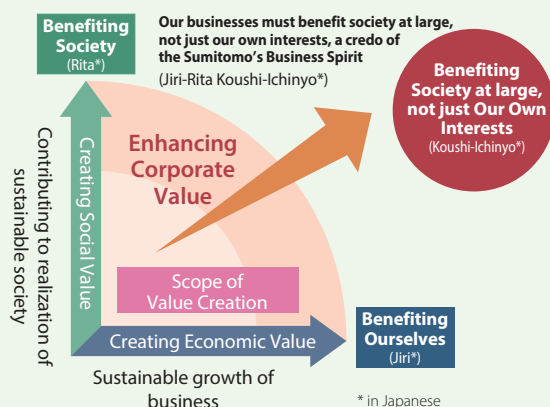
Identifying the Most Important Issues for Management Initiatives

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.

Chart 1 Image of Enhancing Corporate Value



Future Issues: Determination and Progress Assessment of KPI

In the future, in order to steadily advance each material issue initiative, it is necessary to establish a key performance indicator (KPI) and evaluate its progress. We will continue discussions so that we can start operations as soon as possible.

Chart 2 Our Seven Material Issues

Material Issues for Social Value Creation	Material Issues for Value Creation in the Future
Contribution to reducing environmental impact <ul style="list-style-type: none"> Mitigation of climate change Contribution through products and technologies Efficient use of energy and resources Contribution to the recycling of plastic resources 	Promotion of technology innovation and research and development
Contribution to solving food issues	Initiatives for digital innovation
Contribution to solving healthcare issues	Promotion of diversity and inclusion
Contribution to ICT innovation	
Foundations for Business Continuity <ul style="list-style-type: none"> Occupational safety and health, and industrial safety and disaster prevention Product safety and quality assurance Respect for human rights Healthcare Compliance Anti-corruption 	

Strategy 3

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 <small>* World Business Council for Sustainable Development</small>
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 P70-71
Metrics and Targets	Explanations of targets and progress in response to climate-related risks and opportunities	Seizing business opportunities: Sumika Sustainable Solutions and others	

Strategy 4

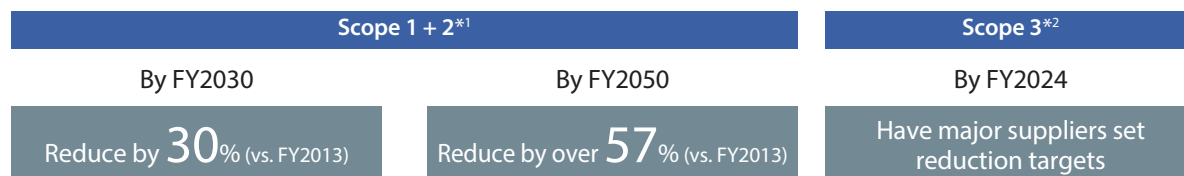
Responding to Climate-related Risks

Gained Approval from the Science Based Targets Initiative

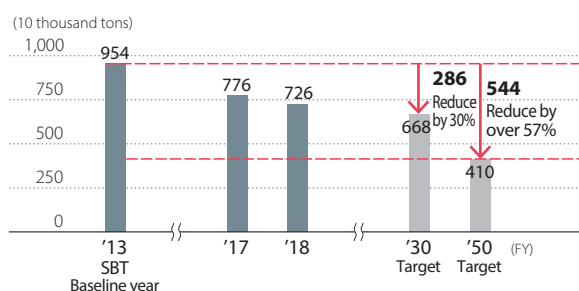
Science-based targets (SBTs) are greenhouse gas emissions reduction targets set by companies, based on climate science, to meet the 2015 Paris Agreement goal of keeping the increase in global average temperatures to below 2°C compared to pre-industrial temperatures. In October 2018, Sumitomo Chemical 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



Greenhouse Gas (GHG) Emission Volume and Reduction Targets



The baseline year for the Sumitomo Chemical Group's science-based targets is 2013, which is the same baseline year used by the Japanese government for GHG emissions reduction targets in accordance with the Paris Agreement. 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.

- *1 Scope 1: Direct emissions from factory operations, such as fuel use in manufacturing processes
- Scope 2: Indirect emissions from purchases of power and heat from outside the factory
- *2 Scope 3: Emissions from the manufacturing and transportation of purchased raw materials
- *3 Suppliers accounting for 90% of purchased raw materials by weight

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

In July 2018, Sumitomo Joint Electric Power Co., Ltd., a Sumitomo Chemical Group company, began separating and recovering carbon dioxide (CO₂) from the exhaust gas from Unit 3 of the Niihama West Thermal Power Station, and manufacturing CO₂ 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 CO₂ of coal-fired thermal power plants. By effectively utilizing CO₂ generated at thermal power stations, we can reduce CO₂ emissions.



Strategy 5

Quantifying the Contributions of Businesses to Global Environmental Issues

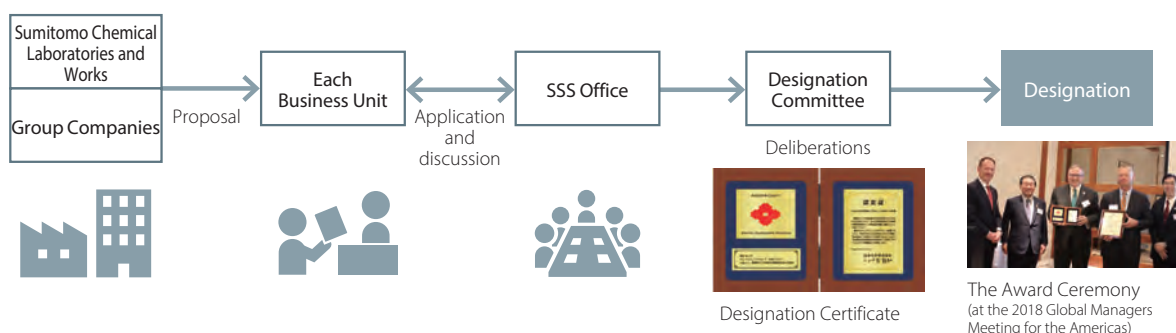
Sumika Sustainable Solutions

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.

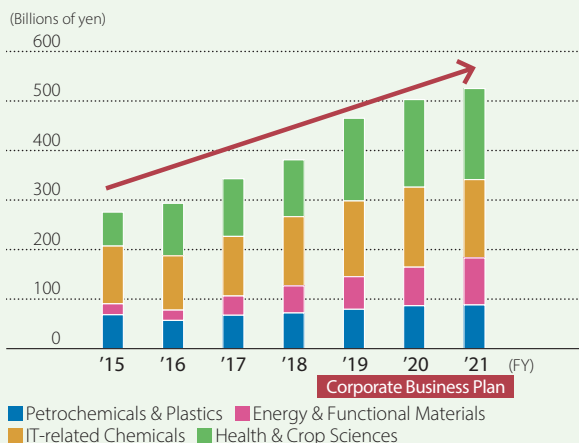
Area	Designation Requirements
Addressing Climate Change	Contribute to reducing greenhouse gas emissions
	Products or materials used in the creation of alternative energy
	Use biomass-derived raw materials
Reducing Environmental Impact	Contribute to adapting to the climate change impacts
	Contribute to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

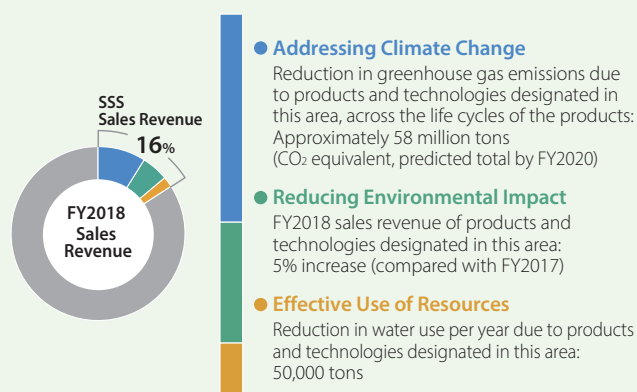


Sales Revenue of Designated Products and Technologies



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



FY2018

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

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.

Lighter Packaging



Longer Product Life

Promotion of Reusable Products



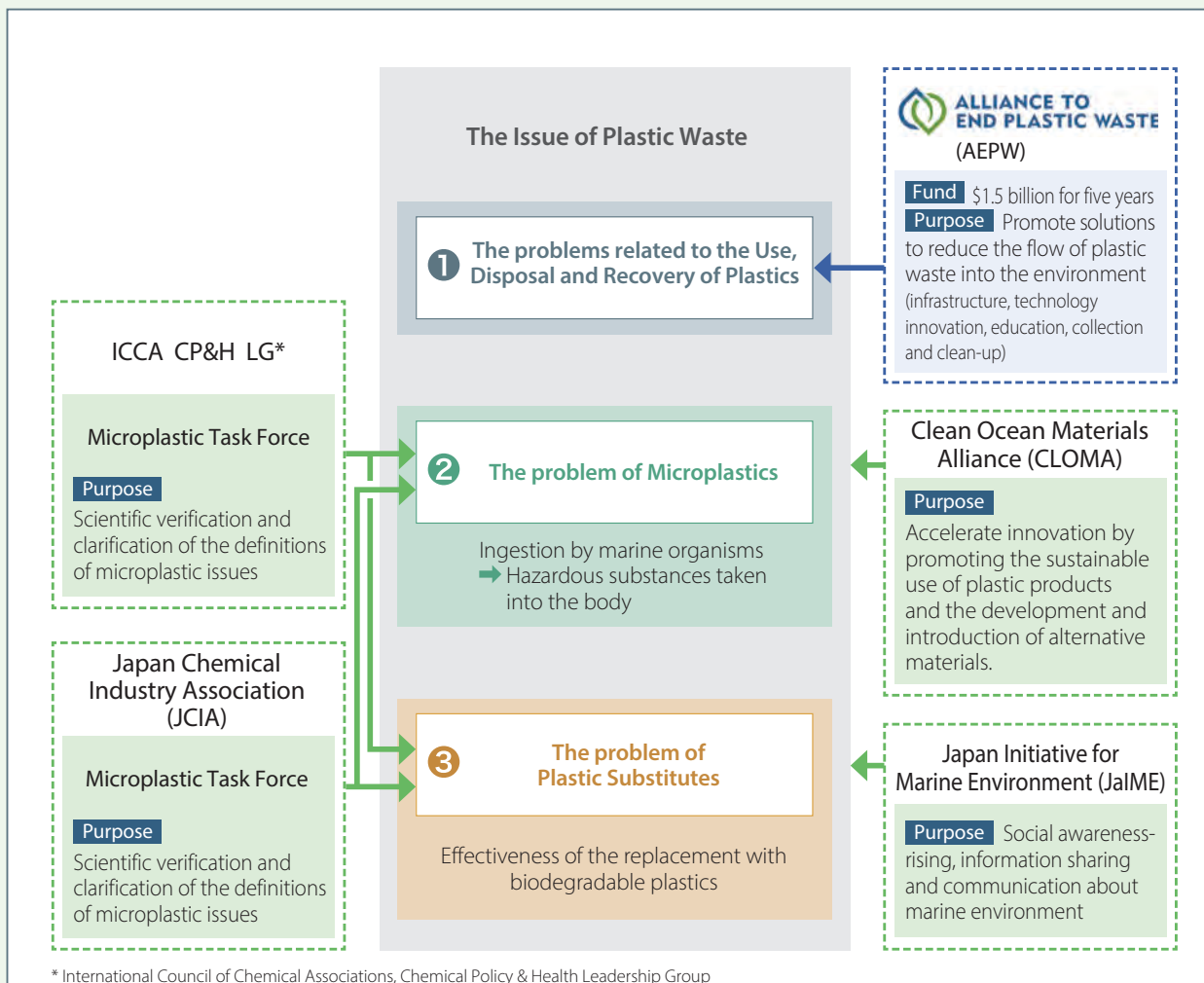
Examples of our group's products

Environmental aptitude
Utility value

Refill Pouch	Bottle (HDPE)	Large Refill Pouch (EPPE+LLDPE)
		
Weight of packaging materials (g) per 100g of contents	19	1.8
Transportation efficiency	△	○
Bag drop strength	△	○
Returnable Box	Cardboard Paper Box	Returnable box (Expanded PP Sheet)
		
Number of usable times	1	50
Consumption of packaging materials (kg/year)	24.9*	1.4
Reusability	×	○
Water resistance, Load bearing, Cleanness	×	○

* 50 sheets

Our Efforts through Participation in External Initiatives



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.