



# CSR Report 2019

| **GLOBAL CSR EYE** | Sumitomo Electric Group Executive Conference of Greater China

## Editorial Policy

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### Period Covered by This CSR Report

April 1, 2018 through March 31, 2019 (fiscal 2018).  
Some activities conducted in fiscal 2019 are also covered.

### Boundary of This CSR Report

Sumitomo Electric Industries, Ltd. and its consolidated subsidiaries (357 companies)

In this CSR Report, "Sumitomo Electric," "the Company" or "our company" refers to Sumitomo Electric Industries, Ltd., "Group companies" or "affiliates" refers to the consolidated subsidiaries of Sumitomo Electric, and "the Sumitomo Electric Group" or "the Group" refers to Sumitomo Electric and its Group companies.

- When quantitative information is disclosed, Sumitomo Riko Company Limited, Nissin Electric Co., Ltd. and Sumitomo Densetsu Co., Ltd., which are listed on stock exchanges in Japan, and their consolidated companies are excluded. In some cases, Sumitomo Electric alone or only the Company and limited consolidated subsidiaries or some of the equity-method companies are included. The items referenced within such a specifically limited boundaries are indicated in the text or footnotes in the table or graph. CSR promotion activities conducted by our affiliates are introduced in P79 to 80.
- For details of the boundary of data collection for environmental indicators, see Explanation of the Boundary in P78.

### Guidelines Referenced

#### ■ GRI Standard


This report presents information on the standard disclosures.

The GRI Content Index is published on the following website:

<https://global-sei.com/csr/download/>

#### ■ Environmental Reporting Guidelines 2018 issued by the Ministry of the Environment of Japan.

### Efforts to Improve the Reliability of the Disclosed Information

- To ensure the accuracy and completeness of the performance indicators, we have engaged an independent third party to provide assurance on them, and the indicators subject to the assurance are  marked accordingly. In addition, comments on our initiatives and disclosure from an external expert in this field are published to enhance the credibility.

### Introduction of the Disclosed Media Other Than This CSR Report

The acquisition of ISO 14001 certification and a table showing correlation of employee support programs with relevant laws are published on the following website:

<https://global-sei.com/csr/download/>

### Date of Publication

November 2019

(Last CSR Report: published in November 2018; and next CSR Report: scheduled for release in November 2020)

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# Basic Value Standards

## ❖ The Sumitomo Spirit

The Sumitomo Spirit grew out of the guiding principles set down in his later years by the founding father of the House of Sumitomo, Masatomo Sumitomo (1585 - 1652), in Monjuin Shiigaki (the Aphorisms of Monjuin, which describes how a merchant should conduct his business). The Sumitomo Spirit has been passed down and elaborated through the history of Sumitomo, which mainly operated copper business. The essence of the Spirit was distilled in the "Business Principles" codified in 1891. Also integrated into the Sumitomo Spirit are other beliefs and principles behind business decisions, and remarks made by Sumitomo managers, which have been handed down through generations. The pioneering ideas of the Sumitomo Spirit, which also reflect today's concepts of compliance and CSR, have been steadfastly inherited as a commonly held asset of Sumitomo Group companies.

### Business Principles

#### Article 1

Sumitomo shall achieve prosperity based on solid foundation by placing prime importance on integrity and sound management in the conduct of its business.

#### Article 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.

### Traditional Beliefs and Principles

#### ● Attaching Importance to Technology

Sumitomo's original copper business centered on the nanban-buki (foreign-style) refining technique, which at the time comprised the leading edge of smelting technology. The business policy of valuing technology and tackling the development of new technology has been a driving force in the evolution of Sumitomo business from the very beginning.

#### ● Respect for Human Resources

Sumitomo's history is accentuated with events that demonstrate the great value that is attached to opinions of those working in the field. Over the years, Sumitomo has established a corporate culture in which frank discussions are cherished and human resources are given the utmost importance. Sumitomo has always considered that people make the enterprise and attached importance to human resources. This tradition has coexisted with the commitment among Sumitomo personnel to character cultivation.

#### ● Long-Range Planning

This principle is derived from Sumitomo's original experience in copper mine management which requires long-term, continuous consideration. Business development with a future-looking, long-term view, complemented by a wider perspective to ensure national and social interests, is one of the factors that have made Sumitomo distinctive.

#### ● Mutual Prosperity, Respect for the Public Good

This phrase represents the principle that Sumitomo's business must benefit not only Sumitomo but also the nation and society in general, and everyone in Sumitomo is required to focus not only on making money but always conduct business in harmony with public interests. Also demonstrated by its more than century-long efforts to solve environmental problems in the Besshi Copper Mine, this spirit has always remained unchanged at Sumitomo.

## Monjuin Shiigaki (the Aphorisms of Monjuin)

Masatomo Sumitomo was born in 1585 of the late Sengoku Period, in Maruoka, Echizen (now Maruoka-cho, Sakai-shi, Fukui Prefecture) as the second son of a samurai warrior family, but entered priesthood in Kyoto at the age of 12. His intelligence led him to be given the name Monjuin, after Monju Buddhist saint who embodies enlightened wisdom. He later left the priesthood and started his own business to trade books and medicines, which was the origin of the House of Sumitomo. Even after he left the priesthood, many people continued to ask for his teachings and respect his faithful instructions. The fact that the founding father was a widely respected Buddhist priest is the unique feature of the Sumitomo Group. A letter written by Masatomo Sumitomo (Monjuin) in response to a family member's request for guidance on conducting business was Monjuin Shiigaki.

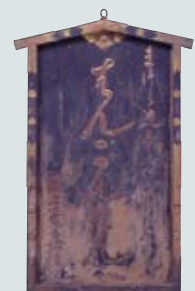
### Banji-nissei (do your sincere best in not only business but also every aspect of your life)

Consisting of five articles, Monjuin Shiigaki contains ideas reflecting the unstable social conditions of Kyoto in the 17th century, when it was written. The preamble admonishes us to pay attention to any matters including business and work wholeheartedly on everything. This precept "*Banji-nissei*" has been passed down continuously, by way of hoping that each one of us in Sumitomo does not focus only on making money but improves the personality and develops the character. This lofty document urges us to persist in sincere and careful effort and to cultivate good character.

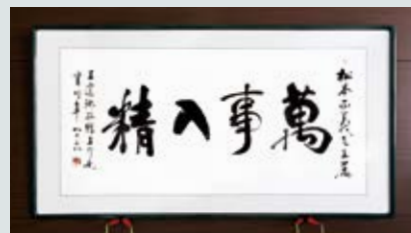
The Sumitomo Electric Group positions this "*Banji-nissei*" as the keyword representing the Sumitomo Spirit.



Figure of Masatomo Sumitomo (Monjuin)※



Signboard of the medicine shop operated by Masatomo※



Calligraphy work "*Banji-nissei*," which was given by Chairman Wang Jianyi of Futong Group Co., Ltd., China to commemorate the launch of joint ventures

※ Collection of Sumitomo Historical Archives



## ❖ The Sumitomo Electric Group Corporate Principles

On the occasion of Sumitomo Electric's centennial celebration in 1997, the Sumitomo Electric Group defined the Sumitomo Electric Group Corporate Principles as a new management philosophy arising from the Sumitomo Spirit. The Corporate Principles underscore our basic policy of commitment to our important stakeholders--our clients, shareholders, society, the environment and our employees--and rededicate the Group to the importance of compliance and trust.

### Each company of the Sumitomo Electric Group shall

- Offer the very best goods and services to satisfy customer needs.
- Build technical expertise, realize changes and strive for consistent growth.
- Contribute to creating a better society and environment, with a firm awareness of our social responsibility.
- Maintain high corporate ethics and strive to become a company worthy of society's trust.
- Nurture a lively corporate culture that enables employee self-improvement.

## ❖ The Sumitomo Electric Group Charter of Corporate Behavior

To realize a "Glorious Excellent Company," which is the ideal state of the Sumitomo Electric Group, we must uphold the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles as a basis of all business activities and conduct business with our strong will and sincerity in an honest manner. In September 2005, the Sumitomo Electric Group Charter of Corporate Behavior was created to express the essence of our Group-wide code of conduct in a more straightforward and easy-to-understand manner, so as to help each and every administrator and employee in the Group make judgments and act to realize the principles presented in the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles.

### 1. Provision of Useful and Safe Products and Services

- We will aim to provide useful and safe products and services that will satisfy customers in all aspects including quality and cost.

### 2. Development of New and Original Businesses and Products

- We will aim to develop new, original and profitable businesses and products by using our unsurpassed creativity in meeting customer demands.

### 3. Growth and Development of the Sumitomo Electric Group through Global Business Activities

- We will strive for consistent growth of the Sumitomo Electric Group, by consistently conducting our businesses with a global perspective and taking full advantage of the Group's dynamic business operations.

### 4. Contribution to Preservation of the Global Environment

- We will contribute to the building of a sustainable society, taking voluntary and active initiatives to preserve the global environment.

### 5. Observance of Laws and Regulations

- We will observe national and international laws and regulations and always act fairly and openly.

### 6. Fair and Proper Business Activities

- We will promote fair, transparent and free competition and sound trade.

### 7. Conduct as a Member of Society

- We will contribute to creating a better society, with a firm awareness of our social responsibility as a "good corporate citizen."
- We will maintain a strong stand against any force that threatens public order and safety.

### 8. Harmony with the International Community

- As a corporate member of the international community, we will respect the culture and customs of every region of the world and contribute to the development of those regions.

### 9. Safe, Sound Workplace and Employees' Growth and Development

- We respect the rights of all individuals and will endeavor to make our workplaces safe, sound and energetic.
- We will strive to respect personality and individuality of the employees and support their professional development and career to enable self-realization.

### 10. Disclosure of Relevant Information and Promotion of Communication with Society

- We will aim to disclose appropriate corporate information to our various stakeholders, including shareholders.
- We will also promote good communication with society through public information and hearings.



With the concerted efforts of the entire group, we will work to make society "environmentally friendly," "safe and secure," and "comfortable with much potential for growth."

Osamu Inoue  
President & COO Sumitomo Electric Industries, Ltd.

A handwritten signature in black ink, reading "Osamu Inoue". The signature is fluid and cursive, written in a professional style.

## Preface

I sincerely express my gratitude for your continued support and understanding of Sumitomo Electric Group's business activities. I also thank you for reading this CSR Report 2019.

During the period covered by this report, while the Japanese economy remained strong in the first half with support from domestic demand mainly due to the favorable employment situation and capital investment, the economic slowdown in China and Europe led to decreases in exports and production in the second half. In the global economy, US-China trade conflict and uncertainty in the economic outlook have led to a decline in consumption and investment in China, affecting other economies and leading to a gradual slowdown in their economic growth.

The business environment surrounding the Sumitomo Electric Group remained mostly stable in the first half. However, a decrease in car production in China and Europe began to be remarkable in the second half of 2018 and the circumstances for our group became increasingly severe, which was also attributed to sluggish sales of smartphones on a global scale and a decline in demand for cemented carbide tools in some markets. In particular, the signs of protectionism including the US-China trade conflict has started to affect the value chain we have established and it is necessary to carefully determine the degree. Under these circumstances, our consolidated results for fiscal 2018 recorded a revenue increase with net sales of 3,178.0 billion yen, a year-on-year increase of 3.1%. On the other hand, operating income dropped by 4.0% year-on-year to 166.3 billion yen.

## Priority initiatives for the realization of VISION 2022

Making the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles the basis of our business activities, our group is committed to taking "SEQCDD\*" one step further. In addition, to become a "Glorious Excellent Company," we announced mid-term management plan "VISION 2022," which was launched under the concept of "Contributing to a better society by leveraging our expertise in connectivity and transmission technologies through concerted efforts of the entire group" in fiscal 2018. To achieve the goal, we set the three priority initiatives of "Enhancement of Manufacturing Capabilities," "Increasing Global Presence" and "Creation and Enhancement of Leading Technology."

Some of the topics during fiscal 2018 are as follows. Firstly, for the enhancement of manufacturing capabilities, we focused on the creation of even stronger factories, which also underlie our manufacturing capabilities. Each division promoted a wide range of activities for it with the IoT R&D Center, which has been set up as an organization to be involved in those activities, playing a pivotal role. Through close coordination with the plants in our group, as well as Plant & Production Systems Engineering Division, the divisions worked for productivity improvement, automated inspection, predictive maintenance, work safety and other issues using AI and promoted the improvement of their respective production fields, which has produced actual effects. Secondly, for increasing global presence, we took measures to strengthen our foundation on a global scale including the acquisition of a European manufacturer in the automotive parts business and the expansion of investment in the wiring harness business in Southeast Asia. Lastly, for the creation and enhancement of leading technology, we took flexible measures to promote the new combination of technologies, such as an organizational reform that removes the conventional border between Automotive Business Unit and Infocommunications Business Unit, in consideration of the major changes that will lead to the connection of vehicles with traffic communications and energy infrastructure.

### Creation of new businesses in our business fields

The businesses of the Sumitomo Electric Group are classified into the category of the so-called B-to-B business. In consideration of social challenges beyond our customers ("to-B"), we have worked to solve them together with the customers, continuously provided new products and services to society and achieved growth and development. The global environment and social system are affected by various new risks. Our group will be continuously committed to the creation of new businesses and new products that are original and profitable, meet social demand and expectation and help solve social challenges. The automobile-related business has entered a

revolutionary period with the development of CASE\*. To respond quickly and flexibly to the changes, we increased the budget for research and development for the business by about 10 billion yen from fiscal 2017. In particular, with the more widespread use of electric vehicles, it is expected that demand for drive motors mounted in them will increasingly grow in the future. To meet demand for rectangular wires used in vehicles that help reduce the size of motors and increase their output, we established a base to manufacture them in Jiangsu Province, China in March 2019 and plan to start its full-scale operation in 2022.

In the environment and energy field, we received an order for power transmission and transformation equipment and its installation work for Wind Farm Tsugaru, Japan's largest onshore wind farm, last year. In recent years, large-scale projects for renewable energy have increased. To respond to demand for large-capacity and long-distance power transmission, this project aims to start the operation of the equipment in April 2020 by using the collective strength of our group, including Nissin Electric Co., Ltd. and Sumitomo Densetsu Co., Ltd., to undertake the design, manufacturing and installation of electrical equipment in a comprehensive manner. In related moves, we have been committed to high-voltage DC cable projects that help curb global warming, one of the major challenges for the conservation of the global environment; we completed the work for the 250-kV DC XLPE cable system of the Hokuto-Imabetsu DC Trunk Power Line, which was an order from Hokkaido Electric Power Co., Inc., in March 2019, as well as a 400-kV DC XLPE cable system connecting the UK and Belgium in May 2019.

In the meantime, demand for water treatment products has been increasing in China and we are promoting the establishment of a system to increase the production of POREFLON membrane, which contributes to the prevention of water pollution. We also focus on the commercialization of other products including those related to the next-generation communications network that can meet social demand for high-speed and large-capacity communications.

### The Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles, which relates to SDGs

Positioning the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles as its key management value, the Group has been committed to the creation and expansion of businesses as well as CSR activities. We consider that these activities are also related to the SDGs\* adopted by the UN in 2015. For the achievement of "environmentally friendly society," "safe and secure society" and "comfortable society with growth potential," which are targets for the mid-term management plan VISION 2022, we will continuously make concerted efforts to provide various values.

#### Glossary

##### \*SEQCDD

An acronym for Safety, Environment, Quality, Cost, Delivery and Research & Development

##### \*CASE

A term for the trends in the automotive industry; an acronym for Connected, Autonomous, Shared and Electric

##### \*SDGs (Sustainable Development Goals)

An acronym for Sustainable Development Goals, which are composed of 17 goals and 169 targets presented by the UN along with long-term development guidelines for the period from 2015 to 2030

# Mid-term Management Plan VISION 2022

## Basic Concepts

Contributing to a better society by leveraging our expertise in connectivity and transmission technologies through concerted efforts of the entire group.

## Overall Concept Diagram

A "Glorious Excellent Company" is Sumitomo Electric Group's ideal future state. Positioning the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles as our basic management value, we will help create a better society through business activities. In our growth strategy, we aim to diversify our technologies and products and create innovations that meet new social demand in the fields of Automotive, Infocommunications, Electronics, Environment & Energy and Industrial Materials based on the Manufacturing Base, Human Resources and Organizational Base and Financial Base we have developed, and will be committed to enhancement of manufacturing capabilities, increasing global presence and creation and enhancement of leading technology.



## Growth Strategy

### Enhancement and Expansion of Five Business Segments

The Sumitomo Electric Group continues to strive for growth in five business segments focusing on Mobility, Energy and Communications fields as well as materials, products and solutions supporting these fields. We aim to grow every segment by strengthening revenue bases and improving capital efficiency and to achieve a balanced business portfolio.

### Further Growth Through Innovation

As exemplified by major innovation in the automobile industry, widespread use of renewable energy and effective use of big data, the markets surrounding the Sumitomo Electric Group are undergoing dramatic changes. While new social demand is created and new markets are growing, we will create innovation in a holistic approach based on the diversity in technologies and business expertise we have cultivated over the years, offering new technologies, products and services that help facilitate the realization of a better society.



## Targets

	FY2020 Interim Target	FY2022 Target
Net Sales	¥3,400 billion	¥3,600 billion
Operating Income	¥200 billion	¥230 billion
Operating Margin Ratio	5.9%	6.4%
ROIC	8.5% or more	9% or more
ROE	8% or more	8% or more

Capital investment (5-year cumulative amount) **¥950 billion**

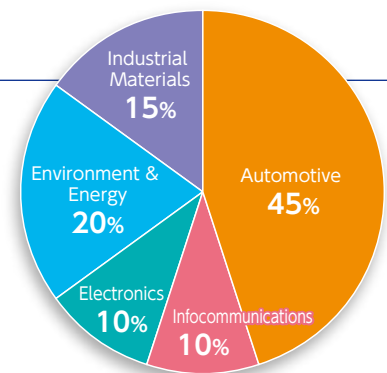
R&D expenditures (5-year cumulative amount) **¥600 billion**

- We aim for a new-product sales ratio of 30%.
- We aim to keep our shareholders' equity ratio at 50%.
- We aim to maintain a stable dividend for shareholders and increase the dividend payout ratio to about 40% by the fiscal year 2022.

## Portfolio

Our target business portfolio in operating income to be achieved by fiscal 2022 is presented in the graph on the right.

We aim to grow the non-automotive segments at a higher rate so that they result in more than 50% of the entire portfolio while ensuring a growth in total profit level.



## Our Priorities

### Enhancement of Manufacturing Capabilities

#### Taking "SEQCDD" one step further

- Aim for "the world's top safety company"
- Create "strong factories" through continuous improvement (kaizen)
- Exert our strength by sharing and propagating technologies and best practices among Group companies worldwide

### Increasing Global Presence

- Work to increase market share with global customers
- Create new business models that anticipate market changes
- Enhance the efficacy of our marketing efforts

### Creation and Enhancement of Leading Technology

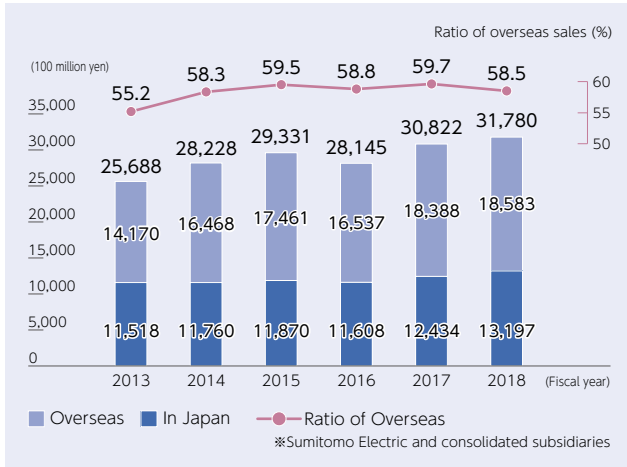
- Continue to enhance core technologies from materials to processes
- Innovation that anticipates change in the automotive and energy fields and exploits commercialization opportunities with agility
- Challenge ourselves to create innovative technology that encourages social reform



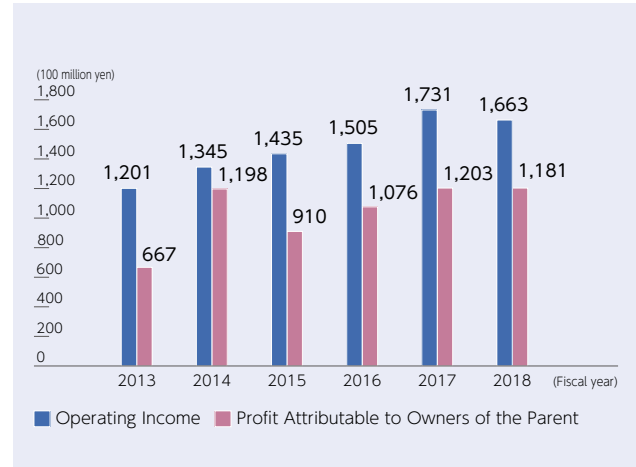
# Financial and Non-Financial Highlights

## Financial Overview

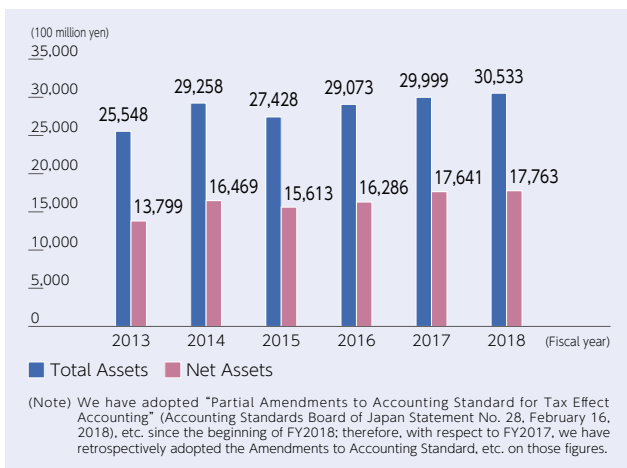
Sales in Japan and overseas and ratio of overseas sales by year



Operating Income and Profit Attributable to Owners of the Parent (Consolidated)



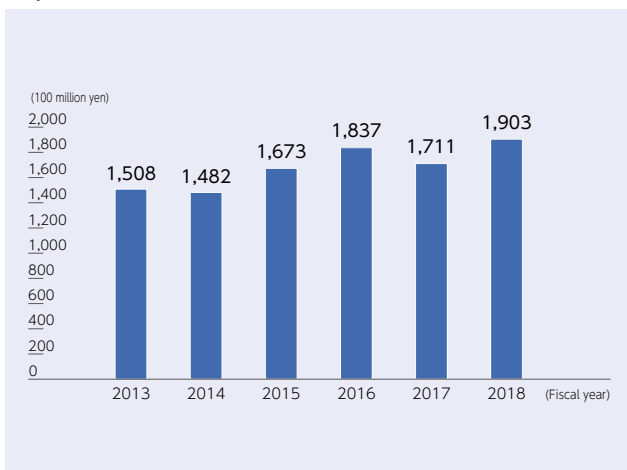
Total Assets and Net Assets (Consolidated)



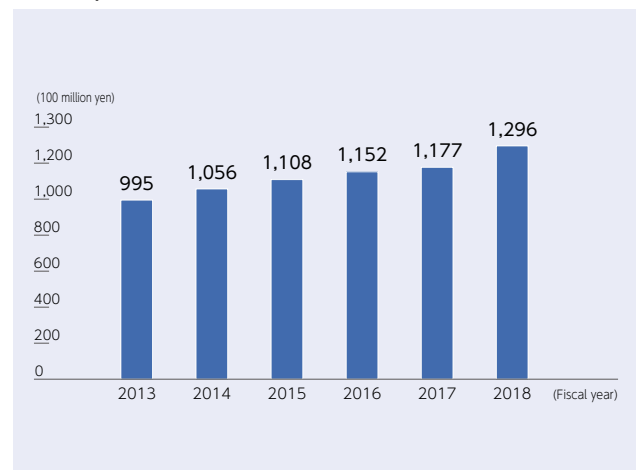
Return on Equity (ROE) and Return on Invested Capital (ROIC)\*



Capital investment

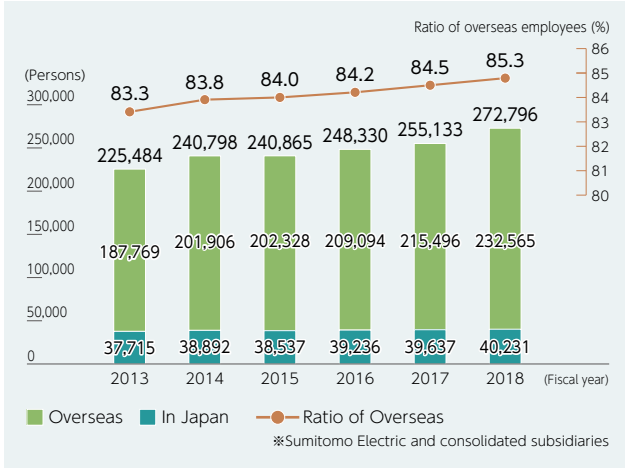


R&D expenditures



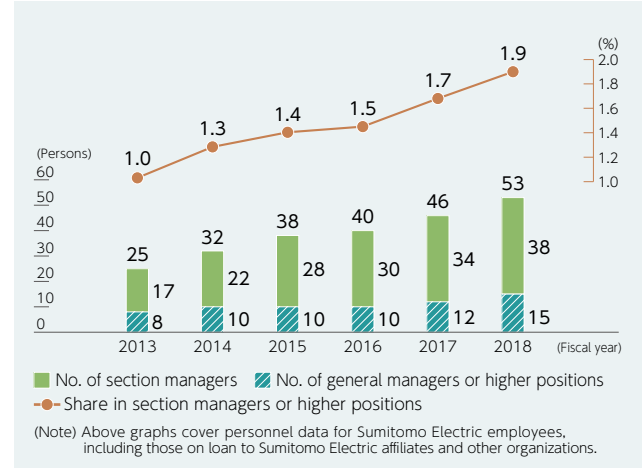
## Non-financial Overview

Number of employees in Japan and overseas and ratio of overseas employees by year

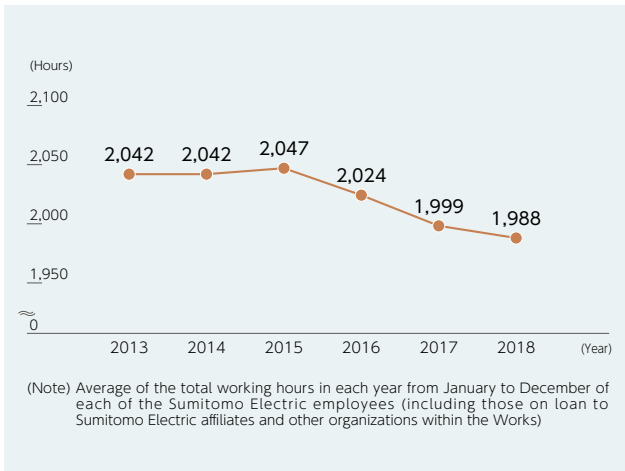


Number and share of women in section managers or higher positions

as of January 16 of each fiscal year

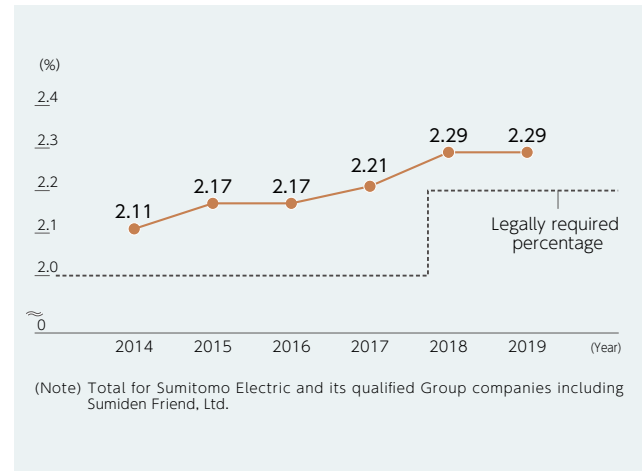


Average Total Working Hours by Year

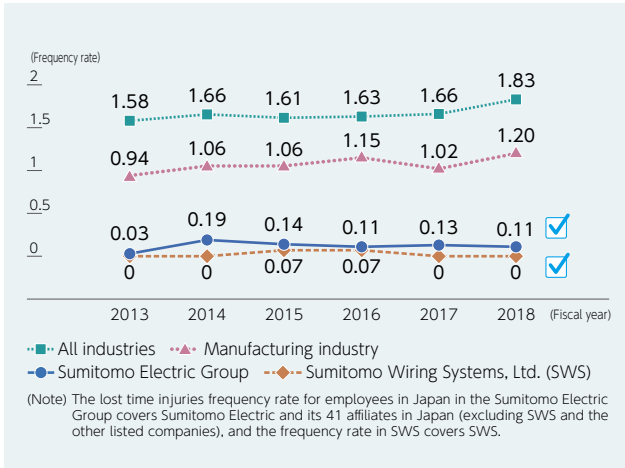


Employment Rate of the Physically or Mentally Disabled by Year

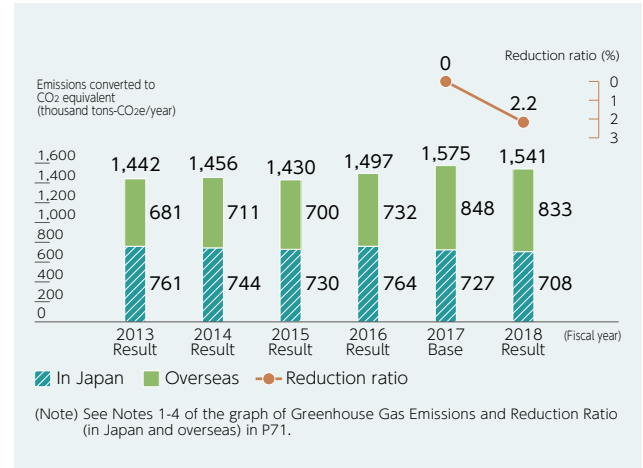
Employment rate as of June 15 of each year



Lost Time Injuries Frequency Rate\* for Employees in Japan by Year



Greenhouse Gas Emissions and Reduction Ratio (in Japan and overseas)



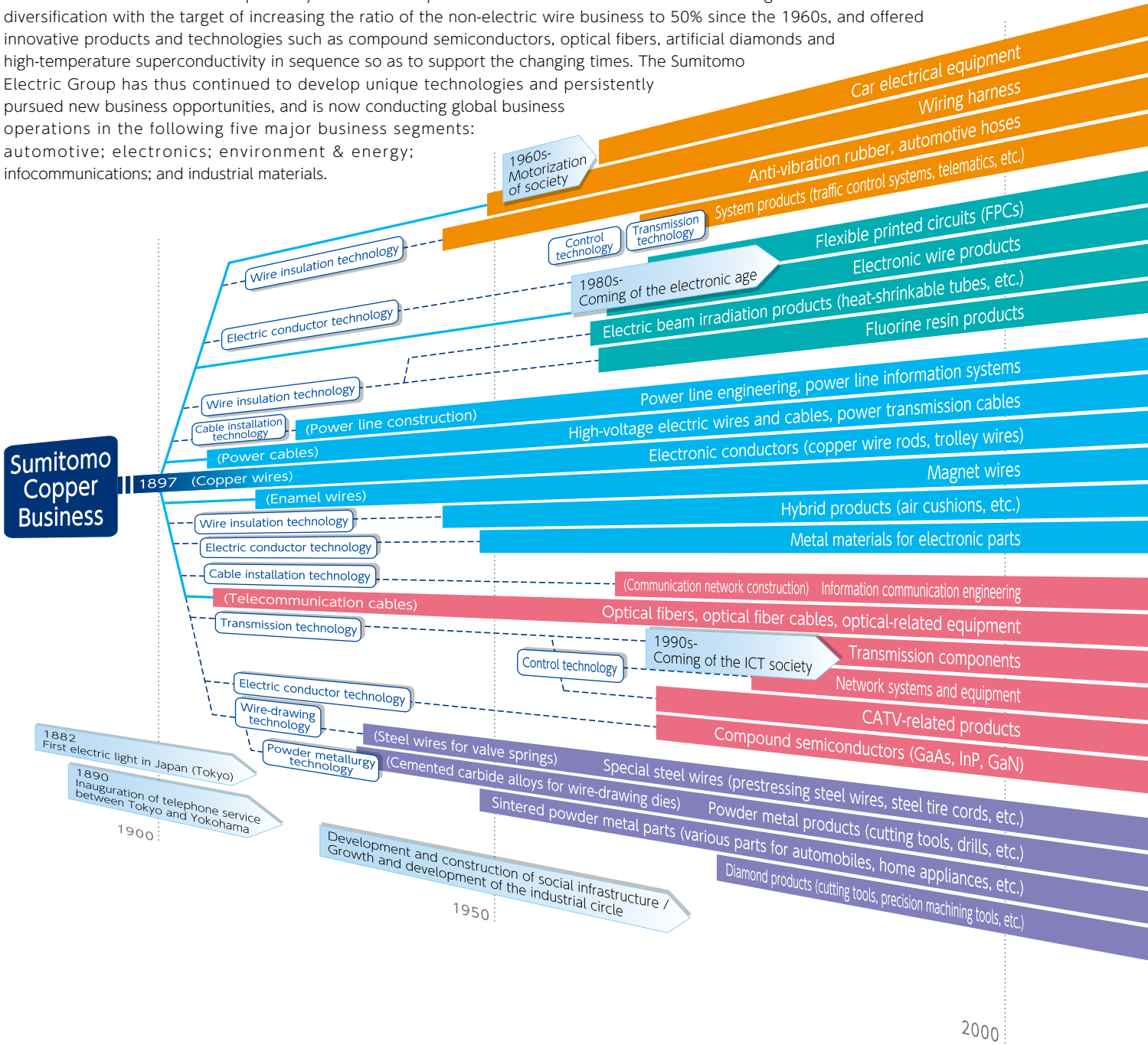
Glossary

\* Frequency rate

Number of deaths and injuries caused by industrial accidents per million working hours. Used to express accident frequency. The formula is: Number of deaths and injuries caused by industrial accidents / Total working hours x 1,000,000.

# Our History and Business

Starting with copper wire production, the electric wire and cable business of Sumitomo Electric has expanded in the respective segments, including the manufacturing of power cables and communication cables and then magnet wires, automotive wiring harnesses and electronic wires for information equipment, in line with the development of society. In the meantime, we also began to diversify our business in early years based on the technology to produce electric wires and cables. The production of cemented carbide tools and special steel wires launched in 1931 and 1932 respectively was a firm step into the areas outside the electric wire segment. We have accelerated the diversification with the target of increasing the ratio of the non-electric wire business to 50% since the 1960s, and offered innovative products and technologies such as compound semiconductors, optical fibers, artificial diamonds and high-temperature superconductivity in sequence so as to support the changing times. The Sumitomo Electric Group has thus continued to develop unique technologies and persistently pursued new business opportunities, and is now conducting global business operations in the following five major business segments: automotive; electronics; environment & energy; infocommunications; and industrial materials.



## History

1897	Sumitomo Copper Rolling Works was founded.	1943	Started production of anti-vibration rubber and fuel tanks.
1900	Started production of coated wires.	1946	Opened a branch office in Tokyo (now the Tokyo Head Office).
1908	Started production of power cables.	1948	Started marketing sintered powder metal products.
1909	Started trial production of telecommunication cables.	1949	Entered into the business of construction of overhead transmission lines.
1911	Established Sumitomo Electric Wire & Cable Works (the foundation of the Company). Manufactured and supplied the first Japan-made underground high-voltage (11,000 V) cables.	1957	Delivered the first Japan-made television broadcasting antennas.
1916	Opened a new factory (now the Osaka Works) Started production of enamel wires.	1961	Opened the Yokohama Works. Delivered the wiring harnesses for four-wheel vehicles for the first time in its history.
1920	Incorporated Sumitomo Electric Wire & Cable Works as a limited company (the establishment of the Company).	1962	Started production of IRRAX™ Tube electron beam irradiation tubes. The Head Office was moved from Osaka's Konohana Ward to the present address in Chuo Ward.
1931	Started production of cemented carbide ("IGETALLOY") tools.	1963	Started production of disc brakes.
1932	Started production of special steel wires.	1964	Started production of electron beam irradiation wires.
1939	Company name changed to the current name, Sumitomo Electric Industries, Ltd.	1968	Entered into the business of traffic control systems.
1941	Opened the Itami Works.	1969	Established its first overseas production subsidiary. Started development of flexible printed circuits (FPCs).
		1970	Started production of compound semiconductors.

## Automotive

### Contributing to accelerating improvement delivered by CASE and to the evolution of mobility

Our main automotive products are wiring harnesses, which are laid throughout an automobile to transmit power and information. Wiring harnesses require advanced technologies to reliably transmit electricity and information to electrically-driven components and control equipment in the automobile despite intense vibration and heat. In the Sumitomo Electric Group, Sumitomo Wiring Systems, Ltd. and AutoNetworks Technologies, Ltd. have established such a prominent presence in the market that one out of four automobiles in the world uses Sumitomo Electric's wiring harnesses. Steady advances in the use of aluminum wiring harnesses have been helping reduce automobile weight. Our connecting technologies are essential for realizing connected cars and autonomous driving, which must handle a huge amount of information, as well as for achieving widespread use of hybrid and electric vehicles. We intend to become a mega-supplier with the wiring harness business at the core for an excellent harmony between automobiles, people and society in the next generation.

## Electronics

### Supporting further evolution of mobile devices, automobiles and aviation equipment

The diverse range of raw, wiring and other materials supplied by our group have supported the evolution of various electronic equipment at the core. Flexible printed circuits (FPCs) are one of the main products of the Group. Their versatility in forming high-density circuits in a small area makes them a wiring material adaptable to all kinds of increasingly complex equipment. We have electron beam irradiation technology used to produce electric wire products and heat-shrinkable tube, and fluorine resin processing technology applied to printer toner fixing rollers. In addition to these proprietary material development, design and processing technologies, we are experts in high-speed data transmission technology, constantly creating products to meet demand for sophisticated functionality. We aim to become a global supplier of high-performance cables, components and materials by refining these technologies and strengthening our supply chain to be successful in global competition.

## Environment & Energy

### Building next-generation energy systems for the widespread use of renewable energy and other purposes

We melt, solidify and roll copper. Sumitomo Electric's electric wire and cable products evolved from its copper wire production since its foundation. With a solid foundation and proven track record of achievements among Japan's top-tier businesses in the category of low to ultra-high voltage electric wire and cable products, we support energy infrastructure throughout Japan. Currently, the technical expertise of our group is required for the construction of new energy systems in line with trends such as international grid interconnection projects, primarily in Europe, infrastructure development in emerging countries, increasing use of renewable energy and widespread use of electric vehicles. We aim to build a stronger global presence drawing on our strengths such as diverse high-value product families and associated services, project-planning expertise, overall capabilities involving affiliate companies in the heavy electrical machinery and engineering fields and end-to-end system development from raw material to finished product.

## Infocommunications

### Endeavoring to realize high-speed, high-capacity telecommunications meeting the challenge of the increasing data traffic volume

Communication infrastructure is essential for society. Optical fiber cables and other components and equipment that support communications, supplied by the Sumitomo Electric Group, play an active role in communication infrastructure. We began manufacturing optical fiber products in the 1970s. Among them, those for over 10,000 km ultra-long distance submarine systems are required to exhibit high quality and high reliability. We have built a presence in the industry with our high technical expertise as represented by the Z fiber, which is an optical fiber developed for ultra-long distance submarine system applications. The Z fiber broke the world record for low-loss optical fiber. Our strengths also extend to Ultra-High-Fiber-Count Optical Cable manufacturing technology and software development for visual- and optical-access devices. Increasing volumes of information are currently exchanged throughout the world. With our technologies playing a key role in important connections, we will lead the age of high-speed, high-capacity telecommunications by working on developing innovative new products that are one step ahead of and exceed various customer expectations, such as compound semiconductors for optical/wireless applications developed via collaborative vertical integration from raw materials to finished devices.

## Industrial Materials

### Contributing to the growth of industries and social infrastructure by developing and supplying high-functionality materials

Materials produced by the Sumitomo Electric Group have evolved on the basis of its thin copper wire-making technology. Our cutting and grinding tools made of materials such as diamond, cubic boron nitride and cemented carbide alloys support all fields of manufacturing throughout the world. Additionally, special steel wires that reinforce concrete structures and tires and sintered powder metal parts used primarily in automobiles are essential for the growth of society and industries. In response to the growing demand for lightweight automotive materials and the growth in the medical and aviation industries, we will offer tangible forms of innovative solutions for customer and social challenges, drawing on our world-class materials development capabilities and production technologies.

1971	Opened the Kanto Works.	2003	Sumiden Hitachi Cable Ltd. (wires and cables for buildings and industrial equipment) started operation.
1974	Started production of optical fiber cables.		Sumitomo Electric Hardmetal Corp. (powder metal and diamond products) started operation.
1975	Contracted to construct a power transmission line in Iran.	2004	A.L.M.T. Corp. was made a wholly-owned subsidiary.
1976	Received an order for a large telecommunications network project in Nigeria.	2006	The HTS cable used in a power transmission grid in the U.S. started supplying electricity.
1978	Delivered and put into operation the world's first bi-directional fiber optic CATV system "Hi-OVIS."	2007	Sumitomo Wiring Systems, Ltd. was made a wholly-owned subsidiary.
1981	Delivered the fiber optic LAN system for the first time in its history.		Nissin Electric Co., Ltd. was made a consolidated subsidiary.
1982	Succeeded in producing the world's largest synthetic monocrystalline diamonds (1.2 carats).	2008	Opened the Technical Training Center.
1996	Developed a technology for producing long-length oxide high-temperature superconducting wires.		Sumiden Friend, Ltd. (Special subsidiary) started operation.
1998	Developed and started marketing ecology wires and cables.	2009	Sumitomo Electric Device Innovations, Inc. was organized.
1999	Sumitomo Electric Fine Polymer, Inc. (fine polymer products) started operation.	2010	Opened the WinD Lab, a new laboratory building.
2001	J-Power Systems Corporation (high-voltage power cables) started operation.		SEI Optifrontier Co., Ltd. was organized.
2002	Sumitomo Electric Networks, Inc. (network equipment) started operation.	2014	J-Power Systems Corporation was made a wholly-owned subsidiary.
	Sumitomo (SEI) Steel Wire, Corp. (special metal wires) started operation.	2015	Started a demonstration test of the world's-largest-class redox flow battery system.
	Sumitomo Electric Wintec, Inc. (magnet wires) started operation.		

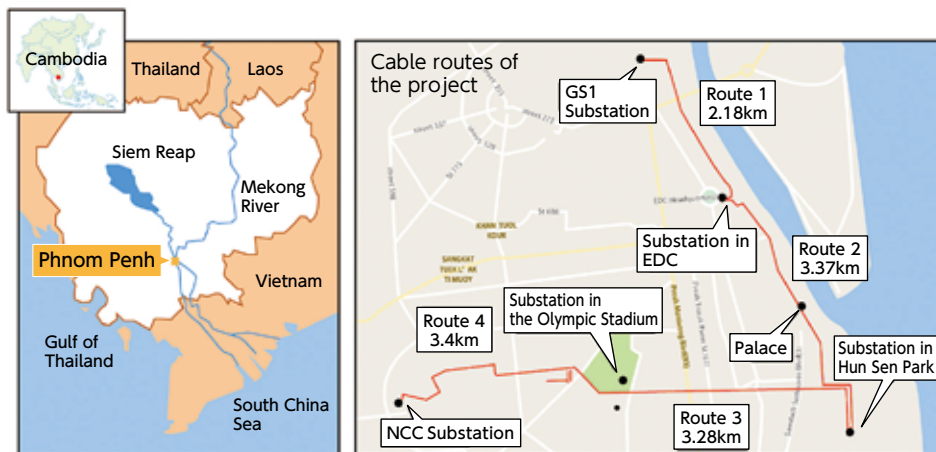
# 2018 Highlights

Major events during fiscal 2018 are listed below.

## 2018

5

- Enter into a contract for a high-voltage underground cables project in Phnom Penh, the Kingdom of Cambodia



6

- Released "Q'z TAG™ walk plus", a new model that enables automatic measurement of TUG\*

9

- POWER DEPO™III, a lithium-ion energy storage system for domestic use was registered as a model to receive a subsidy of FY2018 ZEH\* support project



POWER DEPO™III

12

- Successfully developed next-generation SiC transistors with the world's lowest on-state resistance jointly with the National Institute of Advanced Industrial Science and Technology
- Initiated the operation of Redox flow batteries in the US wholesale power market (Demonstration project of New Energy and Industrial Technology Development Organization)

## 2019

2

- Won an Excellence Award in the Environmental Reporting Category of the 22st Environmental Communication Awards



### Glossary

\* TUG

An acronym of "Timed Up and Go," which is a test to assess mobility function

\* ZEH (net zero energy house)

A house that aims to make the balance of annual primary energy consumption "zero" by reducing energy use while also generating energy through photovoltaic power generation, etc.



2

- Received a certificate of appreciation from Mongolia's National Power Transmission Grid for our contribution to the reduction of CO<sub>2</sub> emissions by supplying low-loss conductor to the country



Receipt of the certificate of appreciation

3

- Founded a manufacturing company to produce rectangular magnet wires used in vehicles in Jiangsu Province, China
- Selected as an FY2018 Nadeshiko Brand
- Received the highest environmental rating from the Development Bank of Japan



4

- Started to supply BS4K set-top box



BS4K set-top box "Cable Plus™ STB-2"

5

- Acquired two Group companies of Sinterwerke, a powdered metal component manufacturer in Europe

## Group Global Award Ceremony

On August 2, 2018, the Sumitomo Electric Group Global Award Ceremony was held at Nakanoshima, Osaka. The Group Global Award program intends to commend activities and groups in recognition of their significant contributions to achieving the target of becoming a Glorious Excellent Company. An international ceremony is held for the awards every five years. In the ceremony in 2018, which was attended by 450 people from Sumitomo Electric and its Group companies in Japan and overseas, a total of 106 teams and companies were commended and three teams among them presented their achievements as representatives of the award winners.

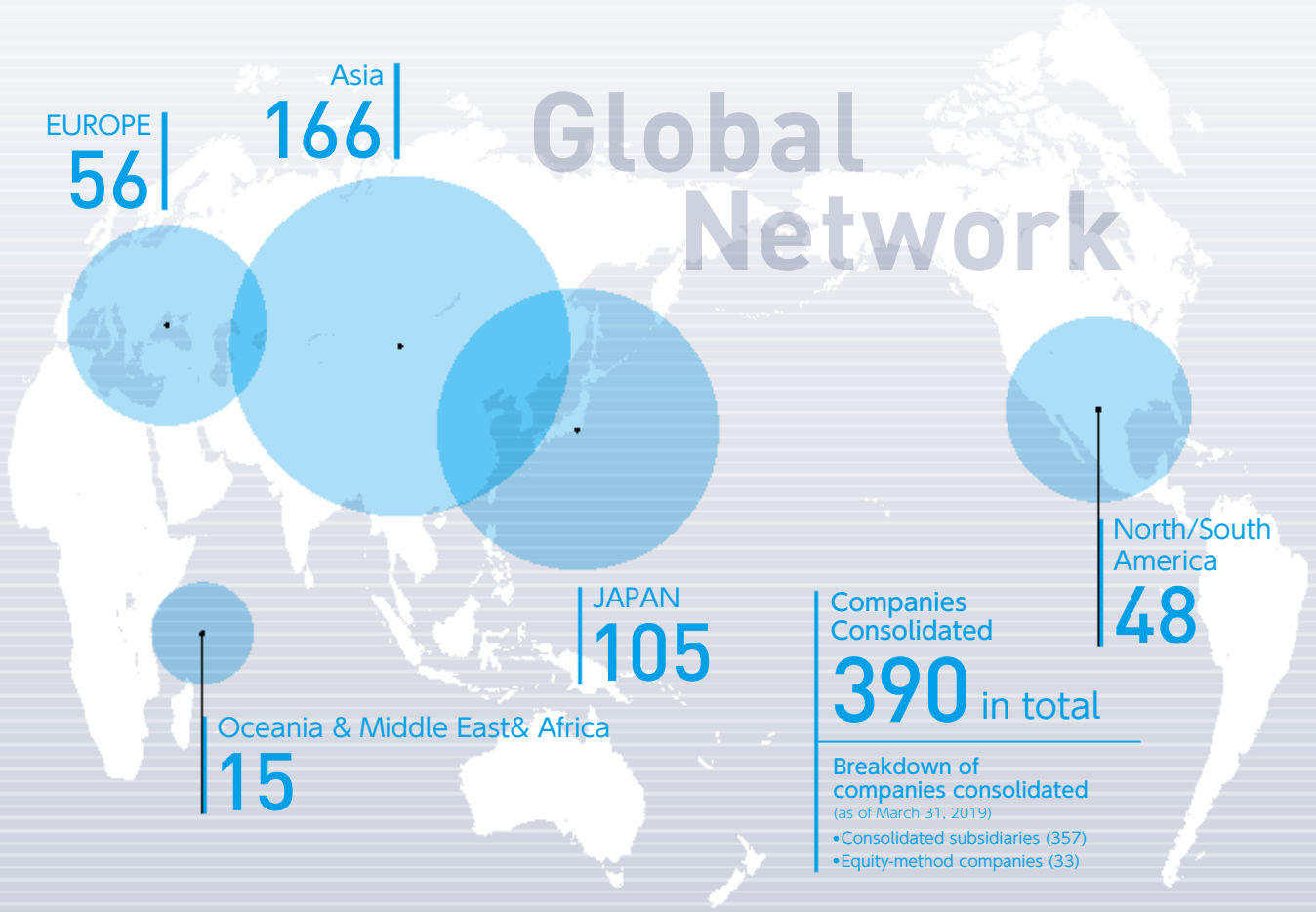
The event helped us share our vision, business policies, etc. to realize VISION 2022 and develop a sense of unity towards the realization across the Group on a global scale.

As one of the 120th anniversary commemorative programs, Small Group Activity Convention was also held on the same day (see P64 for the Small Group Activity Convention).



# Global Business Expansion

The Sumitomo Electric Group is developing business activities on a global scale, with 390 consolidated companies and over 270,000 employees around the world. While providing superior products and services, we respect the cultures and customs of the countries and regions in which we operate. As a corporate entity we conduct business in harmony with society, so as to contribute to the sustainable development of the economy and society.

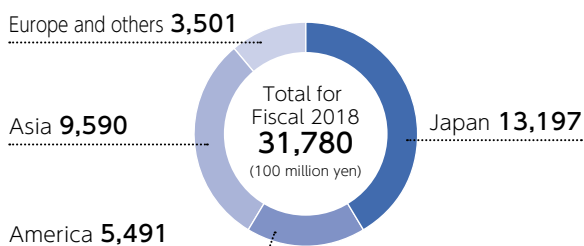


Company Name	Sumitomo Electric Industries, Ltd.
Established	April 1897
Incorporated	December 1920
President	Osamu Inoue
Capital Stock	99,737 million yen (as of March 31, 2019)
Head Office	4-5-33, Kitahama, Chuo-ku, Osaka, JAPAN

Number of consolidated companies by country or area

EUROPE	JAPAN	North/South America
UK 7	Japan 105	USA 27
Italy 2		Argentina 1
Ukraine 1	<b>Asia</b>	Canada 2
Netherlands 3	India 7	Paraguay 1
Spain 1	Indonesia 12	Brazil 7
Slovakia 2	Cambodia 1	Mexico 10
Serbia 1	Singapore 4	
Czech Republic 1	Thailand 23	<b>Oceania &amp; Middle East &amp; Africa</b>
Germany 12	Philippines 11	Egypt 2
Turkey 4	Vietnam 10	Australia 2
Hungary 3	Malaysia 5	Saudi Arabia 1
France 4	South Korea 7	Tunisia 4
Bulgaria 1	China 75	Morocco 4
Belgium 1	Hong Kong 5	South Africa 2
Poland 4	Taiwan 6	
Moldova 1		
Romania 3		
Russia 5		

Net Sales by Region (Consolidated)



## History of the business development on a global scale

Sumitomo Electric started to export electric wires, which underlie the industry, during the era of its forerunner, Sumitomo Electric Wire & Cable Works, which was founded in 1911. In the postwar period, we expanded our business by exporting full turnkey projects, which covered exports of electric wire products and all services from design to construction. This leads to the establishment of foundations for the social and economic development of developing countries and regions all over the world.

With respect to products in the business segments as well, we have promoted localization of the business by setting up a number of production bases in the trend of customer demand for overseas operation and so on. Through these activities, we have provided technical guidance and have established an integrated system of production and sales outside Japan.

single company. A total of 300 Japanese staff and 2,000 locals worked together on the project for 11 and a half years until its completion in 1988.

In the two power transmission line construction projects for which we received orders in Iran in 1975 and 1977, we faced not only harsh geographical and weather conditions in the construction area but also unstable political circumstances such as revolution and war. Still, we managed to connect major industrial bases of the country and eventually complete the projects in 1987.



## Full turnkey projects

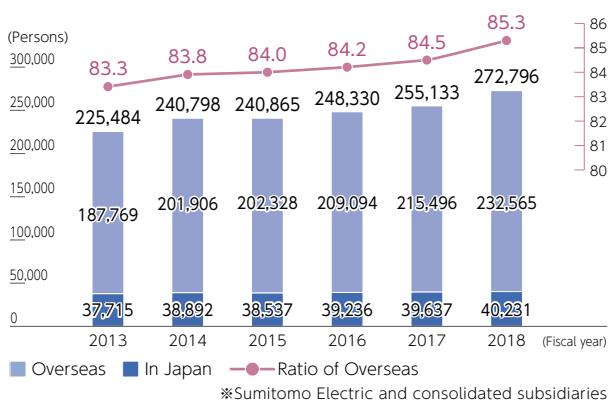
Since our first project in Venezuela in 1963, we have undertaken construction works in Asia, Middle East, Africa and South America to lay power transmission lines, which serve as an "artery" that conveys electricity throughout society, and to build communication networks, which serve as a "nerve system" that conveys information.

In particular, the order we received to construct an urban telephone network in Nigeria in 1974 was at that time an unprecedentedly large communication network construction project, even by worldwide standards, to be placed with a

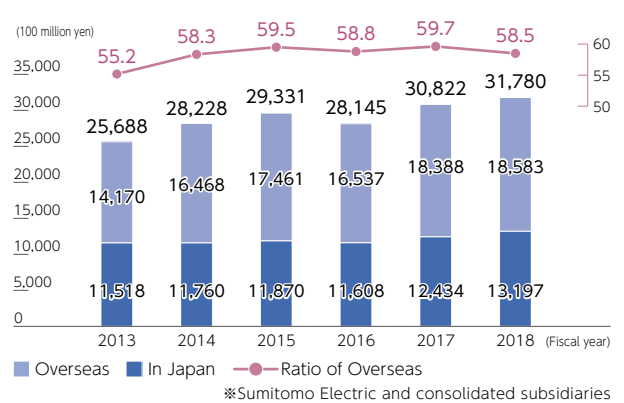
## Global development by business segment

Beginning with the foundation of our first overseas manufacturing base in Thailand in 1969, we have promoted the establishment of overseas bases in consideration of market characteristics and needs for each business segment. In the parts of the world in which we have established our bases, we are committed to job creation and human resource development while aiming to stabilize the local operation. We now have a total of 285 overseas consolidated companies with more than 230,000 employees.

Number of employees in Japan and overseas and ratio of overseas employees by year



Sales in Japan and overseas and ratio of overseas sales by year



Number of Group Employees in the World by Year

	2009	2010	2011	2012	2013	2014	2015	2016			2017			2018		
								Male	Female	Total	Male	Female	Total	Male	Female	Total
Americas	13,852	15,164	19,712	24,273	29,470	34,828	33,500	22,481	15,478	37,959	20,381	18,542	38,923	20,523	20,008	40,531
Europe/Africa	33,834	41,230	47,735	47,644	54,245	56,477	56,273	22,135	34,662	56,797	24,097	36,440	60,537	24,733	41,014	65,747
Southeast Asia	34,310	37,538	43,000	49,868	56,408	58,278	61,848	21,440	44,404	65,844	25,009	46,520	71,529	28,466	50,779	79,245
China	37,843	51,887	46,788	47,390	47,646	52,323	50,707	20,196	28,298	48,494	19,716	24,791	44,507	22,853	24,189	47,042
Japan	37,364	36,954	37,499	37,148	37,715	38,892	38,537	31,915	7,321	39,236	32,201	7,436	39,637	32,488	7,743	40,231
<b>Total</b>	<b>157,203</b>	<b>182,773</b>	<b>194,734</b>	<b>206,323</b>	<b>225,484</b>	<b>240,798</b>	<b>240,865</b>	<b>118,167</b>	<b>130,163</b>	<b>248,330</b>	<b>121,404</b>	<b>133,729</b>	<b>255,133</b>	<b>129,063</b>	<b>143,733</b>	<b>272,796</b>
Ratio of overseas employees	76.2%	79.8%	80.7%	82.0%	83.3%	83.8%	84.0%	84.2%			84.5%			85.3%		

\*Sumitomo Electric and consolidated subsidiaries



The 4th  
Sumitomo Electric Group  
Executive Conference of  
Greater China

## Executive Talent Development in Greater China



The Sumitomo Electric Group holds the Regional Executive Conferences in the Americas, Europe, Southeast Asia/Australia and Greater China every year. This report presents the 4th Sumitomo Electric Group Executive Conference of Greater China held in Tianjin in December 2018.



**Date** December 17, 2018 (Mon.)

**Venue** The Ritz-Carlton, Tianjin

### Schedule

- President speech
- Reports on the executive talent development in Greater China and Area Committee activities
- Reports on Area Committee activities  
Reports from five committees on PR and other subjects
- Final reports on the Action Learning program  
Reports from five teams on the Sumitomo Spirit, CSR in Greater China and other subjects
- Reports from the Corporate Staff Group of Sumitomo Electric  
Reports from seven divisions including the Corporate Planning Department
- Comments from the management of Sumitomo Electric
- Social gathering



## Tianjin, China





## // The 4th Sumitomo Electric Group Executive Conference of Greater China received 168 persons from 52 companies

At the conference held in Tianjin, China in December 2018, executives and other personnel of the Sumitomo Electric Group companies in Greater China gathered to report the recent situation of each company and make reports on Area Committee activities as well as final reports on the Action Learning program. In addition, the Corporate Staff Group of Sumitomo Electric reported on VISION 2022 and other subjects. From Japan, President Osamu Inoue, Executive Vice President Mitsuo Nishida and Senior Managing Director Yoshitomo Kasui also participated in the conference, which was very productive with an active exchange of opinions and interactions among the participants.



## // Area Committee activities and executive talent development in Greater China



The Area Committee activities were first launched in North America in 2011 and have been developed in the four regions of the Americas, Europe, Southeast Asia/Australia and Greater China until now. At the initiative of Sumitomo Electric Group (SEG) Global Executives in each region, the committees work to address common challenges in their region beyond the borders of individual companies and businesses and report the activities to executives of Sumitomo Electric at the Regional Executive Conference. The committees also serve as a forum for interactions among the personnel. A feature of the Area Committee activities in Greater China is that they originally started with "Action Learning," a training program for executive candidates from Group companies, in which participants work to address management issues unique to the region. The subjects to be examined, as well as participants, in the Action Learning program were taken over by the Area Committee activities, which have then grown while promoting activities with SEG Global Executives. In fiscal 2019 and thereafter, the committees are expected to be strengthened in a phased manner to develop a system originally planned for the promotion of Area Committee with a more organized structure and financial resources for personnel.

## // Sumitomo Electric Group Executive Conference of Greater China also helps executive talent development

As a feature of the Regional Executive Conference in Greater China, final reports on the Action Learning program are made along with reports on Area Committee activities. Since there are only three SEG Global Executives in Greater China, it is an important challenge to promptly develop executive talents for the next generation among the local employees. Many of those who report on the Action Learning program are young, and the Regional Executive Conference gives them opportunities to present their training results directly to the management of the Group and receive feedback from them. Thus, the operation of the conference is also significant for the cultivation of executive talents.

The subjects of the reports on the Action Learning program made in this Regional Executive Conference included the dissemination of the Sumitomo Spirit in Greater China as well as the development of CSR activities. The results of active studies on other subjects were also reported respectively.







**SHMS\*** Jin Guanghe Manager of ALMT & Direct Sales Department (left)  
**SEPH\*** Wu Huaming Vice General Manager and HR Manager (right)

### We will contribute to raising our profile in Greater China through unique activities of the Area Committees

We are sales staff from two different sales companies. It is our pleasure that we can contribute to the growth of the Sumitomo Electric Group in Greater China.

Both of us are currently working as a PR committee member. At the Sumitomo Electric Group Executive Conference of Greater China held in December 2016, the enhancement of the branding of the Group in Greater China was selected as a subject for the Action Learning program. The initiative evolved into the PR Committee, one of the Area Committees, in the following year.

The Group, which is in the B-to-B business, has a low profile in Greater China and no Group company in the region has a PR function. We were a little surprised when salespersons like us



**SEWS-STC\*** Hui Jianming Vice General Manager

### Starting with CSR procurement, which is becoming increasingly important, we will make our CSR activities in Greater China more active

I joined the Shanghai-based company selling harnesses to car manufacturers across China in April 2017 after working for a Chinese car manufacturer and other companies. I started to participate in the executive talent development program in March 2018 and was committed to the Action Learning program included in the second half of the training. While the original subject of the program was shared services, the program members voluntarily suggested the change of the subject to CSR after discussions because demand for CSR efforts has been growing recently in Greater China, and actually adopted CSR as the subject. Considering the fact that European and US car



**TJWS** TIANJIN JIN ZHU WIRING SYSTEMS Co.,Ltd.

### I certainly feel that our efforts to executive talent development in Greater China are producing results

Toshihiko Niki  
 General Manager, TJWS



TJWS was jointly established by the Sumitomo Electric Group and former Tianjin Automotive Corporation, a state-run enterprise in China, in 1994 as the Group's first company to manufacture and sell wiring harnesses for local automotive companies in China. While it is said that there is a labor shortage in China, TJWS is focusing on training new hires to create an industry-ready workforce and reduce the employee turnover rate.

TJWS also provides local students with learning opportunities in response to the requests from schools. In fiscal 2017, TJWS won the GEC Award\* in the Sumitomo Electric Group and also took first place in the commendation of the performance of Group

**Glossary**

- \*SHMS: Sumitomo Electric Hardmetal Trading (Shanghai) Co., Ltd.
- \*SEPH: Sumitomo Electric Interconnect Products (Hong Kong), Ltd.
- \*SEWS-STC: SEWS-STC Co., Ltd.

**\*GEC Award**

GEC stands for Glorious Excellent Company. The Group companies recognized to be especially excellent for their performance, safety, quality, etc. are commended once a year with this award.

were expected to work as PR committee members. At this Regional Executive Conference, we reported our achievements for the two years, which was the launch of an official account of our Group for WeChat, an SNS application commonly used in China, from scratch to successfully increasing the number of followers to more than 50,000 through initiatives such as posting of videos introducing the Group. We assume that we were able to adopt this approach, which leveraged the SNS, because we did it as part of the Area Committee activities. Participation in the Regional Executive Conference allowed us to widen our perspectives and find colleagues from other divisions with whom we can have discussions. We consider that our collective efforts in the Group will also lead to "Connect with Innovation," a new tagline for the Group.

manufacturers have increased the items to be assessed for CSR procurement from suppliers, we expected that CSR-related assessment by customers will become ever more important, and that the Group companies in Greater China, as well as headquarters in Japan, will have to promote CSR activities. We carefully examined our report for the conference through monthly meetings where the six members gathered, as well as teleconferences and SNS, with focus on how to make the importance of CSR understood by even those who learn CSR for the first time. During the breaks between my daily duties of sales activities, I thought about what subjects can be implemented, which was fun and rewarding. Many local employees also attend the Regional Executive Conference and can learn the policy of the Group to place emphasis on their development. I believe that VISION 2022 can be achieved through the commitment of the whole Group based on the Sumitomo Spirit.

companies in the Sumitomo Wiring Systems Group. I assume that we received the prizes for the recognition of our efforts to restore the management of Group companies through the expansion of sales channels in China and improvement of profitability by seeking reasonable prices, as well as the aforementioned educational activities. Vice General Manager He Shihong, who is at the highest position among the local employees of TJWS and concurrently serves as General Manager of another Group company, completed the Global Leadership Development Program. In the workplace, she puts what she has learned into practice. Even when she is away, the top management of TJWS functions well and I suppose this fact demonstrates that our efforts to executive talent development are producing results. We will continue to be committed to developing human resources in Greater China.



After the 4th Sumitomo Electric Group Executive Conference of Greater China

**We will further strengthen and penetrate the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles to enhance synergy among the Group**

At the 4th Sumitomo Electric Group Executive Conference of Greater China, I listened to reports on Area Committee activities and suggestions from the Action Learning program, which reminded me of the importance of working for human resource development with the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles set as the basis.

This conference was attended by SEG Global Executives in Greater China as well as many executives from the Group companies. I was pleased to see them have enthusiastic discussions from the perspective of the whole Group beyond the borders of individual companies. In particular, while the "dissemination of the Sumitomo Spirit" was one of the subjects for the Action Learning program, I was greatly impressed when a participant strongly claimed the need of sharing the Sumitomo Spirit among all Group employees, with an acute awareness of its importance, in a presentation on the subject. Efforts to develop human resources are indispensable for the Group to continue to expand its business activities and achieve growth on a global scale. In those efforts as well, the Sumitomo Spirit presents the "ideal future state" and "direction" for us. Sharing of the philosophy will be a significant initiative for us to reaffirm our social roles and learn our relationships with society. I felt that the executives in Greater China who participated in the conference deeply understand and sincerely agree to the Sumitomo Electric Group Corporate Principles and have great potential to support and lead the Group. We at the Human Resources Development Department will continue to work for the development of a variety of global human resources based on the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles.



**Yoichi Seki**  
General Manager,  
Human Resources  
Development  
Department

## Basic Approach

Under our corporate philosophy of the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles, our group maintains its unwavering basic policy of contributing to society through our fair business practices. While adhering to this basic policy, in order to seek sustainable corporate growth and to increase corporate value over the mid-to-long term, we believe that it is critical to ensure transparency and fairness of management activities through appropriate corporate governance, as well as to draw up and implement a growth strategy fully utilizing our management resources, with the key word being “innovation.” We will be committed to further enhancing our corporate governance in accordance with the following basic ideas:

- (1) We will develop an environment in which shareholders can exercise their rights appropriately.
- (2) We will take the interests of shareholders and other stakeholders into consideration, and will appropriately cooperate with them.
- (3) We will disclose corporate information appropriately and ensure transparency.
- (4) We will emphasize the board of directors' functions to make decisions on basic policy, including strategies, as well as to supervise management. We will also focus on organizing systems and operating the Board of Directors to ensure the effectiveness of such functions. In respect of executive operations, we have introduced an executive officer system and a business unit system, for the purpose of clarifying authority and responsibilities, and of establishing a flexible system to execute operations in response to changes in the business environment. From a viewpoint of ensuring sound management, we commit to strengthening audits by audit & supervisory board members and adopting a supervisory system under which independent outside audit & supervisory board members and full-time audit & supervisory board members work with our internal audit department and accounting auditors to ensure the lawful and proper management.
- (5) In order to contribute to sustainable growth and increase corporate value over the mid-to-long term, we will engage in constructive dialogue with shareholders to a reasonable extent.

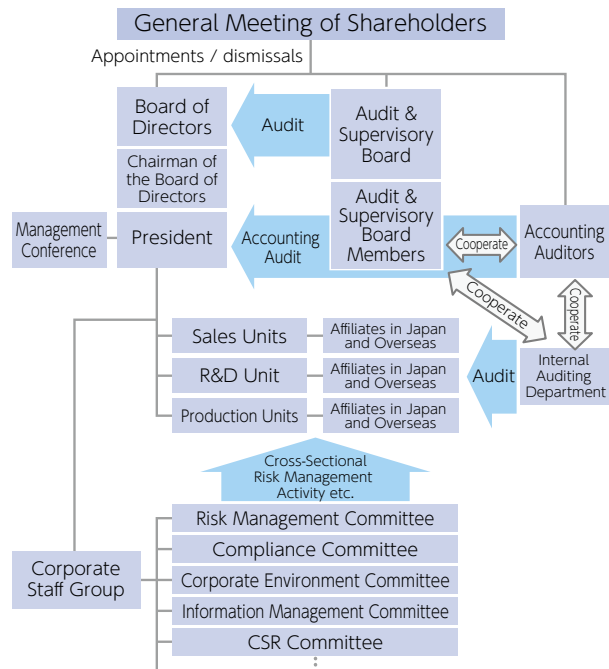
We have established Corporate Governance Guidelines setting forth our basic ideas and policy concerning corporate governance, which are made available on our website\*. We also implement all of the principles in the Corporate Governance Code.

## Outline of the Structure

Sumitomo Electric has employed the system with the audit & supervisory board in consideration of the contribution of audit & supervisory board members and the Audit & Supervisory Board to ensuring sound business management. The Board of Directors, the business execution system, audit & supervisory board members and the Audit & Supervisory Board are committed to fulfillment of their respective duties in order to achieve sustainable growth and medium- and long-term increases in the corporate value based on the basic philosophy. In addition, three outside directors are appointed to adopt an external perspective with the aims of further strengthening the supervising functions of the Board of Directors and enhancing the transparency and objectiveness of the business management. We also select three outside audit & supervisory

board members with various specialized knowledge and multifaceted views so that outside audit & supervisory board members occupy the majority of the Audit & Supervisory Board, which aims to reinforce the monitoring system for the purpose of ensuring lawful and proper management.

### Sumitomo Electric Group's corporate governance structure



## The Board of Directors and the Business Execution System

### 《Functions and Operations of the Board of Directors》

While the board of directors of a company with an audit & supervisory board serves functions to make decisions on and supervise business execution, the Board of Directors of Sumitomo Electric deliberates only important issues among individual subjects, such as major investment items, and focuses on the medium-term business plan, annual plans based on it and quarterly follow-ups of the plans, so that it can appropriately perform the function to decide basic matters concerning the direction of the Company, as well as the supervising function. Independent outside directors are appointed in the Board of Directors as mentioned above to ensure multifaceted and sufficient discussions in the meetings, in which independent outside audit & supervisory board members are also provided with opportunities to present their opinions actively. As to supervising function of the Board of Directors, while we respect opinions of the independent outside directors and other independent outside officers to ensure the independence and objectiveness, we have set up the Nominating Advisory Committee and the Compensation Advisory Committee, which are both chaired by an independent outside director and made up of a majority of independent outside officers, to enhance the effectiveness. The Committees give advice when the Board of Directors appoints candidates for directors and audit & supervisory board members and makes a decision on the compensations of directors.

Sumitomo Electric holds monthly meetings of the Board of Directors as well as extraordinary meetings when necessary.



In the meetings, which are chaired by Chairman, the Board of Directors deliberates and takes decisions on the matters mentioned above, makes decisions on the basic policy of the internal control system and supervises the development and operation of the system. There are currently 13 Directors in the Company, who are comprised of 10 Executive Directors and three outside Directors not involved in business execution, and one of them is a female outside Director. For fiscal 2018, 12 Directors (excluding four outside Directors) received 830 million yen in total.

#### 《 Effectiveness Analysis and Assessment of the Board of Directors 》

The Board of Directors started to analyze and evaluate its effectiveness and disclose a summary of the results in fiscal 2015. As an initiative for fiscal 2018, it conducted a questionnaire survey of all directors and audit & supervisory board members including outside officers in March 2019 and made discussions based on the results at a Board of Directors meeting held in May of the same year. The results of the analysis and assessment and future initiatives are summarized below:

##### ① Operation of the Board of Directors and advisory committees for the nomination and compensation of executives, directors, etc.

The findings showed that the operation of the Board of Directors has been improved through the promotion of initiatives including the review of the matters to be discussed at the Board of Directors meetings. On the other hand, it was also indicated that we should strive to improve the operation by making key points clearer in the handouts for discussions and simplifying the explanation of the issues to be discussed so that sufficient time for discussions can be set aside. In the meantime, the operation of the Nominating Advisory Committee and the Compensation Advisory Committee and the reporting of the discussions to the Board of Directors were found to have been conducted generally properly.

##### ② Structure of the Board of Directors

The findings showed that the increase in outside directors and other structural changes have enabled the Board of Directors to make more active and multifaceted discussions and that the structure and other aspects of the Board of Directors are generally appropriate in terms of the number of members and the overall balance of their knowledge and experience. In the future, while also considering social trends and other issues, we will continue to examine the ideal state of the Board of Directors in terms of structure and other aspects to contribute to the sustainable growth of Sumitomo Electric and mid- to long-term improvement of the corporate value.

##### ③ Role of the Board of Directors

The findings showed that the Board of Directors basically plays its role in "deliberating and determining on the basic management policy and other important corporate issues" and "supervising the business execution of directors" through its activities including active discussions in deliberation on important matters and at the time of quarterly performance reporting and reporting on the progress of the improvement of the internal control system. In the future, we will continue to work for improvement through measures including the review of the matters to be discussed at the Board of Directors meetings from the perspective of importance, in addition to the improvement of operation as mentioned in ① above.

Thus, we have confirmed that the Board of Directors of Sumitomo Electric is effective in general at present. We will continue to strive for the improvement of the Board of Directors to further enhance its effectiveness.

#### 《 Business Execution System 》

To clarify authority and responsibility in the business execution system and establish a flexible system that can respond to changes in the business environment, Sumitomo Electric adopted the Executive Officer System and the Business Unit System. Authority to execute business operations has been transferred to Business Units while their responsibility has been clarified, and to establish an internal check function, our corporate regulations specify the scope of authority of each of the Business Units including the Corporate Staff Group, responsible personnel for the execution and appropriate business procedures.

## Auditing and Supervision Systems

As to the audit & supervisory board members and the Audit & Supervisory Board, as mentioned above, the majority of the audit & supervisory board members are independent outside audit & supervisory board members with various specialized knowledge and multifaceted views. These members of the board, along with full-time audit & supervisory board members and dedicated staff to audit & supervisory board members, are in charge of monitoring in cooperation with the Internal Auditing Department and accounting auditors to ensure lawful and proper corporate management.

Five audit & supervisory board members, consisting of two full-time members of the board and three outside members of the board including a female one, constitute the auditing system to audit the business execution of directors. The Audit & Supervisory Board establishes audit plans and policies, in accordance with which each audit & supervisory board member fulfills his role, as assigned by the Audit & Supervisory Board. Specifically, audit & supervisory board members attend important meetings including those of the Board of Directors, conduct hearings with the directors, Internal Auditing Department and other employees regarding their duties, inspect important authorization documents and visit major establishments to conduct audits. Audit & supervisory board members also receive reports from other members of the board regarding their audit status, and exchange information with the accounting auditor when required.

The section in charge of internal audits is the Internal Auditing Department, which surveys any problems and makes proposals on improvement to ensure proper and efficient business performance through audits, including on-site surveys, of our Group companies and other establishments. The department also collaborates with audit & supervisory board members and accounting auditors on an as-needed basis in the audits.

The accounting audits and internal control audits to be conducted by accounting auditors are outsourced to KPMG AZSA LLC.

## Ensuring Appropriateness of Financial Reporting

We have established the Financial Reporting Internal Control Committee, chaired by the President, and an organization to promote control in the Corporate Staff Group. Under their policy, guidance and support, we promote development and proper operation of the internal control system in each division and affiliate in accordance with the Financial Instruments and Exchange Act, as well as the assessment, audit criteria and enforcement criteria specified by the Financial Services Agency. Thus, we are committed to further improving the systems to ensure appropriateness of financial reporting. The Internal Auditing Department assesses the effectiveness of the internal control system of the whole group for each fiscal year. Based on the results of such assessment, the department is required to compile an internal control report to be submitted to the Financial Services Agency and obtain the approval of the Financial Reporting Internal Control Committee and the Board of Directors.

## Basic Approach

The Sumitomo Electric Group identifies, analyzes and assesses business risks, which include the factors that prevent the implementation of its business activities or achievement of management goals and strategies, as well as the factors that potentially have adverse impact, and then seeks to reduce and minimize them at a reasonable cost and with reasonable efforts.

With respect to cross-sectional risks common to all divisions and affiliates in the Group, the relevant corporate staff divisions, as well as company-wide committees organized by officers in charge, identify, analyze and assess the risks according to their duties, and then take measures to mitigate them.

The divisions and sales and R&D groups individually identify, analyze and assess the risks associated with their business operations, and then take measures to reduce them.

### Basic Policy of Risk Management

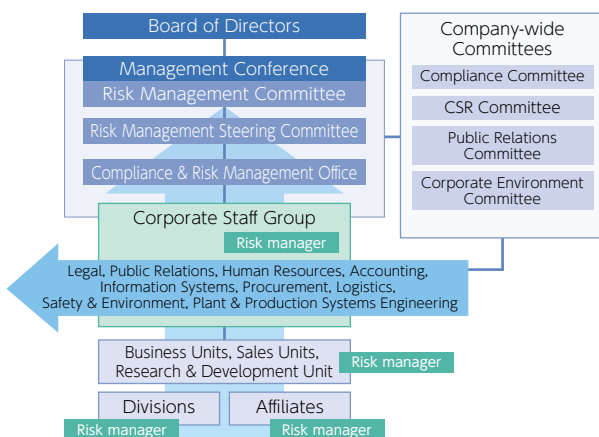
Risk management is performed based on the significance of the risks determined in consideration of the following issues:

- Impact on business performance, maintenance of quality and safety
- Social responsibility to ensure stable supply
- Maintenance of favorable relations with stakeholders such as customers, suppliers, shareholders/investors, local communities and employees
- Continuous compliance with laws and corporate ethics
- Statements in the Sumitomo Spirit, the Sumitomo Electric Group Corporate Principles and the Sumitomo Electric Group Charter of Corporate Behavior

## Risk Management System

The Sumitomo Electric Group holds a meeting of the Risk Management Committee, which controls overall risk management activities, in conjunction with a meeting of the management conference. The Risk Management Steering Committee is responsible for actual implementation under the Risk Management Committee, and its tasks include formulation of risk management policies, establishment of task forces at the time of an emergency, collection of information and planning and implementation of risk management education. The Compliance & Risk Management Office serves as the organizer for these committees.

### Risk Management System



## Risk Management Activities

Risk management activities of the Sumitomo Electric Group are based on taking inventory of risks that is conducted by each unit and each affiliate. In the inventory, which is conducted annually, the significance of each of the risk items is determined by scoring its severity, frequency of occurrence and other factors. Measures to deal with any significant risks are discussed and taken.

Annual results of the risk inventory are shared with executives and the corporate staff divisions. With mutual cooperation between them, group-wide risk management activities are promoted steadily.

### 《 Creation and Management of a Risk Heat Map 》

The Sumitomo Electric Group is making efforts to establish a more efficient mechanism for risk management so that it can respond to the expansion of the business fields and changes in the external environment effectively. We compiled a database of the results of risk inventory and information on the identified risks, as well as the results of operational audits and other monitoring activities, and created a risk heat map based on the database to visualize the risks to each of the units and affiliates. This map enables each of them to take measures to address the items with higher risk levels preferentially and enhance the efficiency and effectiveness of the risk management activities.

## Initiatives for Business Continuity

### 《 Promotion of Business Continuity Management (BCM) 》

Sumitomo Electric has developed Business Continuity Plans (BCPs) since fiscal 2007 to ensure that our important businesses can be continued even in the event of an emergency, such as an earthquake and pandemic of influenza, and that we can swiftly resume operations when our operations are interrupted. We also promoted business continuity management (BCM) for continuous improvement of the BCPs. In addition, we review the BCPs periodically, verify the effectiveness of the emergency response plan and take inventory of supply chain risks every fiscal year.

In line with the growing importance of overseas bases, we started to promote development of BCPs in each of the overseas subsidiaries as well in fiscal 2014.

Moreover, to reinforce our business continuity capabilities, we provide BCP training to risk managers appointed in the departments and affiliates once a year to ensure that they can promote the preparation and revision of the BCPs for their departments and affiliates and further enhance the effectiveness of the BCPs.

### 《 Continuous Implementation of Group-wide Joint Emergency Drills 》

The Sumitomo Electric Group enhances disaster awareness of employees by implementing joint emergency drills to conduct the drills in Group companies at the same time twice a year (in the daytime and at night).

Our production facilities carry out evacuation drills, which include confirmation of the safety of employees, as well as inspection of places where hazardous materials are used and simulation of the initial response to emergency situations.

In the meantime, drills of information transmission and sharing are also implemented by establishing headquarters of countermeasures with the aims of grasping disaster information promptly, reporting it accurately and promptly to executives and sharing the information among the Group.

### 《 Cooperation with Local Communities 》

As a corporate citizen, we are committed to enhancing disaster preparedness abilities of the local communities, through the conclusion of disaster preparedness agreements with local governments and other means, in the areas where our bases are located.



## Protection of Personal Information, and Information Security

The Sumitomo Electric Group improves the information management system and revised rules and enhance the mechanism to prevent information leakage in each of its divisions and affiliates. Regarding the use of social media, we have also established a social media policy, which specifies our basic approach to its use, as well as social media guidelines, which provide specific issues to be noted. The policy and guidelines serve to raise the awareness of employees. We will continue to promote information management of the Group by improving the system in domestic and overseas affiliates and enhancing the internal training program designed for disseminating the rules.

### 《Protection of Personal Information》

In accordance with its Personal Information Protection Policy, Personal Information Protection Rules and other rules, Sumitomo Electric properly deals with the personal information of customers, business partners and employees handled in the course of its business while complying with laws, regulations and other standards relating to the protection and use of personal information. We also formulated the rules for handling specified personal information in November 2015 to ensure that such information is handled properly in accordance with laws and regulations and to prevent leakage and other problems. In addition, we revised the aforementioned policy and rules in May 2017 in response to the full implementation of the amended Act on the Protection of Personal Information. Also, we have newly developed EEA\* Residents Personal Data Handling Rules in response to the enforcement of the EU General Data Protection Regulation (GDPR) in May 2018 to properly protect the personal data of EEA residents as specified by GDPR. Contract procedures to smoothly share personal data of EEA residents in our group have been also completed. Furthermore, we have put in place a system to promptly report any leak, loss, damage or other infringement of personal data of EEA residents to the supervising agency in the EEA.

### 《Strengthening of Information Security Measures》

We have set up an ICT Management Committee in the five countries of China, Thailand, Indonesia, Malaysia and the United States as the basis of our global expansion and worked to enhance information security measures through the Committee. This commitment has led to such results as the reduction of the risk of infection by computer viruses and the implementation of information security training.

We are taking measures to prevent the leakage of information on trade secrets and other important management assets on a global scale, including installation of antivirus software and intrusion prevention systems (IPS), data encryption in mobile computers and USB devices, automatic encryption of files attached to emails, training to respond to targeted attack emails and introduction of AI-based anti-malware software to enhance protection from unknown malware. In addition, we have set up a mechanism for the investigation of the traces of hacking as well as the investigation and detection of any illicit acts using log information of servers and network devices.

With respect to the corporate structure, SEI-CSIRT (Computer Security Incident Response Team), established in 2017, is now playing a central role in our efforts to promptly identify and respond to any incidents relating to information security in our Group companies.

## Security Trade Control

Sumitomo Electric has set forth internal rules on security trade control to ensure compliance with export control regulations aimed at international security, and established an export control system headed by a representative director.

Our export activities are conducted after proper screening of individual business transactions and obtainment of necessary export licenses such as comprehensive export license.

Our employees and persons concerned are provided with position-based training, as well as periodical training, which deals with the latest cases, and training at the time of their appointment to the position, so that they are aware of their responsibility for security trade control and obtain necessary knowledge.

We also conduct audits in the Company and its affiliates in Japan and overseas constantly to monitor export activities, and share information between different divisions within the Company and between affiliates through various committees to reduce the risks in the security trade control activities of the entire group.

### Record of Various Training Sessions in FY 2018

Target of the training	No. of sessions	No. of participants	Main content
Staff in charge of classification	20	134	Tasks on how to classify goods and technologies
Export control sections	30	1,180	Export control practice
General employees (e-learning)	—	3,310	Outline of export control and internal rules
Domestic affiliates	6	82	Outline of export control
Overseas affiliates	21	282	Outline of export control and issues to be noted in foreign countries

## Intellectual Property Protection

Sumitomo Electric develops and manufactures various products based on its unique technologies. Proper protection and management of those products based on intellectual property rights (IPRs) is an important issue for our business management. Therefore, while promoting technical development, we are actively committed to the appropriate management of technical know-how and internal data as well as acquisition and use of IPRs such as patent rights and design rights. At the same time, we pay scrupulous attention and respect to the IPRs of other companies.

To this end, we have developed a rule on handling of trade secrets and intellectual property, and established an organization to provide business units and R&D units including those in our subsidiaries with necessary support, such as management of inventions, investigation of prior arts and IPRs of other companies, promotion of technology standardization activities and formulation of strategy and response from the perspective of intellectual property-related laws and regulations, in the Intellectual Property Department. Actual intellectual property activities, including planning and implementation of them, verification of the progress and results and correction of any inappropriate points, are promoted through concerted efforts among respective divisions, R&D units and the Intellectual Property Department in the IP strategy meeting, which led by strategic IP committee members of the divisions and responsible persons in the Intellectual Property Department, based on the PDCA (plan-do-check-act) cycle.

To improve the IP activities of our group as a whole, we continue to organize IP training sessions that match the experience and level of proficiency of each employee and publish related in-house newsletters. We also hold an Intellectual Property Right and Standardization Convention every year as a company-wide event to commend excellent IP activities.

Through these IP-related efforts, we promote the generation of business opportunities and reduction of IP risks in the whole group.

## Efforts to Pursue Fair Business Activities Worthy of Society's Trust

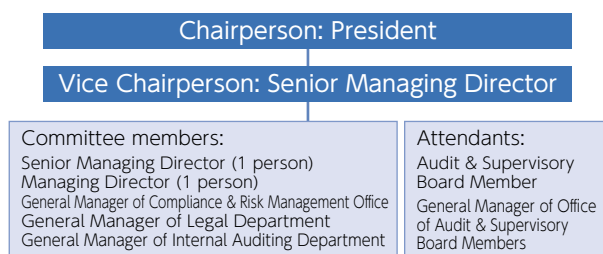
The Sumitomo Electric Group believes that compliance, which represents both complying with laws and regulations and acting in accordance with corporate ethics, comprises the backbone of its management and forms the absolute basis for its continued existence and development. In light of the recent trend of various compliance items, including competition laws, prevention of bribery, trade control rules and quality data issues, and under the principles of the Sumitomo Spirit, which values doing your sincere best not only in business but also every aspect of your life, placing prime importance on integrity and sound management and not pursuing immoral business, we will continue to make all efforts to ensure that all corporate activities are conducted fairly and honestly and can be trusted by society.

## Organization That Supports Compliance and Its Structure

### 《 Compliance Committee 》

Sumitomo Electric Group has established the Compliance Committee, chaired by the President, as an organization that designs and promotes measures necessary to develop and further strengthen the compliance system and holds its meeting roughly four times a year. The Committee engages in various activities, including identification and analysis of group-wide and overall compliance risks, monitoring of the implementation of programs for the compliance items and interviews with divisions and Group companies concerning their activities to comply with laws. Compliance & Risk Management Office and Legal Department serve as the organizers of the Committee.

#### Structure of the Compliance Committee



### 《 Compliance & Risk Management Office 》

While planning and coordinating overall compliance activities in the Sumitomo Electric Group, Compliance & Risk Management Office plans and implements relevant activities including the development of a system and organization of training for compliance with competition laws and prevention of bribery. The office also operates the whistle-blowing system (Speak-Up System) of the Group. Led by the General Manager, the office is composed of members including employees from Corporate Staff Group such as Legal Department, Human Resources Division and Internal Auditing Department as well as persons in charge of compliance tasks in Business Units and Sales Units. The responsible persons for compliance activities at overseas legal and compliance bases concurrently serve as the members as well. A compliance meeting is held every month to share relevant information and monitor the progress of compliance activities.

Sales Units and Automotive Business Unit respectively have an internal organization dedicated to compliance (Sales Compliance Office and Automotive Compliance Office).

### 《 Sections in Charge of Compliance Items 》

The sections in charge of each of the compliance items in the Sumitomo Electric Group are listed below:

#### Sections in charge of compliance items

Compliance items	Sections in charge
The Sumitomo Spirit	Human Resources Development Department
Competition laws	Compliance & Risk Management Office, Legal Department
Prevention of bribery	
Security trade control	Security Trade Control Office
Prevention of insider trading, prevention of illegal money transfer	Finance Department
Political contributions and donations	Administration Division
Elimination of antisocial forces	
Construction business and electric business	
Business decisions of directors, lawful operation of the Board of Directors meetings and general meetings of shareholders	
Account settlement and tax affairs	Accounting Division
Prevention of conflicts of interest (competitive operation)	Compliance & Risk Management Office, Legal Department
Information management (confidential information, personal information)	
Prevention of unfair competition (illegal acquisition of confidential information)	
Indication of origin	
Intellectual property (service inventions, IP contracts, IP-related laws)	Intellectual Property Department
Proper use of information systems	Information Systems Division
Information security (cyber security)	SEI-CSIRT Office
Timely disclosure of company information	Public Relations Department
Respect for human rights, prohibition of discrimination	Human Resources Division
Prohibition of harassment	
Employment management (compliance with labor-related laws)	
Prohibition of any act that abuses opportunities given for business	
Health and safety	Safety & Environment Department
Environmental conservation	
Prevention of quality problems (defects in products, quality disguise, etc.)	Quality Management Division
Relevant laws, energy saving and safety assessment associated with capital investments	Plant & Production Systems Engineering Division
Customs (in Japan)	Procurement Division
Subcontract Act*	
Prevention of improper trading (purchasing)	
Customs (overseas)	Logistics Management Department
Subsidy	R&D Planning & Administration Division
Internal control	Internal Auditing Department

## Compliance Activities

### 《 Code of Conduct 》

The Compliance Committee established and issued Code of Conduct, which serves as guidelines setting out the standards of conduct expected of each of us and helping us conduct business with integrity, based on the Sumitomo Spirit with the approval of the Board of Directors in April 2018. The Code of Conduct is basic rules on compliance commonly applied to all Group companies across the world. In addition to legal compliance, it specifies the basic policy on fair competition, prevention of bribery, protection of confidential information

and intellectual property, respect for human rights, environmental conservation and other issues. Printed booklets (in Japanese, English and Chinese) are distributed to officers and employees in our group while multilingual versions in approximately 30 languages, including Japanese, English and Chinese, are posted on our website and intranet. In addition, to inform employees of the Code of Conduct, we prepare summary posters in Japanese, English and Chinese and display them in the offices and plants of relevant bases.



Code of Conduct

### 《 Compliance Education 》

To check compliance risks, ensure implementation of preventive measures and develop and enhance awareness of compliance, the Compliance Committee organizes regular training seminars for all officers and managers every year. New employees and newly promoted personnel are also provided with position-based training seminars. The regular training seminars for managers are held from April to July concerning such subjects as prevention of quality disguise, compliance with competition laws and prevention of bribery, and we also disseminate the Speak-Up System mentioned below in the seminars.



Compliance training

### Targets of the Training and Number of Attendants (Period)

Target of the training	Number of attendants (period)
Officers (including executive officers)	42 (Dec. 2018)
Newly promoted personnel	approx. 600 (Feb. - Mar. 2019)
New employees of Sumitomo Electric	approx. 300 (Apr. 2018)
Managers of Sumitomo Electric and its subsidiaries in Japan	approx. 6,100 (Apr. - Jul. 2018)

### 《 Speak-Up System 》

The Sumitomo Electric Group established the Speak-Up System as a system to identify any compliance-related issues at an early stage and resolve them by ourselves in a prompt and proper manner. Specifically, we set up contacts for consultation and reporting not only internally but also externally (by appointing a law firm and a specialized service provider), and the issues reported through this system are addressed with immediate investigation to take corrective action and prevent recurrence where necessary. The contacts for consultation and reporting have been established to allow any employees of Group companies in and out of Japan as well as other interested persons to access. We present the outline of the system at the time of various internal training sessions and also disseminate it through monthly in-house newsletters, Code of Conduct, our website, intranet, workplace posters, notice to business partners and other measures. We established an external contact for consultation and reporting that can be used commonly by our Group companies outside Japan in 2014. As a result of our active efforts to disseminate it, the number of consultations and reports continues to increase year by year, helping to eliminate inappropriate actions and circumstances.

### Number of Consultations at the Contacts of the Group-wide System

FY	In-house contacts	External contacts	Total
2016	11	54	65
2017	24	50	74
2018	31	63	94

※Note that consultations were also requested at contacts established individually by Group companies in addition to the consultations above.

## Priority Matters

### 《 Compliance with Competition Laws 》

The Sumitomo Electric Group prioritizes global competition law compliance as the most important compliance activity and has taken measures to eliminate, and prevent a recurrence of, cartel and collusion, including suspicious acts within the Group. These measures include the formulation of the Rules for Compliance with Competition Laws in June 2010, which contain a provision that restricts contact with competitors only in the cases with legitimate business reasons, and mandatory compliance training (including online training) organized for sales staff and other employees around the world.

### Number of Employees Who Took Competition Law Compliance Training (Including Online Training)

FY	Number of attendants	Attendance rate
2014	approx. 4,400	99%
2015	approx. 4,700	95%
2016	approx. 5,000	91%

### 《 Prevention of Bribery 》

The Sumitomo Electric Group introduced an anti-bribery program in April 2013 to enhance its anti-bribery compliance system and has developed it on a global scale. In response to the recent tightening of anti-bribery regulations on domestic and foreign public officials in the US, Europe and emerging markets, this program has established anti-bribery rules, including prohibition against bribery, prior approval and ex-post report on gifts, hospitality and donations, and requested each division to appoint a bribery prevention manager to implement the rules.

Five years have passed since the anti-bribery program started. Based on environmental changes during that period, we revised it in January 2018 to focus on high risk in giving inappropriate hospitality. We have also distributed a bribery prevention manual to the bribery prevention managers of Group companies, who are in charge of operation of the program, and provided them with detailed training. We will keep working to maintain and enhance the global bribery prevention system through continuous education, improvement of the program and its manual as well as collection and dissemination of relevant information.

### 《 Compliance on Quality 》

In response to recent scandals of data falsification and improper inspection, the Sumitomo Electric Group took measures to enhance compliance on quality through initiatives including survey targeting divisions of Sumitomo Electric and its Group companies on business rules and operation systems for quality and inspection procedures, clarification of company-wide rules to prevent quality data falsification, improvement of relevant training and strengthening of the audits again in fiscal 2018 (see "Quality Compliance" in P49-50 for details).

## Establishment of the Sumitomo Electric Group Policy on Human Rights

Based on the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles, which serve as its basic philosophy, we have been promoting initiatives to ensure respect for human rights including efforts to eliminate discrimination. The Sumitomo Electric Group Code of Conduct also sets a standard that guarantees respect for human rights and prohibits any form of discrimination or harassment. In March 2019, the Sumitomo Electric Group Policy on Human Rights was established to respond to the

various needs of our stakeholders and to clearly show our commitment to respecting human rights in conformance with international standards.

To ensure that our initiatives are promoted in line with this policy, we will implement training programs to educate employees about human rights and conduct fact-finding investigations regularly at relevant stakeholders, including domestic and overseas affiliates and business partners, while setting specific operational guidelines, etc. as necessary.

### The Sumitomo Electric Group Policy on Human Rights\*

Date of establishment: March 19, 2019

The Sumitomo Electric Group, in accordance with the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles, shall strive to be a group of companies worthy of society's trust by conducting business activities in an honest manner.

As we continue to develop together with the global community, the Sumitomo Electric Group recognizes that all of its business activities must be based on respect for human rights. The Sumitomo Electric Group will work ethically and responsibly for the respect of human rights ensuring that our entire group will uphold this standard.

#### 1. Stance

The Sumitomo Electric Group hereby sets "The Sumitomo Electric Group Policy on Human Rights" (hereinafter referred to as "the Policy") to promote initiatives for respect to human rights. The Policy shall be guided by the following documents: "International Bill of Human Rights" (the Universal Declaration of Human Rights and the International Covenants on Human Rights) that sets forth fundamental human rights to be enjoyed by all people in the world; the "ILO Declaration on Fundamental Principles and Rights at Work" set forth by the International Labour Organization (ILO) which stipulates basic rights at work i.e. freedom of association and the effective recognition of the right to collective bargaining, the elimination of forced or compulsory labour, the abolition of child labour and the elimination of discrimination in respect of employment and occupation; and the "Guiding Principles on Business and Human Rights" of the United Nations. The Policy represents the Sumitomo Electric Group's commitment to respecting human rights based on The Sumitomo Spirit and The Sumitomo Electric Group Corporate Principles as described in the Code of Conduct.

#### 2. Scope of Application

The Policy will apply to all executives and employees of the Sumitomo Electric Group (all employees including executives, permanent employees and contract employees.) The Sumitomo Electric Group also expects all business partners related to its business activities to comply with the Policy.

#### 3. Responsibility to Respect Human Rights

The Sumitomo Electric Group will aim to fulfil its responsibilities by ensuring that its business activities respect and enhance human rights. In the event our business activities should make

any adverse impact on human rights, it shall be handled appropriately for correction.

Furthermore, we expect our business partners and stakeholders to respect the same standards of human rights as the Sumitomo Electric Group, to prevent violation and correct any breaches.

#### ① Human Rights Due Diligence

To fulfill our responsibilities in regard to respect for human rights, the Sumitomo Electric Group will establish a system of human rights due diligence through the implementation of "Guiding Principles on Business and Human Rights" of the United Nations, and implement this in an ongoing manner. Human rights due diligence includes specifying and evaluating negative impacts imposed potentially or actually and taking measures to prevent or mitigate such risks.

#### ② Remedy

In the event the Sumitomo Electric Group's business activities result in violation of human rights or it becomes clear that it was involved in making such adverse impact, we will provide for an appropriate remedy.

#### ③ Training and Education

The Sumitomo Electric Group will provide appropriate training and education to its executives and employees.

#### ④ Compliance with Applicable Laws and Regulations

The Sumitomo Electric Group will comply with the laws and regulations of all countries where it conducts its business activities. In the event that we face contradiction between internationally recognized human rights standards and the laws of the relevant country, the Sumitomo Electric Group will pursue ways to honor the principles of internationally recognized human rights.

#### ⑤ Dialogue and Consultation

The Sumitomo Electric Group, in various efforts under the Policy, will make use of the independent and external expertise concerning human rights and will engage sincerely in holding dialogues and consultation with the stakeholders.

#### ⑥ Information Disclosure

The Sumitomo Electric Group will disclose the progress of the initiatives regarding human rights based on the Policy on its website and reports.

### 《 Human Rights Education and Training 》

We are also making continuous efforts for human rights training and enlightenment to solve a wide range of human rights issues including discrimination and sexual harassment. In 2018, a total of 17,811 persons participated in the human rights-related seminars, including the education provided mainly by Human Rights Task Committee members at their worksites.

### 《 Establishment of Consultation Services 》

We have set up two consultation services regarding human rights. One is supervised by the Compliance Committee and intended to support employees with focus on laws and regulations in general. Another is managed by the Human Resources (HR) Division and deals with various kinds of harassment in working environments such as sexual harassment, pregnancy discrimination and abuses of authorities. With these services, Sumitomo Electric has in place a system to quickly gather information on any violation of human rights and take appropriate measures against them.



\* This policy is posted on our website.

<https://global-sei.com/csr/sociality/office.html>



# Relationships with Stakeholders

	Outline of the stakeholder	Main responsibilities of the Sumitomo Electric Group	Main means of communications	
Sumitomo Electric Group	Central and Local Governments	For us, central and local governments around the world are not only regulators but also customers of our products and services.	<ul style="list-style-type: none"> <li>• Compliance with laws, regulations, administrative guidance, etc.</li> <li>• Tax payments</li> <li>• Cooperation for government policies to solve public problems</li> </ul>	<ul style="list-style-type: none"> <li>• Communications through economic organizations and trade associations</li> <li>• Notifications, response to surveys and questionnaires</li> <li>• Consultation with competent authorities, public comments</li> </ul>
	Global Environment	We promote environmental management based on our policy that places environmental conservation activities as a top business priority.	<ul style="list-style-type: none"> <li>• Reduction of greenhouse gas emissions</li> <li>• Promotion of energy saving and recycling</li> <li>• Reduction of the amount of waste, reduction of the release of harmful chemical substances</li> </ul>	<ul style="list-style-type: none"> <li>• Comply with the relevant laws and regulations</li> <li>• Environmental conservation activities in accordance with the PDCA cycle</li> <li>• Stakeholder dialogue</li> </ul>
	Customers	We provide customers across the world with a wide range of products and services in five categories: Automotive; Infocommunications; Electronics; Environment & Energy; and Industrial Materials.	<ul style="list-style-type: none"> <li>• Supply of socially useful and safe products and services</li> <li>• Improvement of customer satisfaction on all aspects including delivery time, etc.</li> <li>• Provision of accurate and appropriate information on products</li> </ul>	<ul style="list-style-type: none"> <li>• Communication through daily operations</li> <li>• Newsletters, e-mail delivery, websites</li> <li>• Information exchange at exhibitions etc.</li> </ul>
	Local Communities and NPOs/NGOs	The Sumitomo Electric Group conducts business activities through 390 companies located in approx. 40 countries/areas all over the world (as of March 31, 2019).	<ul style="list-style-type: none"> <li>• Respect for culture and custom, contribution to development</li> <li>• Prevention of accidents and disasters, environmental conservation</li> <li>• Cooperation and coordination for the solution of environmental and other problems</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in events, support of traditional performing arts</li> <li>• Factory tours, opening of facilities, joint hosting of festivals</li> <li>• Employees' contribution to local communities</li> <li>• Communication through cooperation and support</li> <li>• Stakeholder dialogue</li> </ul>
	Employees	The Sumitomo Electric Group has approx. 273,000 employees consisting of approx. 40,000 employees in Japan and approx. 233,000 employees in other countries. More than 80% of the Group employees thus work outside Japan (as of March 31, 2019).	<ul style="list-style-type: none"> <li>• Respect for human rights, personality and individuality</li> <li>• Development, use and evaluation of human resources</li> <li>• Creation of a work environment where all employees can demonstrate their capabilities</li> <li>• Contribution to occupational safety and health</li> </ul>	<ul style="list-style-type: none"> <li>• Surveys to create a lively work environment</li> <li>• In-house magazines, Global Magazines</li> <li>• Intranet, President's blog</li> <li>• Management council meetings for discussion between labor and management</li> <li>• Informal meetings between executives and employees</li> </ul>
	Shareholders and Investors	The total number of our shareholders is approx. 60,000, and the number of shares issued and outstanding is about 800 million. By type of shareholders, financial institutions and foreign holders own 41.7% and 37.2% of the shares respectively, followed by Japanese individuals and others (13.0%) (as of March 31, 2019).	<ul style="list-style-type: none"> <li>• Maintenance and improvement of the corporate value</li> <li>• Proper return of the profits (as dividends)</li> <li>• Timely and proper disclosure of corporate information</li> </ul>	<ul style="list-style-type: none"> <li>• General meetings of shareholders</li> <li>• Financial result briefings</li> <li>• Reception of investors and interviewers</li> <li>• Annual reports</li> <li>• Investor relations website</li> </ul>
	Suppliers	The Partners' Meeting held in fiscal 2018 gathered approx. 93 of our main suppliers. (FY2018)	<ul style="list-style-type: none"> <li>• Fair trade</li> <li>• Support and cooperation for the achievement of CSR procurement</li> </ul>	<ul style="list-style-type: none"> <li>• Communication through daily procurement activities</li> <li>• Partners' meetings</li> <li>• Communication through the supplier survey sheet and other channels</li> </ul>

## Disclosure of Corporate Information

The Sumitomo Electric Group Charter of Corporate Behavior stipulates that we will aim to disclose appropriate corporate information to our stakeholders to promote communication with society. In accordance with the charter, we have established a system in which information on occurred material facts and decisions is collected and confirmed by public relations sections in cooperation with relevant divisions so as to promote timely and accurate information disclosure. In addition, Sumitomo Electric established the Public Relations Committee in 2006 as a cross-sectional organization to enhance the information disclosure system. The committee engages in activities such as development of rules on corporate information disclosure, related education and knowledge dissemination within the Group and planning of measures to enhance the corporate brand value.

## Communication with Shareholders and Investors

Sumitomo Electric believes that an important goal of its investor relations is to notify market participants of accurate information in a timely and fair manner, so as to obtain appropriate evaluation of our corporate value in the capital market.

The Company works to enhance communication with institutional investors and analysts at such occasions as briefings on financial results and interviews. For general shareholders and investors, we post a wide range of information on our websites, including financial information, press releases and materials distributed in financial result briefings as well as relevant video images.

We will continuously promote fair and prompt information disclosure and further improvement of the content.

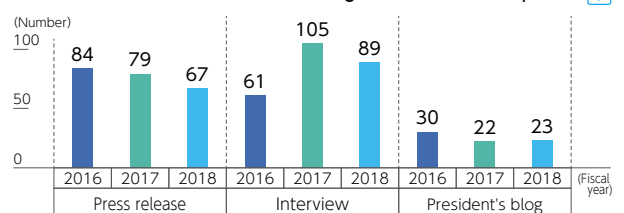
## Efforts to Disseminate Information

Sumitomo Electric has actively disseminated information on a wide range of activities of the Group through various media such as press releases, interviews and websites to help our stakeholders improve understanding of the Group. This fiscal year, while implementing the annual activities, we also renewed our tagline to adopt "Connect with Innovation" in conjunction with the release of the mid-term management plan VISION 2022 in May 2018 and promoted the application of it to various media including posters, signboards and business cards. Meanwhile, we also reviewed the visual identity (VI) that aims to give consistency to designs, logos, colors and fonts throughout the Sumitomo Electric Group and establish a common impression and worldview. We are continuously working to disseminate the new VI by applying it to various publications and promotional materials.

Moreover, with the aim of improving our brand image, we have thoroughly updated our company profile video and brochure.

In the meantime, we will enhance the communication of information on the activities of our athletics club and our support to sports events such as Lake Biwa Mainichi Marathon, to increase a sense of unity within the Group, as well as to help promote sports and physical exercises.

### Results of Information Transmission through SEI's Main Media by Year







The purpose of commercial enterprises is to create value and make profits through business activities. However, there has been growing recognition that society may not be maintained only with it, partly due to a recent increase in awareness of social issues. In response to such social demand, it is important to position CSR as one of the two key components of the management strategy based on a view that companies should make profits and help overcome social challenges in parallel through business activities.

Setting the Sumitomo Spirit as a basis for the entire group, we have already promoted CSR activities as part of our

efforts to achieve the target of becoming a "Glorious Excellent Company." In consideration of the growing social demand for CSR activities, I presume that it is now the time to examine how to communicate with stakeholders such as the explanation of our initiatives in a more comprehensible manner.

The overall concept diagram of the mid-term management plan VISION 2022 presented below clearly shows our stance to fulfill corporate social responsibility through business activities. We have also incorporated SDGs into VISION 2022 in order to inform various people in Japan and overseas of the ideal state for the Sumitomo Electric Group to be achieved by 2030.

The businesses of our group, which focus on materials and parts, are classified into the category of the so-called B-to-B business. This gives us an advantage that we do not have to be excessively affected by trends but can concentrate on identifying the essence. Still, instead of being satisfied with it, we would like to be a company that considers what value should be provided beyond "B-to-B," namely customers, society and stakeholders ("B to B to C and S").

We at the Sumitomo Electric Group will strive to achieve the goal of becoming a Glorious Excellent Company by combining all forces across the Group worldwide on both aspects of "Glorious" and "Excellent."

## CSR Basic Policy

The Sumitomo Spirit, which gives top priority to social credibility and corporate ethics, is deeply instilled into the Sumitomo Electric Group. With the Sumitomo Spirit, as well as the Sumitomo Electric Group Corporate Principles, serving as the basic value standards that guide us, we will enhance our efforts for CSR management, communication with stakeholders and human rights while setting governance, risk management and compliance as the foundations. Then, through business activities based on them, we will create social values and contribute to a better society and environment.

In accordance with the establishment of VISION 2022 in fiscal 2018, we revised part of the CSR core categories. With "quality," "supply chain," human resources," "environmental preservation" and "social contribution" as the new five core categories, we will promote business activities.

We will fulfill our corporate social responsibility and establish good relationships with stakeholders with the aim of becoming a Glorious Excellent Company, i.e., realizing the ideal state of the Sumitomo Electric Group.



# CSR Core Categories, Priority Themes and Main Targets

In line with the announcement of VISION 2022, we revised the CSR core categories and priority themes as presented below and also set main targets including new key performance indicators for fiscal 2022 in a way to link them to VISION 2022, instead of setting separate targets for each fiscal year.

We aim to further increase our net sales by 20% from the

current level to 3.6 trillion yen under VISION 2022. It is actually challenging to set and declare quantitative CSR targets amidst accelerating market changes. Still, with the recognition that CSR activities are one of the two key components of our management strategy and are essential to becoming a Glorious Excellent Company, the ideal state of our group, we will enhance our efforts to meet the targets.

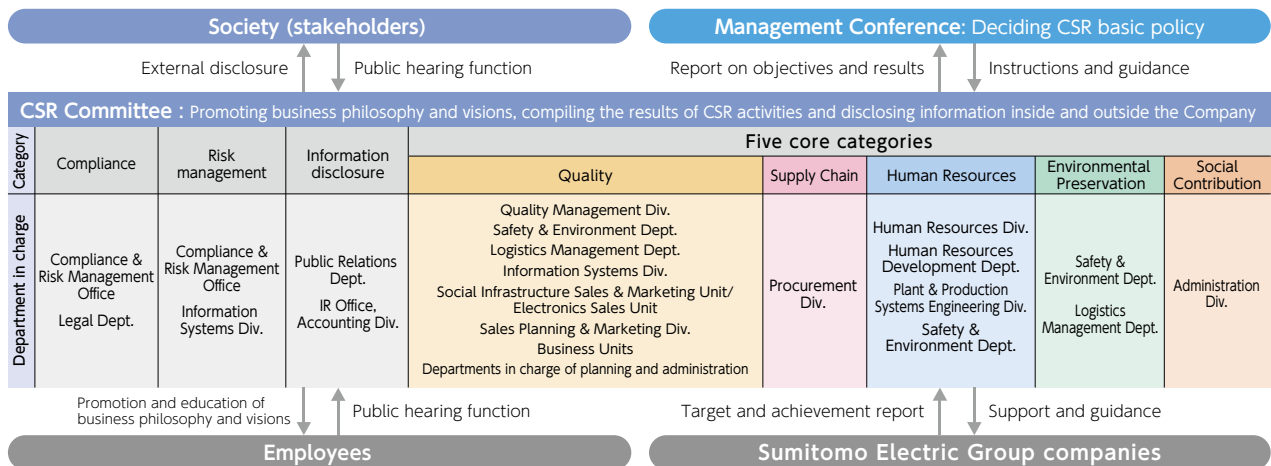
Core categories	Priority themes	Main targets (including KPIs for fiscal 2022)	Main related SDGs
Quality	Product quality & product safety	Reduce the index for the number of complaints* by 30% from the FY2017 level	
Supply chain	Promotion of CSR procurement	Promotion of CSR procurement covering the suppliers that represent 90% of the value of our domestic procurement	
Human resources	Promotion of diversity and occupational safety	Promotion of appointment and development of SEG Global Executives	
		Serious accidents + Accidents resulting in remaining disabilities: 0 Accidents resulting in lost work time + No lost work time accidents + Accidents causing minor injury: 23 or less Accident score***: 80 or less	
Environmental preservation	Prevention of global warming	Achieve no increase in CO2 emissions from the FY2017 level	
Social contribution	CSV* activities and social contribution activities	Maintain and expand the projects that help solve social problems	
		Enhance the activities of the SEI Group CSR Foundation	

\* The target announced in 2018 has been revised in accordance with the introduction of a new target indicator "accident score."

## Sumitomo Electric Group CSR Promotion System

In July 2004, Sumitomo Electric established the CSR Committee, which is chaired by the officer in charge of personnel and general administration and comprised by the managers of the departments in charge of CSR-related areas. The Committee set up CSR Promotion Office as its secretariat in July 2010 and conducts its activities as a cross-sectional organization to promote CSR initiatives in the Sumitomo Electric Group under the system shown in the figure below.

1. Holding semiannual meetings to review the CSR activities from a group-wide perspective and give support and guidance on the future development.
2. Promoting internal and external information disclosure and public hearings on CSR.
3. Promoting CSR education programs throughout the Sumitomo Electric Group, etc.



**Glossary** \* **Accident score**  
An accident score is calculated by weighting the accidents that have occurred by type. Class 1: Accidents that can result in a serious accident (forklifts, hoist cranes, rotating parts, moving parts, etc.); Class 2: Accidents caused by an edged tool, jig or device; and Class 3: Falling accidents, collides while walking, backache, etc.

\* **CSV: Creating Shared Value**  
CSV is a concept advocated by Michael E. Porter, an American academic specialized in corporate competitive strategies, as a framework for the business strategy that aims to balance the economic activities of companies to gain profits with the creation of social value.

# Targets and Actual Results in Fiscal 2018 / Targets for Fiscal 2019

In the Sumitomo Electric Group, the departments in charge of the CSR core categories respectively set various annual targets for the achievement of the main targets mentioned in P30, prepare specific action plans based on the annual targets and work to achieve them autonomously. The table below shows the main targets and results in fiscal 2018 and targets for fiscal 2019 on the main initiatives in core categories. To meet the targets, we will continue to promote the initiatives based on the PDCA (plan-do-check-act) cycle.






















Core Category	Priority Theme	Targets for FY 2018	Results in FY 2018	Evaluation	Page
Quality	Product Quality & Product Safety	Reduce the index for the number of complaints by 21% from the previous fiscal year	Decreased by 3% from the previous fiscal year	△	49
		Continue to promote Own Process Quality Assurance Activities (ninth year) ① Company-wide development of important measures to prevent complaints ② Company-wide development of the "3 points control of quality" (development of procedures to promote quantitative improvement) ③ Expansion of the results of the activities on practical themes ④ Continuance of activities for company-wide dissemination (through the issuance of booklets, holding of exchange meetings and other initiatives)	① Disseminated the cause investigation results of major complaints and measures to address them across the company and conducted an inspection to identify similar risks in the divisions ② Involved 5 divisions in the model activities of "3 points control of quality". Reduced the number of complaints by 42% on average in the model divisions ③ Conducted a total of 247 activities on practical themes in the entire company ④ Held an exchange meeting for Own Process Quality Assurance Activities twice a year. Added 23 cases of latest and useful activities to the collections of good practices and dissemination the information across the company	○	47 } 50
Supply chain	Promotion of CSR Procurement	Continue the promotion of CSR procurement covering the suppliers that represent 90% of the value of our domestic procurement • Continuous implementation of the survey based on the CSR procurement self-assessment sheet • Excluding Sumitomo Wiring Systems, Ltd. and the listed subsidiaries	Conducted the CSR survey covering the suppliers that represent 90% of the value of our domestic procurement	○	52
		• Continue to implement the training program that supports compliance • Extend the application of the procurement guidelines to overseas affiliates	• Conducted the survey targeting about 710 suppliers in Japan and overseas • Interviewed 86 suppliers in Japan through a meeting or on-site inspection and asked them to make improvement • Compliance training: Provided to 1,804 persons in Production Group and Corporate Staff Group and 13 persons in R&D Group • Inspected 19 overseas affiliates and gave instructions	○	51 } 54
Human resources	Promotion of Diversity and Occupational Safety	• Appointment of new SEG Global Executives • Promotion of measures to develop SEG Global Executives	• Newly appointed 7 SEG Global Executives • As of April 1, 2019, the total number of SEG Global Executives is 41. • Promoted measures to develop SEG Global Executives	○	56
		Priority items • Continuance of promotion of the talent management cycle • Further activation of Regional Executive Conferences and Area Committee activities • Continuance of the executive training program	• Continued to conduct Business Unit HR Meetings • Continued to hold the Regional Executive Conference and enhanced Area Committee activities • Continued to hold the executive training program (with the participation of 2 SEG Global Executives)	○	55 } 56
		Reduce serious accidents and accidents resulting in remaining disabilities to zero, and reduce the total number of accidents resulting in lost work time, no lost work time accidents and accidents causing minor injury to 38 or less Accident score: 216 or less	Serious accidents + Accidents resulting in remaining disabilities: 0 Accidents resulting in lost work time + No lost work time accidents + Accidents causing minor injury: 39 Accident score: 162	△	66
		Implement priority items • Safety VISION 2022 • Safety measures in facilities • Development of human resources with high safety awareness • Fostering safety culture • Activities in each site • Priority safety activities •Activities to be conducted continuously • Group-wide structural reinforcement activities • Emergency / priority safety management activities • Safety education •Plant disaster prevention • Global safety diagnosis •Group-wide sharing of best practices	• Reduced accidents that can result in a serious accident • Provided new training programs on a trial basis, which were all received well • Disseminated the slogan "All accidents can be eliminated" • Continuously conducted voluntary inspection • Continued 1-2-3 activities and developed S-T-O-P accident campaign* • Continued to implement both emergency / priority safety management activities (similarly to the development of human resources with high safety awareness) • Started to strengthen the supervision of construction work • Completed activities with follow-ups • Conducted interdivisional meetings	○	65 } 66
Environmental preservation	Prevention of Global Warming	Achieve no increase in CO <sub>2</sub> emissions from the FY2017 level	Reduced CO <sub>2</sub> emissions by 2.2% from the FY2017 level	○	71
		• Achievement of the targets in all items of the Action ECO-22V campaign • Implementation of environmental audits In Japan: Legal compliance audits Overseas: Legal compliance audits (China, ASEAN, the US) • Continue the practical training, in which simulated diagnosis is conducted using the actual products based on "hiyari" or near-miss reports and past audits	• Out of the 9 items, the performance achieved the targets for 7 items; the performance failed to achieve the targets for the reduction of CO <sub>2</sub> per unit of sales in logistics and Eco-products • In Japan: Conducted at 8 sites Overseas: Conducted at 5 site (Indonesia, Thailand and the US) • 739 persons participated in managerial post-based training	○	67 } 73
Social contribution	CSV Activities and Social Contribution Activities	Maintain and expand the projects that help solve social problems	See the articles from P33	○	33 } 42
		Enhance the activities of the SEI Group CSR Foundation	Enhance the activities of the SEI Group CSR Foundation	○	43 } 46
		• Implement the following fund projects ① Monetary contributions to university courses: 113 million yen ② Subsidies for academic and research programs: 30 million yen ③ Supply of scholarships: 43.7 million yen • Promote partnership and cooperation with nonprofit organizations (NPOs) for the support the reconstruction of the Tohoku Region and other initiatives	• Implement the following fund projects ① Monetary contributions to university courses: 108 million yen ② Subsidies for academic and research programs: 35.7 million yen ③ Supply of scholarships: 40.9 million yen	○	43 } 46

Legend ○: Target achieved and performance far exceeding the target by more than about 50%; ○: Target achieved; △: Target not achieved (performance improved from the previous fiscal year); ▽: Target not achieved (performance similar to that in the previous fiscal year); ▼: Target not achieved (performance deteriorating from the previous fiscal year)

## Glossary

### \* S-T-O-P Accident Campaign

This slogan represents basic rules to be followed while walking. S: Do not take a short cut and watch your step; T: Do not text or talk on the phone while walking; O: Hold on to the handrails when using stairs; and P: Do not put your hands in your pocket while walking

Targets for FY 2019	Targets for FY 2022	Related SDGs
<p>Reduce the index for the number of complaints by 16% from the previous fiscal year</p> <p>Continue to promote Own Process Quality Assurance Activities (tenth year)</p> <ul style="list-style-type: none"> <li>① Company-wide development of important measures to prevent major complaints (continued)</li> <li>② Company-wide development of the "3 points control of quality" (continued)</li> <li>③ Expansion of Own Process Quality Assurance Activities on practical themes (continued)</li> <li>④ Continuance of activities for company-wide dissemination (through the issuance of booklets, holding of exchange meetings and other initiatives)</li> </ul>	Reduction of the index for the number of complaints by 30% from the FY2017 level	
<p>Continue the promotion of CSR procurement covering the suppliers that represent 90% of the value of our domestic procurement</p> <ul style="list-style-type: none"> <li>• Continuous implementation of the survey based on the CSR procurement self-assessment sheet</li> <li>• Expansion of the scope to include Sumitomo Wiring Systems, Ltd., Sumitomo Riko Company Limited and Nissin Electric Co., Ltd.</li> </ul> <p>• Continue to implement the training program that supports compliance</p> <p>• Extend the application of the procurement guidelines to overseas affiliates</p>	Promotion of CSR procurement covering the suppliers that represent 90% of the value of our domestic procurement <sup>(Note 1)</sup>	  
<ul style="list-style-type: none"> <li>• Appointment of new SEG Global Executives</li> <li>• Promotion of measures to develop SEG Global Executives</li> </ul> <p>Implement priority items</p> <ul style="list-style-type: none"> <li>• Continuance of promotion of the talent management cycle</li> <li>• Further activation of Regional Executive Conferences and Area Committee activities</li> <li>• Continuance of the executive training program</li> </ul>	Promotion of appointment and development of SEG Global Executives	
<p>Reduce serious accidents and accidents resulting in remaining disabilities to zero, and reduce the total number of accidents resulting in lost work time, no lost work time accidents and accidents causing minor injury to 36 or less <sup>(Note 2)</sup></p> <p>Accident score: 142 or less <sup>(Note 2)</sup></p> <p>Implement priority items</p> <ul style="list-style-type: none"> <li>• Safety VISION 2022</li> <li>• Safety measures in facilities</li> <li>• Development of human resources with high safety awareness</li> <li>• Fostering safety culture</li> <li>• Activities to be conducted continuously with the participation of all employees</li> <li>• Recognition of problems by top management • S-T-O-P accident campaign</li> <li>• Activities to comply with rules and standards</li> <li>• Group-wide structural reinforcement activities</li> <li>• Emergency / priority safety management activities</li> <li>• Safety education • Plant disaster prevention</li> <li>• Global safety diagnosis • Group-wide sharing of best practices</li> </ul>	<p>Serious accidents + Accidents resulting in remaining disabilities: 0</p> <p>Accidents resulting in lost work time + No lost work time accidents + Accidents causing minor injury: 23 or less</p> <p>Accident score: 80 or less</p>	    
<p>No increase from the FY2017 level</p> <ul style="list-style-type: none"> <li>• Achievement of the targets in all items of the Action ECO-22V campaign</li> <li>• Implementation of environmental audits</li> <li>• In Japan: Continuance and completion of the second round of legal compliance audits</li> <li>• Overseas: Legal compliance audits (China)</li> <li>• Continue the practical training, in which simulated diagnosis is conducted using the actual products based on "hiyari" or near-miss reports and past audits</li> </ul>	Achieve no increase in CO <sub>2</sub> emissions from the FY2017 level	     
Maintain and expand the projects that help solve social problems	Maintain and expand the projects that help solve social problems	
<p>Enhance the activities of the SEI Group CSR Foundation</p> <ul style="list-style-type: none"> <li>• Implement the following fund projects</li> <li>① Monetary contributions to university courses: 108 million yen</li> <li>② Subsidies for academic and research programs: 30 million yen</li> <li>③ Supply of scholarships: 40 million yen</li> </ul>	Enhance the activities of the SEI Group CSR Foundation	     

(Note 1) Domestic procurement by Sumitomo Electric and its domestic affiliates (excluding Sumitomo Densetsu Co., Ltd.) is covered.  
 (Note 2) The figure is different from that mentioned in P66 because the target was set with the Sumitomo Wiring Systems Group excluded.

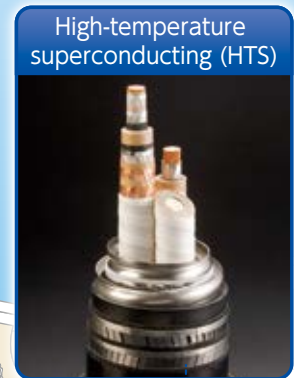


# Social Contribution

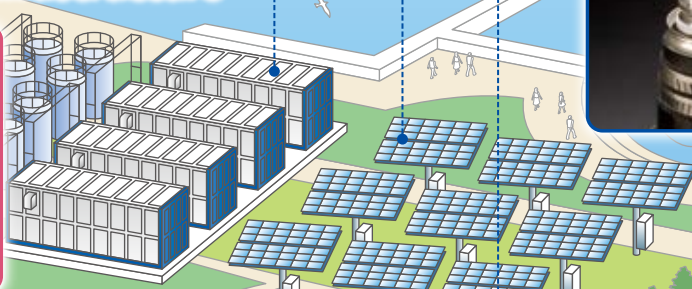
# CSV Activities and Social Contribution Activities

Since its foundation as a manufacturer of copper wires and cables, Sumitomo Electric Group has continuously grown through the development of related materials and manufacturing technologies and celebrated its 120th anniversary in 2017. Based on the Sumitomo Spirit, we will continue to create a large number of technologies and products that help solve social challenges and contribute to a better society and environment.

## Energy Infrastructure



## Information and Communication Infrastructure



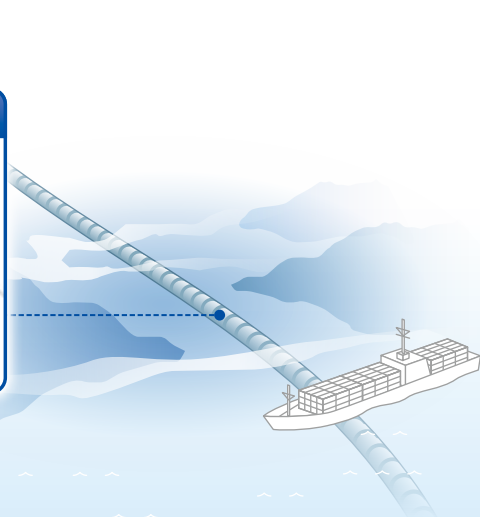
## Public Infrastructure



DC XLPE insulation cable



Ultra-low-loss optical fiber (Z-PLUS Fiber™)



## Automotive/Transportation

High-strength aluminum wiring harness



Tab-Lead for on-vehicle batteries



High durability prestressing strands



CELMET™ (porous metal)



Sintered parts



GaN transistors for cellular phone base stations



Multicore optical fiber cables



Traffic control systems





# CSV Activities

## Basic Approach

In addition to monetary donations and charitable activities, we will continuously be committed to the creation of shared value (CSV) through business activities.

The business activities of the Sumitomo Electric Group are very wide-ranging in terms of technology, market and business, involving various stakeholders. Our group has always supplied useful products, technologies and services to society through business activities and promoted CSV activities based on our CSR basic policy. We will contribute to a better society and environment through a proactive and autonomous commitment to solving social challenges and continuous supply of new value to society while always being conscious of our role as a member of society.

## Re-definition of the Priority Theme "Social Contribution"

While there are a host of global problems including global warming today, companies are required to develop business activities that consider the environment and help create a sustainable society. In addition, a wide range of measures are taken to solve social problems on a global scale and companies are expected to help solve global issues through their business activities. In 2015, the Sustainable Development Goals (SDGs) were adopted at a UN summit. An international framework where private companies, as well as national governments and NGOs, can assist in solving the problems has been developed and many companies are now engaged in the activities.

To meet such social demand and fulfill our corporate social responsibility, the Sumitomo Electric Group added "CSV (Creating Shared Value) activities" as a theme of "social contribution," one of the CSR core categories that were reviewed in fiscal 2018, along with the conventional theme of "Contribution at business locations and through the foundation" to make them two pillars for making social contribution.

## Relevance to the SDGs

The picture below illustrates the values offered by the Sumitomo Electric Group for the development of a society that is projected around the year 2030 in VISION 2022.

Widespread use of IoT technologies, the introduction of smart energy networks and connection of electrified vehicles and various other things will generate new services. These changes will also allow people to live a safe, prosperous and comfortable life with a sense of security in a sustainable manner around the world, according to our estimate. We have specified three forms of the ideal society we seek in such a future world, as well as nine fields for our initiatives to offer values for the society. Those values we offer are also in line with the SDGs.

While some of the initiatives are expected to be fully commercialized and contribute to the performance of the Sumitomo Electric Group only after fiscal 2022, we plan to promote them to respond to social changes proactively during the period of this mid-term management plan.

## Relevance of the business of the Sumitomo Electric Group to the SDGs









Wiring harness



Anti-vibration rubber products



Charging connector for EVs

The automotive industry is facing an era of once-in-a-century change. We will work for the future with the technology and reliability that we have established.

It is said that the automotive industry is facing an era of once-in-a-century change. For automated driving, which is part of the change, vehicles need to have new functions such as cameras that serve as the eye of the vehicle and an ability to download high-precision maps from the server. To this end, it is essential to establish a high-speed communications network that allows various information to be integrated inside a vehicle. We at AutoNetworks Technologies are committed to the development of on-vehicle Ethernet electronic control units (ECUs), which serve as the hub of ECUs that function to communicate a large amount of data at high speed in such next-generation vehicles.

European car manufacturers are currently taking a lead in this field, followed by Japanese manufacturers. The Sumitomo Electric Group has worked to develop high-quality networks that can function continuously 24 hours a day, 365 days a year in products for major telecommunications carriers. Based on the technology and reliability, we continue to conduct research activities to support the innovations of on-vehicle network infrastructure.

The market for products related to autonomous car is still in its infancy. It is expected that the market for the products related to on-vehicle Ethernet will further grow in the future. As the project leader, I will work to ensure that we maintain a presence in this field, in which absolute safety and security must be provided, by continuously making use of the technological capacity and flexibility that our group has developed.



Takeshi Hagihara

Senior Manager, Communication Technology R&D Department, Information Network R&D Division, AutoNetworks Technologies, Ltd.

### Social challenges

- Traffic accidents
- Traffic jams

### Social expectations

- Realization of automated driving

### New products and technologies contributing to the solution of the challenges

- Technologies that allow high-speed, high-capacity telecommunications in a vehicle

## On-vehicle Ethernet ECU, which supports high-speed, high-capacity telecommunications

A vehicle is equipped with a large number of electronic control units (ECUs). An on-vehicle Ethernet ECU connects those ECUs to serve as a communication base station that arranges the exchange of information. At the beginning of the electronic control of vehicles, ECUs were connected separately to individual switches and sensors to control the target devices. Later, as the functions of a vehicle increased, some related ECUs were linked to form a network. A vehicle is equipped with many ECUs and the number reaches 100 in some vehicles these days.

The on-vehicle Ethernet ECU manages the information communicated between the ECUs in an integrated manner to allow them to share the information. This is a very key product for information communication. The development of technology for the product is essential for the high-speed, high-capacity telecommunication inside a vehicle required for the commercialization of self-driving technology in the future.





Multicore optical fiber cables



Optical transceivers



Broadband network service products

## We support the integration of broadcasting technology and information communication with advanced technology.

Sumitomo Electric started to develop and commercialize internet protocols (IPs) and set-top boxes (STBs) for business use around 1997. Then, we supplied STBs that support video distribution services of major communications carriers. Since around 2008, we have provided STBs compatible with the retransmission services and standards for IP terrestrial broadcasting, and now supply 4K-STBs for high-precision 4K broadcasting services. We also supply STBs to cable television companies across Japan via major communication carriers. In April this year, we released an STB that supports BS4K broadcasting. The STB for cable television companies is a hybrid type that can be used for both IP and RF broadcasting. With Android TV™ built in, this product can be operated by a voice to further improve the convenience.

Our department plans to develop IP-STBs in preparation for a full shift to IP broadcasting in the future. One of the features of IP-STBs is that terrestrial digital broadcasting and BS4K broadcasting can be watched via a broadband IP network even in mountainous and other areas where it is difficult to view ground and satellite broadcasting due to poor television reception.

I joined the company as a mid-career employee in 2007 and have engaged in projects for the planning and development of STBs. We will continue to supply highly functional STBs that can be used in a simple and user-friendly manner by effectively using voice search and voice operation based on the interactivity of IPs and features of Android TV™.



**Atsushi Takagi**  
Group Leader, System Planning Group  
Video Products Department  
Broad Networks Division

### Social challenges

- Areas where it is difficult to view terrestrial and satellite broadcasting

### Social expectations

- Establishment of a comfortable broadcast reception environment for everyone

### New products and technologies contributing to the solution of the challenges

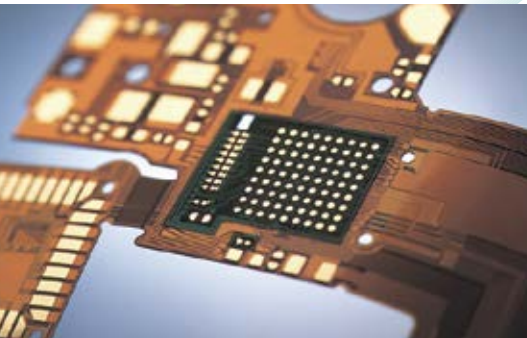
- Cable television that supports BS4K broadcasting

## Set-top box supporting BS4K broadcasting Cable Plus™ STB-2

Cable Plus™ STB-2 is supplied to cable television companies across Japan via major communication carriers. This model supports BS4K broadcasting and can be used by many cable TV operators because it supports BS and BS4K trans modulation systems and pass-through systems. Equipped with a triple tuner, this product can record up to two programs simultaneously while another cablecast program is being watched. It also offers a comfortable viewing environment with Google Assistant supported to enable voice command and eliminate the need for operation with a remote controller.



\* Android TV is a trademark of Google Inc.



Flexible printed circuits (FPC)



SUMITUBE™



SUMI-CARD™

## Satellites are also entering the era of the all-electric type. We are developing GaN HEMT that helps reduce their size and weight.

Used for various purposes including GPS and other navigation systems as well as observation and communications, satellites are essential for modern society. In recent years, their size and weight have been reduced and all-electric satellites, which require no solid or liquid fuel, have been more widespread. The rockets used to launch satellites are also required to be smaller, lighter and more power saving to reduce the cost.

We at Electron Device Division developed gallium nitride high electron mobility transistor (GaN HEMT) to be mounted in satellites. This product helps produce high-output power amplifiers that are smaller, lighter and more power saving than conventional waveguide devices and thereby reduce the size and weight of satellites and rockets. GaN HEMTs are also used in synthetic-aperture radars, which are effective in various earth observation missions such as the investigation of impact of natural disasters and global warming on forests.

Our GaN HEMTs meet all quality and reliability requirements for application to satellites and has already been used in satellites on the orbit.

I have been involved in the development of GaN HEMTs for satellites for about three years. When I see news of the launch of a satellite equipped with our devices, I recognize the significance and achievement of our job and feel greatly rewarded.



**Tomio Sato**  
General Manager Electron Device Development Department  
Electron Device Division  
Sumitomo Electric Device Innovations, Inc.

### Social challenges

- Low resolution of location accuracy
- Changes in the global environment due to global warming

### Social expectations

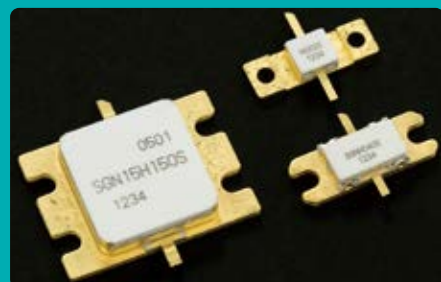
- Cost reduction by making satellites smaller and lighter

### New products and technologies contributing to the solution of the challenges

- GaN HEMT to be mounted in satellites

## GaN HEMTs to be mounted in satellites, which helps reduce their size and weight

Gallium nitride (GaN) is one of the compound semiconductor materials, so called wide band-gap semiconductors. GaN HEMT, made of this material, has high breakdown voltage and can realize high output-power amplifiers. Such high output-power amplifiers are now practically used for high-frequency radio communications systems and radar systems. Sumitomo Electric Group has developed GaN HEMTs to be mounted in satellites, where both high performance and high reliability are required. They are widely used in various satellites for global positioning systems, earth observation or communication.





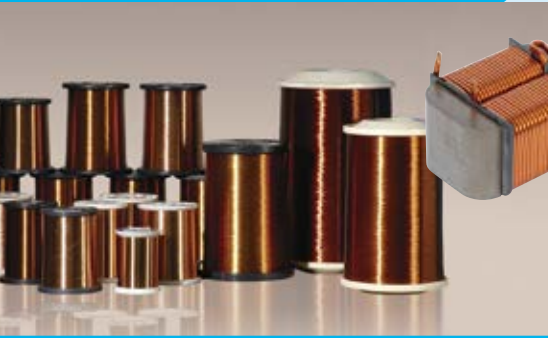


Aluminum wire rods

Copper wire rods



High-voltage optical fiber composite submarine cables



Magnet wires

## Our low-loss high-capacity conductors drastically reduce transmission loss. We will help reduce CO<sub>2</sub> emissions from power generation all over the world.

Overhead conductors are mounted on steel towers to convey high-capacity, extra-high-voltage power as electric power transmission lines. How to reduce transmission loss caused by the electrical resistance of the transmission lines is a challenge in the efforts to save energy and create a low-carbon society.

It is said that transmission loss from the cable that occurs between the power plant and demand areas accounts for approximately 5% of the total loss. Therefore, measures to handle the transmission loss are also important for the reduction of CO<sub>2</sub> emissions from power generation. The low-loss high-capacity conductors developed by Sumitomo Electric have the maximum aluminum area as current carrying portion, thereby reduce transmission loss by roughly 25%. The maximum aluminum area is realized by a combination of the smaller area of steel core, which has been achieved by using extra high-strength aluminum-clad steel that is 1.3 times as strong as conventional materials, and trapezoidal aluminum wires, tightly placed without gap.

In addition, while the high-strength steel core was traditionally galvanized, which does have enough corrosion protection and caused a problem of corrosion between steel and the aluminum wires, our aluminum-clad steel core has higher corrosion protection to prevent the corrosion of conductor and can extend its life.

This product helps reduce CO<sub>2</sub> emissions from power generation over a long period. In July 2019, the stringing work in Habarana-Veyangoda, Sri Lanka was finally started. This is the first large overseas project using the low-loss high-capacity conductors. We hope that we can continuously contribute to society with our products used in overhead transmission lines around the world.



**Tomohiro Kagami**  
Assistant General Manager Foreign Activity Group  
Engineering Department  
Overhead Transmission Line Division

### Social challenges

- Loss in power transmission
- CO<sub>2</sub> emissions from power generation

### Social expectations

- Construction of low-loss transmission networks
- Reduction of power generation to curb CO<sub>2</sub> emissions

### New products and technologies contributing to the solution of the challenges

- Low-loss high-capacity conductors

## Low-loss high-capacity conductors that reduce transmission loss by approximately 25%

For overhead transmission, aluminum conductor steel reinforced (ACSR), in which aluminum wires are stranded around a steel core, are widely used. Sumitomo Electric has developed low-loss high-capacity conductors with the combination of a smaller diameter of steel core, which is covered with aluminum, while increasing the aluminum area by tightly placing trapezoidal aluminum wires without gap around the core. As a result, while maintaining the similar outer diameters and tensile strength compared to conventional ACSRs, our new conductors have reduced electrical resistance and thus transmission loss by approximately 25% compared to conventional ACSRs. In addition, our conductors adopting thermal-resistant aluminum alloys have power capacity of about twice that of conventional ACSRs, which enables the conductors to serve as a backup in an emergency to contribute to the further improvement of the reliability of the whole transmission lines.







Cutting tools



Sintered parts



Prestressed steels

## We will further expand our tungsten recycling business to use more recycled materials.

A.L.M.T. Corp. in the Sumitomo Electric Group deals in powders and hard metals, tungsten/molybdenum products, heat spreaders and Precision diamond products. The company has four production bases in Japan and also expands overseas operations. We at Powder and Hard Metal Division manufacture tungsten powder and other items.

Tungsten is designated by the Ministry of Economy, Trade and Industry of Japan as one of the five priority rare metals to be recycled. Since approximately 80% of tungsten is supplied by China, its national policy influences the market. Accordingly, we began research on tungsten recycling in 2007 and launched it as a business in 2011. Tungsten is a raw material of cemented carbide (composite material of tungsten carbide and metallic cobalt), which is mainly used in cutting, drilling and other tools. With the cooperation of many customers in Japan, we have established an efficient system to collect used cemented carbide tools through collection boxes. In Japan, which produces no tungsten, this recovery system will become more important in the future.

While the ratio of tungsten in natural ore is only 1% or less, the ratio in the used cemented carbide tools, which are collected in this recycling business, is more than 80%. By developing innovative technology for molten salt smelting, we have also reduced energy consumption in the process to produce tungsten powder by recycling. We will continue to research tungsten recycling technologies and work to expand the business for a more stable supply and an increase in the supply of recycled materials.



Fumiatsu Sato, Section Manager (left),  
Takehiko Hayashi, General Manager (right),  
Engineering Department  
Takahisa Iguchi, General Manager (center),  
RM Engineering Office  
Powder & Hard Metal Division, A.L.M.T. Corp. (Toyama)

### Social challenges

- Shortage of rare metals

### Social expectations

- Use of recycled rare metals

### New products and technologies contributing to the solution of the challenges

- Establishment of a rare metal recovery system

## Establishment of a system to recycle tungsten

In the Sumitomo Electric Group, in addition to Toyama Works of A.L.M.T. Corp. presented above, Sumitomo Electric Hardmetal Corporation in Ono, Hyogo Prefecture and Niagara Refining LLC in the suburb of Buffalo, New York, U.S. respectively operate their unique tungsten recycling businesses.

In 2014, Sumitomo Electric, jointly with a Japanese automotive manufacturer, received a Rare Metal Recycling Award at the Resource-Recycling Technologies and Systems Award 2013 Ceremony, which was organized by the Japan Environmental Management Association for Industry, in recognition of the development of the tungsten recycling system from used cemented carbide tools.



Used cemented carbide tools



Tungsten powder

# New Business Development



Magnesium alloy



POREFLON™



Lithium-ion power storage system

**We will provide products and technologies for the new human-oriented society ("Society 5.0") to make it safer and more secure.**

Life Science Development Division, which was set up in 2014, currently operates in the two fields of medical equipment and health/nursing care. We developed Q'z TAG™ series, which are walking monitoring systems, and placed them in the market as our first products in the health/nursing care field.

Middle-aged and elderly people can fall more easily due to a decline in muscle strength, which may cause a fracture and make them bedridden. Such a risk grows as the aging of population advances. Our Q'z TAG™ analyzes the lateral balance, longitudinal movement and other data in the walking form of a person with an accelerometer and feeds back the data. They can be used for fall prevention, encouragement of patients to rehabilitate injuries, etc.

While the main customers are currently nursing care facilities, we are expanding the distribution channel to introduce them to general companies as a tool to improve the health of middle-aged and elderly people in response to the growing demand for health and longevity.

In the Sumitomo Electric Group, which mainly operates B-to-B business, this is a rare business model in that the establishment of channels to sell products to customers is also considered with focus on B-to-C business and that the staff members are also in charge of planning for market development. Accordingly, we will engage directly with customers and aim to provide products that flexibly incorporate their needs.

In a future society, all people and things will be connected with the IoT and each person will be able to feel comfortable and play an active role. While Sumitomo Electric has contributed to the construction of social infrastructure, we would also like to help people have a safe and secure life through the development of products that support nursing care and medical practice in the future.



**Koichi Fujimoto**, Section Manager (center), Sales and Marketing Group  
**Shinobu Hotta**, Assistant Manager (left), Engineering Group  
**Satoshi Yasui**, Section Manager (right), Engineering Group Life Science Development Division

## Social challenges

- Response to the aging society

## Social expectations

- Improvement of the quality of life
- Extension of healthy life expectancy

## New products and technologies contributing to the solution of the challenges

- Improvement of motor function with a walking monitoring system

## Walking monitoring system "Q'z TAG™ walk"

One of the current social problems is locomotive syndrome, which is a decline in locomotor function due to the deterioration of the motor system including bones, joints and muscles. Sumitomo Electric has developed and released "Q'z TAG™ walk," a product that visualizes walking, which is the most basic movement, to help prevent locomotive syndrome and improve motor function.

The measurement is easy; you just have to prepare this dedicated sensor of approximately 15 g along with a PC or tablet with the dedicated software installed and walk 10 m there and back. It is expected that the tool helps many people casually maintain and improve their health.



## We value exchanges with local people for the growth of the Works together with them

Sumitomo Electric is committed to various activities to support local communities. Yokohama Works invites family members of its employees and local people to Inari Festival, which is held to celebrate our foundation anniversary on the first Sunday of April. The participants have increased year by year and approximately 1,700 people join the festival nowadays. The main event is an ekiden race. Cherry blossoms on the premises usually bloom around the date of the festival and we offer access to our cafeteria to visitors so that they can enjoy a cherry blossom viewing picnic. We also organize a summer festival, in which music band performance and a "B-grade gourmet" fare are popular. In addition, as a tool for communication with local people, we issue "Sumiden Yokohama Dayori" (newsletter) twice a year. About 10,000 copies are distributed each time and the 20th issue was released in July 2019. Yokohama Works also organizes a factory tour for students of nearby elementary schools to give them an opportunity to learn what products are manufactured there. The other day, students who joined the tour made presentations in an event held at their school on the subject of neighborhood exploration. We were very pleased that they introduced



our S-T-O-P accident campaign. We will continue to attach importance to various exchanges with the local community and make efforts to ensure that Yokohama Works can grow together with local people.



(From left)  
**Hiromi Kato**, Senior Assistant General Manager  
 Administration Group  
**Masanori Sugawara**  
 Administration Group  
**Ryota Ochiai**  
**Takao Watanabe**, Assistant Manager  
 HR Group  
 Yokohama Works

## Basic Policies on Social Contributions

Sumitomo Electric stipulated the Sumitomo Electric Group Basic Policies on Social Contributions, which are based on the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles, on the occasion of the 110th anniversary of its founding in 2007.

### The Sumitomo Electric Group Basic Policies on Social Contributions

The Sumitomo Electric Group will proactively address voluntary social action programs, as a member of society, focusing on "respect for human resources," "attaching importance to technology," and "creating a better society and environment" in accordance with the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles, as well as widely contributing to society through its business activities, including the provision of products, technologies and services that benefit society.

- Globally promote efforts toward the development of human resources, the promotion of research and learning and environmental conservation.
- Promote community-oriented social contribution activities in the Group's business locations all over the world.
- Provide continuous support to employees' voluntary social contributions.

Under the Basic Policies, we are committed to the social contribution activities suitable for the Sumitomo Electric Group, which is aiming to be a "Glorious Excellent Company." These activities include the establishment of the SEI Group CSR Foundation as a vehicle to contribute to encouragement of research and learning activities and human resource development, as well as on donations, collaboration with NPOs, support of volunteer activities by employees and promotion of contribution to local communities.

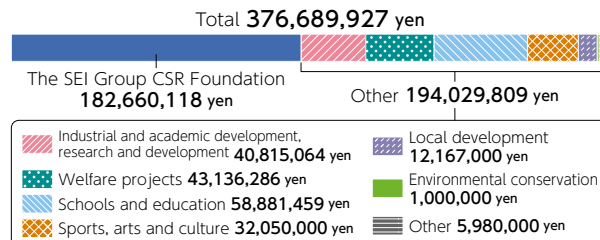
## Social Contribution through Donations

### We are making social contribution through donations from a global perspective

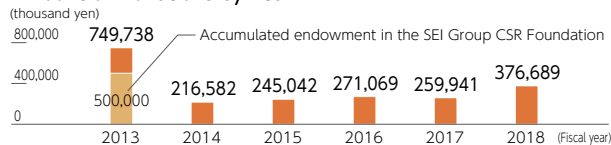
In fiscal 2018, we made donations in various areas including schools and education, industrial and academic development, R&D, art and culture, welfare, local development, environmental conservation and sports. For example, we gave financial support to symphony orchestras and opera performance as part of our efforts to assist art and cultural activities, as well as important social activities such as environmental conservation by nature conservation funds and other organizations.

We also collected matching gifts\* from employees to make a donation to the Japan Committee for UNICEF, the Japanese Red Cross Society and WWF Japan. In addition, we donated relief money for the areas affected by natural disasters. We thus developed a wide range of social contribution activities.

### Amount of Donations by Category (Sumitomo Electric alone)



### Amount of Donations by Year

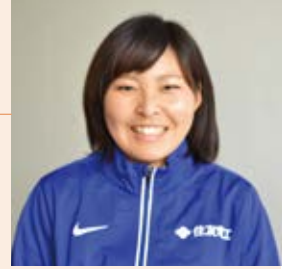


(Note) We completed the accumulation of 2 billion yen of endowment of the fund, which was the initial target, in 2013 and have donated fund for operation only since fiscal 2014.



## Balance between my athlete life and social contribution activities

Naoka Miyake, Track&Field Team, Sumitomo Electric / Sumitomo Electric Intellectual Property & Technology Center, Ltd.



In addition to the development of industrial products through business activities, the Sumitomo Electric Group is also committed to the development of ties and harmonious relations with the local communities through local contribution activities. One of the activities is the organization of athletic lessons in Itami. The lessons in Noma Kindergarten are given every year, covering the basics of running and the practice of relay races. I do my best to coach the children so that they can fulfill their hope of running cool at the sports meet while also enjoying the coaching.

The track&field team members, including me, are always working hard to achieve good results internationally. There is no difference between the children and the athletes in their desire to improve themselves as much as possible. In the athletic lessons, I try to use simple words, as well as gestures, whenever possible. I believe that this initiative also helps the members grow. Some of the children who participated in the athletic lessons may become athletes who play a leading role in the track & field in the future. While also aiming to further improve my performance as an athlete, I would like to continue to contribute to the development of ties with the local community.

### Contributions to Local Communities

The Sumitomo Electric Group operates in more than 40 countries and regions around the world. While respecting the culture and customs of every region and country, we are committed to various activities to support local communities with the aims of contributing to the development of local economy and society through business activities and building harmonious relations with them.

#### Contributions to Local Communities (Activities in Japan)

A total of 54 companies of Sumitomo Electric and its group companies are covered. They include Sumitomo Riko Company Limited, Nissin Electric Co., Ltd. and Sumitomo Densetsu Co., Ltd., which are listed in stock exchange. The expenditure for our corporate philanthropic activities was 517,420,000 yen.

※The amount is calculated based on the criteria mentioned in Attachment 2 "Examples of conversion into monetary value concerning the giving access to facilities and participation and dispatch of personnel" of the Survey on Corporate Philanthropic Activities in Fiscal 2017 by Keidanren (Japan Business Federation).

#### Promoting community support activities and exchange with local communities

- **Local cleaning activities, promotion of greening, environmental conservation activities, etc.**  
Nissin Electric Co., Ltd.: Cleanup of the peripheral area of Kujo Works (three times a week), etc.  
• Cleanup activities are performed in 31 of the 54 companies including the company mentioned above.
- **Support of local fire-prevention, anti-crime and traffic safety activities**  
A.L.M.T. Corp.: Watch for traffic safety at three locations of the entrance of the industrial complex, the front gate of the facilities and the company's parking lot every month and other initiatives  
• Performed in 20 of the 54 companies including the company mentioned above.
- **Opening corporate facilities (sports grounds, gyms, etc.) to the public**  
Sumitomo (SEI) Electronic Wire, Inc.: Opening gyms and tennis courts to local residents and other initiatives  
• Performed in 7 of the 54 companies including the company mentioned above.
- **Inviting local residents and students (from elementary, junior high and high schools) to plant tour**  
Sumitomo Electric Device Innovations, Inc.: Plant tours for the students of local junior high schools and high schools: 38 and 35 high school students in January and February, respectively  
• Performed in 10 of the 54 companies including the company mentioned above.
- **Opening company sites to the public to organize event**  
Hokkaido Sumiden Precision Co., Ltd. and Hokkaido Electric Industries Ltd.: Jointly organized Shibazakura Festival in May to receive about 1,800 visitors  
• Performed in 6 of the 54 companies including the company mentioned above.
- **Publishing local community magazines**  
Osaka Works of Sumitomo Electric in July 2018 and January 2019, Itami Works in May and December 2018 and Yokohama Works in May and November 2018

#### Contributing to sports and cultural activities

- **Contributing to sports activities**  
Sumitomo Electric: Sponsoring the 74th Lake Biwa Mainichi Marathon in March 2019, organization of four athletic practice sessions for Noma Kindergarten in Itami in July and September  
• Performed in 20 of the 54 companies including the company mentioned above.
- **Contributing to arts and cultural activities**  
Sumitomo Riko Company Limited: Conducting the fourth competition of Sumitomo Riko Student Essay Award for university students, international students and postgraduate students in Japan  
• Performed in 7 of the 54 companies including the company mentioned above.



## Supporting education and training

- **Offering a work experience program for students and practical trainings for adults and other support**

SEI Optifrontier Co., Ltd.: Offers a work experience program for students from schools for handicapped children in June, October 2018 and March 2019

- Performed in 21 of the 54 companies including the company mentioned above.

- **Sending lecturers and holding on-site seminars**

Nissin Electric Co., Ltd. and Nippon ITF, Inc.: Jointly sending lecturers to an elementary school for a science class in July and offering other support

### Contributions to Local Communities < Activities in other countries >

- **Initiative to show respect for the aged in China on the Double Ninth Festival**

Sumitomo Electric Interconnect Products (Shenzhen), Ltd.: Visits to a total of approximately 150 elderly people in Shenzhen Fuya Nursing Home for Elderly People in the neighborhood to provide daily necessities for elderly people (milk, bread, fruits, futon mattresses, cups, etc.) and cake on the Double Ninth Festival (September 9 in the Chinese calendar) every year for eight years from 2010



Initiative to show respect for the aged in China on the Double Ninth Festival

## Activities of the SEI Group CSR Foundation, a Public Interest Incorporated Foundation

The SEI Group CSR Foundation is a public incorporated foundation established for the purposes of developing human resources and promoting academic activities

In fiscal 2018, the SEI Group CSR Foundation received contributions of a little over 184.6 million yen in total from Sumitomo Electric (with the whole amount, including a little over 660 thousand yen donated through the cafeteria plan, appropriated for operation) and (1) donated 108 million yen in total to university courses, (2) supplied subsidies of 35.7 million yen in total to academic and research activities and (3) provided scholarships of approximately 40.9 million yen in total for 34 Japanese students and 18 foreign students learning in Japan and 130 local students studying at overseas universities. In the program to make donations to university courses, we provided monetary support for one new courses along with the eight courses continued from the previous fiscal year.

- "Endowed lab. Innovation Management Science" at Kyoto University
- "Data Entrepreneur Program (IT innovation human resource development programs for data science and new business)" at the University of Electro-Communications

- "Hands-on training program for the development of young entrepreneurs" at the University of Tokyo
- "Elucidation of molecular mechanisms responsible for pathophysiology of diseases and clinical application by analysis of endoplasmic reticulum microfragments." at Hiroshima University
- "Basic glycobiological research for elucidating the pathological mechanism and its clinical application" at Hokkaido University
- "Laboratory for Water, Food and Health Risk in Asia" at Yamagata University
- "Development of new cancer biomarkers that allow early diagnosis of liver metastasis" at Kobe University
- "Microbial dark matter resource use and biochemical engineering" at the University of Tsukuba
- "Eco-epidemiological control of mosquito-borne disease in Southeast Asia" at Ehime University (new)

For the program to support academic and research activities, we received 185 applications. Out of them, we have selected 29 research programs including basic science research that needs research funds and exploratory study by young researchers, and offered subsidies to them.

Details on the program are introduced in the SEI Group CSR Foundation page of our website✳.

### CSR VOICE

#### I hope that more companies fulfill their social responsibility like Sumitomo Electric

Ms. Ha Tran Thi Thu, 4th-year student, Engineering English Department, School of Foreign Languages, Hanoi University of Science and Technology

First of all, I would like to express my sincere gratitude to Sumitomo Electric for providing me with the precious scholarship. This support definitely means a lot to my student life. From an economic perspective, the scholarship covered almost all of my tuition fee for the last year and reduced the financial burden on my parents. My parents sell fruits and vegetables. To feed and educate their three children, they wake up at two in the morning and work until eight at night. My parents do so every day in all weather. So, the financial support is not only precious assistance for me but also gives my parents happiness and incentive to work. In addition to the quality of products, I was strongly impressed by the social responsibility fulfilled by Sumitomo Electric in various fields including human resource development, environmental conservation and global development. I feel that it is certainly the principle and philosophy I should also follow in my life. I will obtain a bachelor's degree at Hanoi University of Science and Technology in July 2019 and want to become an English teacher after graduation. I believe that I can teach the spirit of charity I learned from the scholarship, as well as knowledge, to students. While the weather conditions in Hanoi are getting severer, my parents keep working diligently for the bright future of their children. I will do my best to meet their expectation and ensure that they can feel proud of me. Lastly, I would like to show my deep appreciation to Sumitomo Electric again. I also hope that companies become involved in society more actively than ever.



✳ Details are available at the SEI Group CSR Foundation page of our website.

<https://www.sei-group-csr.or.jp/e/index.html>

Program to Make Donations to University Courses

## "Laboratory for Water, Food and Health Risk in Asia" at Yamagata University

We aim to cultivate human resources who can accurately assess health risks associated with safe water and foods in Asia through education and research beyond the boundaries of academic fields



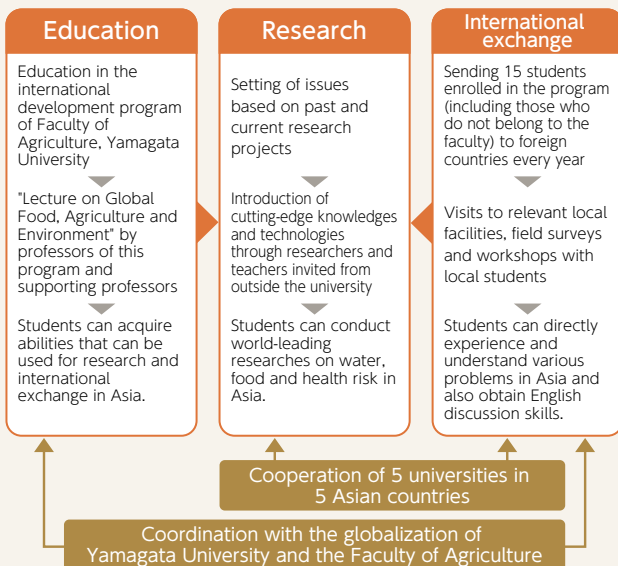
Professor Toru Watanabe (center)  
Dr. Pham Viet Dung, Assistant Professor (left)  
Dr. Masateru Nishiyama, Assistant Professor (right),  
Faculty of Agriculture, Yamagata University

The SEI Group CSR Foundation makes donations to excellent university courses that contribute to social development. One of them is a program of the Faculty of Agriculture of Yamagata University for comprehensive education, research and human resource development covering water, food and health risk in Asia.

### The research subject is food-related health risk in Asia caused by environmental pollution

In the Asian countries experiencing remarkable economic development, the presence of the agricultural sector is still significant and the food production activities to support the growing population are causing the deterioration of the production circumstance and the ambient environment due to the excessive use of fertilizers and pesticides. In addition, the effluent and waste generated in the industrial and consumer sectors have a large impact, and flooding and drought due to climate change are also risk factors that can affect stable production and supply of food. Although the safety of water has been also regarded as an issue to be addressed in Asia in recent years, people have not paid attention to food pollution yet or sufficiently recognized it as a risk. This program aims to conduct research from a wider perspective ranging from water and foods to human health risk. Its goal is to cultivate human resources who understand the safety of water and food, which underlies the sustainable development of industry and society in Asia, as well as various problems that pose a threat to it, and can accurately assess the risks. The three key pillars of this program are education, research and international exchange.

#### Donated Course "Laboratory for Water, Food and Health Risk in Asia"



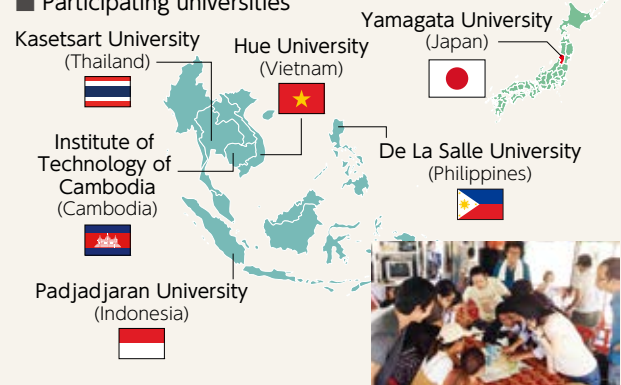
In the aspect of "Education," we have invited three international Ph.D. students (including one student in the master's program) from Asian countries so far. The Assistant Professor Dr. Pham Viet Dung and other members are working to cultivate experts who can assess water, food and health risk in a sustainable manner

with an aim of ensuring that the students can obtain a degree during the period when this program is operated.

The "Research" activities we have conducted include a survey of contamination of oysters with norovirus in the estuary of Huong River in Vietnam and a survey of contamination of agricultural fields around a landfill site for municipal wastes in Thailand.

As "International exchange," we actively interact with universities in five Southeast Asian countries. We send students, mainly graduate students of Yamagata University, to those universities every year and organize a seminar attended by them with local students for about one week. In the seminar, the students visit facilities, conduct field surveys and have debates for solving problems. It was held at Hue University in Vietnam in September 2017 and at Kasetsart University in Thailand in September 2018.

#### Participating universities



### Through the promotion of human resource development and academic research, we will also contribute to the achievement of SDGs

We consider that this program can contribute greatly to several themes of SDGs including health (Goal 3), access to water (Goal 6) and sustainable cities and communities (Goal 11).



While our targets are Asian countries, we think that it is consistent with the policy of addressing the most vulnerable first, which is a fundamental approach to SDGs. We greatly appreciate the acceptability and inclusiveness of the SEI Group CSR Foundation that has selected this course despite the fact that it tackles such a grand subject in a low-key and diligent manner.

We will continue to address water pollution in association with industrial development and global warming, as well as subsequent damage to agricultural products and health risk due to contaminated foods. Backed by the support from the Foundation, we will promote cross-sectoral and comprehensive education and research covering all of those subjects.

# Quality

## Product Quality & Product Safety

### We support the creation of strong factories through Global Quality Management System Audits

One of the priority initiatives for VISION 2022 is "Enhancement of Manufacturing Capabilities." For quality management, we promote company-wide quality improvement activity (QR-1 campaign) that aims to prevent serious complaints, reduce the number of complaints and total loss for the achievement of "Zero Accidents to Products". For the prevention of quality problems, it is important to systemize tasks and establish their mechanism and also to implement a cycle to continuously improve the mechanism through actual operation of the tasks. We are in charge of Global Quality Management System Audits, which check whether each division has systemized its necessary tasks and established their mechanism or not, as well as whether it operates the mechanism properly or not, based on the Sumitomo Electric Group Quality Management Global Standards, which are the fundamental rules for quality in our group. The audits were conducted in a total of 110 divisions in Japan and a total of 42 divisions overseas by fiscal 2018. In addition to indicating individual defects and non-conformances, the audits also place an emphasis on identifying the weak areas in quality management by the target division to give it an opportunity to start measures to improve its quality structure. While our products are wide ranging, they share some measures for the improvement of the quality structure. The audits focus on the common issues to support the creation of strong factories.

**Toshio Akiyoshi**  
Senior Assistant General Manager,  
Quality Management Division,  
Manufacturing Management &  
Engineering Unit



## Product Quality & Product Safety

### Basic Approach

As a corporate entity involved in manufacturing, the Sumitomo Electric Group aims to provide safe, reliable and high-quality products to customers in a stable manner as a fundamental principle based on customer-oriented and quality-oriented policies. To continue to achieve this, our group works to strengthen its underlying manufacturing competence and continuously makes steady efforts to systematize daily duties as a mechanism, implement them soundly and further improve the mechanism.

Sumitomo Electric has historically strived to enhance the manufacturing competence under its basic policies including participation of all employees and continuous improvement. To promote these activities even more strongly, we set up Monozukuri Technology Improvement Committee as a company-wide organization in 2015, and promote group-wide activities to strengthen its manufacturing capabilities.

As part of the efforts to systematize the daily operation, the Sumitomo Electric Group Quality Management Global Standards were established as a common framework to be applied to divisions throughout the Group in 2013. In addition, the content of the standards is reviewed and revised on an as-needed basis. The divisions of our group make continuous efforts to develop and strengthen their own

quality assurance systems based on the standards so that customers can use our products with a sense of security. A company-wide quality improvement activity called the QR-1 campaign was also developed, in which we have made continuous efforts to enhance the awareness of quality among all employees through the three activities of Own Process Quality Assurance Activities, Quality Management Education and Global Quality Management System Audits.

#### 3 Activities That Support the Company-wide Quality Improvement Activity

1. Promotion of Own Process Quality Assurance Activities
2. Quality Management Education
3. Global Quality Management System Audits



## Development of QR-1 Campaign

### We develop the QR-1 Campaign for the improvement of quality and reliability

As the Sumitomo Electric Group's business activities consist mainly of business-to-business (B2B) transactions, we believe that above all further quality improvement for our products will lead to greater customer satisfaction. Thus, we launched the "reliability improvement campaign" throughout the Group in 1975 based on our customer-oriented and quality-oriented policies. Since then Sumitomo Electric has carried out the campaign with the priority subjects selected according to the needs of the times. We launched the QR-1 campaign in fiscal 2002, aiming to improve quality from the viewpoint of customers, prevent quality risk and establish its structure for quality and reliability to overtake the competition.

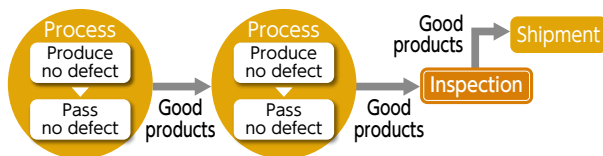


QR-1 campaign logo  
QR: Quality & Reliability

### "Own Process Quality Assurance Activities" Aiming for Zero Complaints

#### We are introducing the Degree of Quality Assurance Level-based assessment and implementing initiatives to improve the degree at overseas sites

Since fiscal 2010, we have promoted Own Process Quality Assurance Activities, which are comprehensive efforts to prevent defects in each process from being produced or passed down to the following process. As part of these initiatives, defect-free process conditions are established at the design stage and the conditions are maintained through process management at the mass production stage. In case that any defect still occurs, we work to identify the cause and improve the quality in the pursuit of defect-free process conditions. Each division of the Sumitomo Electric Group is constantly committed to Own Process Quality Assurance Activities for their products. In addition, the Quality Management Division in the Corporate Staff Group strives to further stimulate the activities through training to develop staff members who implement the initiatives, exchange meetings between different divisions and other support for the activities.



We also promote the introduction of the Degree of Quality Assurance, which is an indicator that visualizes quality risks, as an initiative to eliminate defects in processes. In this system, the probabilities of the prevention of defect occurrence and defect flow-out are respectively determined by type of defect in each process on a four-point scale from 1st (sufficiently prevented) to 4th (not prevented), and combined to determine the Degree of Quality Assurance on a six-point scale from S to E.

To prevent complaints from occurring, we should ensure that the Degree of Quality Assurance for the type of the defect is B or higher. For example, when the prevention level of defect

occurrence is 2nd (no defect produced in a normal operation) and that of defects being passed to the following process is 4th (defects cannot be prevented from being passed to the following process), the Degree of Quality Assurance is only C. There is still a possibility that defects may be passed on to the customer if no action is taken in this case, and efforts have to be made to improve the Degree of Quality Assurance to B or higher.

This system has enabled an objective assessment of quality risks and made risk reduction efforts more effective. We will continue to develop these Own Process Quality Assurance Activities on group-wide and global scales.

Degree of Quality Assurance	Rank of prevention of defect flow-out				Rank	Status of the processes and operations
	1st	2nd	3rd	4th		
Rank of prevention of defect occurrence	1st	S	S	A	A	1st A sufficient foolproof mechanism is in place and defects are prevented from being produced or passed to the following process
	2nd	S	A	B	C	2nd No defect is produced or passed to the following process during normal operations
	3rd	A	B	C	D	3rd There is a possibility that defects can be produced or passed to the following process
	4th	A	C	D	E	4th Defects cannot be prevented from being produced or passed to the following process

### Enhancement of "Quality Management Education"

#### Quality Management Education is developed throughout the Group including overseas companies to cultivate the culture of "quality first"

The Sumitomo Electric Group provides employees with training on quality control at the SEI University (see "Human Resource Development" in P62 for details) to improve and ensure the quality of products and services at higher levels. Since fiscal 2014, we have organized a quality management training course on a nomination base for managers in charge of product development, design, manufacturing and quality assurance, and the course was taken by 1,241 managers in Japan by the end of fiscal 2018. We will continue to give the training for managers and improve the content.

We work to improve various domestic education programs, such as position-based training for all employees, nomination-based training in accordance with specialized jobs and special issues and optional training to learn relevant knowledge, along with practical education including QR-J,\* MKP\* and GKP.\* Overseas, we have initiated the personnel education activities of the Sumitomo Monozukuri Development Committee in the U.S., as well as the meetings of Quality Management Committee in China, as opportunities to organize exchanges of information on model cases, and provided training sessions on Own Process Quality Assurance Activities. In fiscal 2018, a total of 6,386 persons, including overseas employees, completed Quality Management Education programs. The cumulative number of the persons who participated in the programs since fiscal 2010 has reached 44,497. We will continue to develop the culture of quality first through various quality management education programs.

#### Glossary

##### \*QR-J

\*Own Process Quality Assurance practitioner training course\* to develop key persons for the Own Process Quality Assurance activities in each division.

##### \*MKP

Abbreviation of "MONOZUKURI-KAKUSHIN professional training Program" that is the practical training program to develop key-personnel (engineers) who are to drive manufacturing innovation.

##### \*GKP

Abbreviation of "GENBA-KAIZEN professional training Program" that is the practical training program to develop key-personnel who are to promote shop-floor improvement.



## Global Quality Management System Audits

We conducted audits of 110 Japanese bases and 42 overseas bases by fiscal 2018

We systematically conduct Global Quality Management System Audits to evaluate the quality control initiatives of each business unit in light of the Sumitomo Electric Group Quality Management Global Standards from the perspective of customers. In these audits, we identify weaknesses of each unit in terms of management, design, manufacturing and center function to provide an opportunity to improve its quality assurance system and support its follow-up activities to reinforce the structure.

Since the start in fiscal 2010, the audits have been conducted at 110 sites in total in Japan. Progress in the improvement of the quality structure is seen as the audits are repeated. We will repeat the audits with the aim of promoting continuous improvement of the quality assurance system. Overseas, the audits were conducted in a total of 42 sites in China and Southeast Asia through collaboration with domestic units having the center function, in an effort to enhance awareness of quality among local employees.

To maintain and improve the quality assurance system based on the Group Quality Management Global Standards, we will continue to check progress in compliance with the standards through the global quality management system audits.

## Monozukuri Technology Improvement Activities

We promote manufacturing strengthening activities based on Own Process Quality Assurance activities and SEI's Just-In-Time approach

The Sumitomo Electric Group conducts business operations in five business segments, and the types of its products and production systems are wide ranging. Irrespective of type, we should meet various customer needs, produce top quality products sought by customers in a safe and environmentally friendly production system with the shortest lead time and deliver them to customers in a reliable and timely manner. This is the ideal manufacturing in SEIPS.\*

To this end, we will pursue Own Process Quality Assurance activities and SEI's Just-In-Time approach as the two main pillars to identify problems, thoroughly eliminate overburden, waste and irregularity, establish a structure of continuous improvement and become a company with the highest competitiveness in manufacturing.

### ① Pursuit of Own Process Quality Assurance activities:

We will make continuous efforts to ensure quality in the processes and prevent defects from being produced or passed down to the following process in each process

### ② Pursuit of Sumitomo Electric's Just-In-Time approach:

We will make continuous efforts to pursue just-in-time manufacturing by producing what is needed in the right quantity and right timing.

While our group adopts a wide range of systems and methods to produce various types of products, they all head in the same direction to further evolve and deepen them.

## Customer Satisfaction Improvement Activities by the Sales Group

We are committed to activities to understand the problems of customers and make proposals to help solve them

Our Group's business activities consist mainly of business-to-business transactions, and we therefore believe that the proper identification of the opinions and demands from customers (companies) through daily sales activities and further quality improvement of products and services will lead to greater customer satisfaction.

Based on this recognition, we focus on the training of the employees engaged in sales activities to enhance their abilities to understand the problems of customers and propose solutions to them. We also cooperate with external consultants to give training to management staff in Japan to learn methodologies for making proposals and methods to manage and instruct their subordinates. In addition, action guidelines to stimulate organizations have been formulated for management staff in charge of customer satisfaction (CS) improvement. We will also conduct surveys to listen to the opinions of customers, analyze the results and give feedback to ensure CS improvement.

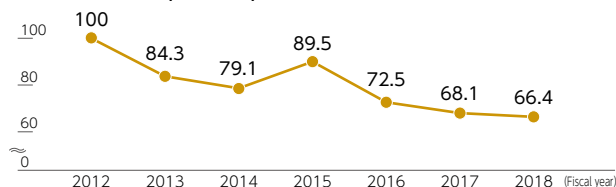
To further increase customer satisfaction and strengthen the Sales Group as a whole in response to progress in globalization, we will make use of the opinions of stakeholders collected through our visits to customers, trade fairs, websites and other means for our future initiatives.

## Outcomes of the Quality Management Activities

We will continue to make steady efforts to eliminate complaints

Thanks to our ongoing quality management activities, the number of complaints is on the decrease and has been reduced by about 30% from the figure in fiscal 2012. In fiscal 2018, the number also decreased by 2.5% from the previous fiscal year level. However, many issues still need to be improved to eliminate complaints. We will continue to make steady efforts to eliminate complaints with the three main pillars of Own Process Quality Assurance Activities, Quality Management Education and Global Quality Management System Audits, in addition to Monozukuri Technology Improvement activities.

Number of Complaints by Year (results in 2012 = 100)



(Note) The data cover Sumitomo Electric and its manufacturing affiliates in Japan and overseas (including the Sumitomo Wiring Systems Group)

## Quality Compliance

We aim to become a company trusted by society

The attitude of companies towards quality is evaluated by society more strictly than ever these days. Supply of products that surely have the quality required by customers in compliance with laws and rules is an absolute foundation for companies to grow in a sustainable manner. The Sumitomo Electric Group takes the measures mentioned below to ensure quality compliance.

### 《 Clarification of Rules on the Prevention of Quality Data Falsification and Improvement of the Education 》

We have established the Sumitomo Electric Group Quality Management Global Standards as the basic rules on quality to be followed by all divisions as mentioned above. In consideration of the cases of other companies on data falsification and improper inspection, we have formulated internal rules on the prevention of quality data falsification and incorporated them into the standards to disseminate the rules and ensure compliance with them. In fiscal 2018, we provided education on the prevention of quality data falsification in the training programs on compliance for the managers of our group in Japan. The course was attended by about 6,000 persons, which account for approximately 75% of the managers who are required to take it, and we will continue the initiative. In addition, we have added a curriculum on the prevention of quality data falsification to the quality management education for employees in different positions (15 position-based courses and eight nomination-based courses) to expand and reinforce our education on quality compliance.

### 《 Strengthening of the Function to Check Quality Data Falsification 》

While the Quality Management Division conducts Global Quality Management System Audits of each division in the Sumitomo Electric Group, we will enhance inspections for the prevention of quality data falsification in the audits. Our group also has a mechanism where all divisions conduct self-examination of their main operations every year. We have added the prevention of quality data falsification to the inspection items of the self-examination to ensure the absence of quality data falsification and check the efforts of each division to develop rules for the prevention of quality data falsification and provide quality compliance training each year.

## Product Safety (Product Liability)

**We are striving for the improvement of the safety level through practical training and voluntary inspection with focus on the pursuit of product safety at the product development and design stages**

Under the corporate principles of “offering the very best goods and services to satisfy customer needs” and “contributing to creating a better society and environment, with a firm awareness of our social responsibility,” the Sumitomo Electric Group is making efforts to enhance the safety of products.

We adopt the basic approach that the products to be introduced to the market should undergo thorough examination of safety, especially at the development and design stages.

### 《 Training on Product Safety 》

For product safety, we hold annual technical seminars on the Product Liability Act and the revised Consumer Product Safety Act through cooperation between the Quality Management Division and the Legal Department.

The seminars are based on the idea that the safety standards established by companies should also take into account the predictable misuses. The content is designed to deepen the trainees' understanding of the laws with reference to actual cases, as well as to provide practical lessons on the issues such as the review of product safety at the development and design stages, proper display of warning labels, maintenance of product safety, collection of product safety information and response to accidents.

### 《 Voluntary Inspection on Product Safety 》

As part of the product safety initiatives, we conduct voluntary inspection of the check items applied to the whole Group once

every two years in order to identify any product safety risks. Based on the inspection, necessary measures are discussed and implemented autonomously to strengthen the system to promote product safety measures.

## Management of Chemical Substances in Products

**We are managing chemical substances properly in accordance with our own guidelines based on Japanese Industrial Standards (JIS) guidelines**

In pursuit of reducing environmental impact of the products of the Group and our customers, as well as improving compliance, the Sumitomo Electric Group is committed to proper management of chemical substances in products. To this end, we implement the “SEI Guidelines for the Management of Chemical Substances in Products”<sup>(note)</sup>, which was established to specify the items to be carried out at each stage of the manufacturing process such as procurement, design, production and quality assurance based on JIS Z7201 “Management of Chemical Substances in Products - Principles and Guidelines.”

We have also established the “SEI Standards for Chemical Substance Management,” which are the standards for the management of chemical substances in products to be managed at each of the stages, and implement the “SEI Guidelines for Green Quality Purchases”<sup>(note)</sup> based on the standards, while conducting product assessment at the design and development stages. Through these initiatives, we strive to prevent hazardous chemical substances with large environmental impact such as mercury and cadmium from being contained in products.

The Sumitomo Electric Group also has the Chemical Management Task Committee in place to enhance coordination within the Group.



(Note) As the types of products and requirements from customers differ greatly between divisions and affiliates, the guidelines and standards are applied flexibly according to their respective circumstances.

## Compliance with Regional Regulations on Chemical Substances across the Globe

**We are promptly responding to progressive tightening of regional regulations on chemical substances across the globe**

The Sumitomo Electric Group has taken measures to replace the substances listed in the EU RoHS\* and ELV Directives,\* and is meeting customer demand for products that contain no prohibited substances. For example, we already discontinued the direct use of the four types of phthalates to be banned by the RoHS Directive from 2019 in our products by the end of fiscal 2017 in advance. We are also making efforts to avoid the use of these substances in the parts to be used in our products through cooperation with suppliers.

At the same time, to comply with the REACH\* regulation, we are working for final registration of chemical substances one by one as required and completed the registration of gallium arsenide (GaAs) in 2012 and tungsten carbide (WC) in 2017. We are also making efforts to ensure appropriate responses to the requirements of the REACH regulation including reporting of the SVHC\* contained in products.

To quickly respond to progressive tightening of regional regulations on chemical substances across the globe, our group is working to collect information on regulations in Europe, China, Southeast Asia and other countries and share the information within the Group.

#### Glossary

##### \* RoHS Directive

RoHS stands for Restriction of the use of certain Hazardous Substances. This EU Directive restricts the use of certain hazardous substances in electrical and electronic equipment.

##### \* ELV Directive

ELV stands for End of Life Vehicles. This EU Directive restricts the use of lead and three other hazardous heavy metals in automobiles to reduce the impact of end-of-life vehicles on the environment.

##### \* REACH regulations

REACH stands for Registration, Evaluation, Authorization and Restriction of Chemicals. Regulations of the European Parliament and of the Council for protection of human health and the environment in the European Union.

##### \* SVHC (Substances of Very High Concern)

SVHC stands for Substances of Very High Concern. Chemical substances designated by the EU as substances which may cause serious effects to human health or the environment.

# Supply Chain

## Promotion of CSR Procurement

Under the slogan, "make best efforts and never give up on improvement," we communicate with our partners in a "sincere and open-minded" manner.

I belong to System Parts Group, which is in charge of the procurement of raw materials and supplies for infrastructure products such as traffic products and information communication network devices. The group is committed to an initiative to evaluate suppliers (partners scoring katsudo (activities) or PSK) as a foundation for dialogues in the promotion of fair and impartial procurement activities based on mutual trust with them, which is specified in the Basic Procurement Policies of the Sumitomo Electric Group.

PSK was launched ahead of other parts of our group in 2006 as an initiative to enhance communication with suppliers, which are our partners, and improve their abilities to deal with quality, cost, delivery and other items, as well as the quality of the supply chain as a whole. All staff members who work to promote PSK, including me, believe that the improvement of the supply chain helps enhance our product capabilities and PSK, which underlies it, will promote fair and impartial procurement activities. To further develop PSK, the level of the promotion of CSR activities by suppliers is also included in the evaluation indicators of PSK. For "make best efforts and never give up on improvement," we also plan to conduct improvement activities through on-site inspections of suppliers to enhance their CSR activities in the future.



**Susumu Suga**  
Assistant General Manager,  
System Parts Group  
Materials Department,  
Procurement Division

## Supply Chain

### Basic Procurement Policies

We share our Basic Procurement Policies with main suppliers and seek their understanding and cooperation

The Sumitomo Electric Group considers procurement to be a "service that supports the foundation of its business activities," and in May 2006, established Basic Procurement Policies in line with the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles. We have distributed the Basic Procurement Policies to our main suppliers, along with our Group companies, and have sought their understanding and cooperation.

#### Basic Procurement Policies (extract)\*

1. Promoting procurement activities that contribute to creative and global corporate activities
2. Promoting fair and impartial procurement activities
3. Promoting compliance-based procurement activities
4. Promoting procurement activities based on mutual trust and cooperation with suppliers
5. Promoting procurement activities friendly to the global environment

### Group Procurement System

We are working to ensure thorough compliance with our policies and enhance awareness among procurement staff on a global scale

Based on the Basic Procurement Policies, the procurement measures and activities of the Sumitomo Electric Group are developed under the initiative of the Group Procurement Collaboration Office, an organization established in the Procurement Division and composed of the staff in charge of procurement in 22 divisions and Group companies.

Specifically, the office members work together to promote value analysis (VA\*) and provide education to enhance compliance related to procurement and improve procurement skills. An e-mail magazine is also distributed to more than 400 procurement staff members to share necessary information throughout the Group.

Overseas, we promote coordinated procurement on a regional basis under the initiative of the International Procurement Offices (IPOs) of the Procurement Division located in China, ASEAN, the United States and Europe. As part of the efforts, we organize meetings of liaison committees composed of IPOs and procurement staff of Group companies to develop group-wide initiatives and provide related training to procurement staff.





## Commitment to CSR Procurement

We also ask our suppliers to comply with the CSR Procurement Guidelines by specifying compliance with them in the basic transaction agreement

To promote our commitment to CSR in the procurement activities, we established the Sumitomo Electric Group CSR Procurement Guidelines based on the Sumitomo Electric Group Corporate Principles and Charter of Corporate Behavior in August 2010. The guidelines were revised to include provisions concerning response to the issue of conflict minerals\* in fiscal 2014. To enhance promotion of the guidelines, we also ask suppliers to take proper action by specifying relevant requirements in the basic transaction agreement.

For the promotion of CSR procurement, in addition to activities to disseminate the guidelines among suppliers, we need to check the progress in the dissemination through CSR procurement self-assessment of suppliers and also promote improvement activities in full coordination with suppliers.

As shown in the table on the right, we expanded CSR procurement self-assessment to receive answers from about 1,800 suppliers, which represent 90% of the value of the domestic procurement by our divisions and domestic affiliates (excluding Sumitomo Wiring Systems, Ltd. and the listed subsidiaries), by fiscal 2016. We also started to include suppliers for some of our overseas affiliates in the survey targets and still continue the survey. In fiscal 2018, we surveyed approximately 710 suppliers, selected 86 out of them to have an interview or conduct an on-site inspection concerning particularly important items and asked them to enhance compliance, information management and other relevant activities. We also began to cooperate with Sumitomo Wiring Systems, Ltd., Sumitomo Riko Company Limited and Nissin Electric Co., Ltd. to enhance the activities of Group companies. From fiscal 2019, we will further improve the conventional activities and enhance coordination with Group companies to meet the target of "Promotion of CSR procurement covering the suppliers that represent 90% or more of the value of our domestic procurement."

### Sumitomo Electric Group CSR Procurement Guidelines (extract)\*\*

The Sumitomo Electric Group aims to contribute to creating a better society and environment, with a firm awareness of our social responsibility. To this end, the suppliers that directly or indirectly provide their products and services for us are also required to work on the activities together with us. Therefore, we have summarized our requests to the suppliers of the Sumitomo Electric Group in these guidelines, and the suppliers are requested to promote compliance with them. Our suppliers are also asked to request their suppliers to comply with the guidelines.

1. Provision of Useful and Safe Products and Services
2. Improvement of Technological Capabilities
3. Promotion of Sound Business Management
4. Contribution to Preservation of the Global Environment
5. Compliance with Laws and Social Norms and Fair and Proper Business Activities
6. Social Contribution and Elimination of Antisocial Forces
7. Respect to Human Rights and Considerations of Occupational Health and Safety  
(Including Response to the Issue of Conflict Minerals)
8. Disclosure of Information and Promotion of Communication with Society
9. Maintenance of Confidentiality and Information Security

## Activities from fiscal 2013 to fiscal 2018 and future initiatives

2013 ▼ 2016	<ul style="list-style-type: none"> <li>Establishment and dissemination of the CSR Procurement Guidelines</li> <li>Implementation of a survey with a CSR procurement "self-assessment sheet" (a total of approximately 1,930 suppliers) (covering the suppliers that represent 90% of the value of the domestic procurement excluding that for Sumitomo Wiring Systems, Ltd. and the listed subsidiaries, as well as suppliers of some of our overseas affiliates)</li> </ul>
2017 ▼ 2018	<ul style="list-style-type: none"> <li>Continuance of the survey of suppliers (a total of 1,560 companies)</li> <li>On-site inspections and interviews of suppliers to ask for improvement (86 companies in fiscal 2017 and 86 companies in fiscal 2018)</li> <li>Launch of coordination with Sumitomo Wiring Systems, Ltd., Sumitomo Riko Company Limited and Nissin Electric Co., Ltd.</li> </ul>
2019 ▼ 2022	<ul style="list-style-type: none"> <li>Promotion of CSR procurement covering the suppliers that represent<sup>(note)</sup> 90% of the value of our domestic procurement</li> <li>Gradual expansion to include major suppliers of our overseas affiliates</li> </ul>

(Note) Domestic procurement by Sumitomo Electric and its affiliates in Japan (excluding Sumitomo Densetsu Co., Ltd.) is covered.



### CSR VOICE

We are grateful for the opportunities to learn various issues through responding to the requests for CSR activities

Mr. Shuzo Sonoda, President (right)

Mr. Hiroki Fukuda, Managing Director, Administration Division (left)  
Fukuda Metal Foil & Powder Co., Ltd.

Fukuda Metal Foil & Powder has a long history. Our company was originally founded as a wholesaler of gold and silver foil and powder in Muromachi, Kyoto in 1700. Based on the policy that we should do jobs with a full understanding of our roles and capabilities, which is mentioned in the family dictum "Ie-no-Nae" (family seedlings), we have steadily promoted research and development and operated businesses in the field of non-ferrous metal foil and powder. With the sales volume of 55.4 billion yen in fiscal 2018, we provide the most appropriate products as a specialist of metal foil and powder.

Our relationship with the Sumitomo Electric Group started in the 1960s and we have supplied metal powder for sintered powder metal products since then. We also supply other products nowadays, such as those in the electronic printed circuit board business. We feel that we maintain a good relationship partly because the Sumitomo Electric Group and our company share some characteristics including simplicity, fortitude and sincerity.

About six years have passed since the Sumitomo Electric Group started CSR procurement, and other companies also make similar requests for CSR activities to us these days. The requests give us good opportunities to be aware of social demand. While we have been asked about our response to conflict minerals and chemical substances contained in our products, as well as issues to be checked in relation to BCP, we also received more multifaceted inquiries including those concerning management based on the RBA Code of Conduct\* recently. With the recognition that CSR activities are indispensable for the survival of companies, we will continue to promote various activities for CSR items such as environmental conservation, solution of labor shortage and contribution to the local community.

## Contribution to Preservation of the Global Environment

### We are committed to green procurement as an essential quality factor

To promote environment-friendly procurement activities, the Sumitomo Electric Group has made efforts to eliminate the use of banned substances in its products and enhance control of other harmful substances contained in products, based on the Sumitomo Electric Group Green Procurement Guidelines since fiscal 2003. In fiscal 2012, these guidelines were revised to issue SEI Guidelines for Green Quality Purchases as a new version. We consider the guidelines as part of essential quality standards and use them to maintain green procurement activities.

While we introduced the ECO Factoring System in collaboration with Sumitomo Mitsui Banking Corporation in 2009, 58 suppliers have applied for the system and 44 of them use it now. In this system, a favorable interest rate is applied to suppliers that promote a certain level of environmental conservation activities in order to encourage suppliers to perform such activities.

## Response to the Issue of Conflict Minerals

### We recognize this issue as a major social challenge and aim to eliminate conflict minerals from our business

As an initiative for promoting compliance-based procurement activities, the Sumitomo Electric Group recognizes that the matter of conflict minerals from Congo and its neighboring countries is a serious social issue in the supply chain. To fulfill our social responsibility in procurement activities, we aim to procure or use no conflict minerals involving any illegal or dishonest acts. To this end, we also stipulate the approaches to the initiatives in the CSR Procurement Guidelines and investigate the supply chain on conflict minerals. In the event that the use of minerals that may cause a social problem or serve as fund for armed groups is found, we will take measures to avoid their use.

As a specific initiative, we ask suppliers to cooperate with our investigation mentioned above, which is conducted every year. In case that there is any concern over the use of minerals, the relevant suppliers are requested to take measures to avoid the use as we do in the Group.

## Response with Business Continuity Plan (BCP)

### Our efforts to strengthen the system for stable procurement are producing steady results

Sumitomo Electric Group is committed to the development and implementation of a business continuity plan (BCP) for procurement divisions, which prepares for large-scale disasters and other emergency situations, to ensure stable supply of products and services and thereby avoid impact on the production activities of our customers. The BCP assumes a situation that the suppliers of our parts and materials have suffered damage from disaster and suspended production activities. In addition, to ensure that we know the impact of damage immediately after a disaster, we also reviewed emergency contact information received from suppliers, as well as information on production and logistics bases, and in fiscal 2017 we developed a system that enables us to check and update information on any sites that manufacture or store

relevant products in the affected area on a real-time basis, which has been operated since then.

In fiscal 2018, we had fears of a supply shortfall due to a series of natural disasters including Northern Osaka Earthquake and heavy rain in western Japan, as well as Typhoon Jebi, which caused a crush of a tanker into the bridge connecting the Kansai International Airport and the mainland. In these situations, nevertheless, we were able to procure materials without impact on our production or that of our customers by, for example, using the alternative products that had been examined in the above-mentioned activities, receiving supply preferentially with the cooperation of our suppliers and promptly investigating the products for which quality data were falsified. These incidents reminded us of the significance of such activities.

We will maintain these activities to strengthen our procurement system that can supply products and services in a stable manner.

## Organization of Partners' Meetings

### Ninety-three suppliers participated in Partners' Meetings

The Sumitomo Electric Group organizes Partners' Meetings every year to enhance its relationships with suppliers. We use this opportunity to explain the outline of our business activities and the Basic Procurement Policies and commend the suppliers that have contributed to the business activities of our group through good proposals and support activities in order to establish amicable and cooperative relationships with suppliers. At Partners' Meeting, we also present the CSR Procurement Guidelines, as well as the Basic Procurement Policies, to ask for their cooperation and promote the guidelines actively.

Partners' Meetings were also held in eastern Japan, western Japan and some of the divisions and Group companies in Japan, as well as some overseas facilities, in order to disseminate CSR procurement on group-wide and global scales.



Partners' Meetings

## Initiatives to Ensure Compliance with Laws Related to Procurement

### We are conducting on-site inspections of divisions and affiliates and giving them instructions to facilitate their independent activities for compliance in procurement

The Procurement Division is committed to the following three priority matters in its efforts to ensure compliance with laws related to procurement:

#### Priority matters

- Compliance with the Subcontract Act in regard to appropriate dealings with subcontractors
- Compliance with the Customs Law in regard to appropriate custom reports and payments
- Compliance with internal control rules in regard to procurement in the Sumitomo Electric Group

As to the priority matters, we continued to conduct on-site inspections in Sumitomo Electric and its affiliates in fiscal 2018 to confirm compliance with the rules as mentioned in the table below.

### Inspection results ✔

Subcontract Proceeds Act	In Japan: 6 affiliates
Internal Control	In Japan: 6 affiliates Overseas: 19 affiliates
Customs Law	In Japan: 26 divisions of Sumitomo Electric and its affiliates importing directly from overseas

In the on-site inspection, the Procurement Division visits the target sites to check compliance with laws related to procurement. For the inspection on the Subcontract Proceeds Act and internal control, we selected the target sites again in fiscal 2018 on the assumption that we will regularly visit all domestic affiliates, and confirmed their compliance with relevant laws and rules. With respect to the Customs Law, all of the sections and companies importing directly from overseas were inspected to check the correctness of the amounts in custom reports and other items, and we gave guidance on revisions of the Customs Law and other laws. The Procurement Division will continue to expand and improve the education and inspection activities to promote compliance with laws related to procurement.

## Education System

### We organize training seminars to improve procurement skills on group-wide and global scales

In the Procurement Compliance Training Seminars in fiscal 2018, we organized seminars for Production Group and Corporate Staff Group as well as for R&D Group.

The training seminars for Production Group and Corporate Staff Group are organized with the same content every year to further enhance the understanding among the attendants and establish and improve their awareness of compliance. The seminars were organized as delivery lectures and as training via a video conference system, attended by many group employees as shown in the table below. To further enhance the awareness of compliance related to the procurement of materials within our group, we will continue to organize training seminars in a way that more group employees can attend them.

Training seminars for R&D Group were organized especially to ensure that researchers can not only learn the procedures to obtain necessary materials and other items for R&D activities but also establish a proper cooperative relationship with suppliers at the time of the commercialization of R&D outcomes. The results of the training are presented in the table below.

### Results of training ✔

Production Group and Corporate Staff Group	<ul style="list-style-type: none"> <li>Organized in 28 regions (video conference: 12 regions; delivery lecture: 16 regions)</li> <li>Attended by 1,804 persons</li> <li>Themes: Subcontract Proceeds Act, Customs Law and internal control</li> </ul>
R&D Group	<ul style="list-style-type: none"> <li>Organized in 3 regions</li> <li>Attended by 13 persons</li> <li>Themes: Subcontract Proceeds Act, internal control and procurement for the commercialization of research outcomes</li> </ul>



Procurement Compliance Training Seminar for Production Group and Corporate Staff Group

In the Procurement Division, an OFF-JT\* program for working staff is provided for the purposes of development of reliable procurement staff and handing down of procurement ethics, knowledge and expertise. This program is also combined with existing OJT\* to create a synergistic effect that will improve procurement skills.

The OFF-JT program in fiscal 2018 was composed of seven courses including "procurement-related laws and regulations, and CSR Procurement," each of which was provided by an expert in the Procurement Division. The experts used textbooks they prepared, and gave lectures through teleconferences with sites in Japan and overseas. In total, 249 persons attended the lectures.

We continued to organize a training program to develop key personnel on the Subcontract Proceeds Act in fiscal 2018 and provided a certificate for 12 persons from eight divisions of Sumitomo Electric and its affiliates who completed the program. For the understanding of the Subcontract Proceeds Act, we have to make it known widely not only in the divisions in charge of procurement but also in manufacturing and development divisions. Key personnel on the Subcontract Proceeds Act means core personnel for the establishment of an autonomous system to comply with the act in each division and company, and we develop the personnel in a planned manner.

A training program for overseas purchasing managers was launched in fiscal 2018 with an aim to develop the core personnel for the improvement of our procurement capabilities on group-wide and global scales. In this program, we provide the managers with opportunities to learn procurement-related methods for cost reduction, risk management and other issues, as well as the Sumitomo Spirit and CSR and other procurement policies, in order to improve their skills and encourage them to share the learning with the procurement staff of their companies. While improving the content of the training, we will gradually expand the scope of the employees who need to attend the program in the next fiscal year and thereafter.



Training program to develop key personnel on the Subcontract Act

### Results of Education ✔

	Date	No. of courses	No. of lectures	No. of participants (total)	No. of companies
OFF-JT Education program	1st half of FY2018	7	26	132*	24
	2nd half of FY2018	7	26	117*	24
Key personnel development program	2nd half of FY2018	1	4	12	8
Training for overseas purchasing managers	2nd half of FY2018	1	1	9	9

\*Number of those who passed the final exam

#### Glossary \* OJT and OFF-JT

OJT (On-the-Job Training) is education and training received while the trainees perform daily work. On the other hand, trainees receive OFF-JT (OFF the Job Training), such as group training sessions, when they are temporarily away from daily work.



# Human Resources

## Promotion of Diversity and Occupational Safety

We will work to support human resource development from a global perspective to enhance the organizational strength of the entire group

I have engaged in global human resources since 2009. We support local managers outside Japan for their career development and the promotion of their appointment as executives and work to establish a foundation for the human resources who play a pivotal role in the sustainable growth of the Sumitomo Electric Group. Particularly for local subsidiaries, we provide practical support to ensure that the president, who is often replaced in several years, can use human resources and run the organization in an effective manner from a medium- to long-term viewpoint. More managers and presidents in overseas affiliates have been appointed from among local personnel in recent years and a total of 41 SEG Global Executives are currently working actively. I hope that our group will become an organization where talented employees have equal opportunities to pursue career development within the Group, no matter whether they are recruited in Sumitomo Electric or Group companies. Our efforts to promote diversity have produced results. Again in 2019, Sumitomo Electric was selected as a Nadeshiko Brand in recognition of our outstanding achievement in the encouragement of women to work actively by the Ministry of Economy, Trade and Industry of Japan and the Tokyo Stock Exchange, and also certified as the top L-boshi company by the Minister of Health, Labour and Welfare of Japan. We were also awarded the first prize of "Leading Companies with Actively Participating Women in Osaka City." In addition, we established the Sumitomo Electric Group Policy on Human Rights in March 2019 to promote our initiatives for respect for human rights in accordance with international standards. We are thus making continuous efforts to meet the various needs of stakeholders.



**Hiroshi Otagaki**  
General Manager,  
Global HR Office,  
Human Resources Division

## Diversity

### Global HRM Policy

**We are actively promoting the establishment of HR systems and guidelines to be commonly applied on a global scale within the Group**

In the Sumitomo Electric Group, over 270,000 employees are working actively in about 40 countries around the world. We believe that for Sumitomo Electric to win the global competition and grow further, it is essential that we fully mobilize the Group's technologies, products, business models and all other resources, and we acknowledge that it is most important to secure and utilize highly capable employees who support the efforts.

The Group has traditionally attached a high value to human resources based on the Sumitomo Spirit. To clarify the basic policies on human resources, we instituted the Sumitomo Electric Group Global Human Resource Management Policy (Global HRM Policy) in September 2011.

This policy specifies the Group's commitment to creation of an environment that helps employees realize growth and self-actualization through work, provision of various career opportunities regardless of race, ethnicity, national origin, religion, age, gender, gender identity, sexual orientation, or disability, promotion of diversity and development of global

leaders, in order to accelerate our global human resource recruitment and promotion. We have declared the policy to inform people in and outside of the Group about it.

#### Global Human Resource Management (HRM) Policy

- We provide workplaces where all the employees can work actively, grow both personally and professionally through work, achieve self-actualization, and contribute to society.
- We offer various career opportunities and globally pursue "the right person in the right position" regardless of race, ethnicity, national origin, religion, age, gender, gender identity, sexual orientation, or disability.
- We value and promote diversity in the workplace in order to enhance the creativity of the organization and to sustain the growth of the business.
- We develop global leaders who lead and give energy to our global business. Global leaders are those who understand and share the Sumitomo Spirit and the Corporate Principles and can lead highly diversified teams.

# Global Grade System and Group Global Executive Personnel System

**We will promote the involvement of SEG Global Executive and other international employees in the business management**

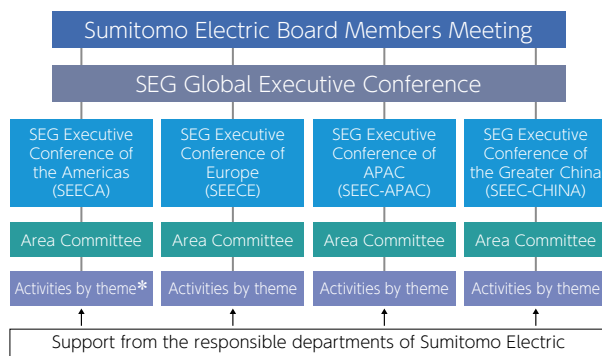
We have adopted the Global Grade System, which is a human resource development system that allows talented and qualified persons to seek career development beyond the borders of individual companies to engage in the management of Group companies in Japan and overseas or perform even higher duties. We give board members and equivalents from overseas subsidiaries, except for those of listed companies, the global leader (GL) grade, and recognize them as SEG Global Executives. At present 41 persons, most of whom are executives of overseas Group companies, are recognized as the SEG Global Executives. They are provided with a wide range of career opportunities to help them play more active roles as global leaders.

## 《 Area Committee 》

We introduced the Area Committee system in 2015 to allow SEG Global Executives to participate in business management beyond the borders of individual companies. The system aims to 1) enhance the presence of each business/base in consideration of the regional characteristics, 2) make use of the knowledge and experience of SEG Global Executives and 3) establish a network of the SEG Global Executives. We have set up four committees of Americas, Europe, Southeast Asia/Australia and Greater China, which are committed to a wide variety of subjects, such as human resource development and strengthening of manufacturing abilities in the respective regions.

We also use the Regional Executive Conference to incorporate the proposals presented by the Area Committees into the management of the Sumitomo Electric Group. In this conference, which is held in the four regions of Americas, Europe, Southeast Asia/Australia and Greater China, top executives of Sumitomo Electric and its overseas affiliates gather every year to discuss global management issues. We will continue to make the conference more active to further promote diversity management in the Sumitomo Electric Group and coordination between affiliates.

### Area Committees and Regional Executive Conference



## 《 Encouragement of International Employees to Work in Japan 》

With the aims of providing SEG Global Executives with more opportunities to demonstrate their abilities and cultivating the next generation of SEG Global Executives, we will

encourage international employees to work in Japan. We have established guidelines for the procedures from the selection of the candidates to acceptance in Japan. We will continue to make efforts to improve the supporting program for international employees working in Japan.

### 《 Development of a Global HR Database with an aim to establish processes for development and promotion 》

To understand human resources of the Group on a global scale in a seamless manner, as well as to provide various career opportunities to competent and enthusiastic staff and cultivate and promote them, we are establishing a global HR database. Business Units also hold meetings with executives to identify excellent staff and create development and promotion plans.

### 《 Establishment of a human resources infrastructure through the application of common human resources measures and processes to all Group companies in Japan and overseas 》

Our Group companies conventionally formulated their own human resources rules, established and operated different HR measures. We recognized that it is necessary to standardize the HR measures and management processes to some extent among our Group companies in Japan and overseas in order to further proceed with group-wide and global management based on the Global HRM Policy. In fiscal year 2017, through collaboration on a global scale involving HR of overseas companies, we started to issue "Global HR Document," which clearly states our global HR philosophy, standards and guidelines on each HR-related topic. We have published eight key documents so far. In the future, we will make steady efforts to implement released documents at each Group company and also publish documents on new topics.

### CSR VOICE

## From overseas to Japan

**Xue Hong**  
Assistant Manager,  
Global Planning Group  
Human Resources Development Department



I joined Sumitomo Electric Photo-Electronics Components (Suzhou), Ltd., which was founded in October 2007, to engage in the launch of the company as a Manager of Human Resources and General Affairs, and have also been committed to the establishment of the internal HR systems since then. I have also participated in the Eastern China HR Conference for HR staff of Group companies in the eastern area of China, China Leadership Development Program for Group companies in China and the Global HR/HRD Conference held in the Head Office in Japan every year. Through those experiences, the scope of my duties has steadily expanded from Suzhou to eastern China, to the Greater China and then globally.

I have been working in the Human Resource Development Department at the Head Office of Sumitomo Electric since April 2018. As a project leader for the establishment of a global training system, I am committed to the expansion of SEI University in China. Since the Head Office is developing large-scale and advanced initiatives, I would like to learn actively from them. After my return to China, I hope to contribute to the further advancement of human resource development in Group companies in the country.

### Glossary

#### \* Activities by theme

Activities on research, risk management, PR, human resources/HR development, accounting, information system, procurement, safety & environment and production engineering. The themes for the activities are set for each region.

## Women's Empowerment

**We strive for Women's empowerment with recognition that it is one of the driving forces to promote diversity**

Sumitomo Electric regards Women's empowerment as one of the driving forces to promote diversity, and strives for it. We consider that the development of an environment where women can fully demonstrate their skills and keep playing important roles will also lead to the cultivation of culture that helps each employee work more actively. This is therefore a significant initiative for the future growth and development of our company.

### 《Response to the Act on Promotion of Women's Participation and Advancement in the Workplace》

In accordance with the Act on Promotion of Women's Participation and Advancement in the Workplace, we set targets on recruitment of women and appointment of women and formulated an action plan in March 2016.

We have achieved the targets for both categories of recruitment and appointment in the action plan for the 1st phase (from April 1, 2016 to March 31, 2018) and are currently promoting initiatives to meet the targets in the action plan for the 2nd phase (from April 1, 2018 to March 31, 2020).

### ● Establishment of the action plan for the 2nd phase

#### ■ Targets

Category	Targets	
Recruitment	Women's share in the new graduates for main career track	Clerical staff: 40% or more Technical staff: 15% or more
Appointment	Women's share in assistant managers or higher positions	Section managers or higher positions: 2.0% or more Assistant managers: 13% or more

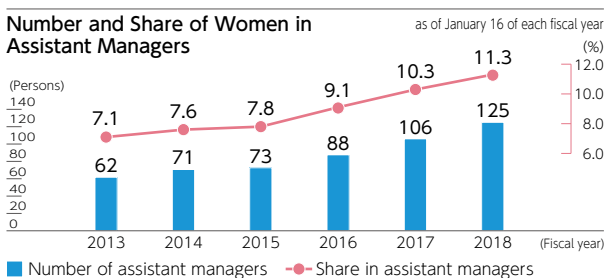
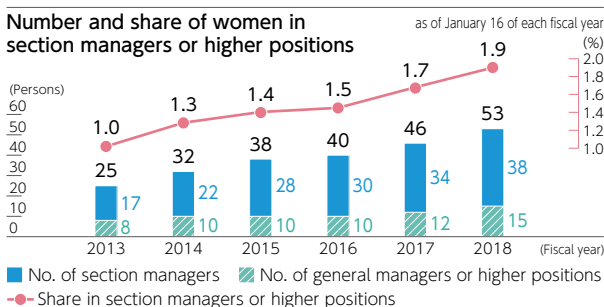
#### ■ Initiatives

##### (Recruitment)

- PR activities mainly targeting female students
- Improvement of capabilities to recruit women

##### (Appointment)

- Implementation of measures to support female employees on main career track in their career development
- Active development and appointment of competent and enthusiastic female employees on general track
- Monitoring of promotion of women in each division
- Realization of flexible work styles



(Note) Above graphs cover personnel data for Sumitomo Electric employees, including those on loan to Sumitomo Electric affiliates and other organizations.

### Ratio of Male/Female Employees and Ratio of Male/Female Managers in Sumitomo Electric (Note 1)

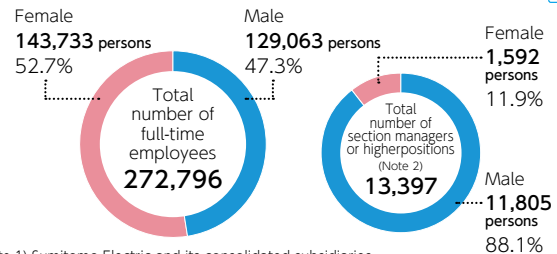
As of March 31 of 2019

	Male	Female	Total
Full-time employees	9,783 persons (86.3%)	1,555 persons (13.7%)	11,338 persons
Section managers or higher positions (Note 2)	2,737 persons (98.1%)	53 persons (1.9%)	2,790 persons

(Note 1) Above graphs cover data for Sumitomo Electric employees, including those on loan to Sumitomo Electric affiliates and other organizations.

(Note 2) Section managers or higher positions: section managers, division managers and management

### Group employees in the world (Note 1)



(Note 1) Sumitomo Electric and its consolidated subsidiaries

(Note 2) Section managers or higher positions: section managers, division managers and management (including executive officers and other officers)

### 《Support of Career Development》

In comparison with men, women are more susceptible to life events and accordingly tend to have difficulty in imagining their career path at present. In 2016, we launched a management training program for the development of female main career track employees. This program gives lessons to the superiors of female main career track employees to understand the necessity and importance of developing female subordinates and consider suitable support for the growth of each of them. We also set up a training program to raise the awareness of female employees on general track and their superiors in 2017, with an aim to release the potential of the female employees on general track and thereby strengthen the organization as a whole.

## Commitment to "SWING"

**We will support women's empowerment through coordination on a group-wide scale**

SWING stands for Sumitomo Electric Group Women's Innovative Networking Group, which was launched at the initiative of Sumitomo Electric, Sumitomo Wiring Systems, Ltd., Sumitomo Riko Co., Ltd. and Nissin Electric Co., Ltd. in 2016. This group provides female employees of the Sumitomo Electric Group with opportunities for mutual study and networking across the companies to cultivate female employees and improve their skills and to assist women in playing active roles on a group-wide scale.

In fiscal 2018, we held a forum attended by 65 female employees on general track from 10 Group companies. With the theme of "Let's work energetically and contribute to the team!", the forum included a panel discussion by a representative from each of Sumitomo Electric, Sumitomo Wiring Systems, Ltd. and Sumitomo Riko Company Limited as well as a group discussion about the creation of the best and strongest team, as it did last year. Such an exchange with female workers from other companies gave the attendants an opportunity to consider what they can do for their teams and other issues.

## Evaluation by External Organizations

### 《Certification with "L-boshi"》

We were certified as the top L-boshi company in August 2016. L-boshi is certification granted by the Ministry of Health, Labour and Welfare of





Japan to companies that are outstanding in terms of encouraging women to play more active roles based on the Act of Promotion of Women's Participation and Advancement in the Workplace.

### 《 Selected as a Nadeshiko Brand 》

In recognition of its outstanding achievement in the encouragement of women to work actively, Sumitomo Electric was selected as a Nadeshiko Brand among listed companies by the Ministry of Economy, Trade and Industry of Japan and the Tokyo Stock Exchange in March 2019 for the second time following the first in March 2017.



### 《 Awarded the first prize of fiscal 2018 "Leading Companies with Actively Participating Women in Osaka City" 》

Osaka City certifies the companies and other entities that actively encourage women to work actively as "Leading Companies with Actively Participating Women in Osaka City" and grants the mayor's awards to the companies and other entities involved in especially outstanding activities. In recognition of our steady efforts for the cultivation, appointment, etc. of female employees, we received the first prize in March 2019.

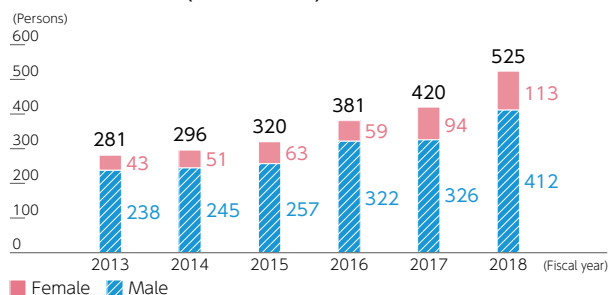
## Diversity in Recruitment

**We aim to promote diversity through recruitment of a wide range of personnel**

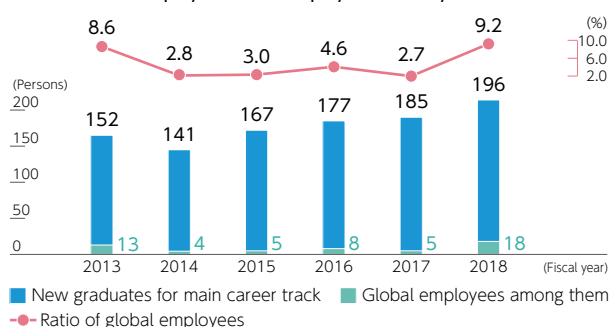
In fiscal 2018, Sumitomo Electric employed 196 new graduates for main career track in Japan, 49 of whom were female and 18 were non-Japanese and graduates from overseas universities ("global" employees). We also hired 163 mid-career employees. With the awareness of the need for diversification of human resources, we have set a target of increasing the percentage of global employees to 10% or more and are currently making efforts to achieve the target in our activities to recruit new graduates to be employed in fiscal 2018 and thereafter.

We will continue to take various measures to ensure that diverse talents can demonstrate their capabilities regardless of nationality, race, gender, age or other background in the Group.

### Number of Male/Female Employees Hired by Sumitomo Electric (All Functions)

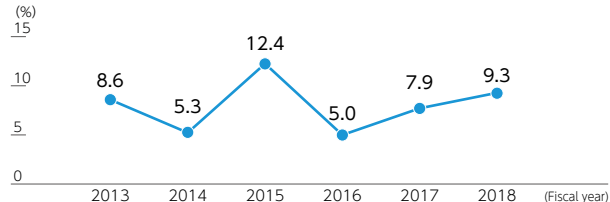


### Ratio of Global Employees in the Employees Hired by Sumitomo Electric



(Note) Employees who were hired in months other than April are included.

### Turnover Rate in Sumitomo Electric



(Note) Ratio of the number of the employees who were hired as new graduates three years before the relevant year and have left the company within three years to the total number of the new graduates hired three years before

## Promotion of Employment of the Persons with Physical or Mental Disabilities

**We are making steady efforts to help create a society where anyone can work vividly with or without their disabilities**

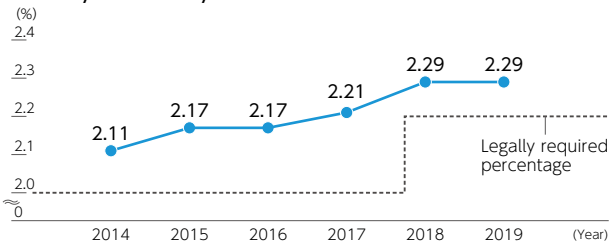
Sumitomo Electric has been traditionally working to promote employment of persons with physical disabilities. To further promote employment of persons with physical or mental disabilities and increase their employment rate, we established a special subsidiary\*, Sumiden Friend, Ltd., on the premises of Sumitomo Electric's Itami Works, specifically for employment of persons with disabilities in July 2008 (certified in February 2009). Beginning with loan and maintenance of foliage plants, Sumiden Friend has expanded its operations gradually to also engage in the conversion of drawings and other paper documents into electronic files and shredding and recycling of waste paper. As of June 2019, 94 employees are working at the company, including 56 persons with disabilities, in the four bases including Yokohama, Tokyo and Osaka branches. As a result, the overall employment rate of the physically or mentally disabled for Sumitomo Electric and its qualified Group companies including Sumiden Friend, Ltd. (13 companies in total, five of which joined during the period from July 2018 to June 2019) was 2.29% in June 2019.

### Number of Employees with Disabilities at Sumiden Friend as of June 15 of each year

	2014	2015	2016	2017	2018	2019
The disabled	28	33	39	45	54	56

(Persons)

### Employment Rate of the Physically or Mentally Disabled by Year



In our group, Sumitomo Wiring Systems, Ltd., Sumitomo Riko Company Limited and Nissin Electric Co., Ltd. have also established their special-purpose subsidiaries, which are SWS Smile Corporation, SumiRiko Joyful Company Limited and Nissin Heartful Friend Co., Ltd., respectively. An exchange meeting between these subsidiaries was held twice in 2018 to facilitate their coordination.

We will continue to develop a system to create places where persons with disabilities can work while feeling rewarded in many Group companies and worksites and to ensure that all Group companies will achieve and maintain the legally required percentage in response to legal revisions and other changes.

### Glossary

#### \* Special-purpose subsidiary

The subsidiary is established by a company for the purpose of hiring persons with disabilities under the Law for Employment Promotion etc. of the Disabled. Permission from the national government is required for the establishment. Persons with disabilities employed by a special-purpose subsidiary can be considered to be the parent company's (or corporate group's) employees when the percentage of the employment rate of persons with disabilities is calculated.

## Work Style Reforms

Sumitomo Electric promotes company-wide campaigns with the aim of ensuring that employees can achieve the proper balance between work and life in order to create a workplace that allows diverse staff to work comfortably

We have conducted various initiatives for work style reforms since 2008, including the promotion of work styles that balance work and life and the review of the operations of each division to improve the efficiency. At present, we conduct both company-wide and division-specific initiatives to review work styles and thereby reduce total annual working hours, encourage employees to take paid holidays and improve work efficiency and productivity. One of the initiatives is a system of paid holidays that can be taken by the hour, which was introduced in 2018. With this system, we aim to establish a mechanism that meets various needs including those for child rearing, provision of nursing care and a visit to a hospital and allows employees to take paid holidays more easily.

In 2019, we plan to introduce a "work-interval system," which aims to ensure that employees have a sufficient amount of rest from the finish time of a day to the start time of the following business day, on a trial basis. Through this initiative, we will strive to maintain the health of employees and also sustain and further improve productivity.

We are taking measures in response to the issues of individual workplaces and persons identified based on findings in the Survey to Create a Lively Working Environment, a questionnaire survey to investigate the awareness of employees, with an aim to make the workplaces more attractive.

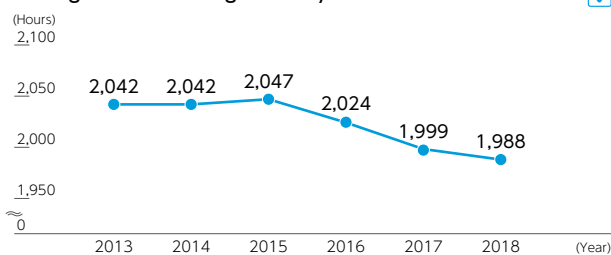
We now set the slogan of "Be brave to change, be serious to work and be patient to continue" and conduct initiatives from various perspectives including efforts to change the corporate culture and awareness, as well as enhancement of productivity through the use of infrastructure and IT tools and the review of work rules and processes. We will continue to review the work styles, which will not only reduce working hours but also contribute to the maintenance and improvement of business performance, for the growth of our business.

### Average Overtime Hours and Average Number of Paid Holidays Taken by Employees by Year

Year	2013	2014	2015	2016	2017	2018
Average overtime hours per month	19.3 hours	20.4 hours	20.8 hours	20.2 hours	19.3 hours	18.7 hours
Average number of paid holidays taken by employees per year	10.4 days	12.1 days	12.1 days	14.1 days	16.0 days	16.5 days

(Note) Average among labor union members of Sumitomo Electric from January to December in each year

### Average Total Working Hours by Year



(Note) Average of the total working hours in each year from January to December of each of the Sumitomo Electric employees (including those on loan to Sumitomo Electric affiliates and other organizations within the Works)

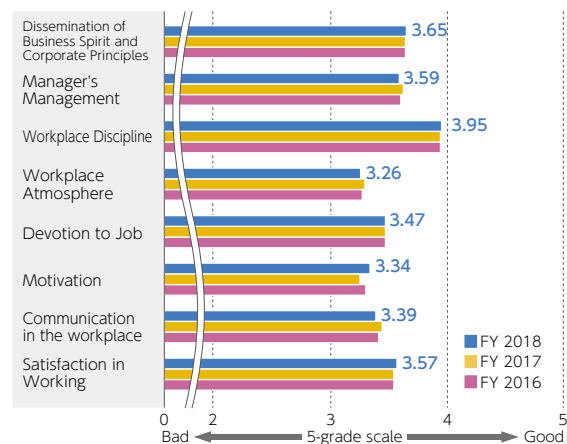
## Implementation of the Survey to Create a Lively Working Environment

We have added questions about progress in the dissemination of the mid-term management plan, as well as questions about harassment, for the understanding of the current situation of each workplace

Sumitomo Electric has been conducting Survey to Create a Lively Working Environment, a questionnaire survey to investigate the awareness of employees, since fiscal 2006. In fiscal 2018 as well, about 22,000 employees of Sumitomo Electric and Group companies were surveyed, including staff of some overseas Group companies.

The content of the survey is reviewed every year. While the results for most of the items checked for the change over time showed improvement, there were still issues to be addressed in some areas including "Career Development" and we have designed and implemented personnel measures or training to respond to them. In addition, we started to analyze the correlation between the survey results and the results of the stress check, which measures the stress level of individuals, in fiscal 2018. The overall results are fed back directly to the responsible person in each organization to encourage each workplace to consider specific measures against the issues and to use the results for the establishment of workplaces where people can work in a healthy and energetic manner.

### Results of the Survey to Create a Lively Working Environment



## Support for Balancing Work and Life

We actively promote the development of child and family-care related systems

To support employees in balancing work and life, Sumitomo Electric is committed to promoting the work style that achieves the proper balance between work and life and has also developed child and family-care related systems actively. For these efforts, the Company has been certified by the Ministry of Health, Labor and Welfare as a company that helps its employees balance work and childcare based on the Act on Advancement of Measures to Support Raising Next-Generation Children.

In fiscal 2018, we newly allowed employees to use the work from home arrangements for other purposes than child rearing and nursing care and also introduced a system of paid holidays that can be taken by the hour so that employees can work in a more flexible manner. We also use training sessions and in-house magazines on nursing care to give relevant information and encourage them to prepare for the achievement of a balance between nursing care and work. Through these measures, we are working to help employees balance work and life now and in the future.



Special certification mark "Platinum Kurumin" \*

## Various Types of Support

We support the life of each employee in various aspects

### 《 Reemployment System 》

In April 2008, Sumitomo Electric introduced a scheme to reemploy employees resigning due to circumstances beyond their control such as childbirth, childcare and nursing care. In the scheme, we organize interviews and reemploy eligible persons when they are able to return to work (within three years or, for those who moved overseas, five years from their resignation) and, as a general rule, assign them to their former workplaces.

### 《 System to take a leave to accompany his/her spouse who is assigned overseas 》

In April 2017, we introduced a system in which an employee can take a leave of absence to accompany his/her spouse who is assigned overseas and return to work after the leave. This system allows temporary retirement in such a situation with the aim of preventing employees from retiring.

### 《 Childcare Centers 》

As a measure to foster a supportive environment for employees working full-time while raising children, Sumitomo Electric opened childcare centers at its Yokohama and Osaka Works in March and April 2008 respectively and Itami Works in March 2009. In 2018, a new childcare center was established in the neighborhood of our Tokyo Head Office. As of March 31, 2019, these centers take care of 59 children in total.

In addition, for employees who cannot use our childcare centers, we are taking other supportive measures such as subsidizing their use of other childcare centers.

### 《 Hokatsu Concierge System 》

In the activities to find childcare facilities to take care of children ("hokatsu" in Japanese), various kinds of know-how are needed because the approach and schedule of such activities depend on the childcare environment in the place of residence and the month of birth of the children.

This Hokatsu Concierge system, which was started in November 2014, aims to help employees during childcare leave return to work smoothly at the time she hopes to return. Know-how on hokatsu depending on the circumstances of individual employees, as well as information on childcare facilities, is provided in this system.

### 《 Work from Home Arrangements 》

We introduced work from home arrangements, which allows employees who face restrictions on their work due to childcare, nursing care, etc. to work at home or other locations in fiscal 2016. On October 16, 2018, we started to allow other employees who meet specific requirements, such as abilities to autonomously fulfill duties and make achievements, to use the system. The purposes of the expansion of the system include the realization of flexible and efficient work styles and the improvement of productivity through the review of work styles. We will continue to work to enhance the flexibility of working styles and develop an environment where diverse human resources can play more active roles.

### 《 Volunteer Holiday System 》

Employees can take up to 10 holidays in a year to engage in volunteer activities approved by the Company. This system is used for various social contribution activities such as coaching of local children in sports activities and accompanying of children on trips for residential training and games.

### 《 Childbirth and Rearing Support Program 》

For female workers during pregnancy and parenting, it is especially important to have dialogue with their superiors in a detailed manner.

In fiscal 2015, we introduced a system to organize dialogue between such an employee and her superior when she is found pregnant, one month before maternity leave, before return to work from childcare leave and two months after return to work from childcare leave, to help her return to work smoothly and work actively after the return from childcare leave.

### 《 International Employees Support Project 》

To create a work environment where international employees can work comfortably, we set up a project team in the HR Division in 2017. The team has taken various measures to support them, including the establishment of a support desk where staff can give support in Japanese, English and Chinese, development of bilingual systems (Japanese and English) for time tracking, business trip transportation expenses and other items, issuance of pay slips and internal regulations in English, creation of prayer rooms in Osaka Head Office and Osaka Works, training sessions to become familiar to the business culture in Japan and the organization of a networking event for international employees to know each other.

## Number of Users of the Employee Support Programs



FY	Employees who took childcare leave			Employees who took leave when their spouses gave birth	Employees who used the short-time work system			Enrollment in the reemployment system			Users of internal childcare centers for children	Users of the volunteer holiday system	Users of the work from home arrangements
	Male	Female	Total		Male	Female	Total	Male	Female	Total			
2013	15 (13)	106 (56)	121 (69)	55	21	245	266	3	23	26	62	7	-
2014	16 (12)	134 (54)	150 (66)	71	19	264	283	1	29	30	57	7	-
2015	29 (28)	124 (57)	153 (85)	92	20	276	296	1	30	31	56	9	-
2016	40 (25)	137 (42)	177 (67)	94	22	262	284	1	25	26	57	8	18
2017	52 (52)	105 (49)	157 (101)	112	19	263	282	0	23	23	52	6	40
2018	46 (35)	108 (39)	154 (74)	121	19	268	287	4	24	28	59	5	209

The number in brackets indicates the number of the employees who took the leave for the first time in the fiscal year.

(Note) The table above covers data for Sumitomo Electric employees, including those on loan to Sumitomo Electric affiliates and other organizations.

(persons)



# Sumitomo Electric Group Health Management Declaration

## Toward the realization of health and productivity management\*

We consider that the Sumitomo Electric Group cannot achieve sustainable development or growth without the health of each employee. Announcing the Sumitomo Electric Group Health Management Declaration in 2015, we launched "Kenkatsu!"\* activities in June 2017 to manage and improve the health of employees in workplaces and have since actively supported the health promotion activities of employees.

### 《Initiatives to Prevent and Improve Metabolic Syndrome》

To prevent metabolic syndrome and reduce the employees who have its symptoms, we promoted special health guidance and dealt with the following issues:

Improvement of the dietary life	<b>Dietary life seminar: Attended by 256 persons</b> •Learned about dietary balance and intake
Improvement of the exercise habits	<b>Walking event: Joined by 1,934 persons</b> (3-month program to meet the target of walking 8,000 steps in a day) •Gave rewards to the participants and made donations to areas affected by the heavy rain in western Japan according to the total number of their steps
	<b>Exercise habit seminar (for prevention and improvement of metabolic syndrome) by sports trainers: Attended by 463 persons in total</b>
Enhancement of special health guidance	<b>3-month intensive lifestyle improvement program by health nurses of Sumitomo Electric and sports trainers: Joined by 85 persons</b> •The participants reduced their weight by 6.6 kg, abdominal girth by 7.7 cm and body fat by 3.2% on average
Prevention of cancers	<b>Cancer seminar by Dr. Keiichi Nakagawa, Associate Professor of Tokyo University Hospital: Attended by 72 persons</b>

### 《Contribution to Sports Activities》

We organized the following programs to encourage employees and their family members as well as local people to engage in sports and have exercise habits:

Sports lessons	<b>Sumitomo Electric Sports Academy: Joined by 800 persons</b> •Invited baseball, table tennis and soccer players including former Japanese national team members
	<b>Athletic exchange meeting by Sumitomo Electric Track and Field Team</b>
	<b>Athletic lessons for elementary school and junior high school students jointly organized with Itami City, Hyogo: Joined by 2,204 persons in total (held 17 times)</b>
SEI Challenge Cup	<b>Games between baseball clubs and circles of the six business locations: Joined by 262 persons</b>
Subsidy for expenses for sports activities	<b>Subsidy for fitness gym (monthly or annual) memberships: Used by 2,052 persons</b>
	<b>Subsidy for expenses for the purchase of sports items: Used by 1,272 persons</b>

### 《Mental Healthcare》

We distributed a related handbook to all employees and provided "self-care" training, which was taken by 316 persons, as well as "care by supervisor" training for management-level employees, which was taken by 434 persons. In addition, we started new working environment improvement activities (named "workplace health checkup") based on the results of stress level tests to create a more comfortable workplace. We

also station counselors in and outside the company to establish a system where employees and their family members can consult with them.

### 《Prevention of Passive Smoking》

We closed 417 indoor smoking areas including those in Group companies during the period from July 2017 to March 2019. Through continuous efforts including the establishment of a day to encourage employees to quit smoking and the organization of seminars to encourage them to do so, we aim to create a working environment with no passive smoking.

### 《External Assessment》

#### ●Certification as the "White 500":

In recognition of our strategic commitment to the health management of employees from a management perspective, Sumitomo Electric was certified as a 2019 Health and Productivity Management Organization (White 500) in February 2019 by the Ministry of Economy, Trade and Industry of Japan and Nippon Kenko Kaigi.



#### ●Recognition as a Sports Yell Company:

We were recognized as a Sports Yell Company by the Japan Sports Agency in December 2018 for our active engagement in the implementation of sports activities for the health promotion of employees.



While also involving Group companies, we will continue to promote various health promotion measures to realize health and productivity management.

## Labor-Management Relationship

### The union and management are committed to solving various problems through in-depth discussions

Sumitomo Electric believes that the development of a company goes hand-in-hand with the well-being of its workers' union members. On the basis of this belief, Sumitomo Electric strives to address various relevant issues by thorough discussion between the union and management, each party respecting the other's standpoint. In particular, the Central Management Council Meeting, which is held four times a year, has a history of about 70 years, and has served as a forum for exchange of opinions between representatives of the union and management concerning business environments and managing conditions. While working styles are increasingly diversified, we have also set up expert committees of various kinds to create an environment where all employees can work lively with smiles by improving various working systems and reinforcing monitoring functions.

## Organization of Town Meetings

### We provide employees with opportunities to have direct dialogue with executives and make use of their opinions to facilitate various initiatives

To enhance communication inside the Company, we organize town meetings at each of our sites, in which a group of employees from different sections directly and openly talk with board members, general managers or other executives. The participants have precious opportunities to inform the executives of problems and requests concerning human resource development, promotion of diversity and work style reforms, as well as those specific to their functions, and share such problems to seek clues and solve them. The opinions and other comments presented in the meetings are communicated to the relevant divisions on a timely basis and used for organizational operation, planning of personnel systems and other purposes, as well as for the facilitation of the initiative.

#### Glossary

\*Health and productivity management  
A registered trademark of Workshop for the Management of Health on Company and Employee, an NPO

#### \*Kenkatsu!

A coined term used in Sumitomo Electric to collectively refer to health maintenance and improvement activities promoted in companies and worksites and by individuals to extend healthy life expectancy and develop a sense of unity in worksites. The three key activities are "prevention and improvement of metabolic syndrome," "promotion of sports and improvement of exercise habits" and "mental healthcare."

## Personnel Needed by Sumitomo Electric

Personnel needed by Sumitomo Electric are defined as those who honor the Sumitomo Spirit, understand the Sumitomo Electric Group Corporate Principles, possess high levels of skill and knowledge rooted firmly in the basics, and who can play active roles in the global community. We provide various training programs to support employees in becoming such personnel based on the concepts of the "individual employees' strong motivation for self-development" and "on-the-job coaching and close communication between superiors and subordinates."

## SEI University

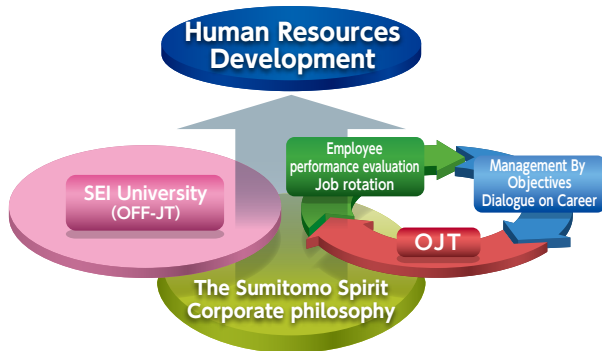
**We work to improve the value of human resources throughout the Group**

SEI University represents the Sumitomo Electric Group's comprehensive training and education system. With the aims of achieving corporate targets and becoming a Glorious Excellent Company, we provide various training programs in a wide range of areas at SEI University.

### Fundamental Principles of SEI University

SEI University will serve as a venue for:

- ① Disseminating the Sumitomo Electric Group's corporate philosophy,
- ② Sharing the Sumitomo Electric Group's management strategies and vision, and
- ③ Developing employees' abilities, skills and knowledge so that they may play active roles in the global community.



SEI University provides more than 300 training programs (commonly developed across the Group), including position-based compulsory programs for all group employees ranging from executives to new employees, in the three areas of human skills, problem-solving skills and technical skills. Our Group companies and divisions also organize their original training programs in the field of technical skills to have the trainees acquire the unique knowledge and skills especially required in the respective workplaces.

In particular, the Sumitomo Spirit is positioned as the basis for employees to perform their duties. We give them opportunities to learn about it in the training programs for new employees and various position-based training programs. In addition, we always explain the relations of the Sumitomo Spirit to compliance and human rights in the relevant training programs.

Furthermore, the president asks all employees to perform their duties in accordance with the Sumitomo Spirit via a video once in six months and the video is also translated into multiple languages and distributed to Group companies in Japan and overseas. For the employees to be assigned overseas, a training program to ensure that they can convey

the Sumitomo Spirit in their own words in their new workplaces is organized before the transfer. We are also cultivating internal lecturers to enable the Sumitomo Spirit to be learned periodically in Group companies in Japan and abroad.

Training categories of SEI University



Record of the training sessions organized across the Sumitomo Electric Group in FY 2018

Applicable employees	Total number of participants (persons)	Total length of training (hours)
Sumitomo Electric employees	65,369	394,101
Employees of Group companies in Japan	21,493	94,607
Employees of overseas Group companies	10,163	55,280
<b>Total</b>	<b>97,025</b>	<b>543,988</b>

Record of unique training sessions organized in individual Group companies in FY 2018

Applicable employees	Total number of participants (persons)	Total length of training (hours)
Domestic Group companies (26 companies)	34,228	184,009
Overseas Group companies (83 companies)	147,967	330,550
<b>Total</b>	<b>182,195</b>	<b>514,559</b>

## Promotion of Dialogue on Career

**We help employees consider their career and be committed to their growth**

We have conventionally operated a system that has superiors interview with their subordinates about self-enlightenment and career development when annual business targets are set, and also continue to organize training that helps understand the importance of the dialogue and specific methods to promote it.

In the training session for superiors, they learn (1) the necessity of dialogue on career and (2) specific methods to promote dialogue, as basic knowledge. After understanding the importance of motivating subordinates to work and attaching meanings to their jobs in (1) and learning the development of an atmosphere for dialogue, attentive listening for receiving empathy and how to ask questions in (2), the superiors deepen their understanding by watching a video of real interviews and exchanging opinions on good and bad points in the video with each other. We also provide them with opportunities to exchange information on the problems they individually face so that they acquire skills and knowledge that can be used in dialogue with subordinates.

For subordinates, we organize a training session that makes them consider their career and encourages them to share the career they envisage with the superiors through the dialogue. We also provide training to newly promoted management staff and employees who have reached the age of 50 to prompt them to reflect on their own career and examine what in the career was interesting for them and why. The participants also consider their future career through group discussions in the training.

## Addressing Globalization across the Group

### We develop training activities globally across the Group

#### ① Development in Group companies in Japan

To promote human resources development across the Sumitomo Electric Group, we provide employees of our Group companies in Japan with opportunities to attend training sessions organized by Sumitomo Electric. The number of the participants from our Group companies in Japan in the training for new employees, mid-career employees and newly promoted personnel is increasing year by year.

When it is difficult for a Group company to run training programs, internal lecturers are delegated from Sumitomo Electric to provide necessary training and other services.

#### ② Development on a global scale

To promote the development of human resources that meet local demand, HR manager meetings are held regularly on a country basis to discuss the planning and operation of various training programs with focus on those for general employees. In addition, persons in charge of HR development in our Group companies across the world are invited to Japan once a year to hold the Global Human Resources Development Meeting and discuss the development system commonly applied on a global scale.

We also organize the following training programs for management personnel commonly in Japan and overseas.

Target: Executives

#### Executive training program

Executives are developed through action learning as well as understanding of the Sumitomo Spirit and acquisition of management knowledge. This training program is held once a year and attended by about 50 persons each time.

Target: General Managers

#### Global Leadership Development Program (GLP)

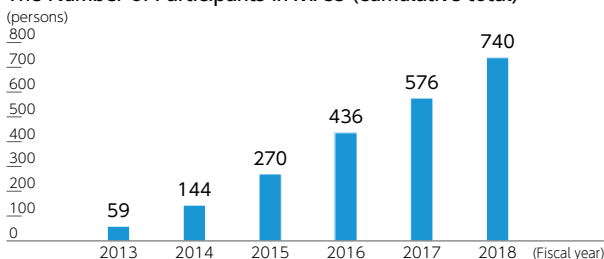
Human resources that can show leadership on a global scale are cultivated through discourses of executives, leadership workshops and understanding of the Sumitomo Spirit. The program was held twice a year until 2015 and is held once a year from 2016. Each session receives about 30 participants.

Target: Managers

#### SEG Management Program based on the Sumitomo Spirit (MPSS)

This program aims to diffuse the Sumitomo Spirit and improve skills to manage subordinates. The sessions are provided in six cities in Germany, the United States, Singapore, China (Shanghai and Shenzhen) and Mexico and a total of approximately 150 persons attend the common program in those locations in a year.

The Number of Participants in MPSS (cumulative total)



#### ③ Response to globalization in the Company

In line with progress in the globalization of our business activities, international employees working in Japan are also increasing year by year. To develop an environment where all employees can play an active role beyond differences in language, culture or value, we enhance our Japanese language training program for international employees and provide them with training on the business culture in Japan as part of the project to support them. We also give training for workplaces to ensure that those who receive international employees can properly understand the issues to be noted.

#### CSR VOICE

I am impressed with the Sumitomo Spirit, which has a history of 400 years

Monica Carreño

Senior Staff, HR & Administration Department  
Sumitomo Electric Sintered Components México, S.A. de C.V.



I learned the Sumitomo Spirit for the first time in a training session for new employees. Although the explanation in the session was not detailed, I became keenly interested in the Sumitomo Spirit. Later, I luckily had an opportunity to participate in MPSS. In the program, I understood the greatness of the Sumitomo Group, to which I belong, and had a different impression of the company. I was especially impressed with the fact that the spirit, which has underpinned the history of Sumitomo for 400 years, is still effective in the current era.

Moreover, in March 2019, a young employee of the Human Resources Development Department, who was sent to our company as a trainee from Japan, provided us with training to cultivate internal lecturers to teach the Sumitomo Spirit. Her lecture was so enthusiastic and I recognized that she was talking sincerely based on the true understanding of the spirit. I was extremely struck and felt that I must accurately communicate the Sumitomo Spirit to employees responsibly as a lecturer next time. As she did, I would also like to tell what I believe to employees in an honest and comprehensible manner.

#### CSR VOICE

For the dissemination of the Sumitomo Spirit in Group companies in Greater China

Tian Weijun

Deputy General Manager,  
HR/Admin. Department  
Sumiden Asia(Shenzhen) Co., Ltd.



In February 2019, I participated in a training session to cultivate trainers on the Sumitomo Spirit for the personnel and training managers in Group companies in South China, which was held at the Shenzhen Office of Sumitomo Electric Management (Shanghai) Co., Ltd. The lecturer, who was a Chinese employee currently belonging to the Human Resources Development Department in Japan, described the history of Sumitomo and the Sumitomo Spirit in a way that Chinese people can understand them easily. I also learned skills and know-how for lecturers, which are very helpful when I provide training.

I was able to understand that the Sumitomo Electric Group has maintained its operation through various eras because the Sumitomo Spirit has been handed down as spiritual support for employees. Accordingly, each employee is required not only to passively recognize and understand the Sumitomo Spirit but also to actively and consciously act and pass it down to the people around him/her. As a member of the Area Committee in Greater China, I will cooperate with SMS and the Human Resources Development Department in Japan to instill the Sumitomo Spirit in Group companies in Greater China more widely and deeply.



## Cultivation of Manufacturing Personnel

Based on the basic concept that “manufacturing is human resources development,” we promote cultivation of manufacturing personnel through the three main initiatives of ① basic training on manufacturing, ② practical training and ③ small group activities

The underlying concept of the basic training on manufacturing is to learn with actual machines and products. Subjects in the curriculum are wide ranging from SEQCDD, which are essential for manufacturing, to the Group's proprietary technologies and techniques and the latest technologies including equipment control and maintenance technologies. The number of the participants is also growing every year. Overseas as well, we regularly provide training on basic knowledge and the maintenance of equipment in China and Southeast Asia.

The practical professional training is given in programs that aim to cultivate key personnel who are anticipated to drive manufacturing innovation and reinforce the SEQCDD competitiveness. Important challenges of the respective divisions are selected as the themes, and trainees are assigned to the divisions of their themes to perform practical activities for the solution of the challenges and problems.

The small group activities (called "SGA") are developed and promoted to solve problems and achieve objectives voluntarily on a workplace basis with the aims of developing human resources and energizing the workplace.

Among these three key activities, we placed particular emphasis on the following initiatives in fiscal 2018.

### ● Program to develop plant managers

This program aims to develop "strong" plant managers (equivalent to the manager of a manufacturing section) who will play a pivotal role in manufacturing. In the program, assistant plant managers learn the concepts and knowledge essential for plant managers in a six-day training course and then have an opportunity to deepen their understanding through practical operations. In the meantime, to create "strong" plants, those who are appointed as plant managers participate in a two-day training course and a designated workshop that is held once in three months. We plan to develop 20 to 30 plant managers or so every year through this program and also use it to cultivate general managers of overseas manufacturing divisions in the future.

### ● Sumitomo Electric Group Small Group Activity Convention

Sumitomo Electric launched SGA in 1958. This initiative has also been introduced into overseas companies and expanded to involve a total of 38,000 participants from 179 companies across the Group in activities on 2,966 themes in a year.

The Sumitomo Electric Group Small Group Activity Convention was held in Osaka in August 2018 with the participation of 10 groups in total, consisting of six groups representing domestic divisions and four groups representing four overseas areas (Americas, Europe, China and ASEAN).

After a rigorous evaluation, Hiyokko Group from A.L.M.T. Corp., the representative of the Industrial Materials Group, won the Best President's Award, followed by Ruizhi Group from Sumitomo Electric Photo-Electronics Components (Suzhou), Ltd., the representative of China, which received the Special Award.

Each of the representative groups made a presentation about the achievements of their activities in an enthusiastic manner, which made us aware of the improvement in the activities on a global scale.



Sumitomo Electric Group Small Group Activity Convention

#### CSR VOICE

##### Best President's Award in the Small Group Activity Convention

Namiko Miura  
Hiyokko Group  
A.L.M.T. Corp.



Through the small group activities, I learned the importance of cooperation between different divisions and completion of efforts. Although I felt that I had to do everything as the leader with a sense of responsibility at first, the members always helped me when we engaged in the activities. As a result, we overcame failures and successfully achieved the target. I realized the significance of small group activities, which is that the united efforts of all members can produce greater results than the activities of the leader alone.

I am proud that we received the Best President's Award and would like to thank the members who have worked with me, as well as the divisions that supported us. The activities gave me an opportunity to grow a lot.

#### CSR VOICE

##### Special Award in the Small Group Activity Convention

Qiu Fang (left),  
Li Yueqing (right)  
Ruizhi Group, Sumitomo Electric  
Photo-Electronics Components  
(Suzhou), Ltd. (SPEC)



Winning the Special Award in the Small Group Activity Convention was a moment of pride for not only the presenters and the group but also all people working in SPEC. Ruizhi Group, which is one of the eight groups involved in improvement activities in Suzhou Plant of SPEC, is in charge of mass production of optical transmitter/receiver modules for optical communication. A major challenge for us is to respond to changes, especially a sudden increase, in the demand. In our activities, we achieved error-free delivery by training workers who were transferred from other lines to make them effective operators for a short period of time.

A sudden growth in demand substantially changes the situation for the production line and poses challenges about various issues including education, training, efficiency and quality. We became more aggressive and developed teamwork by considering solutions by ourselves, instead of leaving them to others, and providing ideas to each other. In addition, we feel that the experience also made us more active in housework and child rearing.

We are glad that we realized "the company that makes us feel proud of working there," as mentioned in the company's slogan, through the activities.

# To Be the Safest Company in the World

## Basic Approaches

The Sumitomo Electric Group considers that securing of health and safety of employees is the basis of the business. We promote the establishment of culture to prioritize safety above all else and continuously perform safety and health activities involving all employees to eliminate risk factors from our workplaces with the aim of becoming the world's safest company. Specifically, we have set medium- to long-term Sumitomo Electric Group Safety and Health Targets. To meet the targets, we specify priority activities and priority subjects for each fiscal year at the Health and Safety Committee, which is composed of members from management and the union.

### Sumitomo Electric Group Safety and Health Targets

1. Realizing accident-free worksites and creating comfortable working environments
2. Maintaining and improving compliance
3. Promoting employees' physical and mental health care

## Priority Safety Activities (Equipment Systems)

In the "Power OFF Activity," we identify risks in the operations in which workers may directly touch or approach any rotating or moving parts and then promote equipment safety measures (hardware-related measures) to address them. In fiscal 2018, we started to manage the identified risks based on a company-wide registration system in domestic sites with the aim of completing the hardware-related measures. For any uncompleted hardware-related measure for an operation, a registration sticker is put, the operators are informed of the uncompleted measure and the manager/supervisor in charge checks the predetermined details of the operation through an

on-site inspection, etc. When it is difficult to design measures to deal with an issue that is closely related to technical development, the relevant division will cooperate with Manufacturing Management & Engineering Unit to promote the safety of the equipment.

## Priority Safety Activities (Separation of Vehicles from People)

We are promoting measures to separate forklifts from people to prevent serious accidents involving forklifts. In fiscal 2018, we defined a set of levels on the progress of the measures to be commonly applied across the Company, and the divisions launched activities to raise their respective levels. We will make efforts to ensure that all sites can reach the level where simple management methods using simple fences, chains, etc. have been adopted by March 2021.

### 《 Strengthening of the measures in the S-T-O-P accident campaign 》

The S-T-O-P accident campaign underlies the establishment of a culture of safety and represents rules stipulated by the company. While recognizing that it is a foundation of our work and positioning it as an item that must be followed by all employees, the Sumitomo Electric Group as a whole is committed to the S-T-O-P accident campaign.

- S** Do not take a short cut and watch your step;
- T** Do not text or talk on the phone while walking;
- O** Hold on to the handrails when using stairs; and
- P** Do not put your hands in your pocket while walking

We will improve the campaign to further enhance the awareness of safety among employees.

## Targets and Results in Fiscal 2018

	Targets for FY2018	Results in FY2018
<b>Safety VISION 2022</b>	<ul style="list-style-type: none"> <li>• Safety measures in facilities</li> <li>• Development of human resources with high safety awareness</li> <li>• Establishment of safety culture</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced accidents that can result in a serious accident</li> <li>• Provided new training programs on a trial basis, which were received well</li> <li>• Disseminated the slogan "All accidents can be eliminated"</li> </ul>
<b>Activities in each site</b>	<ul style="list-style-type: none"> <li>• Priority safety activities                             <ol style="list-style-type: none"> <li>① Activities to prevent serious accidents</li> <li>② Safety! Power OFF activity</li> <li>③ Hearing of problems by top management</li> </ol> </li> <li>• Activities to be conducted continuously                             <ol style="list-style-type: none"> <li>① 1-2-3 activities</li> <li>② S-T-O-P accident campaign</li> <li>③ 3-pillar safety management</li> <li>④ Thorough training for unskilled workers</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Continuously conducted the voluntary inspection</li> <li>• Continued the 1-2-3 activities</li> <li>• Developed the S-T-O-P accident campaign</li> </ul>
<b>Group-wide structural reinforcement activities</b>	<ul style="list-style-type: none"> <li>• Emergency / priority safety management activities</li> <li>• Safety education</li> <li>• Plant disaster prevention</li> <li>• Global safety diagnosis</li> <li>• Strengthening of group-wide sharing of best practices</li> </ul>	<ul style="list-style-type: none"> <li>• Continued to implement both emergency / priority safety management activities</li> <li>• Plant disaster prevention</li> <li>• Started to strengthen the supervision of construction work</li> <li>• Global safety diagnosis</li> <li>• Enhanced the completion of activities with follow-ups</li> <li>• Group-wide sharing of best practices</li> <li>• Conducted interdivisional meetings</li> </ul>

## Establishment of Safety culture

### Executives show their commitment to safety and lead by example

In accordance with our policy that a culture of safety can be fostered when executives provide leadership and especially lead by example, we organized an officer training session that was attended by all executives ranging from the president to general managers of the divisions while inviting external lecturers.

In the training session, based on the belief that safety is the top priority and all disasters can be prevented, the attendants reviewed safety from the aspects of its impact on business and risk management and had discussions as part of the group work. In-depth discussions were carried out on various issues for the establishment of a foundation for safety activities, including the theory of leadership to motivate others as a practical skill.

The session finished with the rediscovery of their own roles and the declaration of their respective commitment.

In the future, we will work to develop safety culture in the divisions through continuous activities under the initiative of the general managers who lead by example in the respective divisions. The ultimate goal is the creation of an organization where all employees enlighten each other.



Officer training session

## Safety Performance and Future Actions

### In fiscal 2018, the number of the accidents involving injury increased slightly from fiscal 2017

During fiscal 2018, we had a total of 39 accidents, which were broken down into 7 injuries resulting in lost work time, 27 no lost work time injuries and 5 minor injuries (excluding employees of the Sumitomo Wiring Systems Group) and the accident score was 162. Thus, while we set a target of zero serious accidents and accidents resulting in remaining disabilities and 38 or less accidents resulting in lost work time, no lost work time accidents or accidents causing minor injury and an accident score of 216 and failed to meet the target for the number of accidents, we had zero serious accidents and accidents resulting in remaining disabilities and also satisfied the target accident score. (An accident score, which is calculated by weighting the accidents that have occurred by type, serves as an indicator to reduce accidents that can be serious. It was introduced as a new target in Safety VISION 2022 in fiscal 2018.)

Looking at the accidents by situation, we had fewer accidents attributed to causes that can result in a serious accident. In

particular, accidents by inserting a hand into rotating or moving parts were reduced for two consecutive years, which is considered to be an outcome of our past efforts. On the other hand, accidents by fall or by other actions of people increased. It is a challenge to enhance the safety awareness of employees.

In fiscal 2019, we are making efforts to achieve a target of zero serious accidents and accidents resulting in remaining disabilities, 50 or less accidents resulting in lost work time, no lost work time accidents or accidents causing minor injury and an accident score of 212 or less in the Sumitomo Electric Group (including the employees of the Sumitomo Wiring Systems Group) as part of our commitment to "becoming a company with the highest level of safety in the world." Specifically, we will 1) implement safety measures in facilities, 2) develop human resources with high safety awareness and 3) foster a culture of safety, which are the core initiatives of Safety VISION 2022. We will particularly take measures to achieve "zero Power OFF Activity accidents" including the acceleration and completion of hardware-related measures, as well as measure to achieve "zero accidents attributed to unsafe actions" including the promotion of the S-T-O-P accident campaign.

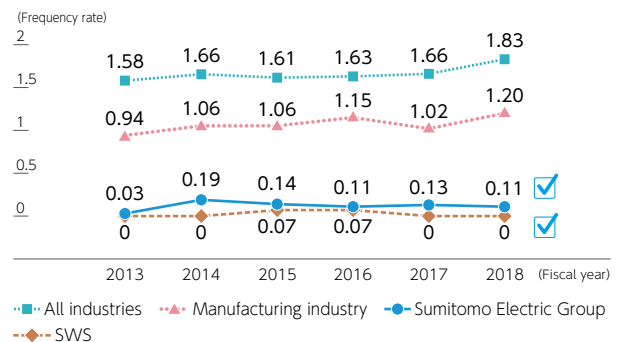
### Accidents involving injuries



		Sumitomo Electric Group					SWS Group	
		Total	Employees		Temporary worker, subcontractor	Sub total	Employees	
			Japan	Overseas			Japan	Overseas
FY 2018	Accidents resulting in lost work time	11	4	0	3	7	0	4
	No lost work time injuries	36	16	8	3	27	1	8
	Minor injuries	20	1	4	0	5	2	13
	Total	67	21	12	6	39	3	25
FY 2017	Accidents resulting in lost work time	14	5	3	2	10	0	4
	No lost work time injuries	36	11	10	4	25	1	10
	Minor injuries	17	3	3	1	7	3	7
	Total	67	19	16	7	42	4	21

(Note) The data on employees of the Sumitomo Electric Group cover Sumitomo Electric and its 110 affiliates (excluding Sumitomo Wiring Systems, Ltd. (SWS) and the other listed companies), as well as the companies that are not affiliates of Sumitomo Electric but subject to occupational health and safety-related guidance and supervision by Sumitomo Electric. Employees of the SWS Group cover SWS and its affiliates.

### Lost Time Injuries Frequency Rate\* for Employees in Japan by Year



(Note) The lost time injuries frequency rate for employees in Japan in the Sumitomo Electric Group covers Sumitomo Electric and its 41 affiliates in Japan (excluding SWS and the other listed companies), and the frequency rate in SWS covers SWS.



# Environmental Preservation

## Prevention of Global Warming

We will promote the establishment of a robust and reliable system through concerted efforts of the entire group that can deal with the tightening of environmental regulations, which is accelerated on a global scale

In response to growing awareness of the importance of environmental conservation in society, we have expanded efforts to conserve the environment to involve not only the Safety & Environment Department but also the Sumitomo Electric Group as a whole. As an initiative for the prevention of global warming, we are now analyzing the current situation of the whole supply chain extending to Scope 3, which is scheduled from 2019 to 2020, as part of our efforts to achieve VISION 2022. We will define a medium- to long-term target based on the results in 2020 and then promote more extensive activities to reduce CO<sub>2</sub> emissions towards 2022. In fiscal 2018, while energy consumption increased in the production sites of the Sumitomo Electric Group in Japan and overseas, the total CO<sub>2</sub> emissions were reduced by 2.2% year-on-year due to the promotion of energy saving efforts and other reasons.

As represented by the issue of microplastics, the reduction of waste is also a major challenge. In fiscal 2018, we reduced the amount of waste discharge per unit of sales by 8.7% from the previous fiscal year. We will survey the status of waste discharge from each site in a thorough and continuous manner to pursue measures for effective use in individual sites.

The reduction of environmental accidents is also recognized as an important subject. In China, environmental regulations are being rapidly tightened as exemplified by the requirement to proper description of waste details labeling of containers. We will further enhance overseas environmental management to prevent environmental accidents.



**Takaya Mori**  
Deputy General Manager,  
Safety & Environment Department

## Environmental Management

### Environmental Policy

The Sumitomo Electric Group has developed its environmental policy based on its business philosophy, which forms the basis for its business management. The environmental policy, detailed below, places the highest managerial priority on activities related to preservation of the global environment.

#### Environmental Policy (extract)\*

##### Basic Philosophy

The Sumitomo Electric Group thinks it is primarily important to establish a society that is sustainable and has less environmental impact, and contributes to society by providing products and services.

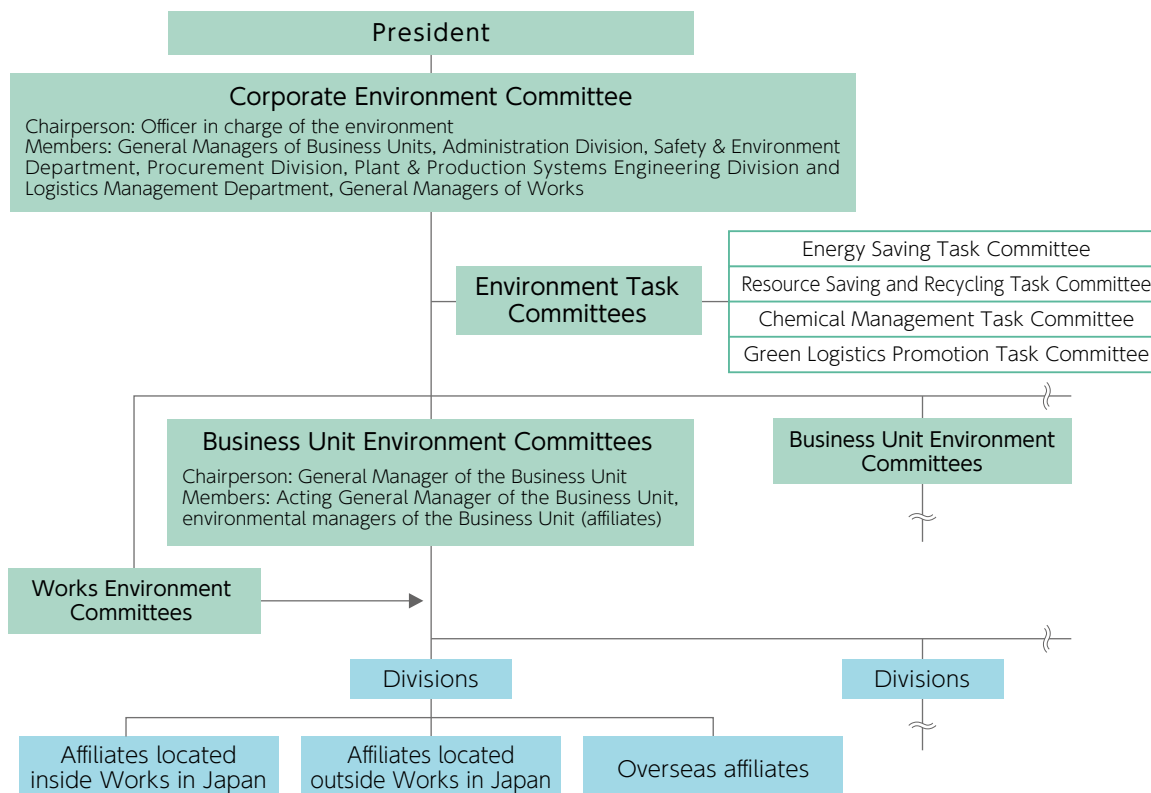
##### Action Guidelines

1. Considering environmental preservation activity is one of the most important issues for corporative management, the Sumitomo Electric Group promotes the activity based on its action plan.
  - Reduce environmental impacts in manufacturing activities  
Prevention of global warming, saving and recycling of resources and prevention of environmental pollution
  - Increase environmentally-conscious products and services  
Phase out of harmful substances, and implementation of product assessment and product LCA\*
2. The Group will fulfill and enforce environmental management system.
  - Provision of educational programs on environmental preservation and implementation of environmental audits
3. The Sumitomo Electric Group will maintain and improve compliance action.
4. The Sumitomo Electric Group's Environmental Policy will be opened to the public upon request.



# Organizations for Promoting Environmental Management

The Corporate Environment Committee deliberates and makes decisions on the Group's environmental preservation activities and oversees the activities on a global basis.



## Action ECO-22V Campaign

The Sumitomo Electric Group has conducted the Action ECO-21 Campaign since April 2003, focusing on E: Environmental engineering C: environmental Communication O: Originality. Since fiscal 2018, we have conducted the Action ECO-22V Campaign as a five-year plan.

### Targets of the Action ECO-22V Campaign • Period: FY 2018 – 2022

Item	Descriptions	Targets for FY 2022	Targets for FY 2018	FY 2018 results	Evaluation
Reduction of environmental impacts from business activities	(1) CO <sub>2</sub> emissions (in Japan and overseas): reduction of the absolute amount	Reduce 0% from FY 2017	Reduce 0%	Reduce 2.2%	◎
	(2) Energy saving (production sites): reduction of energy consumption per unit of sales [Consumption in crude oil equivalent / sales]	Reduce 5% from FY 2017	Reduce 1%	Reduce 1.3%	○
	(3) Energy saving (offices): reduction of energy consumption per unit of floor area [Consumption in crude oil equivalent / floor area x the number of employees]	Reduce 5% from FY 2017	Reduce 1%	Reduce 3.3%	◎
	(4) Reduction of CO <sub>2</sub> in logistics: reduction of CO <sub>2</sub> per unit of sales	Reduce 5% from FY 2017	Reduce 1%	Reduce 0.6%	△
Promotion of resource conservation and recycling	(1) Amount of waste (in Japan and overseas): reduction of the per unit amount [Amount of waste (excluding valuable materials) / sales]	Reduce 5% from FY 2017	Reduce 1%	Reduce 8.7%	◎
Reduction of substances of environmental concern	(1) Release of chemical substances (in Japan): reduction of the absolute amount of PRT-Designated substances	Reduce 5% from FY 2017	Reduce 1%	Reduce 25%	◎
Reduction of environmental impact from products	(1) "Eco Mind" products	Register 100% of new products	100%	100%	○
	(2) Eco-products	70% of the ratio in sales (in Japan)	62%	61%	▽
	(3) Products with less CO <sub>2</sub> emissions	Contribute to reducing CO <sub>2</sub> emissions by 150 thousand tons/year	130 thousand tons/year	131 thousand tons/year	○

Legend ◎: Performance far exceeding the target (by more than about 150%); ○: Target achieved; △: Target not achieved (performance improved from the previous fiscal year); ▽: Target not achieved (performance similar to that in the previous fiscal year); ▼: Target not achieved (performance deteriorating from the previous fiscal year)

# Measures and Activities for the Environmental Risk Management Items of Sumitomo Electric

We examine measures to address risks and problems and formulate a growth strategy

## Main environmental risks

Risk Factor		Impact	Countermeasures and Activities
Climate change	Physical risks	Temperature rise	Energy saving (evaluation, investment and activities), renewable energy
		Sea level rise	
		Increase in the size and frequency of typhoons	
	Regulatory risks	Regulations on atmospheric emissions and wastewater discharge	Implementation of detailed compliance audits
		Carbon pricing	Energy saving (evaluation, investment and activities)
		Reduction of emissions	
Display of environmental labels		Development and marketing of eco-friendly products	
Renewable energy	Cost reduction and promotion of renewable energy		
Water	Physical risks	Supply shortage, seasonal and interannual fluctuations	Reduction of water withdrawal, formulation of emergency countermeasures, development of infrastructure
		Flood and drought	
		Deterioration of water quality	
	Regulatory risks	Restriction on water withdrawal/discharge	
		Soaring water prices	
	Reputation risks	Opposition from the local community	
Negative media coverage			
Waste	Difficulty in the disposal due to disqualification of the disposer, etc.	Reduction and recycling of waste, management of the disposer through on-site checks	
	Notification of difficulty in the disposal from the disposer		
Chemical substances	Certification that no prohibited substances are contained in products	Evaluation at the development stage and management at the purchase and manufacturing stages	
Environmental accidents	Shut-down (suspension) of operation	Prevention through the evaluation of facilities	
Non-compliance with law	Shut-down (suspension) of operation	Implementation of detailed compliance audits	
	Payment of fine		

<Direct risks> Investment in equipment for responses to regulations, increases in energy cost, restriction on energy use, shut-down (suspension) due to wind or water damage

<Indirect risks> Increases in the costs of raw materials, energy, water, waste, etc., suspension of operation due to an accident or non-compliance with law

## Education and Training

We provide systematic education programs on environmental conservation

To realize environmental management, the Sumitomo Electric Group works to enhance every employee's environmental awareness and knowledge. We provide all employees with education on the history of measures to protect the global environment as well as the Group's environmental policy and the Action ECO-22V Campaign.

The managerial post-based career training program involves legal and general education on the environment. Since fiscal 2014, the program has been provided through on-site practical training sessions including on-site inspection of environmental facilities to enhance sensibility in environmental management. We also organize training on environmental laws and technical education on chemical management and other issues on a regular basis. Training for assistant plant managers was added to the program in fiscal 2018.

Training opportunity	Title of the training
Career (managerial post-based)	• Position-based training
Nomination-based	• Training on the management of poisonous and deleterious substances • Training on the notification of facilities subject to environmental laws
Optional	• Professional education on environmental laws • Training on energy saving design • Training on the Japanese Chemical Substances Control Act • PRTR (Pollutant Release and Transfer Register) training • Training on the management of chemical substances in products
On-site	• Training on Energy Saving Handbook • Action ECO-22V

## Global Environmental Audits

We implement audits of overseas sites, as well as sites in Japan, according to the environmental laws in the countries and regions where they are located

### 《 Environmental legal compliance audit 》

In addition to examinations based on ISO 14001, the Sumitomo Electric Group implements environmental audits with focus on compliance with environment-related laws and the efforts in the Action ECO-21 Campaign to ensure compliance with relevant laws and reduce environmental impact. The first round of the audits of all manufacturing sites in Japan was started in fiscal 2008 and completed in fiscal 2011, and we have conducted the second round since fiscal 2016.

Environmental audits of manufacturing sites outside Japan were also launched in fiscal 2010. As of the end of fiscal 2018, we have completed 48 of the 53 sites subject to audits: We are planning the audits with focus on our sites in China in fiscal 2019.

### 《 Evaluation of Facilities That May Affect Water Quality 》

In response to a revision of Japanese Water Pollution Control Law in 2012, we started the evaluation of facilities that use any of the hazardous substances, designated substances, oils, etc. and may thereby affect water quality. The equipment and ancillary facilities are inspected to assess the management status on the check items set for each of the parts such as liquid storage and pipes.

In Japan, we completed the first round of the evaluation by fiscal 2016 and have conducted environmental audits that combine legal compliance checks with evaluations on water quality since fiscal 2016. We also started the evaluation of overseas sites in fiscal 2013 and conduct environmental audits that combine legal compliance checks with evaluations on water quality as we do in Japan.



## 《 Check of the Progress in the Activities of the Action ECO-22V Campaign 》

We have set check items for environmental audits and evaluate the activities and progress.

## 《 Confirmation of Legal Compliance 》

In fiscal 2018, five violations of laws and regulations (cases where guidance, recommendation or order to pay fine was issued by the authority) were reported by Sumitomo Electric

and its Group companies to the Safety & Environment Department of Sumitomo Electric.

An affiliate in Taiwan received an order to pay a fine from the authority for non-compliance in April 2018, and so did an affiliate in China in May 2018 and April 2019.

We will continue to strive for a proper understanding of the regulations in the respective regions to ensure thorough compliance.

## Environmental Accounting

	Financial items									Non-financial items	
	Investment (million yen)			Expense (million yen)			Economic effect (million yen)			Change factors in FY 2018 (in Japan)	Strategy/opportunity and risk
	2016	2017	2018	2016	2017	2018	2016	2017	2018		
Reduction of greenhouse gas (GHG) emissions	Investment in energy saving (Note 1)			/			Reduction of energy cost (Note 1)			GHG emissions (thousand tons-CO <sub>2</sub> e/year) 900 – 750 – 600 – 450 – 300 – 150 – 0 2017 727 0 49 Actual change ▲68 2018 (Fiscal year) 708 Change due to boundaries change Change due to sales change	We set no increase in CO <sub>2</sub> emissions from the FY2017 level as a KPI for fiscal 2022. To achieve it, we have defined the target of reducing energy consumption per unit of sales by 1% from the fiscal 2017 level and make various energy saving efforts. These activities are also important for the reduction of energy cost. The knowledge learned through the activities is also introduced into overseas Group companies.
	1,034	2,630	2,857				882	723	268		
Waste reduction	Investment in resource saving and recycling (Note 2)			Waste disposal cost (Note 3)			Sale of valuables materials (Note 3)			Amount of waste (excluding valuable materials) (thousand tons/year) 50 – 40 – 30 – 20 – 10 – 0 2017 39.3 0 2.7 Actual change ▲4.8 2018 (Fiscal year) 37.2 Change due to boundaries change Change due to sales change	We have set the target of reducing the amount of waste per unit of sales by 1% from the fiscal 2017 level and take various resource-saving measures. To reduce the amount of waste, we are promoting the conversion of waste into valuable materials. While the amount of waste has increased due to the suspension of imports of recyclable waste by China, we will continue the activities to sell valuable materials produced from waste through the concentration of waste liquid, etc. as a method to reduce the amount.
	61	18	0	1,175	1,294	1,240	127	69	43		
Cost of management activities	/			1,049	975	934	/			Cost of environmental organization, ISO 14001 registration and maintenance, etc.	ISO 14001 is the core of our environmental management activities, and the certification is requested by customers.
Cost of social activities	/			10	9	8	/			Cleanup of areas outside company sites, external environmental education, etc.	We consider cleanup of the neighboring areas as a basic social activity, and will continue our commitment to communication with local communities through this initiative.
Cost of environmental remediation	/			52	8	11	/			Restoration of contaminated soil and groundwater	We continuously restore the contaminated soil and groundwater identified in our facilities.

Boundaries of tabulation: Sumitomo Electric + affiliates in Japan

(Note 1) Only the amount of investment in the activities mainly aimed at energy saving among the activities certified as "energy saving activities" by the Energy Saving Office of the Safety & Environment Department is subject to the calculation (the activities mainly for the purposes other than energy saving, such as renewal of aging facilities and peak cut, are not covered). The economic effect includes that of the energy saving activities in which no investment has been made.

(Note 2) The amount of investment does not include investment related to efficient use of resources but covers investment for reduction of waste generation and recycling.

(Note 3) The cost is calculated based on payment to the waste disposal contractor. Metals are not included in the calculation of either cost or economic effect.

(Note 4) Change due to boundaries change: Emissions or amount of waste in fiscal 2017 from the boundaries of collection newly added or excluded in fiscal 2018 (no boundaries were newly added or excluded in this fiscal year).

Change due to sales change: [Emissions or amount of waste in fiscal 2017 from the boundaries of collection for fiscal 2018] x (Sales in fiscal 2018 / Sales in fiscal 2017 - 1)

Actual change: Calculated by subtraction

# Activities to Prevent Global Warming

## Reduction of Greenhouse Gas Emissions

Our greenhouse gas (GHG) emissions decreased from the base year both in Japan and overseas

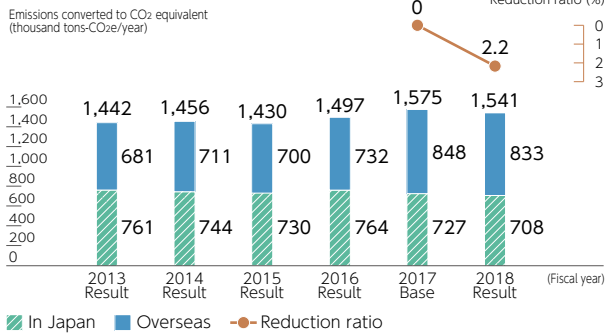
The Sumitomo Electric Group sets the target for fiscal 2022 of achieving no increase in GHG emissions from the fiscal 2017 level as an initiative to prevent global warming.

We have conventionally positioned the promotion of energy saving as a core target in our environmental activities and promoted it actively in our sites and divisions.

With the Energy Saving Office serving as the organizer, we have appointed a new task committee member from each division to encourage the divisions to promote energy saving activities in a more organized and autonomous manner. With these efforts, improvement of energy efficiency in our overseas companies is in progress while we are shifting our production facilities to overseas sites.

With these activities and partly due to a decrease in CO<sub>2</sub> emission factor for electricity, in fiscal 2018 our GHG emissions decreased from the previous fiscal year level both in Japan and overseas despite an increase in the production volume in the Group as a whole. The emissions in the whole Group declined by 2.2% from the fiscal 2017 level.

### Greenhouse Gas Emissions and Reduction Ratio (in Japan and overseas)



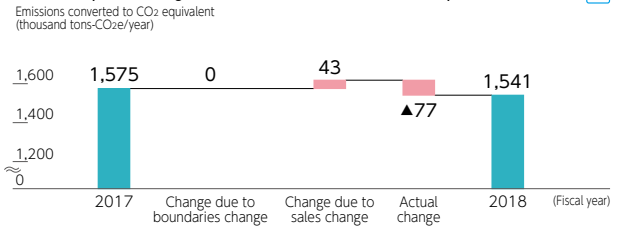
(Note 1) The results in fiscal 2017 and thereafter were calculated as mentioned below.  
 GHG emissions are calculated based on the Greenhouse Gas Emissions Accounting and Reporting Manual Ver. 4.3.2 (2018) by the Japanese Ministry of the Environment and Ministry of Economy, Trade and Industry (except the emission factors, which are mentioned below).  
 Basic policy on the emission factors: The latest available emission factors at the time of the calculation are used for purchased electricity while fixed emission factors are used for other than purchased electricity.  
 CO<sub>2</sub> emission factor for purchased electricity:  
 [In Japan] Adjusted emission factor of each electricity power supplier published in the "Disclosure of basic emission factor, adjusted emission factor, etc. of each electricity power supplier for fiscal 2017" (2018) by the Japanese Ministry of the Environment  
 [Overseas] Emission factor in each country for 2016 mentioned in "CO<sub>2</sub> Emissions from Fuel Combustion 2018" (2018) by IEA  
 CO<sub>2</sub> emission factor for other than purchased electricity (excluding GHG emissions from non-energy sources):  
 [Both in Japan and overseas] Emission factor in "Guidelines for accounting of greenhouse gas emissions from industrial commercial sectors" (2003) by the Japanese Ministry of the Environment  
 CO<sub>2</sub> conversion factor for GHG emissions from non-energy sources:  
 [Both in Japan and overseas] Global warming potential in "Greenhouse Gas Emissions Accounting and Reporting Manual Ver. 4.3.2" (2018) by the Japanese Ministry of the Environment and the Ministry of Economy, Trade and Industry

(Note 2) The results for the period from fiscal 2013 to 2016 were calculated as mentioned below.  
 GHG emissions are calculated based on the Greenhouse Gas Emissions Accounting and Reporting Manual Ver. 3.5 (2014) by the Japanese Ministry of the Environment and Ministry of Economy, Trade and Industry (except the emission factors, which are mentioned below).  
 Basic policy on the emission factors: fixed emission factors are applied  
 CO<sub>2</sub> emission factor for purchased electricity:  
 [In Japan] Actual emission factor of each electricity power supplier published in the "Disclosure of actual emission factor, adjusted emission factor, etc. of each electricity power supplier for fiscal 2012" (2013) by the Japanese Ministry of the Environment  
 [Overseas] Emission factor in each country for 2011 mentioned in "CO<sub>2</sub> Emissions from Fuel Combustion Highlights 2013" (2013) by IEA  
 CO<sub>2</sub> emission factor for other than purchased electricity:  
 [Both in Japan and overseas] Emission factor in "Guidelines for accounting of greenhouse gas emissions from industrial commercial sectors" (2003) by the Japanese Ministry of the Environment

(Note 3) The figures in fiscal 2017, which was the base year for the target, and thereafter were calculated with seven companies including SEEV and SSWT newly added for data collection. As a result of the change in the boundaries of data collection, overseas GHG emissions in fiscal 2017 increased by 157 thousand tons-CO<sub>2</sub>e.

(Note 4) The CO<sub>2</sub> emission factor for purchased electricity in Japan was changed from basic emission factor to adjusted emission factor for the calculation of figures in fiscal 2017 and thereafter. The impact of this change on the calculation of GHG emissions is only minor.

### Factor Analysis of Changes in Greenhouse Gas Emissions (in Japan and overseas)

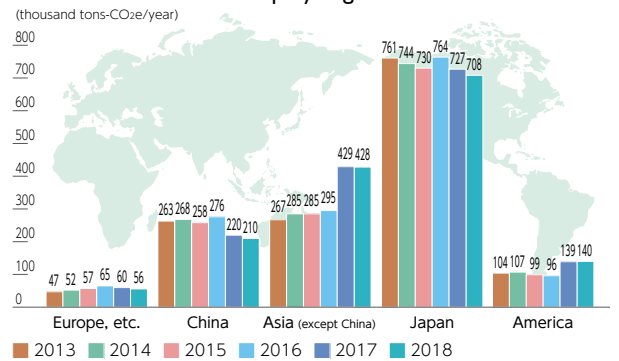


(Note 1) Change due to boundaries change: Emissions in fiscal 2017 from the boundaries of collection newly added or excluded in fiscal 2018.  
 Change due to sales change: [Emissions in fiscal 2017 from the boundaries of collection for fiscal 2018] x (Sales in fiscal 2018 / Sales in fiscal 2017 - 1)  
 Actual change: Calculated by subtraction

(Note 2) The figures in fiscal 2017, which was the base year for the target, and thereafter were calculated with seven companies including SEEV and SSWT newly added for data collection. As a result of the change in the boundaries of data collection, overseas GHG emissions in fiscal 2017 increased by 157 thousand tons-CO<sub>2</sub>e.

(Note 3) The CO<sub>2</sub> emission factor for purchased electricity in Japan was changed from basic emission factor to adjusted emission factor for the calculation of figures in fiscal 2017 and thereafter. The impact of this change on the calculation of GHG emissions is only minor.

### Greenhouse Gas Emissions from the Global Operations of the Sumitomo Electric Group by Region



(Note 1) The figures in fiscal 2017, which was the base year for the target, and thereafter were calculated with seven companies including SEEV and SSWT newly added for data collection. As a result of the change in the boundaries of data collection, GHG emissions in Asia and America in fiscal 2017 increased by 105 thousand tons-CO<sub>2</sub>e and 52 thousand tons-CO<sub>2</sub>e, respectively.

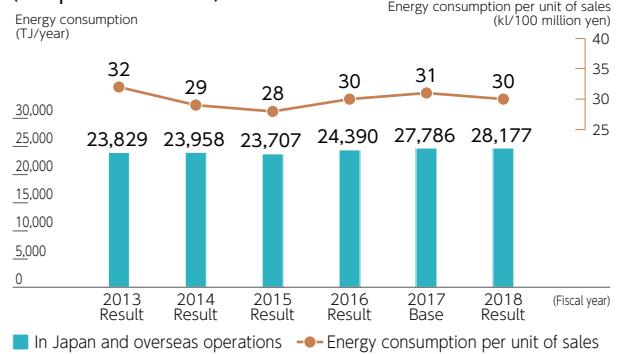
(Note 2) The CO<sub>2</sub> emission factor for purchased electricity in Japan was changed from basic emission factor to adjusted emission factor for the calculation of figures in fiscal 2017 and thereafter. The impact of this change on the calculation of GHG emissions is only minor.

## Reduction of Energy Consumption

Production efficiency has been improved

In fiscal 2018, we reduced energy consumption per unit of sales by 1.3% from the fiscal 2017 level. This improvement was attributed to the steady efforts of our divisions to raise energy efficiency. In the future, we will continue the evaluation of energy consumption per unit of production in each division for further improvement, and strive to meet the target for the whole Group through the achievement of the target in each division.

### Energy Consumption and Energy Consumption per Unit of Sales (in Japan and overseas)



(Note 1) Energy consumption per unit of sales: Crude oil equivalent of energy consumption divided by sales  
 (Note 2) The figures in fiscal 2017, which was the base year for the target, and thereafter were calculated with seven companies including SEEV and SSWT newly added for data collection. As a result of the change in the boundaries of data collection, energy consumption in fiscal 2017 increased by 3,146 TJ.

## Emission data for Scope 3

### We provide data to CDP\*

In fiscal 2014, we increased the number of the categories for Scope 3 of CDP to publish our emission data, and we started to receive independent assurance on Category 4: Upstream transportation and distribution.

### Greenhouse Gas Emissions in FY2018 (thousand tons-CO<sub>2</sub>e/year)

Scope 1		209	✓
Scope 2		1,332	✓
Scope 3		8,272	
Category	Description		
1	Purchased goods and services	2,442	
2	Capital goods	538	
3	Fuel- and energy-related activities not included in Scope 1 or Scope 2	262	
4	Upstream transportation and distribution	38	✓
5	Waste generated in operations	30	
6	Business travel	35	
7	Employee commuting	78	
8	Upstream Leased Assets	—	
9	Downstream Transportation and Distribution	—	
10	Processing of Sold Products	—	
11	Use of Sold Products	4,848	
12	End-of-Life Treatment of Sold Products	—	
13	Downstream Leased Assets	—	
14	Franchises	—	
15	Investments	—	

(Note 1) (-) indicates that the calculation method is under consideration or the category is not applicable.  
 (Note 2) Scope 1: Direct emissions from the use of fossil fuels, etc. in our facilities (including SF<sub>6</sub> and other greenhouse gases)  
 Scope 2: Indirect emissions from the use of electricity and steam supplied from outside our facilities  
 Scope 3: Total emissions not only from the reporting organization but also from all sources related to its business activities  
 (Note 3) The data for Category 4 in the table above cover logistics data in Japan only.  
 (Note 4) Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain, Ver. 2.2 of the Japanese Ministry of the Environment were referred to for the calculation.

## Energy Saving Activities in Production Units

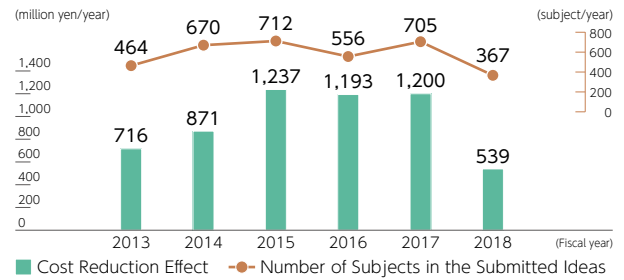
### We are working to reduce wasteful use and improve efficiency with the effects of ideas for energy efficiency improvement

#### 《Energy Efficiency Improvement Measures to Reduce Energy Use》

We work to meet the group-wide energy saving target of reducing energy consumption per unit of sales by 1% per annum from the fiscal 2017 level in the Action ECO-22V Campaign. Meanwhile, Group companies and divisions set the target of reducing energy consumption per unit of production by 1% per annum from the fiscal 2017 level and strive to meet it through the discovery of subjects for energy saving and promotion of activities in a planned manner. In fiscal 2018, while the target was a reduction of 1% from the fiscal 2017 level, we reduced energy consumption per unit of production by 2.2%.

The number of subjects in the submitted ideas and cost reduction effect are presented below.

### Number of Subjects in the Submitted Ideas and Cost Reduction Effect by Fiscal Year



### 《Specific Measures》

To promote energy saving activities of Group companies and divisions, we have taken such measures as energy saving evaluation, measurement-based evaluation, adoption of relevant technologies and development and evaluation of new technologies, and proposed new ideas. From fiscal 2016, in addition to the proposal of ideas, we promote cooperation in priority areas, in which we actually implement improvement activities in cooperation with divisions, and continuously enhance other initiatives by conducting the PDCA cycle to ensure the improvement of the effectiveness. The specific measures are described below.

#### ●Measurement-based evaluation :

We use ultrasonic wave or infrared based instruments to determine the volume of steam and compressor air leaks. In addition to judgment on whether there is a leak or not, expected cost reduction effects are shown in a quantitative manner to facilitate improvements. We started to promote IoT-based diagnosis in fiscal 2018 for the monitoring of data in remote sites, which has been effective for the elimination of wasteful power consumption and the prompt detection of problems in equipment.

#### ●Development and evaluation of new technologies :

Among the latest energy-saving technologies that have not been introduced in our group, we identify those that are likely to be effective and evaluate their performance. We initiated measures that focus on the recovery of waste heat to make effective use of unused heat in fiscal 2018. The new technologies evaluated as being effective will be adopted on a group-wide scale in the future.

#### ●Cooperation in priority areas :

Divisions and the Manufacturing Management & Engineering Unit closely cooperate for improvement of overall efficiency while giving priority to the divisions with a relatively large share in energy consumption. In addition to tangible aspects such as equipment, intangible aspects such as production engineering are also considered in the improvement activities.

## Energy Saving Activities in Offices

### We are working to make employees always aware of energy saving

We have assigned a member and a vice member of the Workplace ECO Activity Promotion Committee in each workplace in the head offices, district offices and branch offices. The committee members perform and promote the following activities:

- ① Dressing cool in summer and warm in winter, to keep air conditioning moderate
- ② Turning off all office lights during lunch break
- ③ Turning off lights and air conditioners in meeting rooms and toilets when not in use
- ④ Introducing economy mode for PCs and power-saving OA devices on a preferential basis
- ⑤ Using zone lighting during overtime hours

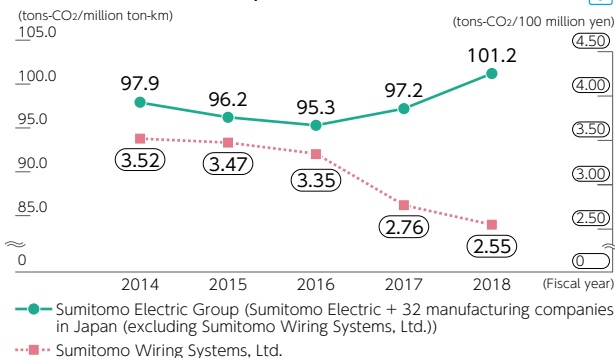


# Reduction of CO2 Emissions in Logistics

## Changes in per-unit CO2 emissions from transportation in Japan

Per-unit CO2 emissions from transportation in Japan were reduced by approximately 7.8% from the fiscal 2017 level in Sumitomo Wiring Systems, Ltd. but increased by approximately 4.1% in Sumitomo Electric (Note 1). The emissions in the Sumitomo Electric Group as a whole decreased by approximately 0.6% (Note 2). Sumitomo Wiring Systems, Ltd. raised the loading ratio of trucks to reduce the number of long-distance regular transport services and also reviewed the transportation network to shorten the transportation distance, which led to the improvement of about 8%. In Sumitomo Electric, with the aim of reducing emissions from the delivery of high-strength steel wires from Itami Works, the number of transport services to Fukushima Prefecture was reduced and the port of shipment for exports to Thailand and other destinations was changed to shorten transportation distance in Japan. Other efforts to reduce emissions included the improvement of efficiency in the transportation of overhead transmission cable from Ibaraki Pref. to Saga and Yamaguchi Pref. Nevertheless, the emissions increased by approximately 4.1% year-on-year for reasons including the use of truck and coastal transportation mainly to Hiroshima Pref. and Kyushu Area for the delivery of products including copper wire rods from Osaka Works, high-strength steel wires from Itami Works and electric wires to be used in indoor wiring from Hiroshima Plant instead of railway transportation, which was unavailable due to long-time disconnection in some sections of JR Sanyo Line as a result of the heavy rain in western Japan, as well as a decrease in the use of railway and coastal transportation due to a decline in the orders of copper wire rods.

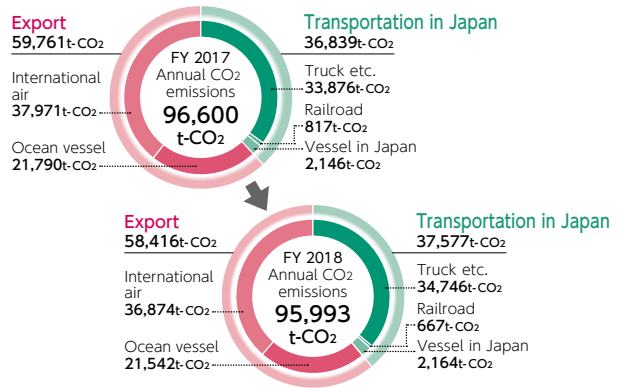
### Per Unit CO2 emissions by Year



(Note 1) Sumitomo Electric and its 32 manufacturing companies in Japan (excluding Sumitomo Wiring Systems, Ltd.)  
 (Note 2) Per unit CO2 emissions in the Sumitomo Electric Group compared with the previous fiscal year  
 Sumitomo Wiring Systems, Ltd. adopts CO2 emissions per sales amount as the basis for the calculation while other Group companies use CO2 emissions per cargo transport (t-km). Therefore, the weighted average of each year-on-year CO2 emission reduction rate is calculated based on the CO2 emissions.

## Changes in CO2 emissions from transportation

CO2 emissions from transportation in Japan increased by approximately 5.1% in Sumitomo Electric and decreased by approximately 2.8% in Sumitomo Wiring Systems, Ltd. from the fiscal 2017 level. The emissions in the Sumitomo Electric Group as a whole increased by approximately 2.0% to 37,577 tons. CO2 emissions from exports from Japan declined by approximately 9% in Sumitomo Electric due to a decrease in the use of international flights to Europe and North America and marine transportation to North America while the emissions increased by approximately 6% in Sumitomo Wiring Systems, Ltd. with an increase in the use of international flights. The emissions in the Sumitomo Electric Group as a whole decreased by approximately 0.6% from the fiscal 2017 level to 95,993 tons. We will continue to work on group-wide efforts to reduce CO2 emissions.

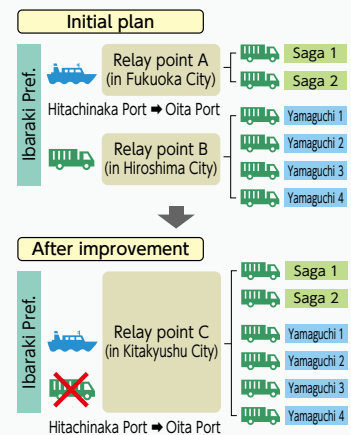


(Note) Boundaries of data collection: Sumitomo Electric + 32 manufacturing companies in Japan + Sumitomo Wiring Systems, Ltd.  
 CO2 emissions in Japan are calculated on an improved ton-kilometer basis and a fuel-efficiency basis. CO2 emissions from export activities are calculated using the conventional ton-kilometer method. Based on the simple calculation tool for logistics CO2 emissions by Policy Research Institute for Land, Infrastructure, Transport and Tourism (PRILIT)

## Improvement of efficiency in the transportation of overhead transmission cable from Ibaraki Pref. to Yamaguchi and Saga Pref.

We reviewed the route and means of the transportation of the aluminum overhead transmission lines delivered from the aluminum wire plant in Hitachi, Ibaraki Prefecture to the installation sites in Yamaguchi and Saga Prefectures to improve the efficiency. We originally planned to take two separate routes for the delivery as the customers are different. To deliver the products according to the respective schedules of the installation works, we originally planned the construction of a warehouse for temporary storage in both Hiroshima and Fukuoka Pref. We also considered coastal transportation from the plant to the warehouse for delivery to Saga and land transportation by 15-ton trucks for delivery to Yamaguchi. However, it was difficult to prepare more than 90 trucks in total and inefficient to set up warehouses in two locations. Accordingly, we decided to construct a warehouse on a site in Kitakyushu City after coordination with both customers through the respective sales staff in charge to improve the operation. We also shifted all of the transportation from the plant to the warehouse to coastal transportation in order to reduce truck transportation. In addition, the establishment of the warehouse in Kitakyushu reduced the distance for the delivery to the destinations in Yamaguchi.

Through these improvement measures, we reduced CO2 emissions from the transportation, which delivered 432 cables of approximately 1,430 tons in total over 10 months from June 2018 to March 2019, by approximately 51 tons.



Sumitomo Electric has acquired certification as a company engaged in the initiatives of Eco Rail Mark\* from the Railway Freight Association.



### Glossary \* Eco Rail Mark

A certification mark awarded by the Ministry of Land, Infrastructure, Transport and Tourism, Government of Japan. The use of the mark is allowed only for products or companies that use rail transportation, which generates relatively less CO2 emissions and is therefore environmentally friendly, in accordance with designated criteria. The mark included in packages and advertisements of products serves as a judgment standard for customers' purchase decisions.

# Promotion of Resource Conservation and Recycling

## Efforts to Achieve Zero Emissions and Reduce the Amount of Waste (in Japan)

We aim to manage waste in a proper manner

### 《Promotion of Zero Emissions》

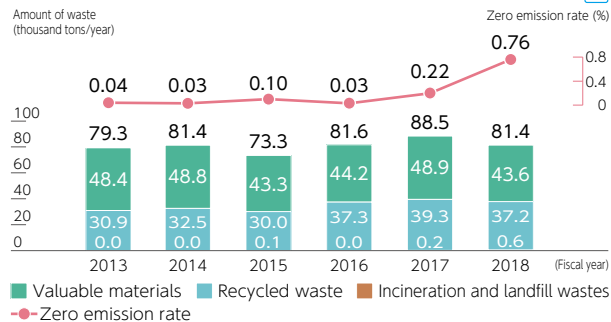
To help solve social problems such as shortage of landfill sites and illegal waste dumping and to make effective use of resources, it is necessary to avoid landfilling of industrial waste without serious efforts and recycle waste to the extent possible. The Sumitomo Electric Group works to reduce the zero emission rate.

The rate increased year-on-year in fiscal 2018 due to the issue of waste plastic in China.

$$\text{Zero emission rate (\%)} = \frac{\text{Amount of waste incinerated without heat recovery} + \text{Amount of landfill waste}}{\text{Amount of industrial waste} + \text{Amount of general waste} + \text{Amount of valuable materials}} \times 100$$

(Note) From the Action ECO-21 (Phase VI) Campaign launched in fiscal 2015, all valuable materials, part of which were not included in the denominator until fiscal 2014 (the materials that were already treated as valuables in fiscal 2000), are included in the denominator.

### Amount of Waste and Zero Emission Rate (in Japan)



(Note) The results in fiscal 2017 have been corrected retrospectively for the improvement of accuracy.

### 《Reduction of the Amount of Waste》

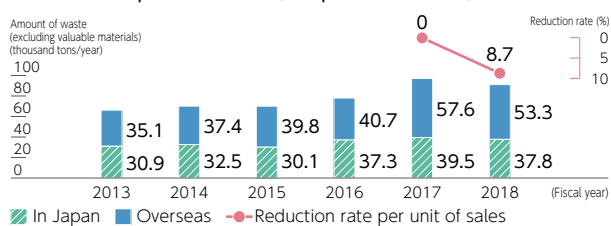
The Sumitomo Electric Group is also committed to reducing the amount of industrial waste generated in its facilities by improving production efficiency.

To reduce the amount of waste, we promote conversion of the waste into valuable materials through separation and search of uses, and also focus on reduction of defects and review of the process that caused defects in production sites, which are fundamental activities for manufacturing, as well as in-house reuse of the waste generated and reduction of waste volume.

In fiscal 2018, we reduced the amount of waste per unit of sales by 8.7% through our efforts for the Action ECO-22V Campaign despite changes in the treatment mode as a result of the restriction on the imports of waste plastic in China, which occurred in fiscal 2017, as well as troubles in the waste liquid treatment equipment.

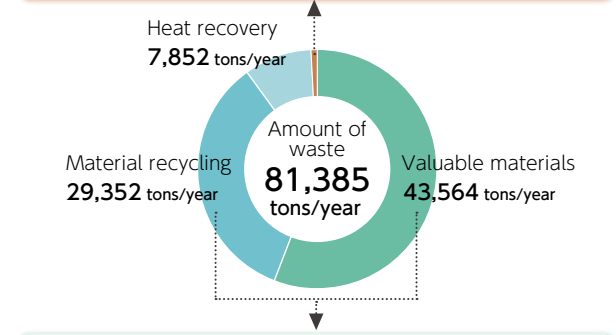
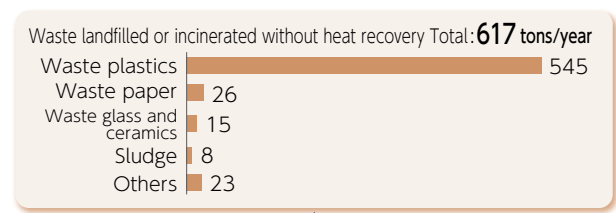
We will continue to make efforts with focus on recycling of plastic through the thorough separation of waste plastic and the reduction of unneeded materials generated through waste liquid treatment.

### Amount of Waste (excluding valuable materials) and Reduction Rate per Unit of Sales (in Japan and Overseas)

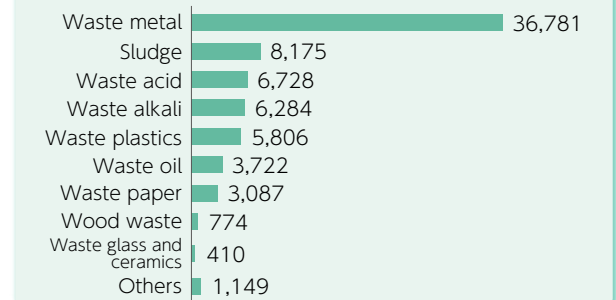


(Note) Amount of waste per unit of sales: Amount of waste (excluding valuable materials) divided by consolidated sales

### Amount of Waste by Type in FY 2018 (in Japan)



### Amount of recycled waste Total: 72,916 tons/year



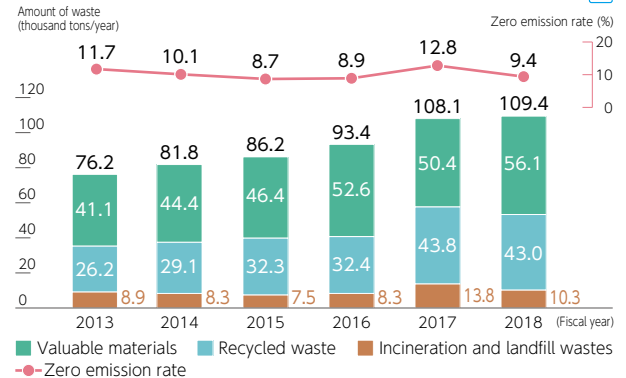
## Reduction of the Waste to Be Incinerated Without Heat Recovery or Landfilled (Overseas)

### Waste management outside of Japan

While the situation of landfill sites overseas is different from that in Japan, we work to refrain from landfilling industrial waste without efforts and recycle and convert waste into valuable materials to the extent possible through separation of waste and other efforts to maintain proper waste management.

We also operate in countries where the environment for recycling has not been developed, and will be continuously committed to the reduction of the zero emission rate on a global scale.

### Amount of Waste and Zero Emission Rate (Overseas)



(Note) • The figures in fiscal 2017, which was the base year for the target, and thereafter were calculated with four companies including SEEV and SSWT newly added for data collection. As a result, the amounts of valuable materials, recycled waste and incineration and landfill wastes in fiscal 2017 increased by approximately 2.1 thousand tons, 9.9 thousand tons and 2.9 thousand tons, respectively.  
• The results in fiscal 2017 have also been corrected for the improvement of accuracy.  
• The data for waste indicators in three companies including KPMC\* are not included in the collection of data on the environmental performance indicators because they are still working to establish a system.

# Reduction of the Release of Harmful Chemical Substances

## Chemical Substance Management System

We have established an original system to unify the management of chemical substances

The Sumitomo Electric Group established a chemical management system, and started the management of poisonous and deleterious substances and PRTR-designated substances in Sumitomo Electric's three Works in Osaka, Itami and Yokohama, and our affiliates in the Works in fiscal 2011. The system is also used to collect data for reporting under the PRTR Law\*.

In fiscal 2012, domestic affiliates outside the three Works also launched the operation of this system in sequence, which enabled the search of the companies using poisonous and deleterious substances and safety data sheets (SDS) concerning all poisonous and deleterious substances used in affiliates in Japan.

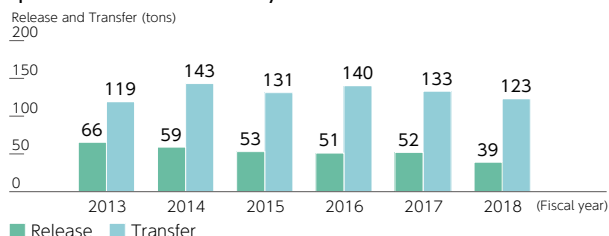
We will continue our efforts to enhance the management of chemical substances used in the Group.

## Release and Transfer of Chemical Substances Specified in the PRTR Law

The whole Group, including overseas affiliates, is submitting reports in accordance with the applicable laws

Sumitomo Electric and its affiliates in Japan, using the chemical substance management system developed by the Company, measure the amount of PRTR substances treated per month, and calculate the amount of these substances released and transferred in order to report annually in accordance with the law. A total of 42 sites of Sumitomo Electric's Osaka and Yokohama Works and 25 Group companies submitted such reports for fiscal 2018. Sumitomo Electric Group's total release and transfer of PRTR-designated substances in Japan were 39 tons and 123 tons, respectively.

### Release and Transfer of Chemical Substances Specified in the PRTR Law by Year



\* The amounts are calculated in accordance with PRTR Release Estimation Methods Manual, version 4.1 (2011) by the Ministry of the Environment and the Ministry of Economy Trade and Industry of Japan.

### Release and Transfer of Chemical Substances Specified in the PRTR Law

Chemical substance	Release					Transfer			Total amount
	Into air	Into water	Into soil	Into landfill	Total release	By sewage	By disposal	Total transfer	
Phenol	4.9	0.0	0.0	0.0	4.9	0.0	13.8	13.8	18.7
1,2-dichlorobenzene	4.3	0.0	0.0	0.0	4.3	0.0	14.0	14.0	18.3
Nickel compounds	0.0	0.2	0.0	0.0	0.2	0.0	15.3	15.3	15.5
Toluene	11.0	0.0	0.0	0.0	11.0	0.0	4.3	4.3	15.3
Cresol	3.0	0.0	0.0	0.0	3.0	0.0	8.9	8.9	11.9
ethanolamine	0.0	0.0	0.0	0.0	0.0	0.4	8.3	8.7	8.7
Lead	0.0	0.0	0.0	0.0	0.0	0.0	8.4	8.4	8.4
Formaldehyde	0.0	0.0	0.0	0.0	0.0	0.0	6.5	6.5	6.5
Bis(2-ethylhexyl) phthalate	0.0	0.0	0.0	0.0	0.0	0.0	6.5	6.5	6.5
1-bromopropane	5.2	0.0	0.0	0.0	5.2	0.0	0.4	0.4	5.6
37 other substances	9.1	1.1	0.0	0.0	10.2	0.2	36.0	36.2	46.4
<b>Total</b>	<b>37.5</b>	<b>1.3</b>	<b>0.0</b>	<b>0.0</b>	<b>38.8</b>	<b>0.6</b>	<b>122.4</b>	<b>123.0</b>	<b>161.8</b>

(Unit: tons)

Chemical substance	Release					Transfer			Total amount
	Into air	Into water	Into soil	Into landfill	Total release	By sewage	By disposal	Total transfer	
Dioxins	1	0	0	0	1	0	2	2	3

(Unit: mg-TEQ)

(Note) Boundary of data collection: Sumitomo Electric + PRTR obligatory companies among its affiliates in Japan

## Reduction of the Release of Chemical Substances Specified in the PRTR Law

We are committed to reducing the release of chemical substances specified in the PRTR Law

We will be committed to reducing the absolute amount of the release of chemical substances specified in the PRTR Law by 5% as an initiative of the Action ECO-22V Campaign from fiscal 2018 to fiscal 2022. In fiscal 2018, we made efforts to meet the target of reducing the amount by 1% from the fiscal 2017 level. We worked to cut the atmospheric release in the sites that release 1 ton or more to the air in a year to reduce the annual release by 25.0% from the fiscal 2017 level to 38.8 tons in fiscal 2018, which met the above-mentioned target.

## Soil and Groundwater Remediation

We disclosed the pollution status of three major Works (Osaka, Itami and Yokohama) in August 2001. At those three Works and other domestic sites where pollution has been identified through our surveys conducted thus far, we are continuing soil and groundwater remediation by soil replacement, groundwater pumping and soil gas absorption. We also conduct groundwater monitoring on a regular basis, and have confirmed that the pollution has not spread outside the sites.

## Measures against Dioxins and Asbestos

The aluminum alloy manufacturing facility and its exhaust gas purification facility at Sumitomo Electric Toyama Co., Ltd. are subject to the Law Concerning Special Measures against Dioxins. We have ensured that emissions from these facilities remain within regulated standards.

At present, the Sumitomo Electric Group produces no products using asbestos.

# Expansion of Environmentally Conscious Products

## Expansion of Environmentally Conscious Products

### We are actively promoting assessment and development of environmentally conscious products

Along with the reduction of environmental impact from our business activities, Sumitomo Electric is striving to increase environmentally conscious products as an initiative stated its environmental policy.

Our products are assessed to determine their levels of social and environmental contribution and classified into, for example, Eco Mind products, Eco-products and anti-global warming products based on the levels. The assessment results are also used for development of new products.

### 《“Eco Mind” Products》

We perform environmental assessment of products when developing new products, as well as when making major design changes to existing products. The products having undergone product assessment are registered as “Eco Mind” products in the Sumitomo Electric Group.

By the end of fiscal 2018, a total of 1,184 items have been registered as “Eco Mind” products.

### 《Eco-Products (Eco Symbol Program)》

Among “Eco Mind” products, the products with particularly outstanding environmental features are examined in accordance with our Eco Symbol Program, which is based on ISO14021, and those that meet the criteria are certified as “Eco-products.” Through this system, we aim to promote development of environmentally conscious products and strive to penetrate the market with them.

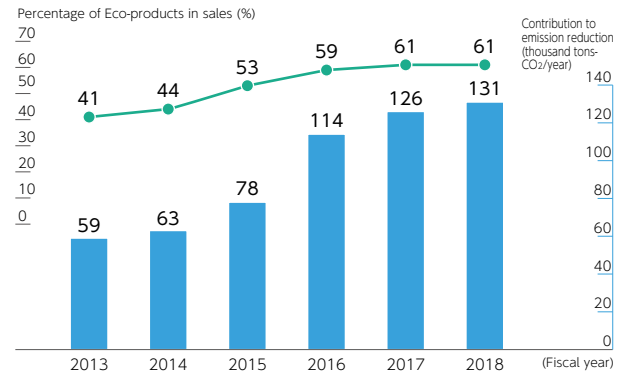
By the end of fiscal 2018, a total of 288 items have been registered as Eco-products. The sales ratio in fiscal 2018 was 61%.

### 《Anti-Global Warming Products》

In this system, we register the Eco products that especially contribute to the reduction of CO<sub>2</sub> emissions in the production stage or when they are used by customers, and calculate the reduction effect.

The products contributed to the reduction of CO<sub>2</sub> emissions by a total of 131 thousand tons in fiscal 2018.

### Percentage of Eco-Products in Sales and Contribution to the Reduction of CO<sub>2</sub> Emissions



Calculation method

The percentage of Eco-products in sales is calculated as the value of the shipments\* of the products certified Eco-products divided by the total value of shipments\*.  
 (\* Shipments are those from manufacturing departments in Japan. However, they exclude shipments from electronic conductor departments, which mainly work to supply intermediate goods within the Group.)



## Redox flow batteries of Sumitomo Electric keep evolving. We will further promote the dissemination of the batteries in the world to reduce environmental burdens.

Yokohama Works currently operates a total of eight redox flow batteries with a capacity of 4.5 MWh, which consist of four plant-type (first generation) units and four container-type (second generation) units, next to 15 concentrator photovoltaic panels with a total output of up to 130 kW. While the batteries are mainly operated for research purposes, some of them are sometimes used to supply energy to the Works.

Redox flow batteries are characteristically environmentally friendly. While lithium-ion batteries contain combustible metals such as lithium and sodium and accordingly involve a risk of fire, redox flow batteries, in which the constituent fluid is vanadium dissolved in dilute sulfuric acid, are highly safe and involve no risk of fire. They are also practically harmless to the environment and health. The fluid does not deteriorate even if it is used for many years and can be reused or recycled at the end of life. The chemical substances to be used can also be selected from among multiple options, which leads to the potential of launching more reasonable versions in the future.

The challenge of the low storage capacity per volume was solved with the container type, which is the second generation. The container type currently has a similar level of storage capacity per volume to that of lithium-ion batteries. Sumitomo Electric has a track record of providing long-life and large-scale (1 MWh or more) redox flow batteries, and I am confident that its technological know-how is highest in the world in terms of quality and quantity.

We will continuously work to advertise the advantages and reduce the introduction cost to establish the market of storage batteries.



**Nobuo Shiga**  
 Chief Engineer  
 Power Systems R&D Center  
 R&D Unit



Container type redox flow batteries



Concentrator photovoltaic (CPV) system



# Initiatives to Address Water Risks

## Basic Approach

The impact of global warming on the global environment has attracted much attention in recent years and water resource problems are also recognized as large risks that can affect the operation of the Sumitomo Electric Group. Institutional investors and clients require us to respond to the problems to sustain the operation. In addition to the shortage of water supply, water-related issues include deterioration of water quality, flood damage, tightening of relevant government regulations and relationships with communities in the neighborhood. The Sumitomo Electric Group is working to understand the current situation of these issues and taking measures to address them.

## Evaluation of Water Risks on a Global Scale

### We set up Water Risk Countermeasure Working Group

While Sumitomo Electric has used CDP questionnaires for information disclosure since fiscal 2016, we did not understand what water risks exist in the locations of our bases around the world or take measures to address them until the first half of 2017. Therefore, in the second half of the same year, we set an activity goal of "establishing a group-wide system to ensure that the production bases around the world independently understand the current situation of water risk, if any, identify the issues and design and implement measures to address them."

As the first specific initiative, we set up Water Risk Countermeasure Working Group with members recruited from divisions and affiliates in January 2018 to establish a system to promote the unification of the action procedures to be applied throughout our group.

Next, we evaluated water risks in a total of 184 areas where our production bases are located in Japan and overseas. Aqueduct\* was used as the tool to evaluate the risks based on 12 indicators in total, including water quantity, water quality, regulations and relations with neighboring communities, on a five-point scale. With the results of this evaluation based on Aqueduct, we identified 32 production bases in Japan and overseas with many high-risk items and surveyed them through interviews to understand the actual situation. We also conducted a similar evaluation using Aqueduct in fiscal 2018 and identified four bases in China where the risk was elevated by one level in comparison with that in fiscal 2017. This information will be used in the environmental audits of those bases.

## Development of the Activities on a Company-wide Scale

### We surveyed risks in our bases in Japan and overseas

On the basis of findings from the above-mentioned risk survey with Aqueduct, we prepared a questionnaire to understand the actual situation of water risks throughout the Sumitomo Electric Group based on the CDP 2019 water management indicators. The questionnaire was then distributed to the 93 production bases in Japan and overseas selected as the targets for the promotion of environmental activities to collect information on the risks.

As an overall result, none of the bases were facing any major risk that could result in stopping their operation. Accordingly, we are currently designing measures to avoid risks with priority given to the risks that are shared by multiple bases and could have a major impact if they occurred.

## Future Initiatives

### We will promote activities involving the supply chain

Incorporating the concept of the CDP 2019 water questionnaire into the management indicators, we aim to reach a level where the actual situation of water risks is understood and measures to address them are taken. We will place particular emphasis on the following issues because we recognize that our activities to address them are insufficient at present:

- (1) We will establish the governance, business strategy and target of our Group for water-related issues in addition to the reduction of water consumption.
- (2) We will diffuse the risks identified in the above-mentioned survey and examples of the countermeasures and share information throughout the Group.
- (3) We will also manage the suppliers (the supply chain) as an initiative to respond to water risks.

## Water Use Reduction

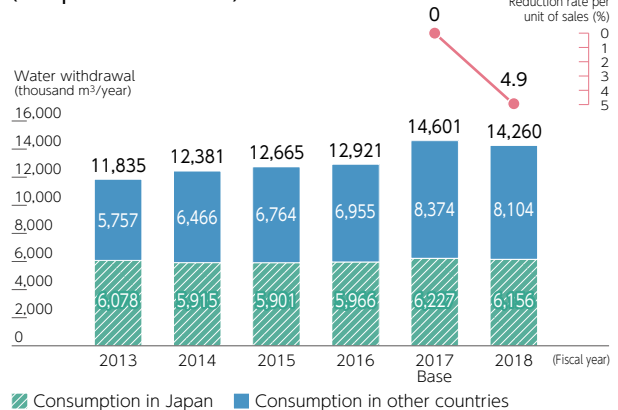
### We monitor the total amount of water withdrawal

While the Sumitomo Electric Group launched activities to reduce water consumption in fiscal 2008, we set targets for the reduction of water consumption (with fiscal 2017 as the base year) as internal indicators in fiscal 2018 and our bases have individually worked for the reduction since then. Our water consumption slightly increased year-on-year in fiscal 2018 partly due to the growth of production in domestic bases where a large volume of water is used. On the other hand, our water intake decreased from the fiscal 2017 level as a result of the efforts to reduce it in each of the bases. In terms of water withdrawal by source, we take 87% of water from municipal water and 13% from groundwater.

In the meantime, the destinations of the effluent are sewer systems (68%) and rivers (30%) while 2% is discharged into unknown destinations.

In the course of the reduction activities, we found water leakage in our facilities, which motivated us to promote efforts to address and manage water leakage in a steady manner. We are working to reduce water withdrawal through such initiatives as the reuse of effluent that used to be discharged.

**Water Withdrawal and Reduction Rate per Unit of Sales (in Japan and Overseas)**



(Note 1) Water withdrawal is calculated as the sum of the withdrawal of city water, industrial water and groundwater.  
 (Note 2) The figures in fiscal 2017, which was the base year for the target, and thereafter were calculated with four companies including SEEV and SSWT newly added for data collection. As a result, the water intake in fiscal 2017 increased by approximately 1,500 thousand m³.  
 \* Results in three companies including KPNC are not included in the collection of data on the environmental performance indicators because they are still working to establish a system to collect data for water indicators.

## Basic Approach

We work to understand the big picture of environmental burdens and reduce them with the basic idea that all of the environmental burdens accompanying business activities have an impact on the biodiversity. In addition, we promote initiatives that can help protect the biodiversity throughout the businesses of the Sumitomo Electric Group, including the expansion of environmentally conscious products.

## Material Balance (Environmental Impacts)

### INPUT

Raw materials	
Copper *	353 thousand tons
Iron	399 thousand tons
Aluminum	29 thousand tons
Resin	99 thousand tons
Chemical substances *	14 thousand tons
Product packaging materials	-

Energy	
Electricity	2,572 million kWh
LPG	8 thousand tons
City gas	55 million m <sup>3</sup>
Other fuels (converted into crude oil equivalent)	8 thousand kl

Water	
Water	14,260 thousand m <sup>3</sup>

Transportation fuel (converted into crude oil equivalent) *	14 thousand kl
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- **Materials (copper, iron, aluminum and resin):** Total quantity of the product materials managed on a weight basis (those used by a business unit in the amount of 100 tons or more in total)
- **Chemical substances:** Chemical Substances specified in the PRTR (Pollutant Release and Transfer Register) Law
- **Product packaging materials:** Corrugated cardboard, paper, resin and wood
- **Electricity:** Purchased from electric power companies
- **Other fuels:** Heavy oil, kerosene, gas oil and natural gas
- **Water:** City water, industrial water and well water (groundwater)
- **Transportation fuel:** Gasoline, gas oil etc.



### OUTPUT

Production and sales volume	
Product shipments	611 thousand tons

Atmospheric emissions	
CO <sub>2</sub>	1,489 thousand tons
Greenhouse gases other than CO <sub>2</sub>	52 thousand tons
Scope 1	209 thousand tons
Scope 2	1,332 thousand tons
Scope 3	8,272 thousand tons
NO <sub>x</sub> *	83 tons
SO <sub>x</sub> *	10 tons

Wastewater	
Wastewater	12,465 thousand m <sup>3</sup>

Wastes	
General wastes	18 thousand tons
Industrial wastes	74 thousand tons

Chemical substance emissions	
Into the air *	48 tons
Into the water *	1 tons
As industrial waste *	132 tons

CO <sub>2</sub> emissions *	38 thousand tons
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- **Product shipments:** Total shipments of the product materials managed on a weight basis (those shipped by a business unit in the amount of 100 tons or more in total)
- **CO<sub>2</sub>:** CO<sub>2</sub> emitted from the use of electricity, gas and fuels
- **Greenhouse gases other than CO<sub>2</sub>:** SF<sub>6</sub>, HFC, PFC and other greenhouse gases converted to CO<sub>2</sub> equivalent
- **NO<sub>x</sub>:** Nitrogen oxides emitted from the use of gas and liquid fuels
- **SO<sub>x</sub>:** Sulfur oxides emitted from the use of liquid fuels
- **Wastewater:** Wastewater discharged from plant production processes, and household wastewater
- **General wastes:** Non-industrial wastes (including paper, wood, fibers and other trash) generated through business activities (excluding valuable materials)
- **Industrial wastes:** Wastes specified in Japanese "Waste Management and Public Cleansing Law," including sludge, waste oils, waste acids/alkalis, waste plastics, metals, glass, ceramics, cinders and other substances generated through business activities (excluding valuable materials)

Boundaries of data integration Items with \*: Sumitomo Electric + affiliates in Japan; Items without \*: Sumitomo Electric + affiliates in Japan and overseas  
 ※In the Environment and Energy Group, which is included in the boundary of data collection, only data on the amount of the materials purchased by the Procurement Division of Sumitomo Electric alone are covered.

### Explanation of the Boundary

In promotion of environmental management, Sumitomo Riko Company Limited, Nissin Electric Co., Ltd. and Sumitomo Densetsu Co., Ltd., which are listed in the stock exchange in Japan, and their consolidated companies are excluded from the boundaries of the environmental management of the Sumitomo Electric Group although these companies are included in the boundaries of consolidation for financial reporting. When the comprehensiveness of the boundaries is assessed based on greenhouse gas (GHG) emissions, a representative environmental indicator, the emissions from the boundaries of the environmental management of our group, 1,541 thousand tons, account for the vast majority of 1,970 thousand tons, which are estimated GHG emissions from the boundaries of consolidation for financial reporting in fiscal 2018. In the meantime, out of the 247 consolidated subsidiaries excluding the 3 listed companies mentioned above, the environmental management of our group covers 151 companies in production units (42 in Japan, 33 in China, 38 in Asia (except China), 18 in the Americas and 20 in Europe and other in fiscal 2018). Our trial calculation indicates that environmental impact, such as GHG emissions, of the 151 companies is estimated to occupy 99% of that of the 247 subsidiaries.

## Promotion of CSR Activities in Affiliates

### Sumitomo Rubber Industries, Ltd.

<http://www.srigroup.co.jp/english/csr/>



GYROBLADE Airless Tire, a product for "Next (Next-Generation Product Development)," which eliminates the need for the repair of flat tires or air pressure management

Sumitomo Rubber Industries has created the Sumitomo Rubber Group's Basic CSR Philosophy in the belief that it is necessary to establish a clear code of conduct for the Group's overall CSR activities while pursuing social value even more actively.

This Basic Philosophy is composed of the CSR Philosophy and CSR Guidelines. Our CSR Philosophy proclaims that, through our CSR activities, the Sumitomo Rubber Group aims to become a corporate group that earns the trust of society and is always positively accepted by society. Meanwhile, our CSR Guidelines specify how we should act based on this philosophy. There are five core components to our CSR Guidelines: Green (as in green initiatives), Ecology (as in reducing the environmental impact of our business activities), Next (as in next-generation product development), Kindness (as in kindness to employees and others) and Integrity (as in integrity for all stakeholders). Put together, these components spell out the word "GENKI" (Japanese for "energetic") in reference to the Group's GENKI Activities, which is an internal initiative that we launched in 1988 with the aim of energizing employees. Based on the basic philosophy and guidelines behind our CSR activities, the Sumitomo Rubber Group will accelerate the development of its unique ESG activities and contribute to the achievement of SDGs.

### Sumitomo Wiring Systems, Ltd.

<https://www.sws.co.jp/en/csr/index.html>



PEARLS, a women's rugby team supported by Sumitomo Wiring Systems

Sumitomo Wiring Systems is committed to CSR activities while setting its eight priorities for them, including areas that can serve as centers and foundations for sustainable growth as well as our roles as better corporate citizens, which will enable the Sumitomo Wiring Systems Group to realize its ideal image ("Globally common best quality," "Trust, familiarity and accessibility" and "Living with local communities").

For "Global Environment Conservation," which is one of the

CSR priorities, we recognize the significant impact of corporate activities on the environment and promote initiatives to establish a sustainable society based on the Environmental Preservation Principles and the Environmental Preservation Action Guidelines under the slogan of "clean factories that lead to the future."

For "Contributing to Local Communities," more than 200,000 employees are continuously committed to community-based activities in their respective areas. As our initiatives for regional revitalization through the promotion of sports, we give support to PEARLS, a local women's rugby team, including the assistance of the players in their employment. As of April 2019, seven of the players belong to Sumitomo Wiring Systems. We also organized a sports festival mainly for the welfare of employees in conjunction with the women's rugby competition held in our neighborhood in Suzuka, Mie Prefecture. The two-day event was visited by approximately 1,940 employees and their family members in total to help cultivate a sense of unity. We will keep striving for the support of athletes and the promotion of sports as mentioned above.

Toward the next 100 years, Sumitomo Wiring Systems will continue to deliver safer, more convenient and more environmentally friendly products to as many customers as possible to become a company rooted in the region and loved by local people.

## Sumitomo Riko Company Limited

<https://www.sumitomoriko.co.jp/english/csr/portal>

FY2022 targets			
Corporate value (Financial objectives)		Public value (Non-financial objectives)	
Net sales	530 billion yen	CO <sub>2</sub> reduction	8% reduction
Operating profit	25 billion yen	Waste reduction	5% reduction
Operating profit ratio	5%	Addressing water risk	Develop wastewater recycling technology
ROA (Operating profit to total assets)	6%	Frequency rate of all industrial accidents	Zero industrial accident
ROE (Return on equity attributable to owners of the parent company)	7%	Compliance training	Participation rate of global executive training shall be 100%

\*Info. Compared with discharge rate in 2017

Sumitomo Riko issued the Sumitomo Riko Group 2022 Vision (2022V) in May 2018, which aims to create social value by enhancing corporate value (financial objectives) and public value (non-financial objectives) simultaneously. With the three business strategies of "Creation of new businesses and new customers," "MONOZUKURI innovation" and "Strengthening of global business foundations," we are committed to the four fields of

"Automotive (Mobility)," "Infrastructure and Housing Environment," "Electronics" and "Healthcare," as well as the businesses for the next generation, to achieve the targets presented in the table on the left.

We also revised our Corporate Action Charter, which describes the action principles to become a company that contributes to a sustainable society, in April 2019. Based on social demand, which is typified by SDGs and the revision of the Charter of Corporate Behavior by Keidanren (Japan Business Federation), we incorporated new perspectives, including solution of social challenges through innovations, responsible procurement, respect for human rights and diversity & inclusion, into the charter to make it a business foundation for the achievement of 2022V.

With 2022V as the milestone to be reached, Sumitomo Riko aims to become a Global Excellent Manufacturing Company, which we define as a company that contributes to safety, comfort and the environment of people, society and the Earth.

## Nissin Electric Co., Ltd.

<http://nissin.jp/e/company/report.html>

Through Corporate Activities That Support the Foundations of Society and Industry, the Nissin Electric Group Will Continue to Contribute to Creating a Vibrant Society in Harmony with the Environment.



The Nissin Electric Group was founded in 1910 by Nobu Tomizawa with the mission to contribute to the new development of the power system equipment industry. Since then, we have continued with our efforts to assist the development and expansion of power infrastructure, and as

an extension the development of the industry. Throughout the period, we have constantly upheld the "Five Trusts" with stakeholders embodied in our Principles of Activities which state "Integrity, Trust and Long-term Relationships."

Based on the Basic CSR Promotion Policy, our group is committed to initiatives to reduce environmental burdens and conserve the environment with focus on coexisting with the environment, as well as fair and transparent corporate management grounded in compliance with laws and social norms at its core, while striving to further enhance the Five Trusts.

For example, as a social contribution activity in fiscal 2018, we started forest preservation activities through cooperation between local people and our employees. Also, we have continued the maintenance and preservation of Sekison-tei, which is the former residence of literary legend Junichiro Tanizaki and currently used as a guest house of our group, as well as a full grant-based scholarship program for technical graduate students through Nissin Electric Group Foundation for Social Contribution.

The Nissin Electric Group will continue to contribute to creating a vibrant society in harmony with the environment through Corporate Activities that support the foundations of society and industry.





## Independent Assurance Report

To the President and COO of Sumitomo Electric Industries, Ltd.

We were engaged by Sumitomo Electric Industries, Ltd. (the "Company") to undertake a limited assurance engagement of the environmental and social performance indicators marked with "✓" (the "Indicators") for the period from April 1, 2018 to March 31, 2019, with the exception of the "Employment Rate of the Physically or Mentally Disabled" which is as of June 15, 2019, included in its CSR Report 2019 (the "Report") for the fiscal year ended March 31, 2019.

### The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report.

### Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Visiting three of the Company's subsidiaries selected on the basis of a risk analysis.
- Evaluating the overall presentation of the Indicators.

### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

### Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

*KPMG AZSA Sustainability Co., Ltd.*

KPMG AZSA Sustainability Co., Ltd.

Osaka, Japan

November 11, 2019

## Comments from an External Expert

My findings from CSR Report 2019 (hereinafter "this Report") on Sumitomo Electric Group's activities and efforts to fulfill their social responsibility, and disclose relevant information, are as follows:

### The century of electricity and the pride of the Sumitomo Electric Group

One of the expressions that describe the 20th century is "the century of electricity." Also in the 21st century, people have great expectations for progress in technologies that cannot be achieved without electricity such as electric vehicles, 5G and artificial intelligence.

It is considered that the widespread use of various electricity-based technologies has made society prosperous. Telecommunications explosively expanded communication activities between people. Railway services were a breakthrough that enabled people to travel easily. Moreover, when the light is switched on for the first time in an area that was unelectricified before, its greatest impact is considered to be to allow children to read books at night.

The target 7.1 of the sustainable development goals (SDGs) adopted by the UN also includes a phrase "to ensure universal access to affordable, reliable and modern energy services by 2030" and one of the indicators proposed to measure the progress is the proportion of population with access to electricity. The widespread use of electricity, as well as technologies that use it, will be also a steady trend in this century.

Originating from the Sumitomo copper business, the Sumitomo Electric Group has provided the world with various products that are essential for the widespread use of electricity and various technologies based on it. Although this may be too obvious to say, I guess that the Group has pride and belief that they have already contributed to society through their main business and can continue the contribution in the future.

### I dare to expect even more contribution

On the other hand, even if the widespread use of electricity and technologies that use it is a steady trend, it is also a fact that human beings are facing big challenges about how to generate and use electricity. They include (1) generation of electricity without posing a threat to people, (2) storage, distribution and use of electricity as efficiently as possible and (3) efforts to recycle all items related to electricity. Unless such challenges are overcome, people would not be completely happy even if electricity and technologies that use it are more widespread. Such a prediction makes people anxious about the future. I believe that the Sumitomo Electric Group can play a role in

efforts to respond to the challenges and make further social contribution in the future through activities such as the expansion of renewable energy projects, the development of high-voltage DC cable projects, the exploration of technologies for power storage systems and the promotion of the recovery and recycling of various products. There are a large number of fields for the future in which the Group can clearly aim to make contribution.

### For the improvement of the CSR report

I can say that this report is successfully completed in terms of the comprehensive and detailed description of how the Group has handled the items required in corporate activities in recent years based on the pride that it has already contributed to society through its main business and can continue the contribution in the future. Even when it is compared with the report for the previous fiscal year, major improvements have been made especially on the disclosure of the description and examples of initiatives in overseas business sites.

I hope that the next report has more pages on the "fields for the future in which the Group clearly aims to make contribution." Although articles on pages 33 to 42 of this report deal with a similar subject, the current and future perspectives are so mixed. While the articles introduce the activities of each division, I could not find linkage with the target business portfolio to be achieved, which is described in P8. It is not necessary to refer to SDGs or ESG. While concentrating on businesses in the electric industry, the report should mention the awareness of social problems and commitment to new challenges a little more eloquently. I am sure that this is the only way to clarify to the readers the elements of "better society". And I am also sure that this is a way to communicate

the process of creating societal values by the Group, citing "Contributing to a better society by leveraging our expertise in connectivity and transmission technologies through concerted efforts of the entire group".



**Eiichiro Adachi**

Counselor,  
The Japan Research Institute, Limited

## Sumitomo Electric's Response to the Findings



**Yoshitomo Kasui**  
Senior Managing Director  
and Chairperson of  
the CSR Committee

We thank Mr. Eiichiro Adachi for assessing the content of this report and providing suggestive opinions on our group's activities to fulfill our social responsibility and information disclosure. We are humbled by his great expectations on us, such that, while a vague feeling of anxiety that the future may not be imagined as an extension of the current status is spreading in society, we can play a role in addressing it and other challenges for the future, in addition to conventional social contribution through the main business.

Sumitomo Electric has tackled social demand under the Sumitomo Spirit since its founding. "Fusu-furi" indicates the importance of working proactively, pursuing profit by quickly and appropriately responding to changes in society and making decisions on the adoption or abolition of business projects without being content with the status quo while also strongly admonishing us against acting rashly or carelessly in pursuit of immoral business. In the meantime, "Mutual Prosperity, Respect for the Public Good" represents the principle that we should not only pursue profits but always seek the harmony of business gains with the public interest. We have renewed recognition that companies are required to pay definite attention to future generations along with the current generation more clearly than ever.

In VISION 2022, which we announced last year, we aim at "Contributing to a better society by leveraging our expertise in connectivity and transmission technologies through concerted efforts of the entire group" to become a Glorious Excellent Company, which is our ideal future state. The comments from Mr. Adachi made us confirm that we are in the right direction. To ensure that our stakeholders enhance their understanding of our activities in the "fields for the future in which the Group clearly aims to make contribution" and attach a higher value to them, we will continue to further develop the CSR activities in the entire group.

The Findings by an External Expert in this English version are a translation of the original text in the Japanese version.

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[URL] <https://global-sei.com/csr/>



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[Published November 2019]