

CSR Report 2017

Feature Health and Safety Activities in Southeast Asia



Editorial Policy

This report outlines the business and CSR initiatives of the Sumitomo Electric Group including its business strategies in the first half, and reports the Group's specific CSR activities in each of the CSR core categories in the second half.

- In the introduction of our business activities, a representative product that contributes to solving social issues is picked out from each of the business sections, and a person in charge of the product presents our efforts to offer value through the business (P11 to 15).
- The feature article focuses on health and safety activities and introduces the efforts of two group companies in Southeast Asia (Indonesia and Malaysia) (P19 to 24).
- As a topic on the CSR core category "Products & Services," this report introduces the POREFLON™ membrane separation wastewater treatment system (P37 to 38).
- CSR promotion activities individually conducted by four affiliates are introduced (P77 to 78).

We have continued to make efforts to facilitate understanding of the contents of this report as follows.

- The main targets and actual results in fiscal 2016, as well as the targets for fiscal 2017, are summarized to introduce our major activities in the CSR core categories (P33 to 34).
- 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.
- The acquisition of ISO 14001 certification and a table showing correlation of employee support programs with relevant laws are published on the following website: (<http://global-sei.com/csr/download/>)

■ Period Covered by This CSR Report

April 1, 2016 through March 31, 2017 (fiscal 2016).
Some activities conducted in fiscal 2017 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.
- For details of the scope of data collection for environmental indicators, see Explanation of the Boundary in P63.

■ Guidelines Referenced

GRI's Sustainability Reporting Guidelines Version 4

This report presents information on the standard disclosures. The GRI Content Index is published on the following website: (<http://global-sei.com/csr/download/>)

Environmental Reporting Guidelines 2012 issued by the Ministry of the Environment of Japan.

■ Date of Publication

November 2017

(Last CSR Report: published in November 2016; and next CSR Report: scheduled for release in November 2018)

Responses to findings by an external expert




Expansion of the reporting boundary

- » We disclosed the number of employees by gender on group-wide and global scales in 2016 and the number of section managers or higher positions by gender in 2017. We will continue to expand the reporting boundary based on an idea that report of various indicators on a consolidated basis is one of our CSR challenges.

Improvement of initiatives outside Japan

- » We have been strengthening our CSR activities outside Japan as well. The CSR Report also introduces our international initiatives, including efforts to eliminate occupational accidents, which are explained in the feature article, as well as the compliance system, quality management audits, CSR procurement activities and operation and development of various systems based on the Global HRM Policy. We will continuously enhance our international initiatives for a more pleasant and diverse work environment in accordance with the unique systems, customs, cultures, etc. of the respective regions.

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Making Efforts to Become a “Glorious Excellent Company”

Osamu Inoue
President & COO Sumitomo Electric Industries, Ltd.

Preface

I sincerely express my gratitude to our stakeholders for their continued support and understanding of the Sumitomo Electric Group's business activities.

We are striving to maintain our “Glorious” state, which is an unchanging value for us as a corporate person based on the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles, and to achieve “Excellent” business results. Through these efforts, we aim to become a “Glorious Excellent Company,” which is our ideal state in the future. As a milestone on the way to the goal, we are now committed to achieving the mid-term management plan “VISION 2017” and fiscal 2017 is the final fiscal year for the plan.

We estimate that our consolidated performance for this

fiscal year will be sales of 3,000 billion yen and operating income of 175 billion yen in consideration of impacts of foreign exchange fluctuations and various other factors. The future of the business environment for Sumitomo Electric has become even more unpredictable due to social and economic issues in the world, including policy uncertainty in the US and European countries, downward risks in emerging economies and growing geopolitical risks in East Asia, as well as dramatic technical movements in the fields of the IoT and AI. In addition, it is expected that international competition between firms is getting fiercer and fiercer. Under such difficult and unpredictable circumstances, we consider that it is essential to meet the numerical targets we have set and will work to get as close as possible to the goals of VISION 2017.

CSR Core Initiatives

In fiscal 2013, we specified the five core categories for our CSR activities in connection with VISION 2017, namely Products & Services, Supply Chain, Human Resources, Environmental Preservation and Social Contribution. Since then we have promoted measures for the CSR priority theme set for each of the categories to make efforts in a more focused manner.

The priority theme in the Products & Services category is "innovation." This aims to develop product lines with unique features and future potential, which is also consistent with VISION 2017. Since its foundation as a manufacturer of electric wires and cables, Sumitomo Electric has diversified its businesses through the research and development of the related materials and element technologies. Given that the products created in those business fields are required to underpin the infrastructure to be used over many years, it may be difficult to expect dramatic innovation in them. Still, we will continue to take on new challenges as we always have done, to produce innovations that help society solve its problems.

In the Human Resources category, promotion of diversity is a priority. This is not just an initiative from a CSR perspective but also an essential and fundamental business strategy. Setting the promotion of diversity as a priority initiative in VISION 2017, our Group will pursue further growth through the active use of human resources both in Japan and overseas. For more effective use of human resources, following the establishment of the Global HRM Policy in 2011, we introduced the Global Grade System in 2014 and appointed Group Global Executives to practically apply the policy. From now on, we will promote the involvement of the appointed executives in business management and other initiatives. While Western countries have a culture where people learn expertise independently and apply for employment to make use of their expertise, the labor market in Japan has unique issues that need to be addressed, such as the creation of an environment where women can realize their full potential and the reform of working styles. In this aspect, we will pursue the recruitment and promotion of women and hire more mid-career employees while responding to social trends and enhancing awareness among employees.

The priority theme in the Environmental Preservation category is the prevention of global warming. As the key performance indicator for this theme, we have set the target of reducing greenhouse gas emissions from our global operations by 5% in fiscal 2017 from the fiscal 2012 level, and are making continuous efforts to achieve the target. While the reduction of greenhouse gas is a key to the prevention of global warming, it also has a

major cost reduction effect in our business. Our Group will continue to make concerted efforts to achieve results from various creative ideas in the production field.

While promotion of CSR procurement, which aims to share CSR value with suppliers and ask their positive response, is the priority theme in the Supply Chain category, in the Social Contribution category, we will continue social contribution activities at business locations and contribution through the SEI Group CSR Foundation.

Needless to say, we also have to further strengthen the corporate structure and ensure compliance so that our Group can progress in a sustainable manner.

Compliance

Sumitomo Electric believes that complying with laws and regulations and acting in accordance with corporate ethics constitute the basis of its management, represent its social duties as a corporation and form the foundation for its continued existence and development. In particular, we consider compliance with competition laws to be a top priority issue, and since the formulation of the Rules for Compliance with Competition Laws in June 2010, we have worked to strengthen the compliance system ensuring that the regulations are implemented by specialized organizations and other measures.

Under the principles of the Sumitomo Spirit, which values doing your sincere best not only in business but also in every aspect of your life, placing importance on integrity and sound management and not acting rashly or carelessly in pursuit of easy gains, we will continue to conduct our business fairly and honestly to be trusted by society.

Closing Remarks

When you look at the global trends concerning CSR, the momentum to achieve sustainability is growing with the sustainable development goals (SDGs) adopted by the United Nations in 2015 and the Paris Agreement adopted in COP21 to the United Nations Framework Convention on Climate Change (UNFCCC) in 2016. Celebrating its 120th anniversary in business, our Group will combine to be committed to help solve global issues through the integration of its wide variety of products and technological assets accumulated so far and the implementation of CSR initiatives.

We sincerely ask for your continued understanding and support for our endeavors.

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.

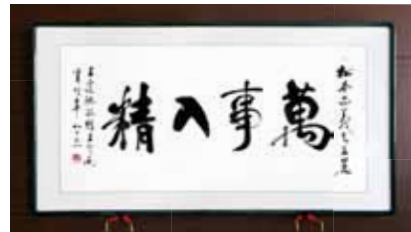
The Sumitomo Electric Group positions this "Banji-nissei" as the keyword representing the Sumitomo Spirit.



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.

Company Profile

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, 2017)
Head Office	4-5-33, Kitahama, Chuo-ku, Osaka, JAPAN

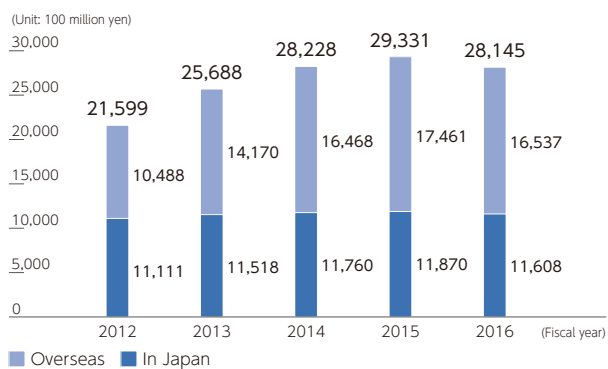
Business Conditions in Fiscal 2016

During fiscal 2016, although the global economy basically continued to show a gradual recovery, uncertainty in the outlook was heightened with the issue of Brexit in the UK and the start of the new administration in the US, as well as concern about the impact of slower growth in emerging markets and other issues. Also in the Japanese economy, the recovery paused with sluggish personal consumption. The business environment surrounding the Sumitomo Electric Group was severe during this fiscal year with the major impacts of the decline in demand for flexible printed circuits (FPCs) for mobile devices, the appreciation of the yen and a drop in the prices of copper, despite solid demand for automotive wiring harnesses, optical fibers and cables,

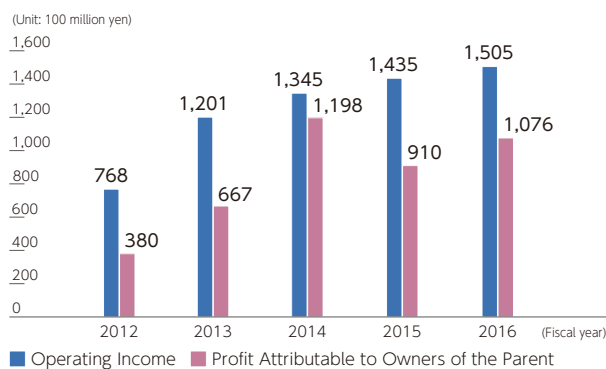
optical and electronic devices and other products especially in overseas markets.

Under these circumstances, our consolidated results for fiscal 2016 recorded a revenue decline with net sales of 2,814.5 billion yen, a year-on-year decrease of 4.0%. On the other hand, profits increased from the previous year as a result of our efforts for cost reduction on a global scale, as well as the development and sales increase of new products. Our operating income grew by 4.9% from the previous fiscal year to 150.5 billion yen while both ordinary income and profit attributable to owners of the parent also increased by 5.0% to 173.9 billion yen and by 18.2% to 107.6 billion yen year-on-year, respectively.

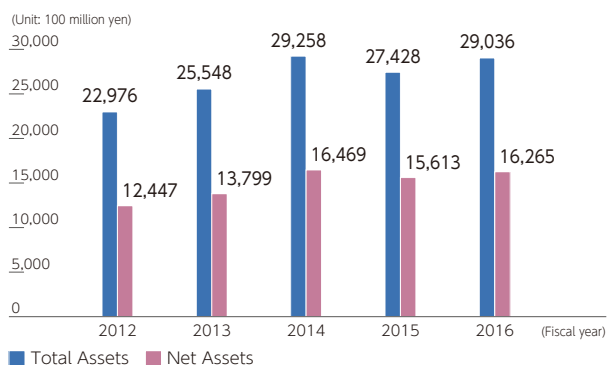
Net Sales (Consolidated)



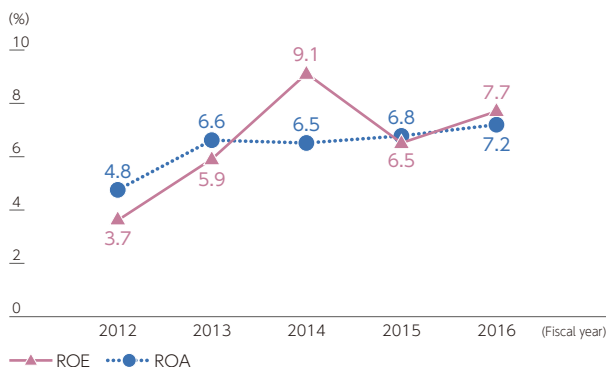
Operating Income and Profit Attributable to Owners of the Parent (Consolidated)



Total Assets and Net Assets (Consolidated)



Return on Equity (ROE) and Return on Assets (ROA)*



Basic Concepts

1 Growth strategy based on innovation

In order to create unique features and future potential by developing strategies that take into account the new needs of society in the future, “innovation” is positioned as a concept underlying throughout VISION 2017.

2 Direction we should aim for

The Sumitomo Electric Group owns various technologies and products in the fields of automotive (mobility), energy and communications (ICT), as well as other supporting fields. While actively responding to new social needs, we will also apply the Group’s material and information technologies to life sciences (needs for the longevity, aging and care-based society), resources (needs for the resource-saving society) and other business fields.

3 Definition of “business fields” where we will make efforts toward fiscal 2017

• Current business fields

Fields in which our group has been involved thus far. In moving toward fiscal 2017, we have selected mobility, energy and communications (ICT) as the three fields where we will particularly exploit the strengths of our group. The materials and products supporting these fields are also included.

• Integrated business fields

Fields for developing business in areas where there will be new social needs, such as the environment and infrastructure field, by combining and integrating the technologies and product lines in current business fields.

• New business fields

Fields that our group will be challenging, such as the life sciences and resources fields.

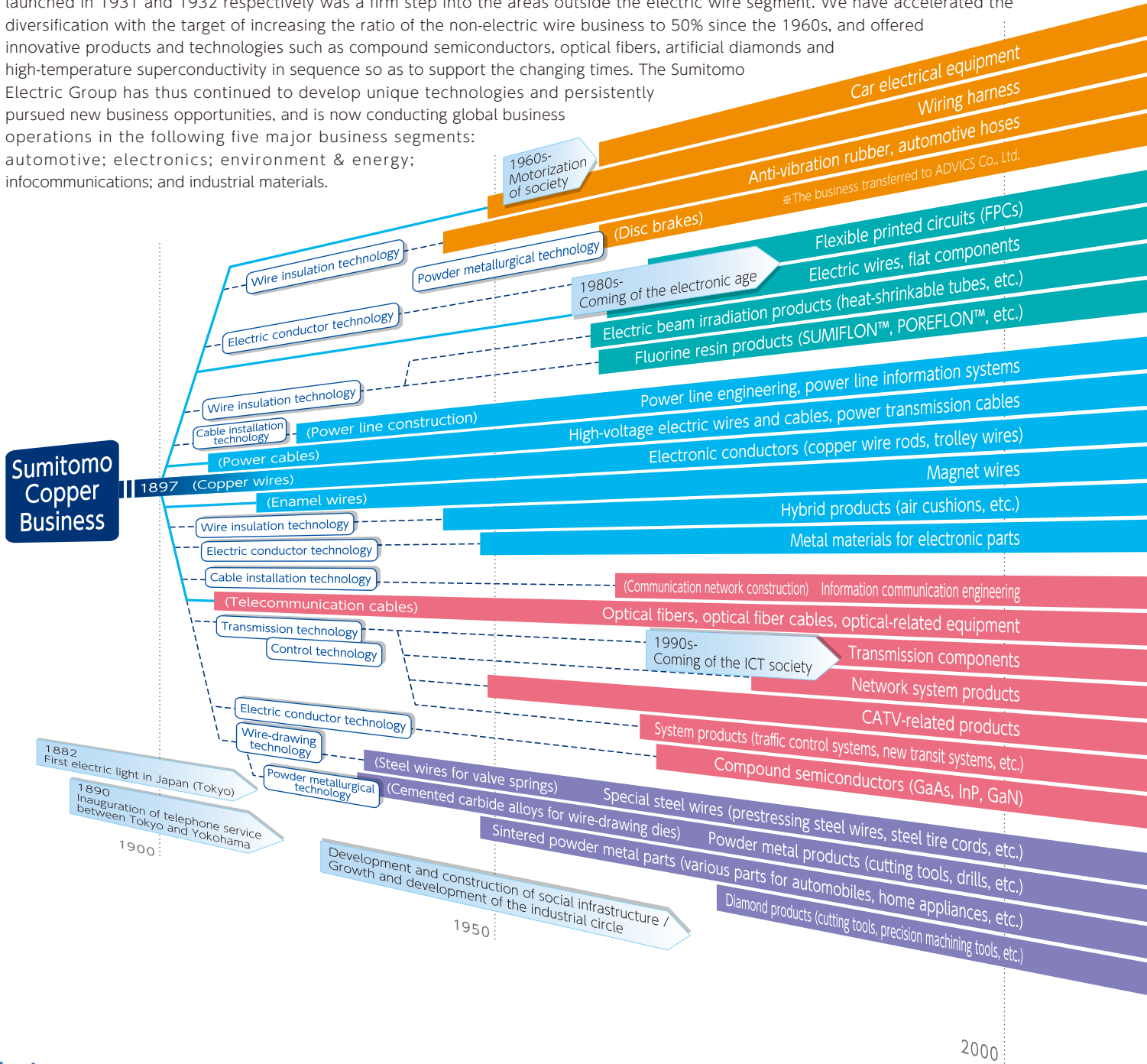


Other indicators (no change from the originally published targets)

- We aim to increase the proportions of overseas sales and production to 60% or more.
- We aim to target a new product sales ratio of 30%.
- We aim to achieve total sales of the order of 150 billion yen in fiscal 2017 in integrated and new business fields.

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

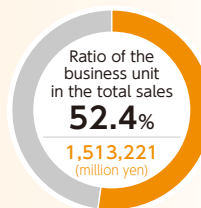
- 1897 • Sumitomo Copper Rolling Works was founded.
- 1900 • Started production of coated wires.
- 1908 • Started production of power cables.
- 1909 • Started trial production of telecommunication cables.
- 1911 • Established Sumitomo Electric Wire & Cable Works (the foundation of the Company).
Manufactured and supplied the first Japan-made underground high-voltage (11,000 V) cables.
- 1916 • Opened a new factory (now the Osaka Works)
Started production of enamel wires.
- 1920 • Incorporated Sumitomo Electric Wire & Cable Works as a limited company (the establishment of the Company).
- 1931 • Started production of cemented carbide ("IGETALLOY") tools.
- 1932 • Started production of special steel wires.

- 1939 • Company name changed to the current name, Sumitomo Electric Industries, Ltd.
- 1941 • Opened the Itami Works.
- 1943 • Started production of anti-vibration rubber and fuel tanks.
- 1946 • Opened a branch office in Tokyo (now the Tokyo Head Office).
- 1948 • Started marketing sintered powder metal products.
- 1949 • Entered into the business of construction of overhead transmission lines.
- 1957 • Delivered the first Japan-made television broadcasting antennas.
- 1961 • Opened the Yokohama Works.
Delivered the wiring harnesses for four-wheel vehicles for the first time in its history.
- 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.
- 1963 • Started production of disc brakes.
- 1964 • Started production of electron beam irradiation wires.
- 1968 • Entered into the business of traffic control systems.
- 1969 • Established its first overseas production subsidiary.
Started development of flexible printed circuits (FPCs).

Automotive

Responding to safety, amenity and environmental needs of future motorized society

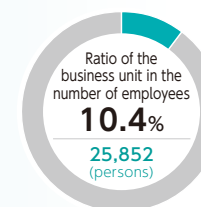
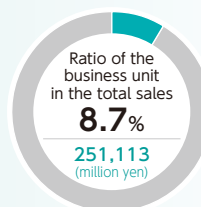
With a focus on the interface between the vehicle and driver, Sumitomo Electric offers various products to the global market. A representative example of these products is a wiring harness that transmits electric power and information to various points in an automobile. Growing public demands for more eco-friendly vehicles require the supply of sophisticated hybrid and electric vehicle parts based on a wide variety of advanced technologies. Keeping in mind "the next generation with harmony between vehicles and people," Sumitomo Electric will continue developing a variety of new automotive products in order to contribute to the creation of a comfortable automobile society.



Electronics

Supporting advancement in the functions and performance of electronics

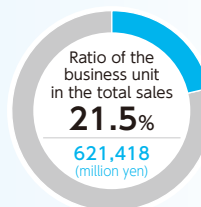
In the electronics field, devices are required to be ever smaller, lighter, more functional, and more sophisticated. To meet these requirements, Sumitomo Electric has been expanding its product lineup by continuously developing new materials, wires and other parts. Sumitomo Electric's leading-edge Technologies have been employed effectively for advanced medical, automotive and aircraft equipment, as well as for widely used products such as smartphones and tablet PCs.



Environment & Energy

Supporting a stable energy supply

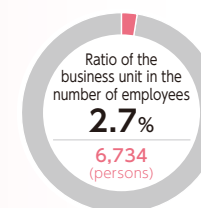
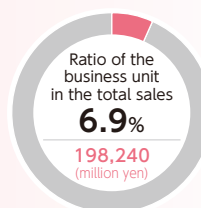
Since its establishment, Sumitomo Electric has made efforts to develop wire and cable technologies that are essential for ensuring a stable power supply. The Company is now moving toward new businesses in the field of renewable energy and smart grids to supply environmentally friendly and energy-efficient products to the global market, thereby contributing to upgrading social infrastructure.



Infocommunications

Supporting communications

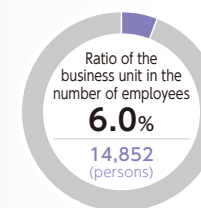
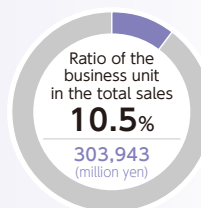
Sumitomo Electric provides various solutions that make our society safer, more secure and more comfortable. A wide array of these solutions include optical fibers/cables and other telecommunication-related products necessary for FTTH and other optical network construction, ITS-related products and access-based network products. We will continue to develop innovative technologies and products and supply them to customers, thereby contributing to the construction and upgrade of broadband network infrastructures.



Industrial Materials

Using a wide range of technologies for the prosperity of industrial society

Taking advantage of its material development capabilities based on electric wire/cable drawing technology, Sumitomo Electric has developed various products with unique features, including PC steel wires, steel tire cords, and other special steel wires essential for civil structure construction. The Company also supplies a wide variety of superior materials including sintered parts used in automobiles and household appliances and synthetic diamond called the ultimate material. Various products made from these sophisticated industrial materials support the bases of industries, thereby contributing to the development of society.



(Note) The sales figures include internal sales between segments, and the sum of the sales by segment accordingly differs from the total sales.

- 1970 Started production of compound semiconductors.
- 1971 Opened the Kanto Works.
- 1974 Started production of optical fiber cables.
- 1975 Contracted to construct a power transmission line in Iran.
- 1976 Received an order for a large telecommunications network project in Nigeria.
- 1978 Delivered and put into operation the world's first bi-directional fiber optic CATV system "Hi-OVIS."
- 1981 Delivered the fiber optic LAN system for the first time in its history.
- 1982 Succeeded in producing the world's largest synthetic monocrystalline diamonds (1.2 carats).
- 1996 Developed a technology for producing long-length oxide high-temperature superconducting wires.
- 1998 Developed and started marketing ecology wires and cables.
- 1999 Sumitomo Electric Fine Polymer, Inc. (fine polymer products) started operation.
- 2001 J-Power Systems Corporation (high-voltage power cables) started operation.
- 2002 Sumitomo Electric Networks, Inc. (network equipment) started operation. Sumitomo (SEI) Steel Wire, Corp. (special metal wires) started operation. Sumitomo Electric Wintec, Inc. (magnet wires) started operation.

- 2003 Sumiden Hitachi Cable Ltd. (wires and cables for buildings and industrial equipment) started operation. Sumitomo Electric Hardmetal Corp. (powder metal and diamond products) started operation.
- 2004 A.L.M.T. Corp. was made a wholly-owned subsidiary.
- 2006 The HTS cable used in a power transmission grid in the U.S. started supplying electricity.
- 2007 Sumitomo Wiring Systems, Ltd. was made a wholly-owned subsidiary. Nissin Electric Co., Ltd. was made a consolidated subsidiary.
- 2008 Opened the Technical Training Center. Sumiden Friend, Ltd. (Special subsidiary) started operation.
- 2009 Sumitomo Electric Device Innovations, Inc. was organized.
- 2010 Opened the WinD Lab, a new laboratory building. SEI Optifrontier Co., Ltd. was organized.
- 2014 J-Power Systems Corporation was made a wholly-owned subsidiary.



Pipe-shielded wiring harnesses for HEVs



Anti-vibration rubber products



Charging connector for EVs

We have established an integrated system to produce aluminum wires for wiring harnesses that help improve the fuel efficiency of automobiles

Aluminum wiring harnesses help reduce the weight of automobiles and also save fuel and rare resources. I have been committed to the start-up of a new plant of STEC in Thailand and establishment of a mass production system since 2014 for the purpose of facility reinforcement in response to the increase in the overseas production of aluminum wires for wiring harnesses.

When I was assigned to the country and started to work, there was only a building and I had no other equipment or staff at first. I therefore faced various challenges every day, including the decision of machine specifications, trial run, and installation of equipment, as well as quality assurance. It was especially hard to meet the quality standards. Along with repeated conference calls with associated companies and repeated trial production, self-audits were conducted to pass strict quality audits and training was also given to local employees.

We then made the first delivery of standard aluminum wires in September 2014 and also started to deliver high-strength aluminum wires that are as strong as copper wires in October 2016. In May 2017, we established the Group's first integrated production system for aluminum wire materials, which covers the casting, rolling and subsequent processes. STEC has grown to be a hub plant in Asia that supplies high-quality products to 13 harness production plants in various countries in a stable manner.

STEC continuously aims to make social contributions through the weight reduction of aluminum wires and mass production of the products to further improve the fuel efficiency of cars.



Sho Hayakawa

Development of Engineering Advisor,
Automotive Wire Division
SEI Thai Electric Conductor Co., Ltd. (STEC), Thailand

Social challenges

- Response to global warming
- Depletion of rare metals

Social expectations

- Improvement of automobile fuel efficiency through the reduction of vehicle weight
- Measures to address depletion of resources

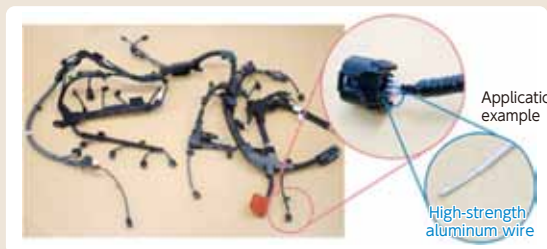
New products and technologies contributing to the solution of the challenges

- Realization of stable supply through the establishment of an integrated mass production system of aluminum wires for aluminum wiring harnesses, which can be used for various applications in vehicles and motorcycles

High-strength aluminum wiring harness

The Sumitomo Electric Group developed aluminum alloy wires that have similar conductivity to copper wires but are half the weight of them and started to sell them as aluminum wiring harnesses in 2010. The Group further proceeded with the development and in 2015 succeeded in developing a high-strength aluminum alloy wire with higher strength than that of copper wire. The newly developed wires have been commercialized as high-strength aluminum wiring harnesses and laid even along the periphery of engines and other equipment that vibrate intensely.

Adopted by automobile manufacturers in Japan and other countries for a large number of car models, the high-strength aluminum wiring harnesses help reduce car weight, improving fuel efficiency and thereby contributing to CO₂ emission reduction. As aluminum reserves are larger than copper reserves, the product also contributes to saving rare resources.



Application example

High-strength aluminum wire



Multicore optical fiber cables



Optical transceivers



Broadband network service products

We have developed a GaN transistor that contributes to enhancing the capacity of cellular phone wireless networks

The GaN transistor we have developed is an element with a function to amplify radio wave signals and used mainly for transmission of radio wave from cellular phone base stations. As high-speed communication devices became widespread, it was required to downsize and sophisticate the base stations, as well as to construct more base stations. This increased demand for GaN transistors because they are more efficient and require less electricity for amplification than silicon-based devices using conventional technologies. In addition, a base station using GaN transistors can be downsized with no need of fans to control temperature rise, which degrades the performance of the station, and can also reduce the installation cost.

Devices are a key to communications and their quality is therefore crucial. When we were developing the GaN transistor, which was a completely new product with a completely new material, major challenges were the control of quality and the realization of mass production. We then succeeded the commercialization in 2006 and received the Minister of Education, Culture, Sports, Science and Technology Prize of the Technology Management & Innovation Award in 2014. We are pleased that our products are still highly valued in the market. We will continue development for 5G and other next-generation communication services to contribute to further growth of wireless communication.



Kaname Ebihara

Senior Manager,
Electron Device Development Department,
Electron Device Division,
Sumitomo Electric Device Innovations, Inc.

Social challenges

- Depletion of network resources due to widespread use of cellular phones and increases in data traffic
- High-performance next-generation (5G) cellular phone base stations that enable high-speed communication

Social expectations

- Devices that can be installed in a simple and convenient manner and reduce power consumption
- Downsizing (integration) of devices for amplifiers at base stations

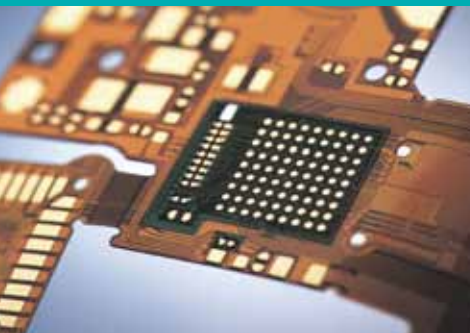
New products and technologies contributing to the solution of the challenges

- GaN transistors that help downsize (integrate) cellular phone base stations and reduce power consumption

GaN transistors for cellular phone base stations

The Sumitomo Electric Group focused on the properties of gallium nitride (GaN), a new compound material, and developed a GaN transistor. This large-output and high-efficiency transistor can help downsize cellular phone base stations and reduce power consumption in the stations. We succeeded in its mass production for the first time in the world in 2006. With GaN transistors, power consumption can be reduced by 18% under a normal operating environment in comparison with silicon transistors based on conventional technologies. The new transistor also helps downsize a base station to 10 kg and 10 L or less. This facilitates the installation of base stations on steel towers, building rooftops, etc., which has increased the capacity of cellular phone wireless networks and accelerated the dissemination of smartphones, etc.





Flexible printed circuits (FPC)



SUMITUBE™



SUMI-CARD™

Electric vehicles equipped with our products are driven all over the world, and we aim to improve their performance and extend their life

Lithium-ion batteries are used in driving power sources for hybrid and electric vehicles, which have been becoming popular in recent years. An important component of the batteries is a tab lead, a conductive material in which an insulation layer is attached around a conductor. It serves as a lead wire of the batteries and also has contact with electrolyte inside the batteries to take out electricity to external electrodes, etc.

Our product "Tab-Lead" has higher insulation capacity and durability by attaching an insulation layer made of a material the heat deformation of which is suppressed based on our patented technology to a conductor plate treated to enhance the corrosion resistance using a sophisticated welding technique. In addition, the material of the insulation layer has the capacity to seal the electrolyte so that the Li-ion battery has higher performance and longer life. The product has also been designed to minimize environmental impact through measures such as non-chromium surface treatment of the conductor.

I have engaged in the design of this product since 2008. It initially had many performance-related problems, and we repeated trial and error together with other divisions in charge of quality assurance, procurement and production management, as well as material manufacturers, before the commercialization. Now that the product satisfies many customers, we are committed to product development for new businesses in cooperation with the research division. While society is making efforts to reduce CO₂ emissions on a global scale, demand for electric vehicles will further increase, and we aim to contribute to society through the delivery of our products to be loaded in such vehicles.



Takaaki Shimada

Assistant Manager,
Tab-Lead Design Engineering Section,
Tab-Lead Department, Sumitomo (SEI) Electronic Wire, Inc.

Social challenges

- Increase in demand for environmentally friendly vehicles
- Extension of the driving range of electric vehicles, etc.

Social expectations

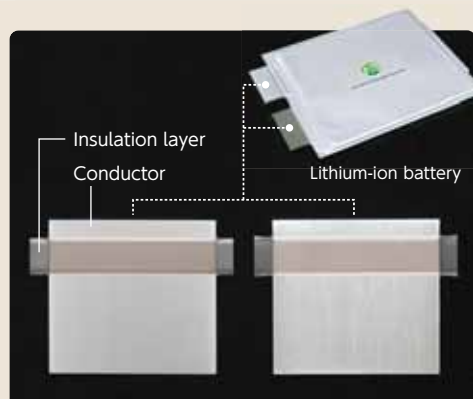
- Development of high-performance, long-life and environmentally beneficial batteries

New products and technologies contributing to the solution of the challenges

- Tab-Lead for on-vehicle batteries that realizes high performance and long life and lithium-ion batteries with high environmental impact reduction effect

Tab-Lead for on-vehicle batteries

A tab lead is a lead wire to draw out electricity from lithium-ion batteries. "Tab-Lead," a product of the Sumitomo Electric Group, not only draws out electricity but also seals electrolyte at high levels. Its mass production was launched in 2010, and the product is used in many models of hybrid and electric vehicles.





Copper wire rods



High-voltage optical fiber composite submarine cables



Magnet wires

We will contribute to modal shift around the world with key technologies to the constant speed running of railroad vehicles

An air spring is a suspension based on the elasticity of compressed air. This is currently a mainstream technology for railroad vehicles because it has large functional advantages including the adjustment of vehicle height and vibration damping. The Sumitomo Electric Group is one of the manufacturers that started to develop the product in the 1950s. It was adopted for 0 series Shinkansen trains in 1964.

The latest Shinkansen uses a tilting system with air springs so that they can run without slowing down even over curved sections to facilitate constant speed running and help maintain the promptness of transportation and reduce energy use and CO₂ emissions. This is considered to be a technology that accelerates modal shift from air transportation.

While modal shift is attracting attention on a global scale, we make effective use of the relevant technologies we have accumulated over more than 60 years in an effort to advance into the countries that are expected to grow in the future. An example is China, which has grown dramatically in recent years. Our products have a market share of more than 50% in the country's high-speed railway, which is a key to its economic development. In 2015, we also succeeded in entering the Indian subway market, which is expected to grow rapidly in the future.

I would like to continue to contribute to the technical development of air springs and the growth of our overseas business as an engineer and a manager.



Takayuki Sawa
Assistant General Manager,
Vibration Control Products Group,
Engineering Department, Hybrid Products Division

Social challenges

- Reduction of CO₂ emissions to prevent global warming
- Reduction of environmental pollution caused by exhaust gas
- Alleviation of traffic congestion

Social expectations

- Modal shift (from air and road to rail)

New products and technologies contributing to the solution of the challenges

- Air spring for high-speed railroad vehicles to maintain the promptness of transportation

Air springs for vehicles

Air springs, which are mounted between the car body and bogie, are important parts for significantly reducing the vibration transmitted from the wheels to the car body and improving ride comfort of trains.

Air springs can help speed up a train and provide a comfortable ride by absorbing the vibrations of the running train.

Our air springs are widely used around the world in subways, commuter trains, and high-speed trains like the Shinkansen.



Industrial Materials



Cutting tools



Sintered parts



Prestressed steels

Our sintered parts, which are materials with potential, will play key roles in the age of electric vehicles

Sumitomo Electric Sintered Alloy, Ltd. is in charge of the manufacturing and marketing of sintered parts. Most of the sintered parts produced by our company are currently used in automobiles, and each car contains approximately 10 kg of sintered parts. They started to be used in wider fields when a variable valve timing mechanism (VVT) was employed in cars. We are also working to apply them to magnetic components of boosting converters and other items in anticipation of the coming age of electric vehicles.

Sintered parts are produced by compacting metal powder by a press and sintering it. They contribute to resource saving because no chips are generated from molding or processing, and to energy saving because sintering requires a lower temperature than molding. Once a mold is created, it is also easy to manufacture the part in large quantities. We discuss what shape is easy to produce with customers at the development stage, and achieve high quality along with energy saving, short production time and cost reduction at the same time in the production of sintered parts for VVT. In 2015, as a result of the automation of the dedicated production line and improvement of the cutting tools, we successfully developed new machining processes including the perforating and grooving of green compact compressed by a press before sintering, which replace machining processes after sintering. In recognition of this initiative, we won the New Product Award (in the process development section) of the 38th Japan Powder Metallurgy Association Award for fiscal 2016. In the previous year, our dust core for ignition coils was also valued as a technology that helps lower the fuel consumption of cars.

We will continue to be committed to expanding the scope of the application of sintered parts to save energy and resources.



Naoto Igarashi

Assistant General Manager,
Engine Parts Development Group,
Product Development Department,
Sumitomo Electric Sintered Alloy, Ltd.

Social challenges

- Reduction of CO₂ emissions to prevent global warming

Social expectations

- Improvement of technologies to lower the fuel consumption of cars

New products and technologies contributing to the solution of the challenges

- Sintered parts used for VVT. Dust cores of ignition coils and boosting converters

Sintered parts

Sintered parts are processed by the powder metallurgical method, a technique that compresses and molds fine powder of multiple metals including iron and bakes it at a high temperature. Performed with molds, this method is suitable for manufacturing parts to be produced in large quantities, as well as components with complex shapes. It also enables the creation of alloys of various compositions by changing the ratio of raw materials. Due to their superior features such as high dimensional accuracy, sintered parts are used in various industrial fields including automobiles, office equipment and household appliances.



2016 Highlights

Major events during fiscal 2016 are listed below.

2016

- 7 • Received the Japan Regional Quality Award from Nissan Motor Co., Ltd.
- Participated in the Virtual Power Plant Project

- 8 • Earned the Top L-boshi Company Certificate under the Act of Promotion of Women's Participation and Advancement in the Workplace
- Became the first nonferrous metal company to join the Ikuboss Corporate Alliance



- 9 • Started the construction of a new plant of Tohoku Sumiden Precision as a cutting tool manufacturing base (completed the construction in May 2017)



- Acquired Keystone, a major powdered metal component manufacturer in the US

- 11 • Started the operation of a new line for 6-inch SiC power devices at a power electronics platform (Tsukuba Branch Office in the National Institute of Advanced Industrial Science and Technology)
- Started the demonstration of a concentrator photovoltaic plant in the Kingdom of Morocco



- Concluded a long term agreement to supply submarine power cables with the Saudi Arabian Oil Company (Saudi Aramco)

AIST: National Institute of Advanced Industrial Science and Technology

2017

- 2 • Received 2016 Top 100 Global Innovators Award



- Won an Excellence Award in the Environmental Reporting Category of the 20th Environmental Communication Awards



- 3 • Started demonstration of a large-scale storage redox flow battery system in California, US



- Set a new world record for the lowest loss of optical fiber

- Selected as an FY2016 Nadeshiko Brand



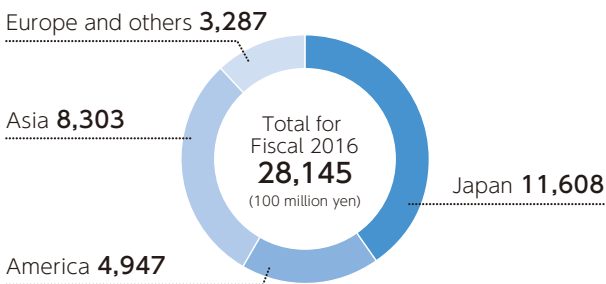
- Concluded a cooperation agreement with Siemens AG and jointly won an order for a high-voltage direct current transmission system in India

Global Business Expansion

The Sumitomo Electric Group is developing business activities on a global scale, with 394 consolidated companies and over 240,000 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.

Net Sales by Region (Consolidated)



EUROPE	
UK	7
Italy	3
Ukraine	1
Netherlands	3
Spain	1
Slovakia	2
Serbia	1
Czech Republic	1
Germany	12
Turkey	4
Hungary	3
France	5
Bulgaria	1
Belgium	1
Poland	4
Moldova	1
Romania	2
Russia	5

JAPAN	
Japan	114

Asia & Oceania	
India	7
Indonesia	12
Australia	3
Cambodia	1
Singapore	4
Thailand	22
Philippines	11
Vietnam	9
Malaysia	5
South Korea	7
China	71
Hong Kong	5
Taiwan	6

North/South America	
USA	27
Argentina	1
Canada	2
Paraguay	1
Brazil	7
Mexico	10

Middle East & Africa	
Egypt	2
Saudi Arabia	1
Tunisia	3
Morocco	4
South Africa	2



Global Network

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.

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

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.



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 280 overseas affiliates with more than 200,000 employees.

North/South America

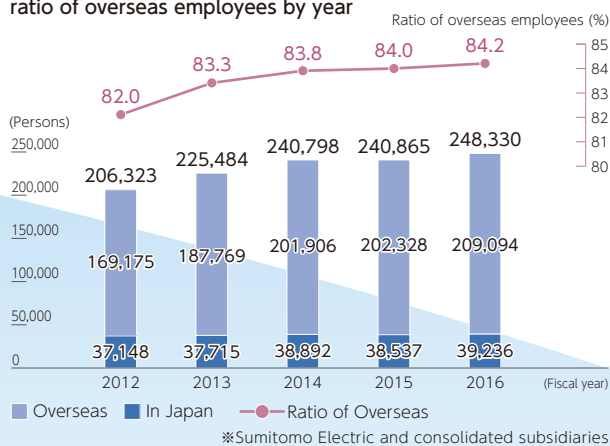
48

Companies Consolidated
394 in total

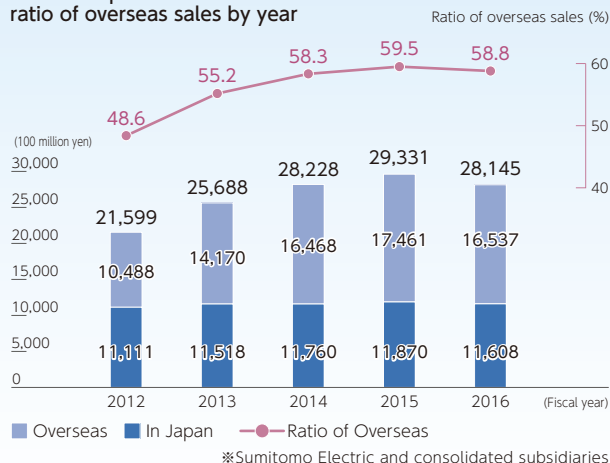
Breakdown of companies consolidated
(as of March 31, 2017)

- Consolidated subsidiaries (357)
- Equity-method affiliates (37)

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





The Group is making concerted efforts to create a corporate culture where "safety comes first"



The Sumitomo Electric Group gives top managerial priority to "safety" and actively promotes measures to eliminate occupational accidents in its production sites around the world. We are working to improve the level of safety management on group-wide and global scales and, for example, implementing priority safety activities every year in ASEAN countries, where our production sites are intensely located. This report features relevant activities of two Group companies, one in Malaysia and one in Indonesia, which are clearly showing the results of such commitment.

MALAYSIA / INDONESIA





Global standards on safety of equipment and safety management of the Sumitomo Electric Group penetrating deeply into overseas production sites

As our overseas production sites increase as a result of the globalization of our business activities, it is becoming more and more important to perform safety activities including danger prediction activities and equipment safety measures as well as development of the safety and health training system. In response, the Sumitomo Electric Group promotes focused safety activities that repeat the process of evaluation and improvement to eliminate occupational accidents, such as the Group Global Safety & Maintenance Skill Evaluation initiated in fiscal 2009. As uniform company-wide standards, we established global standards for safety of equipment in 2011 and global standards for safety management in 2015, and have conducted inspection to prevent serious disasters in conjunction with the Safety & Maintenance Skill Evaluation based on those standards since fiscal 2015.

In safety activities, it is not appropriate to lump all of our sites in ASEAN together. While using the global standards as the bases, we develop unique safety activities in response to the characteristics of the respective countries that have different cultures and customs so that all employees can further enhance their awareness of safety. Our fine-tuned activities developed with concerted efforts of the whole Group are now making steady results beyond the sea.

SEPM

Sumitomo Electric Interconnect Products (M) Sdn, Bhd



- Business: Manufacture and sales of electronic wire products
- Number of employees: 800

SEPM was established in Malaysia in 1988 as a site to manufacture and sell in-vehicle electric wires and other products. The multi-ethnic employees including Malay, Chinese and Indian staff, are working for stable supply of products and expansion of the business.

WIN-I

PT. Sumitomo Electric Wintec Indonesia



- Business: Manufacture and sales of magnet wires
- Number of employees: 185

WIN-I was established in MM2100 Industrial Town, Jakarta, Indonesia in 1995. The company joined the Sumitomo Electric Group in 2002 and became a wholly owned subsidiary company in 2008. It mainly manufactures magnet wires for electronic components.



MALAYSIA

We have successfully raised awareness of safety and health

Safety Executive,
Safety, Health & Security Section
Shanmugan A/L Sathamparam

Safety and Health Officer (SHO) certified by the national government
Green book holder
(Entitled as a Safety and Health Officer (SHO) which was given by Government)

"Go Anzen Ni! (Be safe!)" In SEPM, where I am working, everything starts with this greeting. Our company endeavored to raise awareness among its employees and realized zero disasters in fiscal 2016. I will introduce the commitment of the employees to safety activities, as well as support from the safety inspection team of Sumitomo Electric, which served as driving forces for the achievement of the target.

It started with a review of the organization

SEPM had accidents resulting in lost work time for two consecutive years from fiscal 2013. To learn lessons from the experience, the accidents causing injury were analyzed by cause in terms of the years of experience and the type of employment, as well as the accident occurrence part and place. As a result, we found that foreign workers with work experience of less than five years were injured more often and that the work skills of general workers were not very high. With recognition that it was an urgent task to review



the safety system, the number of the employees dedicated to safety activities was increased from one to two, and all employees were ordered to participate in a safety activity program along with Japanese expatriates.

Commitment to raising awareness of safety among employees

The program aimed to cultivate the skills of all employees, including the employees dedicated to safety activities like me, to think about safety individually, which means raising their awareness of safety. We firstly focused on "recognition" to learn what is important and "display" to



allow anyone to recognize danger. Since SEPM has many international employees such as Nepalese as well, risk simulation training to experience an accident of being stuck or caught and safety training in the mother tongues of the foreign workers were also given. We worked to enhance awareness of safety among all employees beyond language barriers.

Achievement of zero disasters through thorough implementation of improvement activities

SEPM is actively committed to improvement and inspection activities based on the bottom-up approach. Those activities include inspection by top management for on-site risk assessment, social gatherings to listen to comments from foreign workers and weekend safety patrols. In addition, an initiative where employees dedicated to safety activities communicate with workers called "Walkabout" is developed.



Inspection by the safety inspection team of Sumitomo Electric to prevent serious disasters also helps identify crucial areas with hazards. As a result of our steady and continuous safety efforts to repeat identification and remediation of hazard sources in cooperation with the parent division, we achieved zero disasters in fiscal 2016. We also launched a new safety initiative called "Zero Tolerance Activity" under the initiative of local staff in fiscal 2016. With a strong will to never miss any trifles, we will keep working to continuously achieve zero disasters.



Close report of a day of 《inspection to prevent serious accidents》 in SEPM

AM 08:00

Preliminary desktop inspection to clarify the areas to check on site

The inspection to prevent serious accidents literally aims to prevent serious disasters and equivalent events. A desktop inspection using a serious disaster prevention check sheet is conducted prior to an on-site inspection, and the safety inspection team holds interviews concerning the operations and equipment that need to be addressed. Since there are differences in the recognition of safety among staff in different countries, it is very important to hold a preliminary meeting using a check sheet.



PM 01:30

On-site inspection to eliminate causes of serious disasters

The safety inspection team members look around the site to identify any equipment that is in an unsafe state, any issue that can lead to an unsafe action of an operator and any defect in management, and in case of any finding, they directly interview the relevant workers to understand the current situation. The finding is communicated to the workers on the spot to encourage them to make improvement.



PM 04:30

Sharing of the results and completion of countermeasures

After the on-site inspection, the results are reported. Any issues and findings identified through the inspection are shared by all members. Countermeasures are thoroughly taken, and also introduced into any similar equipment, operations and processes. The Safety & Environment Department and the Total Plant Maintenance Department provide follow-up support until the countermeasures are completed.



VOICE

Safety Inspection Team

To prevent a serious accident from occurring ever again

"Go Anzen Ni!" This greeting with a wish to raise awareness of safety is heard everywhere in SEPM. We feel that the achievement of zero disasters by the company demonstrates the dissemination of the top-down safety activities as well as voluntary safety and health activities by local staff under the initiative of the employees dedicated to safety activities. To establish safe workplaces, we will continue to support the site workers from a global perspective.

(From left) Kenji Kinugasa, Assistant General Manager, Total Plant Maintenance Department
Toshio Hase, Assistant General Manager in Charge, Safety & Environment Department
Michiaki Abe, Safety Division Advisor, S.E.I. Thai Holding Co., Ltd.



VOICE

Employees dedicated to safety activities

We will continue to achieve the safety targets of zero accidents and zero disasters

"Go Anzen Ni!" We are responsible for keeping our company in a safe condition as staff dedicated to safety activities. We will continue to promote initiatives based on participation of employees that encourage them to take voluntary actions in an effort to achieve the safety target of zero accidents and serve as a model in the Sumitomo Electric Group.

(From left) Shanmugan A/L Sathamparam Safety Executive, Safety, Health & Security Section
Jackson Sinau Baru Assistant Executive





 INDONESIA

We also develop our original activities to help the production site maintain safety

Coordinator, Safety Section
John Robert Taka

WIN-I, where I am working, has proudly achieved zero accidents and zero disasters for nine years or more. While also understanding the approach of the Sumitomo Electric Group to safety and health, our company develops safety activities tailored to the unique culture and characteristics of Indonesia, which are introduced below.

Focus on dialogues based on the Indonesian culture

In Indonesia, people pay less attention to safety when compared with Japan, and WIN-I therefore works to give safety and health training while setting original slogans and targets every year. Various original safety activities are also deployed to enhance awareness of safety, including "daily speech" of employees to send their own messages for enhancing awareness of safety everyday over the PA system, as well as "bell patrol" to inspect the plants while ringing a bell once a day to encourage site workers to be



aware of safety. In addition, many safety activities with focus on communication are developed, such as 1-2-3 activities*, MSTs activities (safety meetings held in each division), monthly safety meetings and communication meetings.

In Indonesia, on-site "dialogues" are especially important because Indonesians tend to hold their comments at a meeting. Based on it, I patrol the plants at least twice a day as an employee dedicated to safety activities and talk directly to the workers in an effort to identify a wide range of problems while collecting information on unsafe places and equipment, etc. Moreover, monthly meetings attended by all employees, at which the President announces the performance related to safety in addition to the

performance of the company, are held to provide precious opportunities to directly exchange information on safety between managers and employees.

Training programs implemented with strict targets

WIN-I also provides various safety training programs to prevent accidents and reduce risks, which include danger prediction training, first aid training, KKP training* and K-3 training*. A target attendance rate is set for each program in accordance with the training content to develop uncompromised safety activities. In the danger prediction training program, for example, the participation of all employees is required, and the training is provided at least once a month so that all employees can complete the program. In addition, a test is conducted after each training session, and only the employees with an accuracy rate of 80% or more pass the test while those who have failed it are obliged to take the training again. As an employee dedicated to safety activities, I also organize a monthly session to report progress in all safety activities to top management and discuss how much the targets have been achieved.



Concerted efforts to meet a target

All employees in WIN-I also share the long-term vision and mid-term targets and plans of the Sumitomo Electric Group, which have positive impact on the organization. The stable performance and high-quality training of the Group are

Glossary

* 1-2-3 activities

Activities of leaders in the divisions as well as managers and supervisors to inspect sites twice (2) in one (1) day to make over three (3) indications or warning calls to identify problems

* Safety and Health Version of Kiban Kyoka

(reinforcement of fundamentals) Training Program (KKP) Practical training on safety and health to learn concepts of and approaches to safety management, danger prediction, etc.

* K-3 Training

Health and safety training program specified by the Indonesian Government "for workers" to prevent occupational accidents, sickness and disorders

creating an environment where employees can work for a long time with a sense of security. I take pride in working as a member of the Sumitomo Electric Group. Our current target is to maintain zero accidents for 3,650 days, and I believe that we can surely achieve it if all employees continue to make concerted efforts for safety activities.



Safety Activities of WIN-I

» Daily speech

Employees announce their opinions on safety over the PA system every day. While some employees reluctant to participate in this initiative initially after the introduction, they now understand its significance and all employees are involved in it.



» Bell patrol

Employees in charge go on patrol in the plants once a day after the lunch break while ringing a bell to encourage site workers to be aware of safety. The purpose is to keep workers aware of safety with a sense of tension while working. All divisions, including the manufacturing divisions, are covered by this initiative.



VOICE

Section Manager of Manufacturing Section

“Dialogues” underpin the safety activities of our company

I think that Mr. John is making a great contribution to safety activities in our company as a safety officer, who is dedicated to safety activities. Thanks to his enthusiasm, the management and the employees are able to communicate closely. One Example of this close communication is the small-scale safety meetings called MSTs, which have been organized by Mr. John to promote bottom-up activities by limiting participants to a leader of a working group and its’ group members. In this meeting, all the members are able to give comments related to safety freely, while they seldom do the same in formal meetings. Many of the manufacturing facilities in WIN-I are old as they were originally relocated from Japan and other production sites, and some of them are not in conformity with global standards. Although upgrading of them involves enormous costs including opportunity loss due to the shutdown of the facilities, as well as facility remodeling cost, we are upgrading them step by step to eliminate unsafe facilities under the slogan of “Safety First” and with the understanding of the management. I would like to be continuously dedicated to occupational safety and health activities.



Bonar Sinaga
Section Manager of Manufacturing Section

Aiming to develop the world's highest level of safety activities

Principles underlying safety activities in the Sumitomo Electric Group are to prioritize safety above all else and to protect the safety of employees. They are exactly same in our overseas bases. Our Group, in which the proportion of overseas sales is over 50%, develops activities to thoroughly disseminate the global standards on facility safety and safety management at overseas bases as well. SEPM and WIN-I have made extra efforts to perform safety activities and each of them has established a system to gather information on problems identified across the company and improve them at the initiative of the top management. While they also receive suggestions from Japan on how to perform safety activities, it is important that local staff think for themselves. The safety activities designed independently under the initiative of the staff dedicated to safety activities obviously generate better outcomes. Some of their activities, such as a mechanism to gather information on troubles at the production field and improve them through small-group activities, are so excellent that they should be also employed at our sites in Japan. While continuously aiming to be a company with the world's highest level of safety, we will identify any weaknesses in our activities and improve them for our commitment to the plans following VISION 2017.



Nobuya Ooka
General Manager,
Safety & Environment Department

※ The names of the departments and positions are those at the time of the interviews.

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 corporate auditors and adopting a supervisory system under which independent outside corporate auditors and full-time corporate auditors 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 board of corporate auditors in consideration of the contribution of corporate auditors and the Board of Corporate Auditors to ensuring sound business management. The Board of Directors, the business execution system, corporate auditors and the Board of Corporate Auditors 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, two 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 corporate auditors with various specialized knowledge and multifaceted views so that outside corporate auditors occupy the majority of the Board of Corporate Auditors, which aims to reinforce the monitoring system for the purpose of ensuring lawful and proper management.

The Board of Directors and the Business Execution System

While the board of directors of a company with a board of corporate auditors 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 corporate auditors 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 corporate auditors 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, 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 14 Directors in the Company, who are all male and comprised of 12 Executive Directors and two outside Directors not involved in business execution. For fiscal 2016, 14 Directors (excluding two outside Directors) received 814 million yen in total for fiscal 2016.

In 2016, the Board of Directors started to analyze and evaluate its effectiveness and disclose a summary of the results. In 2017, it conducted a questionnaire survey of all directors and corporate auditors including outside officers concerning the functions that the board should fulfill to play its role, the current situation of its structure and operation and other issues in March, and made discussions based on the results. The findings included that the increase in outside directors and other structural changes have enabled the Board of Directors of Sumitomo Electric to make more active and multifaceted discussions, that operational challenges have been overcome gradually and that the deliberations at the meetings have also become more vigorous. We have thus confirmed that the Board of Directors functions effectively in general for playing its role in determining on important matters and supervising the business execution of directors.

In the meantime, issues to be solved to further enhance the effectiveness of the Board of Directors were also identified, including the examination of what structure the board should have from the perspectives of diversity, etc. and the

development of an environment where more in-depth discussions can be made. We have confirmed that we will continue to address these issues.

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, and has transferred authority to execute business operations to Business Units while clarifying their responsibility. In addition, 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 corporate auditors and the Board of Corporate Auditors, as mentioned above, the majority of the corporate auditors are independent outside corporate auditors with various specialized knowledge and multifaceted views. These auditors, along with full-time corporate auditors and dedicated staff to corporate auditors, are in charge of monitoring in cooperation with the Internal Auditing Department and accounting auditors to ensure lawful and proper corporate management.

Five corporate auditors, consisting of two full-time auditors and three outside corporate auditors including a female one, constitute the auditing system to audit the business execution of directors. The Board of Corporate Auditors establishes audit plans and policies, in accordance with which each corporate auditor fulfills his role, as assigned by the Board of Corporate Auditors. Specifically, corporate auditors 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. Corporate auditors also receive reports from other auditors regarding their audit status, and exchange information with the accounting auditor when required.

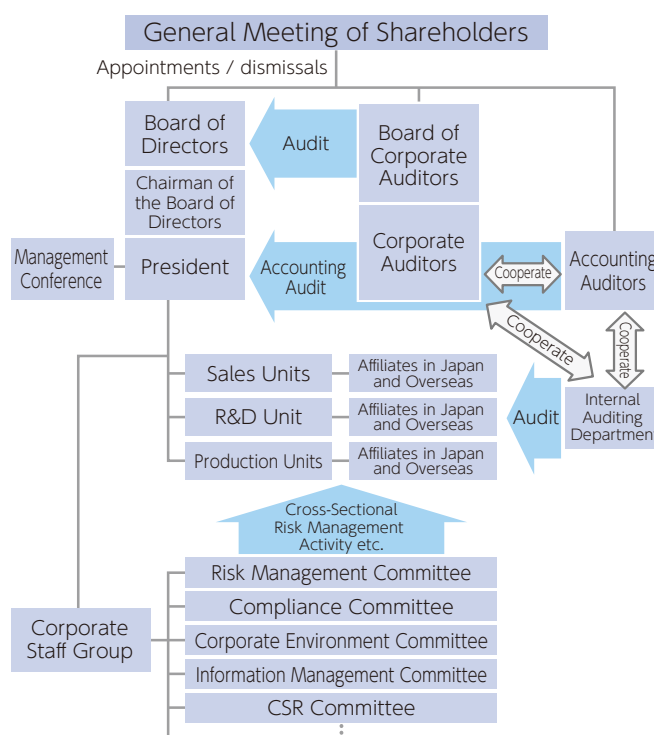
The section in charge of internal audits is the Internal Auditing Department, which surveys any problems and makes proposals on improvement to ensure proper and efficient business performance through audits, including on-site surveys, of our Group companies and other establishments. The department also collaborates with corporate auditors 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.

Sumitomo Electric Group's corporate governance structure



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

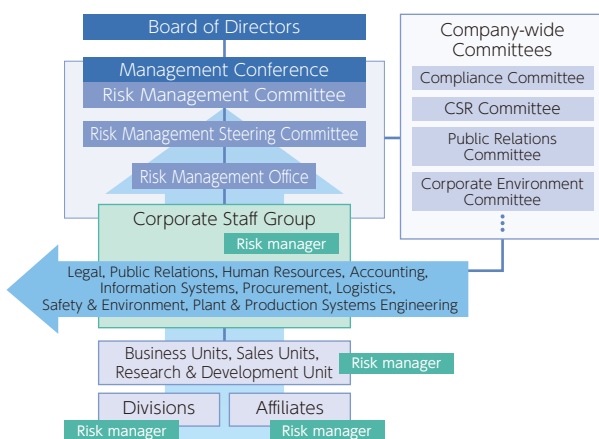
Risk management is performed based on the significance of the risks determined in consideration of the following issues:

- 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 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, probability 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, 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 further enhance the effectiveness of BCPs, we organize a table top exercise in which interested persons from relevant divisions gather to check the BCPs of specific units and affiliates. This exercise is conducted twice a year to reinforce our business continuity capabilities.

《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 policy and guidelines.

《 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.

《 Strengthening of Information Security Measures 》

We have set up an ICT Management Committee that plays a pivotal role in the four countries of China, Thailand, Indonesia and Malaysia as 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 with 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 and automatic encryption of files attached to emails. In addition to these, we launched new initiatives in fiscal 2016 including training to respond to targeted attack emails, trial introduction of AI-based anti-malware software to enhance protection from unknown malware, investigation of the traces of hacking in specific divisions and establishment of a mechanism to investigate and detect any illicit acts using log information of servers and network devices.

With respect to the structure, the newly established SEI-CSIRT (Computer Security Incident Response Team) 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 Fiscal 2016

Target of the training	No. of sessions	No. of participants	Main content
Staff in charge of classification	16	121	Tasks on how to classify goods and technologies
Export control sections	34	931	Export control practice
General employees (e-learning)	—	1,094	Outline of export control and internal rules
Domestic affiliates	2	53	Outline of export control
Overseas affiliates	6	267	Outline of export control and issues to be noted in foreign countries

Intellectual Property Protection

Sumitomo Electric seeks protection of its own technology by proper management of technical know-how, as well as acquisition of the intellectual property rights (IPRs) such as patent rights or 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 intellectual property, and provided the Intellectual Property Department with functions to support business units or R&D units including those in our subsidiaries such as discovery of inventions, investigation of prior arts and IPRs of other companies, formulation of strategy and response from the perspective of intellectual property-related laws and regulations. In order to improve IPR consciousness throughout the Group, we hold a group-wide Intellectual Property Right and Standardization Convention every year to commend the strategic applications that are highly likely to make a contribution to our business performance as well as the excellent cases that have greatly improved business results. We also organize in-house training programs that match the experience and level of proficiency of each employee, and publish the company magazine "IP news" five times a year.

Moreover, we promote 1) analysis of the rights owned by Sumitomo Electric and other companies, 2) IPRs application based on the business plan or safeguarding know-how against disclosure and 3) countermeasure to IPRs of other companies, through concerted efforts among respective divisions, R&D units and the intellectual property department at "IP strategy meetings" or "IP committees" of each division. In recognition of our contribution to promotion of the diffusion of the industrial property rights system and industrial development through these IP activities, we received the Minister of Economy, Trade and Industry Award as part of the FY2013 Intellectual Property Achievement Awards organized by Japan's Ministry of Trade, Economy and Industry (METI).

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

Sumitomo Electric believes that complying with laws and regulations and acting in accordance with corporate ethics comprise the backbone of its management, represent its social duties as a corporation and form the absolute basis for its continued existence and development.

In particular, we consider compliance with competition laws to be a top priority issue, and since the formulation of the Rules for Compliance with Competition Laws in June 2010, we have worked to strengthen the competition law compliance system through the establishment of a system to ensure that the regulations are implemented by specialized organizations and other measures.

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 importance on integrity and not acting rashly or carelessly in pursuit of easy gains, we will continue to make all efforts to ensure that all corporate activities are conducted fairly and honestly and can be trusted by society.

Compliance Committee

The Sumitomo Electric Group has established the Compliance Committee, chaired by the President, as an organization that promotes measures necessary to develop and further strengthen the compliance system. The Committee engages in various activities, including preparing and distributing the Compliance Code of Conduct and organizing compliance training seminars. In addition, the Committee identifies and analyzes group-wide compliance risks, disseminates preventive measures and monitors the compliance activities implemented by each division and subsidiary. In fiscal 2016, the Committee held four meetings (May, August and November 2016, and February 2017).

Compliance Code of Conduct

The Compliance Committee has prepared the Sumitomo Electric Group Compliance Code of Conduct, which explains specific instructions to be followed by employees in their daily work and other situations so that they can act in a socially acceptable way from legal and ethical perspectives. The Code is also based on the Sumitomo Spirit, the Sumitomo Electric Group Corporate Principles and the Sumitomo Electric Group Charter of Corporate Behavior. While the Compliance Manual used to be distributed to the employees of Sumitomo Electric and its subsidiaries in Japan, we revised the overall content of the manual, and also changed the title to "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 training seminars. The regular training seminars for managers are held from April to August concerning such subjects as prevention of illicit acts, compliance with competition laws and prevention of bribery, and we also disseminate the Speak-Up System as mentioned below.

Target	Period
Officers (including executive officers)	Dec. 2016
Managers of Sumitomo Electric and its subsidiaries in Japan	Apr. - Aug. 2016
New employees of Sumitomo Electric	Apr. & Oct. 2016
Newly promoted personnel	Feb. - Mar. 2017

Speak-Up System

Sumitomo Electric 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 reporting and consultation by employees, business partners and other parties not only in the Company but also outside it by appointing a law firm and a specialized call center firm, and the issues reported through this system are addressed with immediate investigation to take necessary action. Sumitomo Electric has also instructed Group companies in Japan and overseas to establish their own in-house consultation contacts, while developing domestic and overseas external contacts at the same time so that they can be used by Group companies, to develop and operate the Speak-Up System on a global scale. We introduce the outline of the system at the time of various internal training sessions and also work to disseminate it through monthly in-house magazines and the Sumitomo Electric Group Compliance Code of Conduct.

Strengthening of the Competition Law Compliance System

For competition law compliance, which is positioned as the most important assignment in our compliance activities, we determined and announced in June 2010 the strengthening of our competition law compliance system through the measures mentioned below. All employees and officers at the Sumitomo Electric Group are firmly engaged in eliminating cartel and collusion, including suspicious acts, and preventing recurrence.

1. Developing competition law compliance rules

In June 2010, Sumitomo Electric formulated new Rules for Compliance with Competition Laws, which contain provisions restricting contact with competitors, and put them into effect. We then promoted the introduction of similar rules and regulations into our subsidiaries in Japan as well as overseas subsidiaries with a sales function, and we are currently operating competition law compliance rules throughout the Group.

2. Forming dedicated organizations and establishing an auditing system

In June 2010, Sumitomo Electric formed the Competition Law Compliance Office in its Corporate Staff Group and the

Sales Compliance Office in Sales Units as organizations dedicated to promoting compliance with competition laws. The Company also appointed a competition law compliance manager and a person in charge of promoting the compliance at each of other units. In addition, we established the Automotive Compliance Office in the Automotive Business Unit in March 2011.

Under the Compliance Committee, the Competition Law Compliance Office closely cooperates with the dedicated organization or person in charge of each of the units involved in actual business activities. By introducing the rules to restrict contact with competitors based on the Rules for Compliance with Competition Laws and promoting related activities such as monitoring and auditing of compliance with competition laws and the Rules for Compliance with Competition Laws, we will develop an effective system involving the front-line players to prevent recurrence of violations.

Established in the respective business units subject to the scrutiny of competition authorities, the Sales Compliance Office and the Automotive Compliance Office promote thorough measures on the front line, such as conducting periodical hearings on compliance with competition laws and monitoring of orders.

3. Enhancing and continuing compliance law training

In spring 2010, instead of the regular compliance training programs for managers organized every year, special training programs on compliance with competition laws were conducted for all members of Sumitomo Electric and its subsidiaries in Japan (excluding employees engaging in manufacturing). In total, 81 sessions were held in 40 locations nationwide for 5,000 participants.

We also include competition law-related issues as an essential key subject in the periodical compliance training sessions to promote the thorough improvement of awareness among employees. In fiscal 2013, we organized special training seminars with focus on compliance with competition laws. These seminars were conducted in response to acknowledgement in December 2012 that, concerning the order for construction of overhead transmission lines received from Tokyo Electric Power Company, Inc., which was operated in the form of an ordinary joint venture, an employee at Sumitomo Electric engaged in cartel activities as a member of the joint venture.

In the meantime, we set up a global e-learning system in fiscal 2013 to provide training on competition laws in 11 languages for employees in Sumitomo Electric and its subsidiaries in Japan and overseas.

4. Establishing action guidelines for competition law compliance

While the Compliance Manual we previously introduced also identified competition laws as a priority matter to be observed, we established new Rules for Compliance with Competition Laws (sales-related) for employees that also take account of foreign competition laws and clearly specify prohibited conducts and matters to be observed in October 2010 as action guidelines specialized for compliance with competition laws. All employees involved in sales received training regarding these guidelines in the sessions organized in October to November of the same year, as well as in the compliance special training seminars held in fiscal 2013. We will continue to make efforts to ensure compliance with the guidelines.

Anti-bribery Measures

Sumitomo Electric introduced an anti-bribery program in April 2013 to enhance its anti-bribery compliance system on a global scale. This program has established rules on bribery-related issues, including ban of bribery, as well as ex ante approval and ex post report on gifts, donations and offering entertainment, in the Bribery Prevention Compliance Policy in response to the recent tightening of regulations on bribery of domestic and foreign public officers in the US, Europe and emerging markets. One bribery prevention officer and one bribery prevention manager are appointed in each unit to build a system to apply the rules.

The anti-bribery program, which has been conducted for more than four years, is operated smoothly under the initiative of the bribery prevention manager at each division. Almost all of our subsidiaries in Japan and overseas have introduced the program to operate it. As the legal system, standards, customs, etc. are different between countries, we act in a careful manner in other countries even more than in Japan. We provided special training, including lectures by local attorneys, for the bribery prevention managers in the respective countries from 2014 to the beginning of 2015, and also organized internal training sessions by bribery prevention managers in overseas companies from October 2010 to March this year. We will continue to work to maintain and enhance the global bribery prevention and compliance system through continuous education, review of the operation manual and collection and dissemination of relevant information.

Developing the Compliance System among Overseas Group Companies

To develop a Group-wide compliance system on a global scale based on a wide concept including compliance management, corporate ethics and the Sumitomo Spirit, Sumitomo Electric organizes visits to affiliates to provide compliance training for top executives and local managers of overseas affiliates.

Our staff visited our main overseas offices and organized compliance training programs designed for local managers of overseas affiliates, which included the basic course (from April 2008 to September 2009) and the advanced course (from January 2010 to June 2011), with the aims of deepening the awareness of compliance and creating a sense of unity as a member of the Sumitomo Electric Group. We also send the CD recording of the lectures, along with the training materials used in the previous training programs, to overseas affiliates, which include the companies that we could not visit due to the schedule or for a geographical reason, so that such affiliates can arrange compliance training programs in a voluntary and continuous manner.

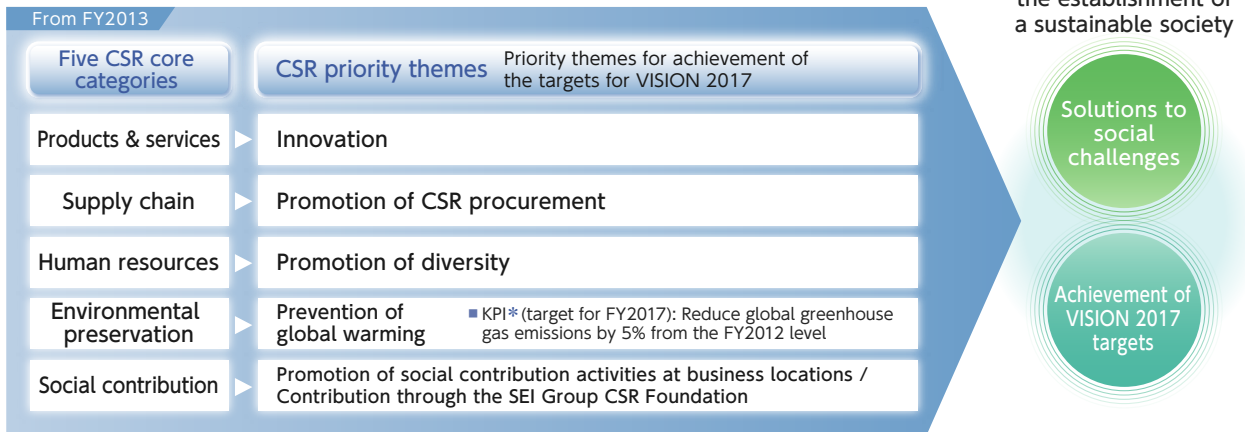
In addition, competition law basic course seminars were organized from October 2011 to September 2012. Since January 2014, we have also provided training sessions for overseas bribery prevention managers, and organized internal training sessions provided by these managers, as part of the anti-bribery measures mentioned above. The competition law compliance training is also provided through the e-learning system worldwide.

We will continuously endeavor to further improve the compliance system of each overseas affiliate through cooperation with the relevant divisions.

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 are contributing to a better society and environment through business operations in line with compliance regulations.

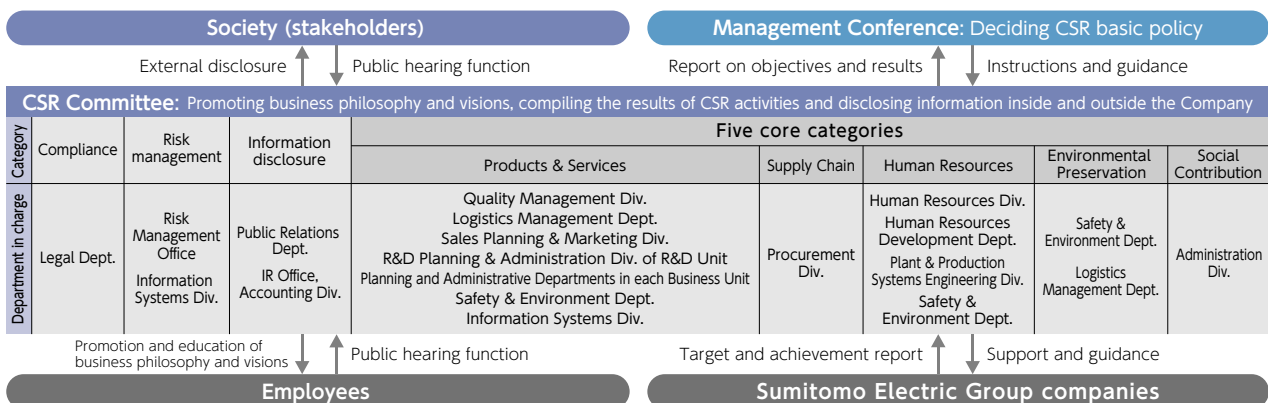
We have taken measures based on the five CSR core categories specified in fiscal 2013: products & services; supply chain; human resources; environmental preservation; and social contribution. We will establish good relationships with stakeholders and continue sustained growth with the aim of becoming a Glorious Excellent Company, i.e., realizing the ideal state of the Sumitomo Electric Group, so as to fulfill our corporate social responsibility.



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. Under the system shown in the figure below, the Committee conducts its activities as a cross-sectional organization to promote CSR initiatives in the Sumitomo Electric Group. The roles of the CSR Committee include:

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.



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"> • Compliance with laws, regulations, administrative guidance, etc. • Tax payments • Cooperation for government policies to solve public problems 	<ul style="list-style-type: none"> • Communications through economic organizations and trade associations • Notifications, response to surveys and questionnaires • Consultation with competent authorities, public comments
	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"> • Reduction of greenhouse gas emissions • Promotion of energy saving and recycling • Reduction of the amount of waste, reduction of the release of harmful chemical substances 	<ul style="list-style-type: none"> • Comply with the relevant laws and regulations • Environmental conservation activities in accordance with the PDCA cycle • Stakeholder dialogue
	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"> • Supply of socially useful and safe products and services • Improvement of customer satisfaction on all aspects including delivery time, etc. • Provision of accurate and appropriate information on products 	<ul style="list-style-type: none"> • Communication through daily operations • Newsletters, e-mail delivery, websites • Information exchange at exhibitions etc.
	Local Communities and NPOs/NGOs	The Sumitomo Electric Group conducts business activities through 394 companies located in approx. 40 countries all over the world (as of March 31, 2017).	<ul style="list-style-type: none"> • Respect for culture and custom, contribution to development • Prevention of accidents and disasters, environmental conservation • Cooperation and coordination for the solution of environmental and other problems 	<ul style="list-style-type: none"> • Participation in events, support of traditional performing arts • Factory tours, opening of facilities, joint hosting of festivals • Employees' contribution to local communities • Communication through cooperation and support • Stakeholder dialogue
	Employees	The Sumitomo Electric Group has approx. 248,000 employees consisting of approx. 39,000 employees in Japan and approx. 209,000 employees in other countries. More than 80% of the Group employees thus work outside Japan (as of March 31, 2017).	<ul style="list-style-type: none"> • Respect for human rights, personality and individuality • Development, use and evaluation of human resources • Creation of a work environment where all employees can demonstrate their capabilities • Contribution to occupational safety and health 	<ul style="list-style-type: none"> • Surveys to create a lively work environment • In-house magazines, Global Magazines • Intranet, President's blog • Management council meetings for discussion between labor and management • Informal meetings between executives and employees
	Shareholders and Investors	The total number of our shareholders is approx. 54,000, and the number of shares issued and outstanding is about 800 million. By type of shareholders, financial institutions and foreign holders own 40.40% and 40.07% of the shares respectively, followed by Japanese individuals and others (10.76%) (as of March 31, 2017).	<ul style="list-style-type: none"> • Maintenance and improvement of the corporate value • Proper return of the profits (as dividends) • Timely and proper disclosure of corporate information 	<ul style="list-style-type: none"> • General meetings of shareholders • Financial result briefings • Reception of investors and interviewers • Annual reports • Investor relations website
	Suppliers	The Partners' Meeting held in fiscal 2016 gathered approx. 90 of our main suppliers. (FY2016)	<ul style="list-style-type: none"> • Fair trade • Support and cooperation for the achievement of CSR procurement 	<ul style="list-style-type: none"> • Communication through daily procurement activities • Partners' meetings • Communication through the supplier survey sheet and other channels

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.

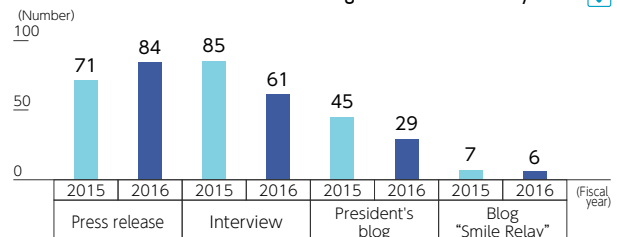
Efforts to Disseminate Information

Sumitomo Electric continued its commitment to the active dissemination of information on a wide range of activities of the Group through various media such as press releases, interviews, newsletter "SEI WORLD" and websites in fiscal 2016 to help our stakeholders improve understanding of the Group.

In our activities to sending information via our websites, we enhanced their content. For example, we posted a video on the demonstration of our concentrator photovoltaic system in Morocco on the page about the energy field and renewed the content introducing the activities of our athletics club. While Sumitomo Electric has been a special sponsor for the Lake Biwa Mainichi Marathon since 2013, we have launched a special website for the marathon every year.

In January 2015, in an effort to enhance awareness of our brand, we launched a visual identity (VI) project, which aims to give consistency to designs, logos, colors and fonts used for company communications throughout the Sumitomo Electric Group and establish a common impression and worldview. Since the launch, we have made continuous efforts to disseminate the VI concept by applying it to various publications and promotion materials.

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



Main Targets and Actual Results in Fiscal 2016 / Main Targets for Fiscal 2017

In the Sumitomo Electric Group, the departments in charge of the CSR core categories respectively set annual targets, 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 2016 and targets for fiscal 2017 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	Main Targets for Fiscal 2016	Results in Fiscal 2016	Evaluation	Page	Main Targets for Fiscal 2017	Related SDGs
Products & services	Reduce complaints by 19% from the previous fiscal year (The target may be revised according to changes in the data collection approach)	Decreased by 21% from the previous fiscal year (calculated based on the actual number of complaints)	○	41	Reduce complaints by 9% from the previous fiscal year	   
	Continue to promote own process quality assurance activities (seventh year) ① Completion of the development of the mechanism for "Design and/or process change control" ② Company-wide development of the "3 points control of quality" ③ Stimulation of theme-based activities and expansion of the scope ④ Introduction of good practices through booklets and exchange meetings ⑤ Development of education in China, ASEAN and North America	① Completed the development of the mechanism for "Design and/or process change control" ② Started the "3 points control of quality" at about 80% of the domestic plants ③ Conducted 266 activities on practical themes in a year ④ Published 4 booklets and held 2 exchange meetings to introduce good practices ⑤ Developed global textbooks of "Quality Control: The Basics of Basics For Supervisor and Foreman" and organized lectures in China and ASEAN	○	39 40	Continue to promote Own Process Quality Assurance Activities (eighth year) ① Strengthening of quality initiatives in the design process ② Company-wide development of the "3 points control of quality" (improvement of the activities) ③ Expansion of activities performed on practical themes ④ Continuation of activities for company-wide dissemination (through the issuance of booklets and holding of exchange meetings about Own Process Quality Assurance Activities)	
Supply chain	<ul style="list-style-type: none"> Continue to make requests based on the CSR Procurement Guidelines to individual suppliers and expand the initiative Promote the expansion of supplier monitoring 	<ul style="list-style-type: none"> In Japan: Conducted a CSR procurement questionnaire survey targeting about 300 suppliers of 16 affiliates Overseas: Expanded the CSR procurement questionnaire survey to additionally target the suppliers of 5 International Procurement Offices (IPOs), and conducted the survey of some affiliates in each region on a trial basis 	○	44	Request suppliers in Japan and overseas to take actions based on the CSR Procurement Guidelines, and promote the implementation of the CSR procurement questionnaire survey	 
	<ul style="list-style-type: none"> Continue to implement the training program that supports compliance Extend the application of common basic rules on procurement to overseas Group companies 	<ul style="list-style-type: none"> Compliance training: Provided to 3,016 persons including employees of affiliates in the Group (the number increased by 10% from the previous year) Basic rules for procurement: On-site inspection was conducted in 9 affiliates in China 	○	46	<ul style="list-style-type: none"> Continue to implement the training program that supports compliance Extend the application of common basic rules on procurement to overseas affiliates 	
Human resources	<ul style="list-style-type: none"> Implement the Global HRM Policy <ul style="list-style-type: none"> ① Promotion of the talent management cycle ② Setting of personnel rules to be commonly applied on a global scale Develop global activities of the HR Division <ul style="list-style-type: none"> ① Dispatch of trainees from the HR Division ② Acceptance of local employees of overseas Group companies into the HR department ③ Dispatch of HR expatriates to Europe 	<ul style="list-style-type: none"> Identified human resources and continued to organize human resource meetings at Business Units Prepared various guidelines concerning personnel matters outside Japan, which are scheduled to be released serially from fiscal 2017 Dispatched a trainee from the HR Division to Indonesia for 2 months A person from a US affiliate was accepted as a line manager of the HR Division in July 2016 Deployed an HR expatriate in Vietnam in July 2016 	△	47 48	<ul style="list-style-type: none"> Realization of the Global HRM Policy <ul style="list-style-type: none"> ① Continuance of promotion of the talent management cycle ② Continuance of efforts to clearly define the personnel rules to be commonly applied on a global scale in writing Develop global activities of the HR Division <ul style="list-style-type: none"> ① Dispatch of trainees from the HR Division ② Continuance of HR manager meetings of overseas Group companies ③ Use of English as the language at the monthly liaison meetings of Human Resources Centers 	 
	<ul style="list-style-type: none"> Develop the SWITCH 17 Campaign (third year) Initiatives for the review of working styles (development of the momentum and design of the system) Continuous implantation of communication measures in each establishment and examination of company-wide measures Mental healthcare measures as part of healthcare measures based on the Health Management Declaration (use of a stress level test) Discussion of action guidelines for fiscal 2018 and thereafter 	<ul style="list-style-type: none"> Joined the Ikuboss Corporate Alliance in August 2016. Provided managers with training to "review the working style" Introduced a work-from-home system for employees who are restricted in terms of working time for child-raising, nursing care and other reasons Introduced a discretionary labor system into the R&D group Used the results of the surveys to create a lively work environment, as well as opinions presented in town meetings, in the examination of human resource management measures Conducted a stress level test and took follow-up measures based on the results including training sessions and interviews 	○	52 53 54	<ul style="list-style-type: none"> Develop the SWITCH 17 Campaign (final year) Strengthening of initiatives with focus on the review of working styles. Aim to reduce total working hours to 1,900 to 2,000 hours in a year and encourage each employee to take 15 paid holidays on average in a year Continuous implementation of communication measures in each establishment and examination of company-wide measures Launch of "Kenkatsu!" activities to assist employees in maintaining and improving their health ("Kenkatsu!" is a coined term meaning activities seeking health) Discussion of action guidelines for fiscal 2018 and thereafter 	 

In the Sustainable Development Goals (SDGs) adopted at a UN summit in September 2015, it is specified that companies should also be committed to the achievement of the goals in a voluntary manner. The main targets for the Sumitomo Electric Group include the fields and themes closely related to the 17 goals.



Core Category	Main Targets for Fiscal 2016	Results in Fiscal 2016	Evaluation	Page	Main Targets for Fiscal 2017	Related SDGs
Human resources	Eliminate serious accidents and accidents resulting in lost work time, and reduce the total number of no lost work time accidents and accidents causing minor injury to 30 or less	Serious accidents: 0, accidents resulting in lost work time: 11, no lost work time accidents + accidents causing minor injury: 27	△	58	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 24 or less	
	Implement priority items for fiscal 2016 <ul style="list-style-type: none"> Promote the establishment of important safety activities <ol style="list-style-type: none"> Activities to prevent serious accidents "Safety! Power OFF Activity" Activities for ensuring safety in multi-worker operations Prevent recurrence of similar accidents Methods for implementation <ol style="list-style-type: none"> Stimulation of bottom-up activities with a top-down approach Identification of daily changes and problems through the 1-2-3 activities 	<ul style="list-style-type: none"> Conducted an inspection to prevent serious accidents in 129 bases in Japan and overseas. Identified a total of 463 problems in the inspection; measures to deal with them are currently being taken Inspected Power OFF Activity and activities for ensuring safety in multi-worker operations. Identified 357 and 567 problems, respectively; measures to deal with them are currently being taken 	○	57 58	Implement priority items for fiscal 2017 (measures to be taken continuously) <ul style="list-style-type: none"> Promote the establishment of the following priority safety activities <ol style="list-style-type: none"> Activities to prevent serious accidents "Safety! Power OFF Activity" Activities for ensuring safety in multi-worker operations Prevention of recurrence of similar accidents involving injury Re-establish safety culture <ol style="list-style-type: none"> Promotion of "Po-Ke-Te-Na-Shi" activities* and elimination of unsafe actions Identification of weaknesses to share them on a company-wide scale and setting of the "state that the company aims to be" 	
Environmental preservation	Achieve the targets in all items in the Action ECO-21 (Phase VI) campaign	Out of the 14 items, Performance achieved the targets: 12 items, Performance failed to achieve the targets: 2 items	▼	60	Achieve the targets in all items in the Action ECO-21 (Phase VI) campaign	
	Conduct environmental audits In Japan: Promote the second series of legal compliance audits Overseas: Complete the first series of legal compliance audits	In Japan: Conducted at 10 sites Overseas: Conducted at 1 site (in the US)	○	62	Conduct environmental audits In Japan: Continue legal compliance audits Overseas: Conduct legal compliance audits (China, ASEAN and the US)	
	Education and training Continue the managerial post-based training, in which simulated diagnosis is conducted using the actual products based on "hiyari" or near-miss reports and past audits	740 persons participated in managerial post-based training	○	61	Continue the practical training, in which simulated diagnosis is conducted using the actual products based on "hiyari" or near-miss reports and past audits	
Social contribution	Increase monetary contributions to university courses, grants to academic and research activities and scholarships supplied through the fund (a total of 166 million yen)	<ol style="list-style-type: none"> Monetary contributions to university courses: 87 million yen in total for 8 courses Subsidies for academic and research programs: 37.9 million yen in total for 31 programs Supply of scholarships: 36.9 million yen in total for 141 persons 	○	73 74	Implement the following fund projects <ol style="list-style-type: none"> Monetary contributions to university courses: 93 million yen Subsidies for academic and research programs: 30 million yen Supply of scholarships: 42.1 million yen 	
	Support the reconstruction of the Tohoku Region and the areas affected by Kumamoto Earthquakes, and promote partnership and cooperation with NPOs	<ul style="list-style-type: none"> Held a market of specialties from the Tohoku region to support its reconstruction from the Great East Japan Earthquake Participated in the TABLE FOR TWO program and donated 20 yen from the sale of each low-calorie meal 	○	74	Promote partnership and cooperation with nonprofit organizations (NPOs) for the support the reconstruction of the Tohoku Region and other initiatives	

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 * "Po-Ke-Te-Na-Shi" activities
This slogan represents basic rules to be followed while walking. Po: Do not put your hands in your Pockets while walking; Ke: Do not use cellular phone (Keitai denwa in Japanese) while walking; Te: Hold the railing (Tesuri in Japanese) while climbing or descending stairs; Na: Do not cross a street at an angle (Naname in Japanese); and Shi: Look both ways (Shisa in Japanese) before crossing a street

Products & Services

Innovation

Our social contribution begins with the development of products and services that meet new social needs

The Sumitomo Electric Group considers "innovation," which is to create products with original features and future potential, as a priority theme. Using a wide range of technologies and products owned by the Group, we are promoting R&D activities that can contribute to the creation of a sustainable society.

- Expand into integrated business fields- Contribution to the establishment of a sustainable society with a new style of electric power and energy
- Enter the life-science business field
- Enter the resources business field

We will contribute to enhancing the information capacity of global optical communication systems with ultra-low loss optical fibers

In recent years, due to the widespread use of smartphones and the expansion of the IoT, there have been increasing demands for improvement in the performance of optical communication systems. Our ultra-low loss optical fiber, Z-PLUS Fiber™, has been deployed in submarine cables that support communication infrastructure to contribute to the expansion of information capacity. The R&D team, to which I belong, have been challenging to reduce light scattering loss from fluctuations in a refractive index by fabricating the core of the fiber by pure silica glass with microscopic disorders reduced as much as possible. In addition, we have continuously developed and improved various fiber-related technologies including fiber refractive index profile design, manufacturing processes and resin coating technology.

As a result of this and other technical development, we set a new world record for the lowest loss of optical fiber, 0.1419 dB/km, in 2017.

In recognition of our contribution over many years through research and development efforts and supply of products, we received the 31st Kenjiro Sakurai Memorial Prize. Sumitomo Electric has been the leader in the field of ultra-low loss optical fibers for more than 30 years and realized various technical innovations of communication infrastructures. I am proud of being a member of the company and would like to continuously contribute to solving problems as a researcher leading this field.



Yoshiaki Tamura Assistant Manager, Optical Transmission Media Department, Optical Communications Laboratory

Research & Development

Won the 31st Kenjiro Sakurai Memorial Prize from the Optoelectronics Industry and Technology Development Association for recognition of our efforts to develop and commercialize ultra-low loss optical fibers for submarine cables

Masaaki Hirano, Group Manager
Yoshinori Yamamoto, Assistant Manager
Yoshiaki Tamura
Yuki Kawaguchi,

Optical Transmission Media Department,
Optical Communications Laboratory

(The names of the departments and positions are those at the time of winning the prize)

Optical Communications Laboratory of Sumitomo Electric received the 31st Kenjiro Sakurai Memorial Prize from the Optoelectronics Industry and Technology Development Association, Japan, in January 2016 for recognition of its efforts to develop and supply ultra-low loss optical fibers for submarine cables. The prize was established in 1985 to recognize the contribution by the late Kenjiro Sakurai, a former director of the association, to the development of the optoelectronics industry, as well as to promote further development of and education within the industry.

We received the prize this time for reducing transmission loss of optical fibers and successfully developing ultra-low loss optical fibers as products suitable for long-distance and

high-capacity transmission. The ultra-low loss optical fibers developed by the laboratory had a minimum transmission loss of 0.149 dB/km and an average transmission loss of 0.154 dB/km as manufacturing basis, breaking the research-level record in the world at that time and still retaining the record as commercialized products in the world today. The products have already been adopted in several submarine optical cable projects, such as a trans-pacific subsea optical fiber cable project for high-capacity transmission, significantly contributing to the global expansion of optical fiber communication networks.



Z-PLUS Fiber™ 150 ULL, ultra-low-loss optical fiber

Promoting research and development with due consideration for the future and creating innovative technologies and products

Technology is the engine of the future and the very source for growth. From our origins as a copper business, we have developed a wide variety of technological bases.

We will continue striving to create new technologies and products with due consideration of future social needs, and further accelerate our commercialization of technology in response to this time of rapid change.

Receiving Top 100 Global Innovators Award 2016

Sumitomo Electric received Top 100 Global Innovators Award 2016 for four straight years from 2013.

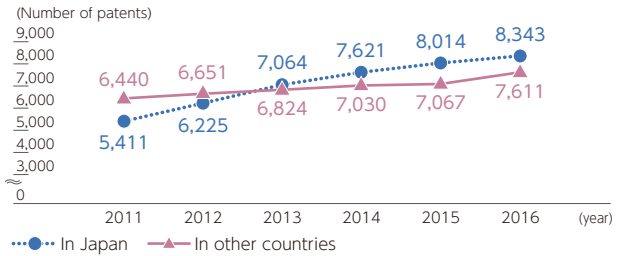
This award is given by Clarivate Analytics to 100 companies and organizations that are vigorously working on innovative developments, are committed to protection of intellectual property rights and have generated globally influential inventions, based on the analysis of patent data every year.

The Sumitomo Electric Group has been pushing ahead with development of new products and businesses that will

contribute to the progress of society, in accordance with the following principles: "Attaching importance to technology" and "Building technical expertise, realize changes and strive for consistent growth." Our efforts have resulted in many ingenious products. We believe this recognition is due to the collective effort of the Sumitomo Electric Group.

With our superb creativity, the Sumitomo Electric Group will continue to develop original, excellent technologies, anticipating social changes and technological trends.

Number of Patents Year by Year



- In Japan ▲ In other countries
- Figure as of December 31 of each year
- The figures in Japan are the total number of patents, utility models and designs.
- The figures in other countries are the sum of the total number of patents, utility models and designs in each country.

Commendation for Invention in Fiscal 2016

Invention Incentive Award in FY2016 Kinki Region Invention Awards

Optical transceiver (Patent No. 5471787)

Transmission Devices Laboratory

Concerning the structure of 100 Gbit/s optical transceiver, this invention was highly recognized for featuring a simple electromagnetic shielding structure with much better shielding performance than ever.

Amorphous-carbon-coated tool and its manufacturing method (Patent No. 3718664)

Advanced Materials Laboratory, Nissin Electric Co., Ltd., Sumitomo Electric Hardmetal Corporation, A.L.M.T. Corp. and Nippon ITF, Inc.

Featuring the physical vapor deposition method using an arc discharge, this invention has enabled the formation of diamond-like carbon (DLC) films on cutting tools. The invention was highly valued as a trailblazer in the application of DLC films on cutting tools.

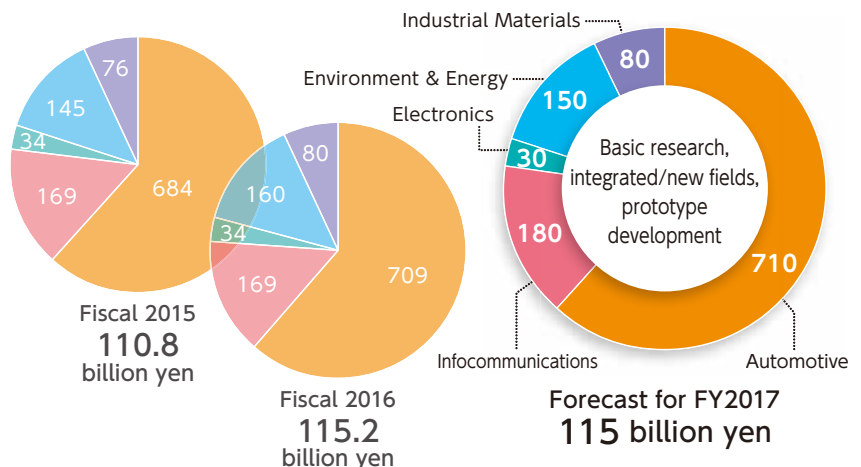


Research and Development Expenditures

VISION 2017
Interim Revision
Cumulative total:
480 billion yen

The annual amount in FY2017 is planned to be 115 billion yen, a similar level to that in the previous fiscal year, which was a record high.

Research and Development Expenditures





Aiming to Restore **Water** in the World

The Sumitomo Electric Group has developed a POREFLON™ membrane-separation wastewater treatment system. Highly valued for its performance and durability, the system is currently used not only in Japan but also worldwide, mainly in China and other Asian countries. This article introduces the product, which also contributes to resource saving through the reuse of process water as well as to environmental conservation.

We will help to solve various water-related problems in the world through our products

▶ We meet customer's requirements with our original technologies and products

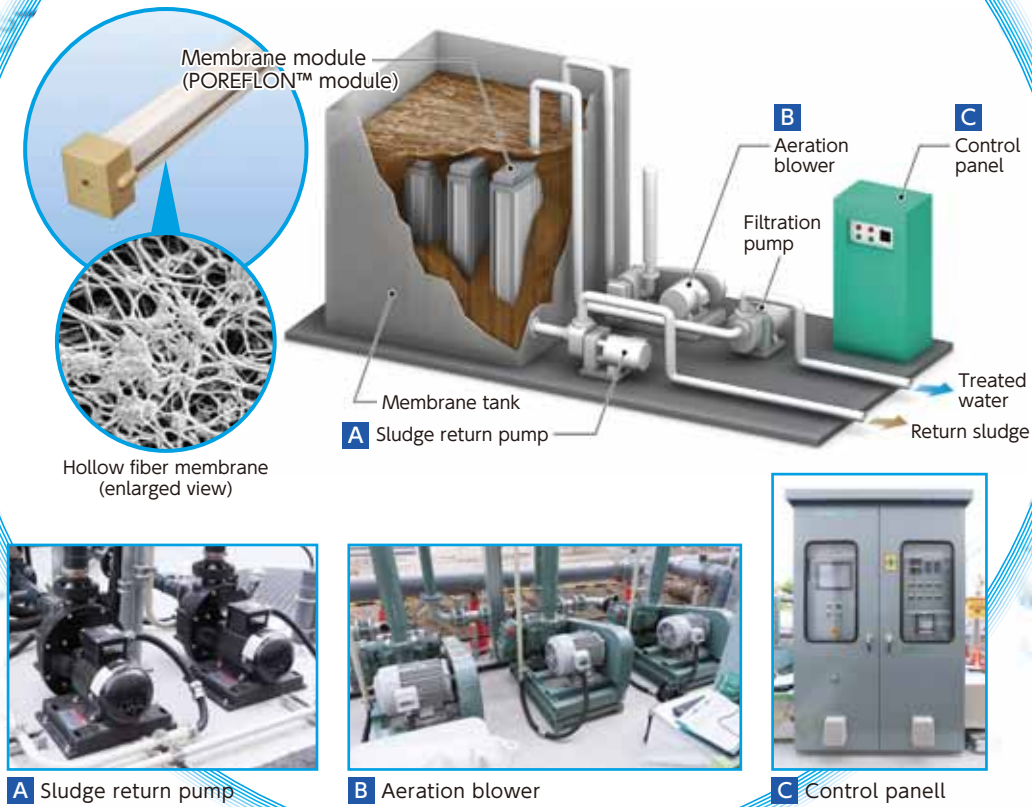
The POREFLON™ membrane-separation wastewater treatment system using the POREFLON™ module is a wastewater treatment system based on the polytetrafluoroethylene (PTFE) membrane created with the technology of the Sumitomo Electric Group. The combination of membranes enables the system to treat activated sludge at a higher concentration than the sludge treated by the conventional standard activated sludge process, ensuring the stable quality of the treated water. Chemical cleaning can be applied because the system is durable and resistant to chemicals. As a result, the burden of maintenance work can also be reduced. Another advantage of this product is that it can be designed according to the specific uses intended by the customer and its equipment. It has been installed in plants, buildings, commercial establishments and various other places in Japan and overseas.



Wastewater treatment system operated in our Osaka Works

Takayuki Nishiura
Manager, Process Engineering Group, Engineering Department, Water Processing Division

POREFLON™ Membrane-Separation Wastewater Treatment System



My department engages in the design of the system at the stage of equipment establishment. We also provide after-sales services including performance checks after the installation and regular inspections, and work with customers to handle the situation concerning wastewater, which has been becoming more difficult due to regulations and other issues. For overseas customers, in particular, the system is required to have proper specifications that satisfy up-to-date local standards because the quality of treated wastewater is so significant that it can influence the operation of the plant.



Inspection of the operational status of the system

We will keep addressing global water issues

The quality of wastewater is now a social issue around the world. This product has potential to keep solving various water-related problems through continuous improvement. Currently marketed mainly in Asia and installed in plants that require difficult wastewater treatment, the product is supporting efforts to prevent river and marine pollution based on its stable treatment performance.

Due to climate change, population growth, economic development in emerging countries and the other reasons, water shortage is becoming a conspicuous problem all over the world. We will continue to orchestrate the efforts of the Sumitomo Electric Group on a global scale to contribute to society in the aspect of water reuse.

Delivered POREFLON™ membrane-separation wastewater treatment systems to Kaihara Co., Ltd.

We delivered this system to the plants of Kaihara Co., Ltd., a leading manufacturer of high-quality denim, in Kisa, Hiroshima and the Ratchaburi Industrial Estate, Thailand. Before the delivery, we carried out a pilot test with actual wastewater for a year and a half jointly with Kaihara and Shinyu Co., Ltd. Then, Kaihara introduced the system into each of the plants and started to operate them in 2015. These systems have

enabled Kaihara to treat industrial wastewater in a stable manner and have substantial effects on the reduction of industrial waste, energy costs and equipment installation space.



Wastewater treatment system installed in the Kisa Plant



Wastewater treatment system installed in the Thailand Plant

Basic Approach

As a corporate group involved in manufacturing, the Sumitomo Electric Group is based on customer-oriented and quality-oriented policies and works for the fundamental target of contributing to society through the supply of high-quality products that satisfy customers. In addition to quality of products, the company's attitude toward quality is evaluated by society more strictly than ever. In this context, our Group works to strengthen its underlying manufacturing competence to deliver high-quality products to customers in a stable manner, and continuously makes steady efforts to systematize daily duties, implement them soundly and correct any problems. 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 with Own Process Quality Assurance activities and SEI's Just-In-Time approach as the two main pillars.

As part of the efforts to systematize the daily operation, while each division used to establish its quality assurance system independently, the Sumitomo Electric Group Quality Management Global Standards was established as a common framework to be applied to divisions throughout the Group in February 2013. We encourage the divisions to develop and strengthen their quality assurance systems based on the standards so that customers can use the Group's products with a sense of security. A company-wide quality improvement activity called the QR-1 campaign is also developed, in which we make continuous efforts to enhance the awareness of quality among all employees with focus on the three priority activities of Own Process Quality Assurance activities, Global Quality Management System Audits and Quality Management Education.

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.

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.

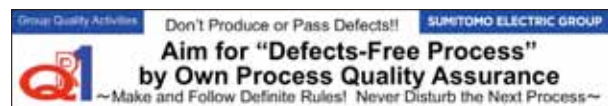


QR-1 campaign logo
QR: Quality & Reliability

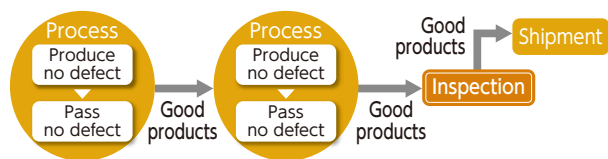
"Own Process Quality Assurance Activities" Aiming for Zero Complaints

We are introducing the Degree of Quality Assurance assessment and efforts for improvement into overseas sites as well

Since fiscal 2010, we have promoted Own Process Quality Assurance activities, which are comprehensive efforts to prevent defects from being produced or passed down to the following process in each process. Defect-free process conditions to prevent defects from being produced or passed down to the following process are set up at the design stage and the conditions are maintained through process management at the mass production stage in the activities. In case that any defect still occurs, we work to identify the cause and pursue the defect-free process conditions for quality improvement. The divisions of the Sumitomo Electric Group, which manufacture various types of products, are committed to their important theme on Own Process Quality Assurance activities. The Quality Management Division works to promote such activities through practitioner training, exchange meetings between different divisions and other support measures.



Banner for the QR-1 Campaign



We also introduced the Degree of Quality Assurance, an indicator of the activities to eliminate defects in processes. Visualizing quality risks with the indicator, we develop the activities in a more quantitative manner. In this system, the prevention levels 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 that causes the complaints is B or higher. For example, even when the prevention level of defect occurrence is 2nd (no defect is produced in a normal operation), if 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. Defects can be passed to the following process or the customer in this case, and efforts have to be made to improve the Degree of Quality Assurance to B or higher. The system of the Degree of Quality Assurance allows the divisions and Group companies to promote activities to fill the gap between the target and current performance in an efficient manner. We will continue to develop these Own Process Quality Assurance activities on group-wide and global scales this fiscal year.

Rank of prevention of defect occurrence	Rank of prevention of defect flow-out				Rank	Status of the processes and operations
	1st	2nd	3rd	4th		
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

Activities to Enhance Quality Awareness

We seek to share and enhance awareness through inspection of manufacturing sites by the top management and commendation of excellent divisions and individuals

It is essential to ensure that all employees understand the top management's thoughts on quality and to thereby raise their own quality awareness. To this end, messages from the President are disseminated through in-house magazines and in-plant broadcasting on the first day of each six-month period, and the top management inspects manufacturing sites to check whether or not their intentions are reflected on the operations. In addition, all workers vow to continue their commitment to the QR-1 Campaign by displaying quality-related banners in each site. In November, which is designated as Quality Month in the Sumitomo Electric Group in Japan, flags and posters are additionally displayed to enhance awareness, and each division also selects a subject for short-term intensive activities to improve the quality structure.

Sumitomo Electric also holds a group-wide Quality Management Convention twice every year (on June 8 and November 15, 2016 during fiscal 2016) to report progress in the quality indicator, problems in each division, achievements from the efforts and other issues to the top management and share such information across the Group. At the conventions, we commend divisions implementing activities that set a good practice for other divisions, as well as individual employees who have created excellent posters and slogans that encourage awareness of quality improvement to stimulate quality-related activities.

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 P55 for details) to improve and ensure the quality of products and services at higher levels. In fiscal 2014, we started a new quality management training course on a nomination base for managers in charge of product development, design, manufacturing and quality assurance, and have since worked to meet the target of providing the training to all managers who are required to take it. Eventually, by the end of fiscal 2016, the course was taken by 1,098 persons, which represented 95% of the managers who are required to take it in Japan.

We work to improve various education programs we have established, such as position-based training for all employees, nomination-based training in accordance with specialized jobs and special issues, including equipment maintenance, and optional training to learn relevant knowledge, along with practical education including QR-J,* MKP* and GKP.* Overseas, we use the personnel education activities of the Sumitomo Monozukuri Development Committee in the U.S., as well as the meetings of Quality Management Committee under the Human Resource Development Committee in China, as opportunities to organize exchanges of information on model cases and provide training sessions on Own Process Quality Assurance activities. In fiscal 2016, a total of 7,020 persons, including overseas employees, completed Quality Management Education programs. The cumulative number of the persons who took the programs since fiscal 2010 has reached 31,256. We will continue to develop the culture of quality first involving all employees.

Global Quality Management System Audits

We conducted audits of 85 Japanese bases and 31 overseas bases by fiscal 2016

In order to evaluate the quality control activities of each business unit in light of the Sumitomo Electric Group Quality Management Global Standards from the perspective of customers, as well as to improve weaknesses of their quality assurance systems, we are systematically conducting Global Quality Management System Audits in the main bases of each business unit. 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 to overcome the weaknesses. Since the start in fiscal 2010, the audits have been conducted at 85 sites in total in Japan. Our domestic facilities are currently undergoing the third round of the audits, and progress in improvement is seen as the audits are repeated. There is also a tendency that the divisions that have proceeded with alignment with the Quality Management Global Standards receive fewer complaints. The audits are repeated with the aim of promoting continuous improvement of the quality assurance system. Overseas, the audits were conducted in a total of 31 sites in China and Southeast Asia with collaboration with units having the center function, along with enhancement of awareness of quality among local employees, in mind. 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.

Glossary

*QR-J

Abbreviation of "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

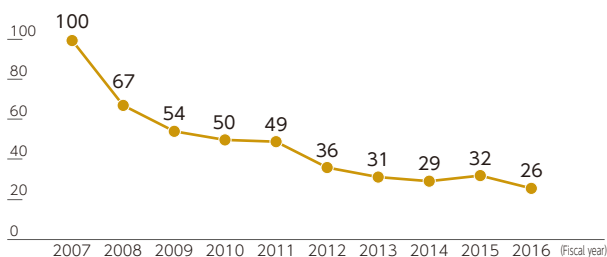
Abbreviation of "GENBA-KAIZEN professional training Program" that is the practical training program to develop key-personnel who are to promote shop-floor improvement.

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. In fiscal 2007 we began to collect data on a global scale including data from overseas affiliates, and the number of complaints has been reduced to about 30% of the figure in fiscal 2007. However, there are still many issues to be improved to eliminate complaints. We will continue to make efforts to eliminate complaints with the three main pillars of Own Process Quality Assurance activities, Global Quality Management System Audits and Quality Management Education, in addition to "Monozukuri Technology Improvement activities."

Number of Complaints by Year (results in 2007 = 100)



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

CSR VOICE

We have reduced complaints by 80% through visualization using a management board and quicker implementation of countermeasures

The Industrial Wire & Cable Division manufactures and markets electric wires and cables that support social infrastructure with two manufacturing subsidiaries in Japan and one outside of Japan. We once received many

quality-related complaints, the number of which were 26 in fiscal 2013. Then in January 2014, we established the Quality Management Department within the division to enhance the quality management structure. With cooperation from the Quality Management Division of Sumitomo Electric, each manufacturing subsidiary developed a mechanism for quality audits, the promotion of Own Process Quality Assurance activities and other initiatives in accordance with the Sumitomo Electric Group Quality Management Global Standards. In particular, we selected the Wakayama Plant of Sumitomo Electric Industrial Wire & Cable Inc., which was receiving many complaints, as the top priority site and performed activities to maintain quality through clarification of defect-free process conditions with the development of a quality control plan, as well as through "3 points control of quality (Standards compliance control, Change point control, Abnormality control)". We also visualized abnormalities and changes on a management board and analyzed their causes at a quality liaison meeting held every morning with production, technical and quality assurance managers to promptly determine the actions to be taken based on the analysis, which speeded up the improvement. These activities have been introduced into other sections of the division, and the Wakayama Plant achieved the target of eliminating complaints to zero throughout fiscal 2016 while the number of complaints in the division as a whole dropped to 5.



Yukifusa Morita
General Manager
Quality Management Department
Industrial Wire & Cable Division



Katsumi Imooka
Director
Sumitomo Electric
Industrial Wire & Cable Inc.

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" (note), 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" (note) 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. As an example, we have already discontinued the use of the four types of phthalates added to the list of substances banned by the RoHS Directive in 2015, which will be regulated from 2019, in most of the products subject to the directive. We are now making efforts to avoid the use of these phthalates in the purchased parts used for the products subject to the RoHS Directive.

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.

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.

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 sales staff 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 the organization have been specified for management staff with customer satisfaction (CS) improvement as a crucial item. We will give feedback based on surveys of superiors and subordinates at an annual group training session to encourage management staff to take the initiative in making changes and 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.

Improvement of Logistics Quality

We recheck basic operations to ensure the safety of transportation

In fiscal 2016, we had 28 transport accidents such as damage to products caused during truck transport, movement on site by forklift and other occasions in Japan (excluding Sumitomo Wiring Systems, Ltd.). While the number decreased by four from fiscal 2015, we had as many as five serious accidents including falls of heavy products.

Many of our products are transported in uniquely shaped containers such as drums and dedicated containers, which requires staff with expertise and experience to fix the containers to pallets and transport them. In the meantime, shortage of truck drivers is a severe issue and it is also getting more difficult to procure trucks for long-distance transportation in some regions. Accordingly, we entrust transportation to a carrier we had no business before more often.

The forklift basic operation competition for truck drivers we have organized will be continuously held. We will strive to ensure the safety of transportation by sticking to the basics of the operations in cooperation with the carriers.

Boundaries of data collection: 3 Works (Osaka, Itami and Yokohama) of Sumitomo Electric, 10 affiliates and AS Brake Systems, Inc.

Activities for Improvement of Office Work Quality

To serve as a model for overseas affiliates, we are working to improve office work quality at our divisions and Group companies in Japan

The Sumitomo Electric Group believes that product quality and office work quality are inseparable in business execution and equally focuses on office work quality improvement activities, aiming to eliminate critical office work mistakes and raise the office work efficiency. Specific activities are: (1) creation and periodical review of relevant documents such as company regulations, business rules and office work instructions, (2) thorough implementation of measures to prevent recurrence of mistakes to reduce office work mistakes, and the use of “Hiyari-Hatto” memos, or near-miss reports, and (3) improvement of office work efficiency by “Kaizen” at the office.

For the relevant documents such as business rules and office work instructions, we set a slogan of “qualitative improvement”. While the number and percentage of completed documents for required for business rules and office work instructions are conventional indicators of the efforts, we have added activities for “enrichment of the content” and “maintenance and management to keep the documents up-to-date to the priority action items.

In our initiative to reduce office work mistakes, we set the slogans of “ensuring the reporting of office work mistakes” and “completion of measures to prevent reoccurrence”. We will develop the initiative to add “prevention of office work mistakes” to the targets and work to reduce the mistakes through such actions as the sharing of information on good examples and provision of related training.

We are also committed to launching the activities overseas and have established a committee that supervises Group companies in China. There are 11 Group companies that have started their own activities in China. To encourage local employees to develop their own activities, we have localized part of the action policies set in Japan and also appoint local employees as the committee members in each company. While promoting the launch of the activities in other companies in China, we will provide the companies that have already started the activities with joint support from the committee in Japan and China.

Supply Chain

Promotion of CSR Procurement

We are promoting CSR procurement activities in response to market expansion

The Sumitomo Electric Group currently recognizes three dimensions of market expansion in relation to material procurement: geographical expansion; expansion of risk factors and other issues concerning procurement activities; and expansion of procurement of materials for new businesses. To respond to such expansion, we set promotion of CSR procurement as a priority theme for VISION 2017 and seek to strengthen the trustful relationships with our suppliers according to the following procedure.

- Check efforts to perform CSR activities in the domestic suppliers
- Check efforts to perform CSR activities in overseas suppliers
- Introduce the CSR procurement mechanism established as mentioned above into Group companies

I will work to promote the widespread practice of proper procurement in the Group

Belonging to Procurement Division, I am in charge of compliance in the procurement activities of the Sumitomo Electric Group as a whole and assist Group companies in establishing their own compliance systems. Specifically, I conduct on-site inspections and organize relevant training programs.

I visit the procurement divisions of the Company and Group companies and inspect them to check whether or not their procurement activities comply with the rules of Sumitomo Electric, and with the Subcontract Proceeds Act* and the Customs Law in the case of divisions in Japan.

The training programs include an OFF-JT* program and a training program to develop key personnel on the Subcontract Proceeds Act for procurement staff including those of Group companies, as well as compliance training on procurement for all employees.

In recent years, I have been committed to the establishment of a more robust and efficient compliance system through inspections using procurement data with the cooperation of key personnel on the Subcontract Proceeds Act cultivated in the training program.

The demand for compliance with laws related to procurement on the Sumitomo Electric Group is becoming even wider and deeper, and we plan to expand the overseas regions to cover in our activities. I will continue to earnestly endeavor to enhance compliance with laws related to procurement.



Kazufumi Yamanaka Assistant General Manager, Management Group, Administrative 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 21 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.

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

CSR Procurement Activities in Cooperation with Suppliers

We check the progress of suppliers in their activities for the CSR Procurement Guidelines, and work for further dissemination and establishment among them

For promotion of CSR procurement, in addition to activities to ensure that suppliers understand the guidelines, we need to check the progress in the dissemination of the guidelines. To this end, we conduct a questionnaire survey of suppliers. As shown in the table below, we have gradually expanded the scope of the questionnaire survey since its start in fiscal 2013 to include suppliers in Japan and overseas of Sumitomo Electric and Group companies. A total of approximately 1,930 companies have cooperated with the survey by the previous year.

The survey enabled us to check the commitment of our suppliers to CSR procurement. We also learned that our efforts to ask them to cooperate were still insufficient, and identified the points to be improved in the survey method. The results of the questionnaire survey are used effectively to reinforce our relations of trust with suppliers, and we are making a series of improvements of the survey method.

Request to suppliers for promotion of CSR procurement and the questionnaire survey method



CSR VOICE

Under the management philosophy of "Let's create happiness from material", we aim to establish a workplace where employees can enjoy their work and demonstrate their value

Mr. Takahiko Kojima, President
Mr. Akira Jindo, Executive Officer and Director of Osaka Sales Office, Kakuichi Kasei Co., Ltd.

Kakuichi Kasei Co., Ltd. positions itself as a creator of ideas on materials and aims to be a unique company that makes the customers happy while centering on materials and new technologies. Having founded in 1921, we currently have approximately 120 domestic employees in total in the headquarters in Osaka and plants in Shiga and Yamaguchi. We also have overseas plants in Shanghai and Indonesia.

The Sumitomo Electric Group has been our customer since 1948, and we deliver connection terminals for power cables and rubber molded products. The transactions have been so fair that we have maintained a long-term relationship.

We have the management philosophy of "Let's create happiness from material", and aim to establish a workplace where employees can enjoy their work and demonstrate their value. We are committed to the development of a corporate culture that ensures that the company or its employees will never head to a wrong direction. To this end, for example, the president talks with employees about business philosophy for an hour or so every month. Having such a corporate culture, we were not surprised at all when we received the CSR procurement questionnaire survey from the Sumitomo Electric Group in 2016 and we were able to respond to the request, considering it to be reasonable.

We will continue to make social contributions based on our materials and processing technologies in various fields including automotive, home appliance and electricity.



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.

* Value Analysis (VA)

VA is conducted to replace "Material X" with cheaper "Material Y" that still provides the quality required for the product.



※ Please see the following page for the entire guidelines.

<http://global-sei.com/csr/guideline/>

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, the task committee in which the Procurement Division also participates revised the guidelines 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.

We also introduced the ECO Factoring System in collaboration with Sumitomo Mitsui Banking Corporation in fiscal 2009, which is now used by 67 suppliers. 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

The 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. To minimize the impact of such suspension on our production and enable quick recovery, we have examined alternative suppliers and products, in addition to replacement with commodity items. We are also developing a communication network with suppliers to ensure that we can

know the impact of disaster in a short time, and collecting information on production and logistics bases so that we can find any sites where we can manufacture or store the products in the affected area at the time of disaster.

In fiscal 2016, we had fears of a supply shortfall due to the Kumamoto Earthquake, a trouble in the production line at a plant of a chemical manufacturer in Japan and suspension of operation caused by fire and other reasons. 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 and receiving supply preferentially with the cooperation of our suppliers. 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

Approx. 90 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.

To help overseas suppliers establish CSR procurement, we present the guidelines at Partners' Meetings and reverse exhibition/negotiation meetings.*

In addition to the group-wide Partners' Meetings, some of our divisions and partner companies also hold such meetings individually.



Partners' Meetings

Glossary

* Issue of conflict minerals

Armed groups that are involved in serious violations of human rights obtain funding from trading of tantalum, tungsten, tin, gold and their derivatives produced in the Democratic Republic of the Congo and its neighboring countries.

* Reverse exhibition/negotiation meeting

A trade fair to exhibit items used in the Sumitomo Electric Group and ask suppliers to propose better alternatives in terms of quality, cost and delivery

Initiatives to Ensure Compliance with Laws Related to Procurement

We will promote compliance in procurement through thorough inspection and training

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 organized training seminars in Sumitomo Electric and its affiliates in Japan again in fiscal 2016. We also conducted on-site inspections in our domestic and overseas affiliates to confirm compliance with the rules.

Results of training and on-site inspection

Training seminars	<ul style="list-style-type: none"> • Organized in 27 regions (video conference: 10 regions; delivery lecture: 17 regions) • Attended by 3,016 persons in total • Themes: Subcontract Act, Customs Law and internal control 	
On-site inspection	Subcontract Act and internal control	In Japan: 7 division of Sumitomo Electric, 5 affiliates Overseas: 9 affiliates
	Customs Law	In Japan: 28 divisions of Sumitomo Electric and its affiliates importing directly from overseas

We selected the Subcontract Act, the Customs Law and internal control as the themes for the training seminars, and organized three levels of sessions to enable the participants to attend suitable ones according to their knowledge level and duties. In addition to delivery lectures, we started to provide training via a video conference system in fiscal 2012, which allowed more locations to hold the seminars and increased the participants. We will continue to work to expand the locations and further enhance the awareness of compliance with laws related to procurement within our Group.

In on-site inspection, the Procurement Division visits the target sites to check compliance with laws related to procurement. The inspection of Sumitomo Electric and domestic affiliates in Japan aimed to confirm compliance with the Subcontract Act, the Customs Law and internal control rules. For inspection on the Subcontract Act and internal control rules, we selected the target sites on the assumption of regular visits to them in the future. With respect to the Customs Law, all of the sections importing directly from overseas were inspected to check the correctness of the amounts in custom reports, etc. Inspection of overseas affiliates focused on the check of compliance with rules on internal control.

In fiscal 2016, we received on-site investigation by the Small and Medium Enterprise Agency of Japan concerning compliance with the Subcontract Act and other issues in September. We also underwent a post-entry audit regarding the correctness of the amounts in custom reports and storage of confirmation documents by customs inspectors in February 2017. The investigation or audit was completed with no

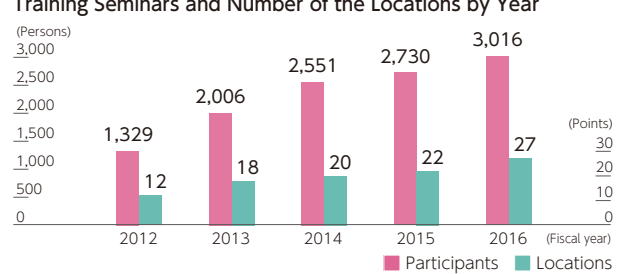


Procurement Compliance Training Seminars

indication of particularly major issues.

The Procurement Division will continue to expand and improve the education and inspection activities to promote compliance with laws related to procurement.

Number of Participants in Procurement Compliance Training Seminars and Number of the Locations by Year



Education System

We organize training seminars in Japan and overseas to improve procurement skills

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

The OFF-JT program in fiscal 2016 was composed of 7 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, 291 persons attended the lectures.

Aside from these initiatives, we organized a training program to develop key personnel on the Subcontract Act, and provided a certificate for 19 persons who completed the program. This program develops core personnel for the establishment of an autonomous system to comply with the act in each division and company because the Subcontract Act has to be made known widely not only in the sections in charge of procurement but also in manufacturing and development sections.

Overseas, we hold liaison committee meetings in the regions where our Group companies and affiliates are concentrated. The meetings are attended by staff in charge of procurement of our affiliates in the respective regions, who are provided with training seminars concerning procurement.

In the future, we will organize training seminars regularly to further disseminate the Basic Procurement Policies and consider providing such seminars at more sites.



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 FY2016	7	26	159**	23
	2nd half of FY2016	7	26	132**	23
Key personnel development program	2nd half of FY2016	1	5	19	16

**Number of those who passed the final exam

Human Resources

Promotion of diversity

Removing various barriers, we will accelerate the globalization of our human resources and organization

The Sumitomo Electric Group operates with more than 200,000 employees at approximately 390 companies located in roughly 40 countries all over the world. We have started to actively promote globalization of the human resources employed in Group companies in Japan and overseas. We believe that globalization is not only a part of the CSR activities but also a business strategy to maintain market competitiveness.

- Introduce a new HR system to show career opportunities within the Sumitomo Electric Group beyond individual companies
- Develop an institutional framework to identify executives in group companies as Global Executives
- Develop common guidelines for both international and inter-firm mobility

We are committed to facilitating the growth of our global business through the planning and implementation of global HR strategies

I started working at an overseas subsidiary of Sumitomo Electric in the US from 2004 and joined Sumitomo Electric in Japan in 2015. Now I am a member of the Sales Planning & Marketing Division in Tokyo.

One of our missions is to facilitate the growth of global businesses of Sales Units by strengthening our global HR strategy.

Our main focus is to align our HR strategies with our overall business strategies as we tackle pieces of the HR puzzle in areas such as talent-attraction, succession planning, and HR development.

Business strategies are executed by people, so we strive to create a blueprint that provides an inclusive environment for all employees globally to contribute to the acceleration of our growth and value creation.

We are currently collaborating with HR and the sales units to revamp our position in the global talent war. The most fulfilling part of our journey is working with stakeholders to determine the appropriate balance between localization and globalization.



Chiang Chiali | Manager of Sales Promotion Group, Sales Planning & Marketing Division, Social Infrastructure Sales & Marketing Unit

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 240,000 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 SEI Group Global Executive (“SEG Global Executive”) and other international employees in the business management

The Sumitomo Electric Group has adopted the Global Grade System, which is a human resource development system applied commonly across the Group and 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 35 persons, most of whom are executives of overseas Group companies, are recognized as 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 SEG Global Executives to promote these activities. We have set up four committees of Americas, EMEA, South East Asia, and China, which are working on a wide variety of subjects, such as human resource development and strengthening of manufacturing abilities in the respective regions, under the leadership of SEG Global Executives.

We also use the Overseas Top Executives’ Conference to incorporate the proposals presented by the area committees into the management of the Sumitomo Electric Group. In this conference, top executives of Sumitomo Electric and its overseas affiliates gather every year to discuss global management issues. While it has been held in the two regions of Americas and China, we started to organize it in Europe and Southeast Asia as well in 2017. Through the conference, we will further promote diversity management in the Sumitomo Electric Group.

《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 will set up a program to have them work in Japan either as expatriation or short-term assignment. We will also 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.

Group Global Magazine “ALL SEI”

We are committed to the promotion of communication between employees of Group companies in Japan and overseas

We publish “ALL SEI,” a periodical commonly distributed across the Group, as a communication tool for Group employees both in Japan and overseas.

ALL SEI conveys the Sumitomo Spirit, the Sumitomo Electric Group Corporate Principles, messages from executives and information on our business performance, as well as information on our business and social contribution activities in various regions, in order to share information and cultivate a sense of unity among Group employees.

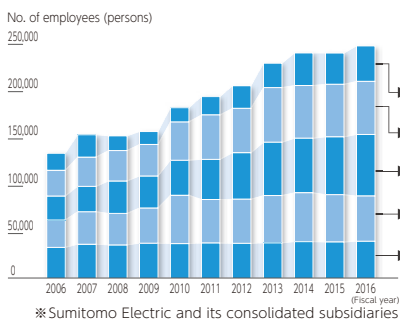
While ALL SEI has contained an interview with executives from group companies, who work actively in various parts of the world, since the Autumn 2011 issue, we also started to provide articles on interviews between the President of Sumitomo Electric and SEG Global Executives in 2016. Thus, we are also committed to disseminating the significance of diversity management in the Group.



ALL SEI

Number of Group Employees in the World by Year

Numbers as of March 31 of each fiscal year



Fiscal year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015			2016		
										Male	Female	Total	Male	Female	Total
Americas	18,201	23,962	15,744	13,852	15,164	19,712	24,273	29,470	34,828	18,061	15,439	33,500	22,481	15,478	37,959
Europe/Africa	27,634	31,406	32,667	33,834	41,230	47,735	47,644	54,245	56,477	21,413	34,860	56,273	22,135	34,662	56,797
Southeast Asia	25,766	27,167	34,792	34,310	37,538	43,000	49,868	56,408	58,278	20,032	41,816	61,848	21,440	44,404	65,844
China	29,367	34,939	33,808	37,843	51,887	46,788	47,390	47,646	52,323	20,760	29,947	50,707	20,196	28,298	48,494
Japan	32,885	36,251	35,536	37,364	36,954	37,499	37,148	37,715	38,892	31,371	7,166	38,537	31,915	7,321	39,236
Total	133,853	153,725	152,547	157,203	182,773	194,734	206,323	225,484	240,798	111,637	129,228	240,865	118,167	130,163	248,330

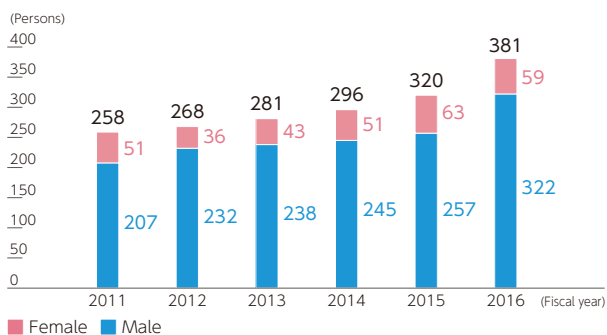
Diversity in Recruitment

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

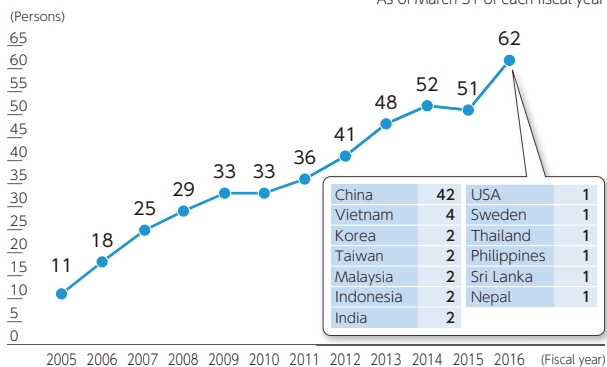
In fiscal 2016, Sumitomo Electric employed 177 new graduates for main career track in Japan, 23 of whom were female and 8 were overseas students, etc. We also hired 81 mid-career employees. To support the development of our various business activities including those in new fields and global markets, as well as to fulfill our social responsibility, we continue to actively recruit women, non-Japanese, students from foreign countries, mid-career employees and other diverse personnel.

To ensure that diverse talents can demonstrate their capabilities regardless of nationality, race, gender, age or other background in the Group, we will continuously work to promote training and development programs, deployment and promotion beyond the borders of individual companies and offer various career opportunities.

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



Number of Employees Working for Sumitomo Electric Who Were International Students



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

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.

(1) Plan period (1st phase)

2 years from April 1, 2016 to March 31, 2018

(2) Recruitment

[Targets]

- We aim to increase the women's share in the new graduates for main career track (to 40% or more for clerical staff and 15% or more for technical staff).

[Initiatives]

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

[Current situation]

Employees who entered the Company as of April 1, 2016: 16.9% for clerical staff and 11.3% for technical staff
Employees who entered the Company as of April 1, 2017: 43.3% for clerical staff and 15.3% for technical staff

(3) Appointment

[Targets]

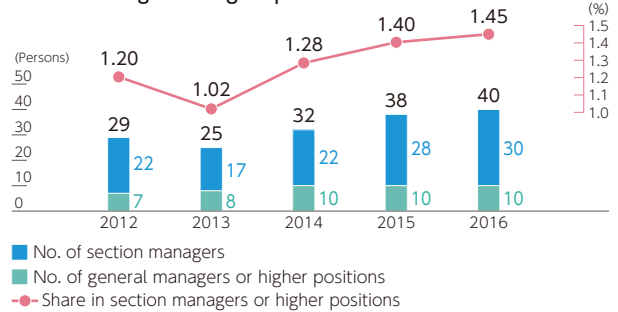
- We aim to increase the women's share in section managers or higher positions to 1.5% or more.
- We aim to increase women's share in assistant managers to 10% or more.

[Initiatives]

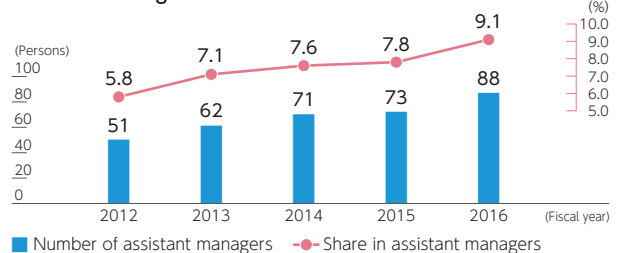
- Implementation of measures to support female employees on main career track in their career development
- Development and appointment of female employees on general track
- Monitoring of promotion of women in each division
- Realization of flexible working styles
- Establishment of a network of employees that responds to diversity

[Current situation] See the graphs below

Number and share of women in section managers or higher positions



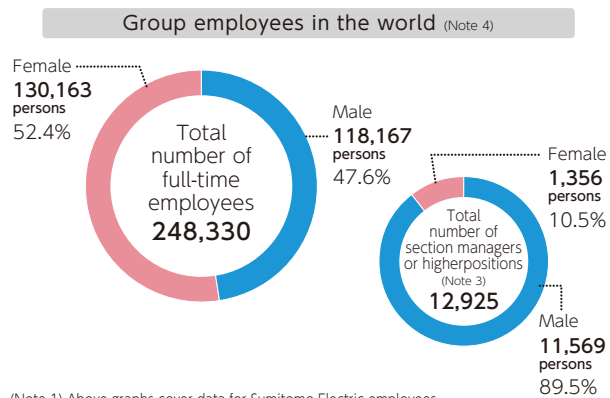
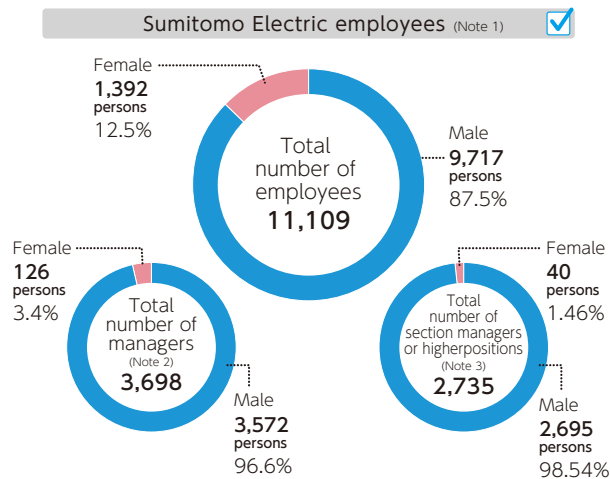
Number and Share of Women in Assistant Managers



(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

As of March 31 of 2016



(Note 1) Above graphs cover data for Sumitomo Electric employees, including those on loan to Sumitomo Electric affiliates and other organizations.
 (Note 2) Managers: assistant managers, section managers, division managers and management
 (Note 3) Section managers or higher positions: section managers, division managers and management
 (Note 4) Sumitomo Electric and its consolidated subsidiaries

《 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.

《 Support of Career Development 》

In comparison with men, women are more susceptible to life events and have less role models. Accordingly, women tend to have difficulty in imagining their career path at present, which is also due to the impact of monoculture in organizations. In this context, we organized a training program for superiors of female main career track employees in fiscal 2016. A superior was paired with his/her female subordinate to discuss the career of the subordinate for an hour to give the superior an opportunity to consider support of her growth in accordance with her value, motive and competence through the dialogue.

《 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 an FY2016 Nadeshiko Brand

We were selected as an FY2016 Nadeshiko Brand in March 2017. The Nadeshiko Brand designation is granted to the enterprises selected jointly by the Ministry of Economy, Trade and Industry of Japan and the Tokyo Stock Exchange as organizations that actively promote the development of an environment where women can keep working as well as the use of female personnel.



CSR VOICE

Career development during child rearing

Nao Nagata

IT Application Promotion Group, Information Systems Division



I took maternity leave and childcare leave twice and now continue to work while using the short-time work system and the teleworking system. Although the number of female employees is growing, I assume that there are still few superiors with experience of having female subordinates who continue to work after childbirth.

When I participated in the childbirth and rearing support program, the Human Resources Division provided my senior with explanations about how hard it is to continue working during pregnancy or after return from maternity leave and what makes female workers anxious, as well as a description of the related systems. With understanding from the senior, I have been able to keep a balance between work and child rearing while feeling motivated without lack or excess of consideration. While I have great support from various programs, it is still hard to balance childcare and work. There was no room in my heart to think about my future career and I sometimes felt anxious about until when this situation would continue. In the training program for the superiors of female main career track employees, I had an opportunity to make a list of my strengths, weaknesses, things that make me happy and other items, which allowed me to somewhat image how I can grow through my current work, as well as my career path after the growth. I hope that more initiatives like this are introduced to establish a pleasant work environment in the future because they can give employees, including men, good opportunities to turn a vague feeling of uneasiness into a positive feeling.

|| 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

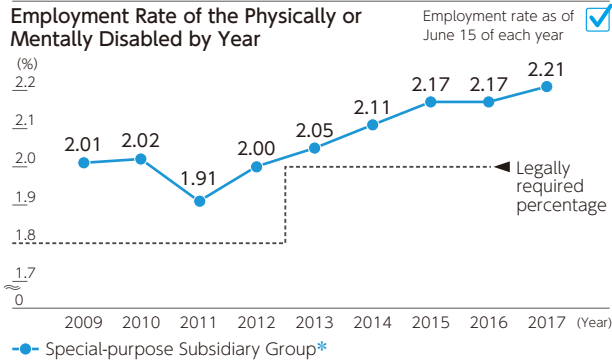
Sumitomo Electric has been traditionally working to promote employment of persons with physical disabilities. To further promote employment of persons with physical or mental disabilities and increase their employment rate, we established a special subsidiary, Sumiden Friend, Ltd., on the premises of 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 and production of buffer materials for packaging, Sumiden Friend has expanded its operations gradually to also engage in conversion of drawings and other paper documents into electronic files and shredding and recycling of waste paper. We established Yokohama Branch in 2013, Tokyo Branch in 2014 and Osaka Branch in April 2015. As of March 2017, 65 employees are working at the company, including 38 persons with disabilities.

Number of Employees with Disabilities at Sumiden Friend by Year

	2011	2012	2013	2014	2015	2016	2017
The disabled	12	12	20	28	33	39	45

(Persons)

Employment Rate of the Physically or Mentally Disabled by Year



CSR VOICE

We enjoy working with colleagues every day

Haruto Arakawa, Hidemi Asada, Masaya Shiki
Osaka Branch, Sumiden Friend, Ltd.



We are working on the site of Osaka Works as employees of Sumiden Friend. There are currently 13 employees. We engage in jobs to assist operations, such as the loan of foliage plants, conversion of paper materials into PDF documents, packing of buffer materials and sorting out of documents. In 2016, we cooperated in the Seka-Waku Book Campaign, which aims to send vaccines and make donations to children in developing countries. All of us stood in front of a cafeteria for four days and loudly asked employees of the Osaka Works to donate second-hand books. The jobs in the company are challenging and giving us the joy of working. We hope to engage in various jobs because we believe we can do more.



Respect for Human Rights in the Workplace

We respect human rights and strive to establish sound and lively workplaces

Sumitomo Electric respects human rights in its business operations in accordance with the Universal Declaration of Human Rights, which stipulates that "All human beings are born free and equal in dignity and rights."

More specifically, the Sumitomo Electric Group Charter of Corporate Behavior, which was instituted based on the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles in September 2005, specifies respect for human rights, professional development and establishment of safe and sound workplaces.

While constantly responding to increasing social demand as to human rights and other changes in the environment, Sumitomo Electric takes a wide range of measures as a corporation to solve various human right issues, and strives to create lively workplaces where each employee can work with enthusiasm.

《 Compliance Code of Conduct 》

Respect for human rights and prohibition of discrimination are clearly stated in the Sumitomo Electric Group Compliance Code of Conduct, along with specific examples.

《 Human Rights Training and Enlightenment 》

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 the internal training, "human rights" have been added as a subject of the SEI University training programs that are compulsory for all employees. Human rights training is also included in mandatory training programs respectively for executives, newly promoted personnel and new employees. In 2016, the total number of participants in the human rights-related seminars, including the education provided mainly by Human Rights Task Committee members at the worksites, was 8,737.

As part of the enlightenment activities, we organize an in-house contest for human rights slogans every year. The contest in 2016 received 4,269 slogans.

《 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 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.

《 Cooperation with Human Rights Organizations and Governments 》

Sumitomo Electric participates in human rights organizations including the Corporate Federation for Dowa and Human Rights Issue, Osaka. In cooperation with relevant governmental agencies and other organizations, we work toward the realization of a society in which human rights are guaranteed for all.

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.

SWITCH 17 Campaign

We are promoting creation of workplaces where employees can work lively to achieve VISION 2017

Sumitomo Electric has promoted company-wide campaigns with the aim of ensuring that employees can achieve the proper balance between work and life. In the SWITCH 17 Campaign, which was launched in fiscal 2014 and includes the previous initiatives, individuals and workplaces set targets in the four categories of work style (review of the way of working), health care (physical and mental health management), communication (improvement of communication at the workplace) and self-development (improvement of skills or knowledge with employees' own will), and work to meet the targets.

To create a workplace that allows diverse staff to work comfortably, which is essential to compete globally in the future, it is necessary to further promote the review of working styles. We set targets for the reduction of total annual working hours and encourage employees to take paid holidays, while making efforts to improve productivity in all Group companies and divisions.

In 2017, we introduce a system to take paid holidays in a planned manner (five days on an individual basis and two days on a divisional basis) to encourage employees to proactively take paid holidays.

The measures are taken in line with the issues of individual workplaces and persons identified based on the results of the Survey to Create a Lively Working Environment, a questionnaire survey to investigate the awareness of employees, in order to make the workplaces more attractive.

Reduction of total annual working hours	Target for 2017: 1,900 to 1,999 hours in a year
Encouragement of employees to take paid holidays	Target for 2017: Average number of paid holidays taken by an employee in a year is 15 days.

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

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Average overtime hours per month	22.6 hours	22.1 hours	21.0 hours	14.2 hours	19.1 hours	20.5 hours	18.6 hours	19.3 hours	20.4 hours	20.8 hours	20.2 hours
Average number of paid holidays taken by employees per year	11.5 days	11.4 days	12.1 days	12.4 days	11.5 days	12.3 days	11.7 days	10.4 days	12.1 days	12.1 days	14.1 days

Average total working hours by year



(Note 1) Average among labor union members (those who belong to three Works, Sumitomo (SEI) Electronic Wire, Inc., Osaka Head Office, Tokyo Head Office and Chubu District Office (including those who are loan to subsidiaries))

(Note 2) The data are based on January to December in 2016

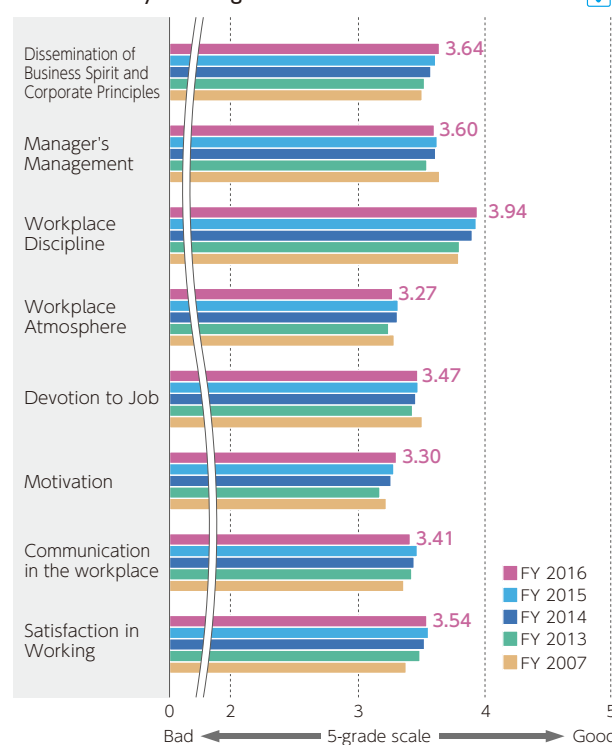
Implementation of the Survey to Create a Lively Working Environment

We have added questions about dissemination and sharing of VISION 2017 for better 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 2016 as well, about 20,000 employees were surveyed in October and November, including those of Group companies. Some overseas Group companies were also covered from the survey in fiscal 2015.

The scores are presented in the figure below. While the survey results show improvement in most items, there are still issues to be addressed in some areas, and we will design and implement personnel measures to respond to them. The survey results are also fed back to the person responsible for each organization. Each workplace specifically identifies possible problems and promotes measures to solve them.

Results of the Survey to Create a Lively Working Environment



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 Works, in which a group of employees in specific functions from different sections directly 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 reform, as well as those specific to their functions, and share such problems to seek clues and solve them. The meetings also provide the participants with opportunities to listen directly to the policies of the Company and opinions of executives and to help them create networks with employees in other divisions who are close in age.

In fiscal 2016, we organized the town meetings for section chiefs and deputy section chiefs in production sites at the three Works of Osaka, Itami and Yokohama, as well as the town meetings for managers and main career track employees at the eight locations of Osaka Head Office, Tokyo Head Office, Osaka Works, Itami Works, Yokohama Works, Chubu District Office, and the areas in Kanto and Hitachi. The opinions and other comments presented in the town 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.

Sumitomo Electric Group Health Management Declaration

We will further enhance our activities to realize health management* in cooperation with the Health Insurance Society

The Sumitomo Electric Group cannot achieve sustainable development or growth without the health of each employee. The Japanese Government selected "Extending the nation's healthy life expectancy" as one of the main themes in its Japan Revitalization Strategy (Cabinet Decision in June 2013). In the strategy, companies are required to engage in the health management of their employees actively.

While our Group had already mentioned its commitment to "Safe, Sound Workplace and Employees' Growth and Development" in the Sumitomo Electric Group Corporate Principles and the Sumitomo Electric Group Charter of Corporate Behavior, we also announced the Sumitomo Electric Group Health Management Declaration in line with the social demand mentioned above in December 2015.

《 Establishment of the Sports & Wellness Project Promotion Office 》

We established the Sports & Wellness Project Promotion Office in January 2017 for the realization of health management. This office encourages employees to improve their health, enhance awareness of health and develop healthy habits so that they can work vigorously for a long time. In the meantime, health and sports are common topics for everyone. Through the organization of interesting events and support of corporate sports activities, we will work actively to create lively workplaces.

《 Lifestyle Habit Seminar 》

We invited a lecturer from Sumitomo Hospital and held a seminar on the mechanism of metabolic syndrome and measures to prevent it under the theme of "11 years from the

indication of metabolic syndrome - correct understanding and its results." The seminar was also broadcast on television in the company sites, and 167 participants enhanced their understanding of the subject.

《 Health Festa 》

We organized Health Festa in conjunction with the Sumitomo Athletics Festa held on October 16, 2016. With the development of fitness habit among employees and their families as the theme, the event provided an exercise corner for children, physical fitness measurement services and yoga class, attracting about 400 visitors including local residents.



Health Festa

Mental Health

We are committed to management of mental health care for employees across the Company

Sumitomo Electric is committed to dissemination of basic knowledge regarding mental health care through distribution of a related handbook and supply of relevant information on the corporate website and in-house magazines. We also work to manage mental health care for employees on a company-wide scale by providing "self-care" training to encourage employees to pay attention to any signs of their own mental health problems, as well as "care by supervisor" training for management level employees.

We also station counselors at major operating sites, allowing employees and their family members to consult external counselors from May 2008. Thus, we have set up a system that helps us through daily communication to remain aware of employees and their family members with mental health issues, and enables us to take early measures to address these issues. For employees who are absent or on leave due to mental health issues, we have a program to provide step-by-step support to help them return to work, and take measures carefully in cooperation between workplaces, HR staff members and company doctors and other specialists.

Number of Employees Who Took Mental Health Training Course

Year	2009	2010	2011	2012	2013	2014	2015	2016
(persons)	285	215	767	521	557	580	367	1,221

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 2016, we introduced a teleworking system in July to increase job opportunities for the employees subject to



Mark Certifying Corporate Support for Parenting, Kurumin*

* "Health management" is a registered trademark of Workshop for the Management of Health on Company and Employee, an NPO.

Glossary

*Mark certifying corporate support for parenting, Kurumin

The Ministry of Health, Labor and Welfare granted this mark to Sumitomo Electric for achieving the goals set under its First Action Plan (from April 2005) to Fifth Action Plan (to March 2015) based on the Act on Advancement of Measures to Support Raising Next-Generation Children.

constraints on their work at various life stages (pregnancy/childbirth, child rearing and nursing care) and thereby develop an environment where all employees can perform at their full potential. In addition, nursing care seminars were organized in October and November to provide relevant information for the generations that may face the need to care for family members. We thus make efforts to help employees balance work and life.

Various Support Programs

We provide each of the employees with various types of support

《 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. This system allows temporary retirement in such a situation in order to prevent employees from retiring and encourage them to return to work after the leave.

《 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 added a third center in Itami Works in March 2009. As of March 31, 2017, these three centers take care of 57 children in total. 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.

《 Teleworking System 》

We introduced a teleworking system, which allows employees who face restrictions to their work due to childcare, nursing care, etc. to work at home or other locations in fiscal 2016. 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.

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 child care centers for children	Users of the volunteer holiday system
	Male	Female	Total		Male	Female	Total	Male	Female	Total		
2012	12 (10)	115 (60)	127 (70)	65	18	254	272	1	21	22	64	6
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

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

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

CSR VOICE

I am using the teleworking system

Rieko Miki Assistant Manager, Solution Support Group/IR Office, Accounting Division

I returned to work immediately after my daughter reached the age of one. After returning to work, I had no choice but to shorten the working hours due to the long commute time. I also have experience that I interrupted my work in haste with a call from the daycare center telling that my daughter got sick. Then, I learned the introduction of a teleworking system and consulted my superior if I could use the system. With his approval, as well as an understanding of work colleagues, I started to use the system once a week or so. The reduction of the commute time enabled me to work on a full-time basis, and I have also expanded the scope of work than that when I was using the short-time work system. The teleworking system can now be used in more various ways and is easier to use, which is convenient for me. Above all, I am grateful that my superiors and colleagues express understanding for the use of the system. It would be difficult in many ways to balance child rearing and work without the understanding of the company while it is needless to say that cooperation of family members is also essential. I feel that the work environment in Sumitomo Electric, which has well-developed systems for employees who are raising children and caring for family members, is very pleasant. While there are various troubles as my daughter is still small, I would like to do my best while thanking the company for the support.



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 aim of becoming a Glorious Excellent Company, the entire Group is developing various training programs at SEI University to familiarize the entire Group with the Sumitomo Spirit and the Sumitomo Electric Group Corporate Principles, share the same management strategies and visions and thereby nurture human resources with competence, skills and knowledge that enable them to demonstrate their capabilities in the international arena.

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.

Training System of SEI University

More than 300 programs are conducted to support human resource development

At SEI University, we organize more than 300 training programs of various kinds for different types of employees ranging from executives to new employees, including position-based compulsory training organized as Group-wide training for the employees in specific positions or involved in specific operations, as well as optional training available for participants depending on their operational needs, to support human resource development. In addition, each division conducts divisional training to learn necessary skills and knowledge for the individuals along with daily on-the-job

Record of the training sessions organized across the Sumitomo Electric Group in fiscal 2016

Applicable employees	Total number of participants	Total length of training
Sumitomo Electric employees	47,654 persons	339,909 hours
Employees of Group companies in Japan	24,008 persons	77,099 hours
Employees of overseas Group companies	10,520 persons	53,715 hours
Total	82,182 persons	470,723 hours

Record of unique training sessions organized in individual Group companies in fiscal 2016

Applicable employees	Total number of participants	Total length of training
Domestic Group companies (23 companies)	21,568 persons	64,556 hours
Overseas Group companies (83 companies)	122,792 persons	1,019,667 hours
Total	144,360 persons	1,084,223 hours

training (OJT) centering on management by objectives.

In particular, (1) The Sumitomo Spirit, Corporate Principles and CSR, (2) Management policies and visions, (3) Compliance, (4) SEQCDD* and (5) Diversity are selected as the five basic subjects of the compulsory training for all employees. E-learning, video lectures and other tools are also used to disseminate this training on a global scale.

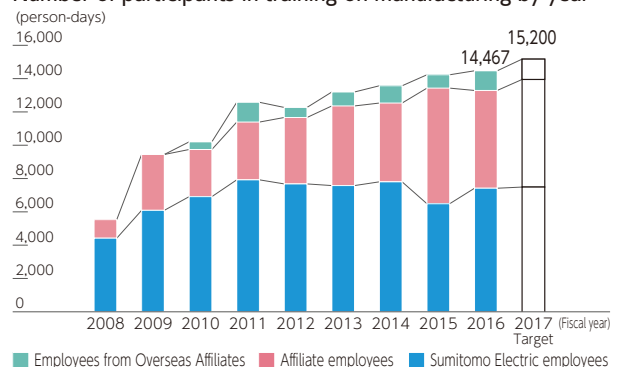
Cultivation of Manufacturing Personnel

Based on the basic concept that "manufacturing is human resource 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

① Basic training on manufacturing

The underlying concept is to learn with actual machines and products using all the five senses. Designed to deal with the latest technologies, the curriculums are wide ranging from training on SEQCDD, which are essential subjects for manufacturing, to professional courses on the Group's proprietary technologies and techniques and equipment control and maintenance technologies. These programs are systematically organized and provided in a planned manner. The number of the participants is also growing every year. Overseas, in China and Southeast Asia, in addition to basic training on SEQCDD, we organize training on basic maintenance of equipment with focus on safety on a regular basis.

Number of participants in training on manufacturing by year



② Practical training

We develop two types of practical professional training aimed at cultivating key personnel who are anticipated to drive manufacturing innovation and reinforce SEQCDD improvement, namely MKP (Monozukuri Kakushin Pro Jissen Dojo, or manufacturing innovation professionals' workshop) and GKP (Genba Kaizen Pro Jissen Dojo, or on-site improvement professionals' workshop). In this training, important challenges of the respective divisions are selected as the themes, and trainees are assigned to the local sites to perform practical activities.

③ Small-group activities

Sumitomo Electric develops and promotes small-group activities (called "SGA") to solve problems and achieve



Training session on how to promote SGA in China

objectives voluntarily on a workplace basis with the aims of developing human resources and energizing the workplace. This initiative, launched in 1958, has been also introduced into overseas companies and expanded to involve a total of 65 thousand participants from 151 companies across the Group in working on 2,962 themes.

We are working to further enhance the contents and operation of these three types of education in reference to manufacturing strengthening activities while introducing the ideas of the operating divisions and considering requests from the divisions of the participants.

Promotion of diversity

We take various opportunities to promote diversity

To ensure that teams make achievements, it is necessary to promote diversity and allow each of the team members to display their abilities. Therefore, we have incorporated diversity education into the curriculums of all training programs for newly promoted employees to make them aware of the importance. For young employees, hands-on training was provided to make them recognize diversity around them and find themselves accepting it. We also organized new training programs to review working styles and to support the career of female employees, as well as self-discovery training for experienced female employees to re-examine their abilities and potentials. We will continue to actively work for a wide range of training programs for the promotion of diversity.

Addressing Globalization across the Group

We develop training activities globally across the Group

We organize global training programs such as the Executive Training Program and the Global Leadership Development

Program (GLP), in which executives and general managers of overseas affiliates are invited to Japan. In these programs, participants learn from each other through workshops, which also aim to develop a sense of unity as a group. In addition, we organize the Sumitomo Electric Group Management Program based on the Sumitomo Spirit (MPSS) to disseminate the Sumitomo Spirit among management personnel who play pivotal roles in the respective companies and improve their skills to manage their subordinates. This training program, which has been provided in Europe, China, Southeast Asia and the United States, was also organized in Mexico for the first time in fiscal 2016. The program is provided twice every year in each of the regions to actively develop training on a global scale.

In fiscal 2016, we organized some of the training programs provided in Japan for local employees in overseas affiliates, including training on how to solve problems provided in Thailand, as well as training on facilitation and business negotiation techniques provided in China.

We have also established the Human Resources Development Committees on a country basis (China, Indonesia, Malaysia, Thailand and the United States) to promote training programs that meet local needs. Each committee works to promote various human resource development measures under the leadership of local HR managers of the companies and persons in charge of human resource development in the regional companies.

Training programs commonly developed worldwide

Position	Examples of training programs
Executive	Executive training program (Action Learning)
General Manager	Global Leadership Development Program (GLP)
Manager	Management Program based on the Sumitomo Spirit (MPSS)
Staff	ITP* (5 basic subjects, business skills)

CSR VOICE

I put in practice what I had learned in the training program to develop personnel in charge of the promotion of SGA

Zhu Yuliu Assistant Manager, Quality Assurance Division Zhongshan Sumiden Hybrid Products Co., Ltd.



I am very grateful that I had an opportunity to participate in the training program that aimed to develop personnel in charge of the promotion of SGA in fiscal 2015, which was organized by Technical Training Center of Plant & Production Systems Engineering Division and Sumitomo Electric Management (Shanghai) Co., Ltd. Through the two-day study, I improved my understanding of what the personnel in charge of the promotion of SGA should do, how to promote the activities, how to improve problems and other issues, and also deepened exchanges with participants from other Group companies.

I put in practice the knowledge I had learned in the program in my company. Firstly, I sorted out the current situation of SGA and shortcomings in the company and then provided training to enhance SGA for the employees in charge of promotion, guidance and practice of SGA. The effect of the training was checked by conducting a questionnaire survey and giving support and instruction during site inspections. The training program was provided nine times from November 2015 to September 2016 with a total of 252 participants, which accounted for about 60% of all employees.

In the course of the promotion of the training and practical activities, the employees learned that SGA is useful and the staff in charge of the practice also improved their skills. At the same time, I enhanced my knowledge and leadership through the promotion of the training activities. I will continue the training and study sessions in and outside of the company, as well as site inspections, to raise the SGA level of the company.

CSR VOICE

I participated in MPSS in 2016

Jorge Ruelas General Manager Autosistemas de Torreon S.A. de C.V.



I attended the MPSS held in Mexico City in 2016. This program was basically composed of two workshops.

In the workshop 1, participants learned the Sumitomo Spirit and the history of Sumitomo. It made me proud of the company for which I am working and also helped me understand the philosophy about work. I feel that I have got help not only for my job but also for my life through this training. The main objective of the workshop 2 was to acquire management skills. It was an excellent lesson, which also included the study of actual cases. I suppose that this kind of training is helpful for employees and also useful for my job in a practical sense. Another advantage was that I had an opportunity to meet employees from other Group companies through the training program. Participants shared their own experiences and learned from each other. As a result, I made many good friends by the end of the session. I would like to keep growing and contribute to the company. My goal is to make my company the top factory in Mexico.

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, as well as to become a company with the highest level of safety. 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

Activity targets for fiscal 2016

- No. of accidents resulting in lost work time: zero
- No. of no lost work time injuries and minor injuries: 30 or less

Priority subjects for fiscal 2016

Safety activities involving human lives with participation of all employees under the initiative of top management

《Reinforcement of fundamentals in each division》

- Strong leadership by top management
- Establishment of activities involving all employees
 - ① Activities to prevent serious accidents
 - Conformity with global standards and continuous implementation of inspections
 - ② "Safety! Power OFF Activity"
 - Identification of the operations in which the power cannot be turned off, and implementation of countermeasures (with priority given to hardware)
 - ③ Activities for ensuring safety in multi-worker operations
 - ④ Prevention of recurrence of similar accidents involving injury
 - Horizontal diffusion and completion of the preventive measures
- Bottom-up activities involving all employees with a top-down approach
- Identification of daily changes and problems through the 1-2-3 activities

《Strengthening of Weak Points on a Company-wide Scale》

- Global safety evaluation
 - Identification of weak points in safety management and safety activities and support of their improvement
- Promotion of activities to prevent unsafe actions
 - Prevention of unsafe actions by considering the psychology of employees as well based on KK mapping
- Strengthening of safety measures for plants and equipment
 - Inspection of special material gas and combustible gas facilities, electrical devices and outdoor utilities to identify any problems and assess the degree of obsolescence, and renewal of them
 - Maintenance and improvement of equipment safety measures that are not dependent on personnel
- Strengthening of safety measures in Staff Group

《Promotion of Structural Reinforcement on a Company-wide Scale》

- Dissemination and application of safety global standards
 - Dissemination of Sumitomo Electric's safety standards on a global scale
- Development and training of human resources in Japan and overseas
 - Make use of position-based education and KKP*
 - Development of local safety key personnel: support of bases in North America in addition to bases in China and ASEAN
- Activities at the operation sites designated for safety management and activities subject to priority management
 - Recognition of weaknesses and indication of the direction
 - Development of the promotion system
- Strengthening of chemical management
 - Strengthening of the management of specific chemical substances and poisonous and deleterious substances
 - Cooperation with the Occupational Health and Safety Management Committee

Examples of Activities to Prevent Serious Accidents

Identification of Serious Disaster Risks, Local Inspection and Completion of Preventive Measures

■ Voluntary inspection in the bases

Based on the analysis of serious accidents that occurred in the Japanese manufacturing industry, we have prepared a checklist that specifies 60 inspection items in seven categories for each type of accidents such as becoming caught in equipment, forklift-related accidents, falls and electric shocks. Our bases in Japan and overseas conducted a voluntary inspection on serious disaster risks in their own processes in accordance with this checklist.

■ Local inspection

Based on the results of the voluntary inspection in the bases, a local inspection is conducted in each base by the staff in charge of the safety, safety & environment department staff and plant maintenance department staff. In fiscal 2016, the local inspection was conducted in 129 bases to identify any risks that could lead to serious accidents and therefore needed to be addressed. Responses to all of the identified risks, ranging from planning of measures to address the risks to the check of the activities in the measures, progress of the implementation and confirmation of the effectiveness, are supervised by the Safety & Environment Department to ensure that the measures are taken and established and thereby prevent occurrence of serious accidents.



Safety Performance and Future Actions

In fiscal 2016, the number of the accidents involving injury decreased slightly from fiscal 2015

During fiscal 2016, we had 38 accidents involving injury in total, which were broken down into 11 injuries resulting in lost work time, 20 no lost work time injuries and 7 minor injuries (excluding employees of the Sumitomo Wiring Systems Group), and thus failed to meet the target of zero injuries resulting in lost work time and 30 or less no lost work time injuries or minor injuries. Meanwhile, there were no serious accidents while the total number also decreased by 4 from the previous fiscal year. We believe that this is a result of the four priority safety activities launched in fiscal 2015, which were 1) Activities to prevent serious accidents, 2) "Safety! Power OFF Activity," 3) Activities for ensuring safety in multi-worker operations and 4) Prevention of recurrence of similar accidents involving injury.

Looking at the injuries by situation, while injuries attributed to equipment decreased with the effect of disseminating the Global Standards for Equipments and the priority safety activities, injuries by inserting a hand into moving parts, by fall or by other actions of people increased. It is a challenge to enhance the safety awareness of all employees.

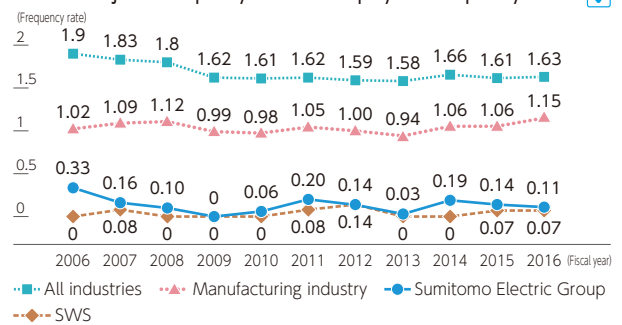
In fiscal 2017, based on the results in fiscal 2016, we are making efforts to achieve a target of zero serious accidents and accidents resulting in remaining disabilities, 24 or less accidents resulting in lost work time, no lost work time accidents or accidents causing minor injury, as part of our activities to "become a company with the highest level of safety," as set in VISION 2017. Specifically, we will continue and completely take the above-mentioned four priority safety measures implemented in fiscal 2016 to ensure that the activities take root, and also make all employees recognize our weaknesses and enhance their awareness of safety.

Accidents involving injuries

		Sumitomo Electric Group employees		Temporary worker, subcontractor	Sub total	Employees of the affiliates of the SWS Group		Total
		Japan	Overseas			Japan	Overseas	
Fiscal 2016	Accidents resulting in lost work time	4	4	3	11	1	2	14
	No lost work time injuries	12	6	2	20	7	1	28
	Minor injuries	3	3	1	7	3	6	16
	Total	19	13	6	38	11	9	58
Fiscal 2015	Accidents resulting in lost work time	5	3	0	8	1	3	12
	No lost work time injuries	11	7	3	21	1	7	29
	Minor injuries	5	8	0	13	3	18	34
	Total	21	18	3	42	5	28	75

(Note) The data on employees of the Sumitomo Electric Group cover Sumitomo Electric and its 108 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 frequency rate of injuries with lost days for employees in Japan in the Sumitomo Electric Group covers Sumitomo Electric and its 45 affiliates in Japan (excluding SWS and the other listed companies), and the frequency rate in SWS covers SWS.

CSR VOICE

The Wintec Group aims to achieve the target of zero accidents for a fiscal year

Sadamitsu Miyake Director and General Manager of Manufacturing Department, Sumitomo Electric Wintec, Inc.

Everyone, Goanzen Ni (safety first)! Sumitomo Electric Wintec manufactures magnet wires, which are a main component of various electric and electronic devices such as motors and transformers. The company was established in 2002 through consolidation of the magnet wire division of Sumitomo Electric with Daiichi Denko Corporation. While the Wintec Group has six production sites in total, composed of two in Japan, namely Shigaraki in Shiga and Taguchi in Niigata, and four overseas sites in Thailand, Malaysia, China and Indonesia, we have never achieved the target of zero accidents in the Group as a whole. In fiscal 2014, five accidents involving injury occurred in the Group (three in Japan and two in other countries), and Shigaraki Works, which is the mother factory, was designated by the Safety & Environment Department of Sumitomo Electric as an operation site subject to priority management to enhance and promote safety activities. The concept of the safety activities is "Bottom-up activities with a top-down approach." In these activities, the top management clearly indicates the policy, collects information on problems identified in a bottom-up manner, such as troublesome and difficult operations, which will be addressed by promoting safety activities under the initiative of it, and helps solve the problems. The solution of the problems then leads to the identification of other problems, which makes the activities endless with an upward spiral. While there is a top-bottom relationship at each level, this article focuses on bottom-up activities and assistance of them and introduces (1) activities between Shigaraki Works, the mother factory, and overseas bases and (2) examples of activities in Shigaraki Works.

① **Support for overseas bases by Shigaraki Works:** As the first step, we started to hold monthly conference calls mainly with Japanese expatriates and annual gatherings with both local staff and Japanese expatriates. In the first conference call, the overseas bases made requests for actions to address their problems, including the provision of more specific directions on horizontal development for information sharing and investigation, training of local staff in charge of safety and safety managers and supervisors and promotion of hardware-related measures, and the Shigaraki Works enhanced its support activities. Equipment design staff also join the conference calls and discuss any unclear points and whether any support is needed or not. Thus, the conference calls serve as a means not only to give unilateral directions but also to accomplish the directions that have been given. The annual gatherings are used for information sharing and personal exchange as well as for training of local staff. In addition, some of the bases are designated as special operation sites for safety management by the division to enhance support activities including the dispatch of staff to the sites, and the information is shared with other sites to improve the level as a whole.

② **Bottom-up activities at Shigaraki Works:** Troublesome and difficult operations are identified and discussed in each workplace, and the results are reported at the time of a workplace inspection, in which the president and equipment design and maintenance staff participate, to discuss and promote solutions including budgeting of hardware on the spot. Any problems are reported to the top management to solve them, which facilitates other reports of problems and thereby maintains the activities. Accordingly, the commitment of the top management to achieving and continuing zero accidents is significant. We have also set up workplace exchange meetings to share "hiyari" or near-miss reports and information on their improvement at other workplaces in order to stimulate the activities. The bottom-up activities will be also introduced into other Group sites, and Shigaraki Works will continuously assist them in stimulating and establishing the activities as the mother factory.

We unfortunately failed to achieve zero accidents in fiscal 2016 when a no lost work time injury occurred at Shigaraki Works, which should serve as a model for safety, on March 14, 2017, and the Group's record of having no accident ended at 517 consecutive days. Learning a lesson from the accident that even an operation that is not considered dangerous, troublesome or difficult operations can cause an injury, we will all enhance the awareness of never injuring or getting injured and improve sensitivity to risks to further deepen the bottom-up activities with a top-down approach. We will continue to strengthen the safety activities to achieve and maintain zero accidents in the Wintec Group for each fiscal year.



Bottom-up activities

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.

Environmental Preservation

Prevention of Global Warming

While making energy saving efforts, we also aim to lower the environmental impact of products throughout their lifecycle

The Sumitomo Electric Group considers that prevention of global warming is a crucial theme because it leads to promotion of energy saving activities and can also bring about business opportunities. We are committed to development and improvement of energy saving initiatives at domestic and overseas establishments, as well as reduction of overall environmental impact of products throughout their lifecycle.

- Develop the Action ECO-21 campaign based on the ISO 14001 environmental management system
- Enhance efforts to introduce energy saving initiatives into overseas establishments
- Strengthen our capacity to propose environmentally conscious products to contribute to reduction of overall environmental impact across society

We aim to further reduce greenhouse gas emissions

We are committed to achieving an aggressive target of reducing greenhouse gas (GHG) emissions by 5% from the fiscal 2012 level in fiscal 2017. With respect to energy-origin GHG emissions, which represent the vast majority of our emissions, we reduced energy consumption per unit of sales by 20% from the fiscal 2012 level in fiscal 2016 as a result of the daily efforts of the whole Group to save energy. However, GHG emissions increased by 1.9% from the fiscal 2012 level in fiscal 2016 due to a production increase in overseas bases, and we need to make more efforts. In fiscal 2017, which is the final year for the Action ECO-21 (Phase VI) Campaign, we will obtain results from the training with a handbook on the voluntary site inspection of plants for energy saving in Japan and overseas, which was launched in the second half of fiscal 2016. In this training, which uses a handbook summarizing the know-how accumulated through energy saving diagnosis conducted by the Energy Saving Office, the person in charge of each plant conducts self-evaluation of the plant to acquire evaluation skills. We will promote voluntary improvement activities of the persons in charge, who have full knowledge of the manufacturing processes of the respective plants, through the training program across the Group.



Takayuki Mishima Manager, Energy Saving Office, 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

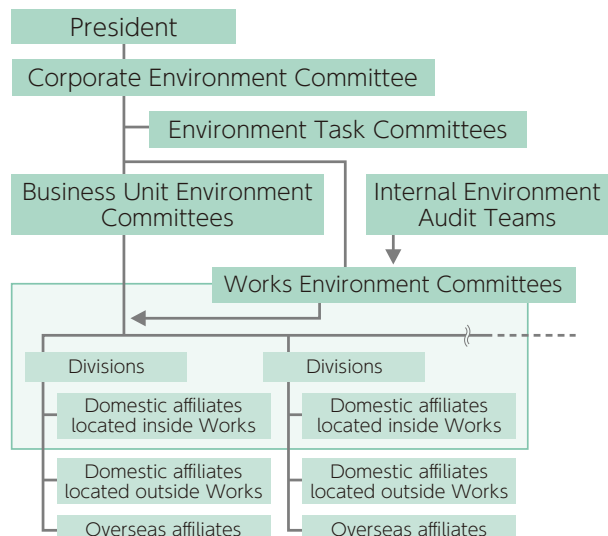
The Sumitomo Electric Group thinks it is primarily important to establish a society that is sustainable and has less environmental impact, and contributes to society by providing products and services.

Action Guidelines

1. Considering environmental preservation activity is one of the most important issues for corporate 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.



Response to Environmental Risks and Opportunities through Environmental Management

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

Main environmental risks

Risk Factor		Impact	Countermeasures and Activities
Climate change	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
	Physical risks	Renewable energy	Cost reduction and promotion of renewable energy
		Temperature rise	Energy saving (evaluation, investment and activities), renewable energy
Sea level rise			
		Increase in the size and frequency of typhoons	
Water	Regulatory risks	Restriction on water withdrawal/discharge	Reduction of water withdrawal
	Physical risks	Changes in rainfall amount	
		Changes in rainfall pattern	
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

Action ECO-21 Campaign

The Sumitomo Electric Group has conducted the Action ECO-21 Campaign since April 2003. The 'E' in the Action ECO-21 Campaign stands for environmental engineering, 'C' for environmental communication and 'O' for originality. We are promoting to develop the Action ECO-21 (Phase VI) Campaign as a three-year plan from fiscal 2015.

Targets of the Action ECO-21 (Phase VI) Campaign • Period: Fiscal 2015 – 2017

Item	Descriptions	boundary		Targets for fiscal 2017	Targets for fiscal 2016	Fiscal 2016 results	Evaluation	
		in Japan	over seas					
Environmental efficiency	Monetary value of environmental impacts (CO ₂ , wastes, harmful substances, NO _x and SO _x) / sales	●	●	Reduce 5% from FY 2012	Reduce 4% from FY 2012	Reduced 19%	◎	
Reduction of environmental impacts from business activities	Global warming prevention	(1) CO ₂ emissions (in Japan and overseas): reduction of the absolute amount	●	●	Reduce 5% from FY 2012	Reduce 4% from FY 2012	Increased 1.9%	▼
		(2) Energy saving (production sites): reduction of energy consumption per unit of sales [Consumption in crude oil equivalent / sales]	●	●	Reduce 20% from FY 2012	Reduce 16% from FY 2012 (4% per annum; reduce 20% in 5 years)	Reduced 20%	○
		(3) Energy saving (offices): reduction of energy consumption per unit of sales [Consumption in crude oil equivalent / floor area]	●	●	Reduce 5% from FY 2012	Reduce 4% from FY 2012	Reduced 25%	◎
		(4) Reduction of CO ₂ in logistics: reduction of CO ₂ per unit of sales	●	—	Reduce 5% from FY 2012	Reduce 4% from FY 2012	Reduced 9.5%	◎
Reduction of environmental impacts from business activities	Promotion of resource conservation and recycling	(1) Reduction of the zero emission rate (in Japan)	●	—	0.3% or less	0.3% or less	0.03%	○
		(2) Reduction of the zero emission rate (overseas)	—	●	9% or less	9% or less	8.9%	○
		(3) Amount of waste (in Japan): reduction of the absolute amount	●	—	Reduce 5% from FY 2012	Reduce 4% from FY 2012	Increased 9.4%	▼
		(4) Water use: reduction of water use per unit of sales [Water use / sales]	●	●	Reduce 5% from FY 2012	Reduce 4% from FY 2012	Reduced 18.2%	◎
Reduction of substances of environmental concern	(1) Release of chemical substances (in Japan): reduction of the absolute amount of PRTR-designated substances	●	—	Reduce 5% from FY 2012	Reduce 4% from FY 2012	Reduced 16.1%	◎	
Reduction of environmental impact from products	Management of chemical substances in products	●	●	Ensure compliance with laws in Japan and overseas		No issues	○	
	Expansion of environmentally conscious product range	(1) "Eco Mind" products	●	—	Register 100% of new products		100%	○
		(2) Eco-products	●	—	60% of the ratio in sales (in Japan)	56% of the ratio in sales (in Japan)	59%	○
(3) Products with less CO ₂ emissions		●	—	Contribute to reducing CO ₂ emissions by 100 thousand tons/year	Contribute to reducing CO ₂ emissions by 90 thousand tons/year	114 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)

Monitoring Based on Environmental Efficiency

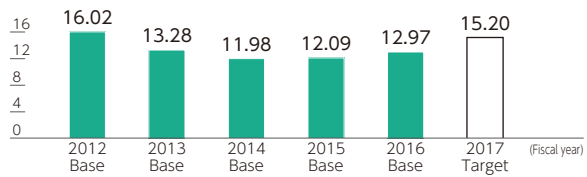
In fiscal 2016, environmental efficiency was improved by 19% from the fiscal 2012 level

The Sumitomo Electric Group has adopted environmental efficiency calculated based on various environmental impacts according to LIME* as a group-wide indicator on environmental management. The environmental efficiency was improved by 19% from the fiscal 2012 level in fiscal 2016.

Environmental Efficiency

= Monetary value of environmental impacts (CO₂, wastes, harmful substances, NOx and SOx) / Sales

Environmental efficiency (x10⁻⁴)



(Note) Data on CO₂ emissions and wastes are collected from Group companies in Japan and overseas while those on harmful substances, NOx and SOx are from Group companies in Japan only.

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-21 Campaign.

The managerial post-based career training program involves legal and general education on the environment. In fiscal 2014, on-site inspection of environmental facilities to enhance sensibility in environmental management was added to the program.

We also provide technical education on chemical management and other issues on a regular basis.

Training opportunity	Title of the training
Career (managerial post-based)	Position-based training
Designated	ISO 14001 internal auditor Management of poisonous and deleterious substances Notification of Specified Facilities
Optional	Sumitomo Electric Group environmental activities ISO 14001 self-awareness education Technical education (energy saving, waste, chemical substances, air, water quality and soil) Education on legal issues Waste treatment
On-site	Practical education on energy saving methods and the improvement Training with the handbook Action ECO-21

Environmental Accounting

Boundaries of tabulation: Sumitomo Electric + domestic affiliates

(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 2015 from the boundaries of collection newly added or excluded in fiscal 2016 (no boundaries were newly added or excluded in this fiscal year).

Change due to sales change: [Emissions or amount of waste in fiscal 2015 from the boundaries of collection for fiscal 2016] x (Sales in fiscal 2016 / Sales in fiscal 2015 - 1)

Actual change: Calculated by subtraction

	Financial items								
	Investment (million yen)			Expense (million yen)			Economic effect (million yen)		
	2014	2015	2016	2014	2015	2016	2014	2015	2016
Reduction of greenhouse gas emissions	Investment in energy saving (Note 1)			/			Reduction of energy cost (Note 1)		
	1,918	2,036	1,034				639	608	882
Waste reduction	Investment in resource saving and recycling (Note 2)			Waste disposal cost (Note 3)			Sale of valuables materials (Note 3)		
	10	210	61	1,080	1,037	1,175	89	104	127
Cost of management activities	/			1,049	1,097	1,049	/		
Cost of social activities	/			14	7	10	/		
Cost of environmental remediation	/			9	8	52	/		

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

《 Audit Implementation Plan and Its Progress 》

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 2016, we have completed 45 of the 46 sites subject to audits: We are now planning to audit the sites that newly joined the Group in fiscal 2017.

《 Evaluation of Facilities That May Affect Water Quality 》

In response to a revision of the Water Pollution Control Act 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 evaluated facilities of four sites in fiscal 2016. We also started the evaluation of overseas sites in fiscal 2013 and evaluated one site in fiscal 2016. In the future, we will conduct environmental audits that combine legal compliance checks with evaluations on water quality.

《 Check of the Progress in the Activities of the Action ECO-21 Campaign 》

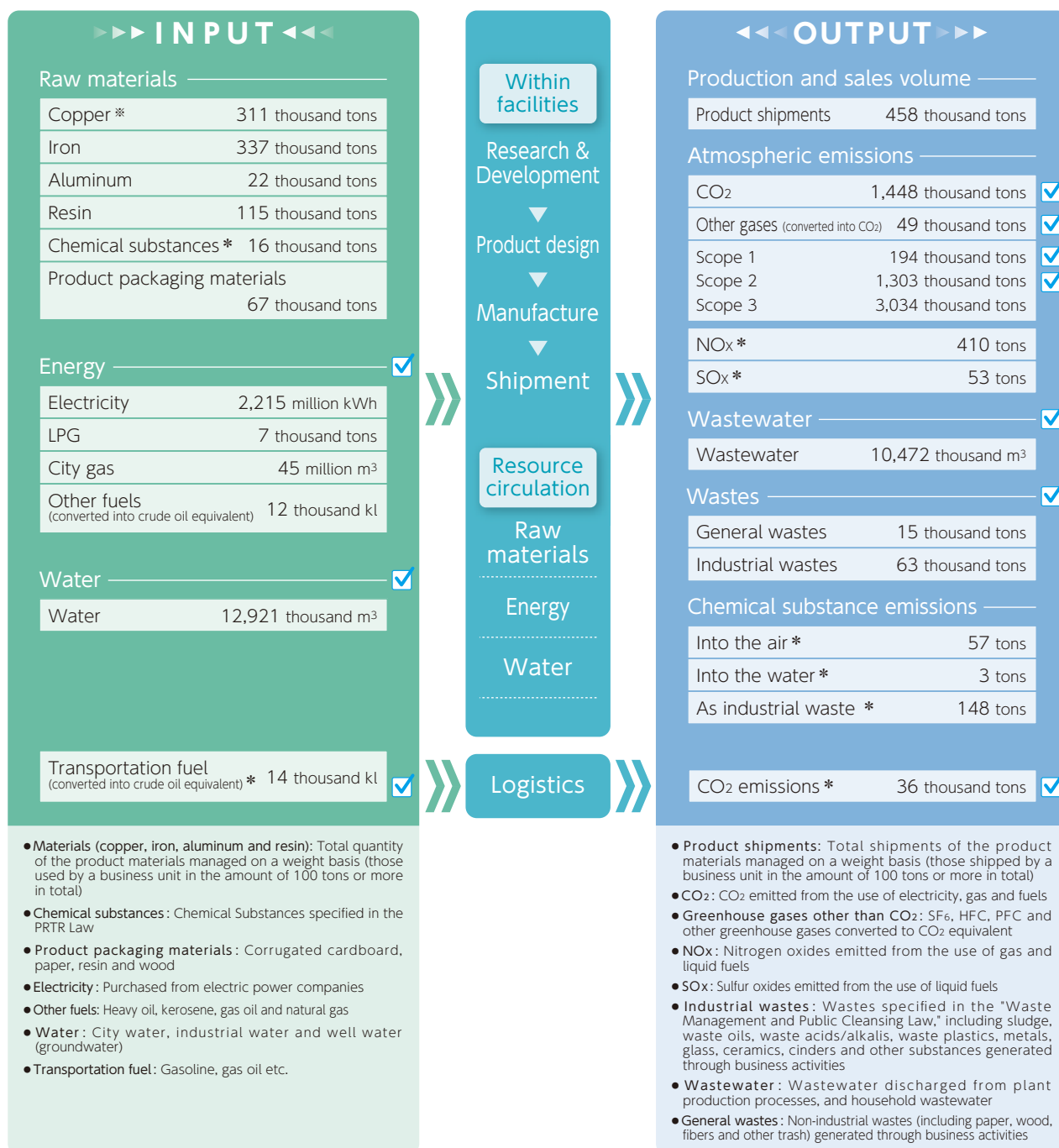
We have set check items for environmental audits and evaluate the activities and progress.

《 Confirmation of Legal Compliance 》

In fiscal 2016, any violation of laws and regulations (cases where guidance, recommendation or order to pay fine was issued by the authority) was not reported to the Safety & Environment Department of Sumitomo Electric.

Non-financial items		
Performance (in Japan)	Change factors in fiscal 2016 (in Japan)	Strategy/opportunity and risk
<p>GHG emissions (thousand tons-CO₂e/year)</p> <p>■ GHG emissions ● Emission reduction rate (from the fiscal 2012 level)</p>	<p>GHG emissions (thousand tons-CO₂e/year) (Note 4)</p> <p>2015: 730, Change due to boundaries: 0, Change due to sales: 33, Actual change: 67, 2016: 764</p>	<p>Reduction of 5% from the fiscal 2012 level in fiscal 2017 is set as the target. To achieve it, we aim to reduce energy consumption per unit of sales by 20% from fiscal 2012 level, and have strived for it. We made various energy saving efforts in this fiscal year as well. These activities are also important for the reduction of energy cost, which has been rising steeply in recent years. The knowledge learned through the activities is also introduced into overseas Group companies.</p>
<p>Amount of waste (excluding valuable materials) (thousand tons/year)</p> <p>■ Amount of waste ● Waste reduction rate (from the fiscal 2012 level)</p>	<p>Amount of waste (excluding valuable materials) (thousand tons/year) (Note 4)</p> <p>2015: 30.1, Change due to boundaries: 0, Change due to sales: 1.4, Actual change: 8.6, 2016: 37.3</p>	<p>We set the reduction of 4% from the fiscal 2012 level as the target for fiscal 2016. To reduce the amount of waste, we are promoting conversion of waste into valuable materials. The main investment during this fiscal year was made in waste liquid treatment facilities with an aim to recover metal in waste liquid and refine it for recycling. We will continue our commitment to concentration of waste liquid as a method to reduce the amount of waste.</p>
<p>Cost of environmental organization, ISO 14001 registration and maintenance, etc.</p>		<p>ISO 14001 is the core of our environmental management activities, and the certification is requested by customers.</p>
<p>Cleanup of areas outside company sites, external environmental education, etc.</p>		<p>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.</p>
<p>Restoration of contaminated soil and groundwater</p>		<p>We continuously restore the contaminated soil and groundwater identified in our facilities.</p>

Material Balance (Environmental Impacts)



Boundaries of data integration Items with *: Sumitomo Electric + domestic affiliates; Items without *: Sumitomo Electric + domestic and overseas affiliates

※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, 1,497 thousand tons, account for the vast majority of 1,819 thousand tons, which are estimated GHG emissions from the boundaries of consolidation for financial reporting in fiscal 2016. In the meantime, out of the 247 consolidated subsidiaries excluding the 3 listed companies mentioned above, the environmental management of our Group covers 147 companies in production units (45 in Japan, 33 in China, 34 in Asia (except China), 14 in the Americas and 21 in Europe and other in fiscal 2016). Our trial calculation indicates that environmental impact, such as GHG emissions, of the 147 companies is estimated to occupy 99% of that of the 247 subsidiaries.

Activities to Prevent Global Warming

Reduction of Greenhouse Gas Emissions

Our CO₂ emissions decreased in Japan but grew overseas from the base year.
We will promote energy saving activities

The Sumitomo Electric Group sets the target of reducing GHG emissions by 5% from the fiscal 2012 level in fiscal 2017 as an initiative to prevent global warming.

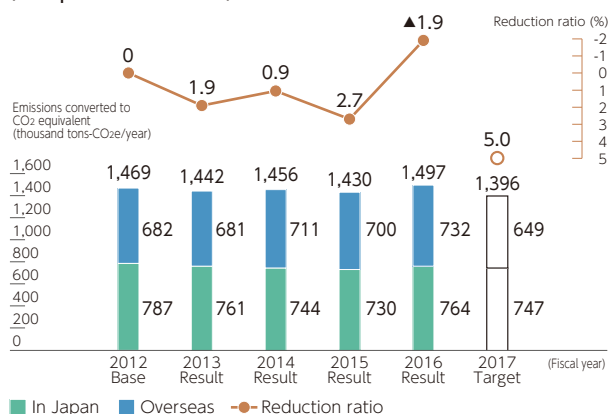
We have conventionally positioned the promotion of energy saving as a core target in our environmental activities and promoted it actively in our sites and divisions.

Since fiscal 2012, especially in response to skyrocketing energy costs in Japan, we have enhanced our system for energy saving efforts 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 voluntary 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.

We have prepared a handbook that introduces the issues to be considered in energy saving efforts and launched an internal training program using the handbook in Japan and overseas. This program aims to provide relevant know-how and enhance the sensibility of employees on energy saving and thereby to encourage field workers to voluntarily make concerted efforts, such as reduction of standby power consumption and revision of the production conditions, to lower unnecessary energy use.

As a result, while the production volume in the Group as a whole increased, our GHG emissions in fiscal 2016 decreased in Japan but grew overseas from the fiscal 2012 level. The emissions in the whole Group increased by 1.9% from the fiscal 2012 level.

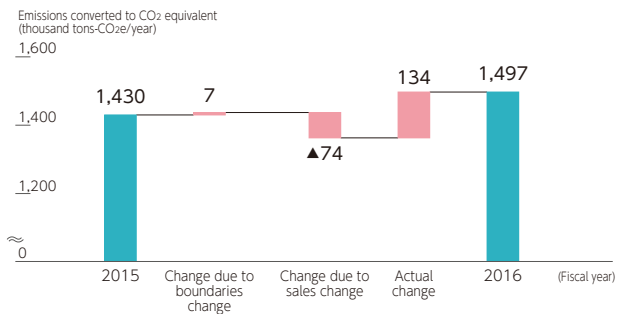
Greenhouse Gas Emissions and Reduction Ratio (in Japan and overseas)



(Note) 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 to the values for all fiscal years presented in the graph.

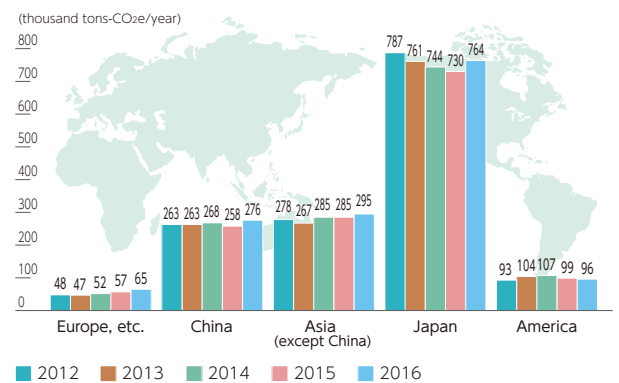
CO₂ emission factor for purchased electricity
[In Japan] Actual emission factor of each electricity power supplier published in the "Disclosure of actual emission factor, adjusted emission factor, etc. of each electricity power supplier for fiscal 2012" (2013) by the Japanese Ministry of the Environment
[Overseas] Emission factor in each country for 2011 mentioned in "CO₂ Emissions from Fuel Combustion Highlights 2013" (2013) by IEA
CO₂ emission factor for other than purchased electricity
[Both in Japan and overseas] Emission factor in "Guidelines for accounting and reporting of greenhouse gas emissions from industrial commercial sectors" (2003) by the Japanese Ministry of the Environment

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



(Note) Change due to boundaries change: Emissions in fiscal 2015 from the boundaries of collection newly added or excluded in fiscal 2016.
Change due to sales change: [Emissions in fiscal 2015 from the boundaries of collection for fiscal 2016] x (Sales in fiscal 2016 / Sales in fiscal 2015 - 1)
Actual change: Calculated by subtraction

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

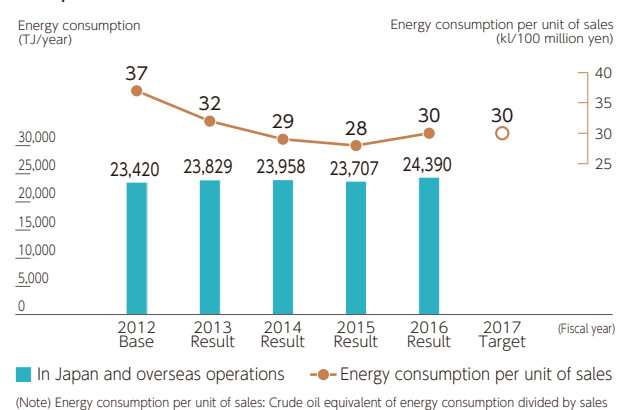


Reduction of Energy Consumption

Production efficiency has been improved

As the ratio of overseas production increases, the impact of exchange rate fluctuations becomes larger. Due to a slight decline in sales despite an increase in production volume, our energy consumption per unit of sales demonstrated an upward trend although our energy consumption per unit of production is declining.

Energy Consumption and Energy Consumption per Unit of Sales (in Japan and overseas)



(Note) Energy consumption per unit of sales: Crude oil equivalent of energy consumption divided by sales

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 FY2016 (thousand tons-CO₂e/year)

Scope	Emissions (thousand tons-CO ₂ e/year)	Checkmark
Scope 1	194	✓
Scope 2	1,303	✓
Scope 3	3,034	

Category	Description	Emissions (thousand tons-CO ₂ e/year)	Change in emissions
1	Purchased goods and services	2,117	Increased
2	Capital goods	529	Increased
3	Fuel- and energy-related activities not included in Scope 1 or Scope 2	220	Increased
4	Upstream transportation and distribution	36	No change
5	Waste generated in operations	29	Decreased
6	Business travel	32	Increased
7	Employee commuting	71	Increased

(Note 1) Scope 1: Direct emissions from the use of fossil fuels, etc. in our facilities (including SF₆ and other greenhouse gases)

Scope 2: Indirect emissions from the use of electricity and steam supplied from outside our facilities

Scope 3: Sum of Categories 1 to 7

(Note 2) The data for Category 4 in the table above cover logistics data in Japan only.

(Note 3) 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

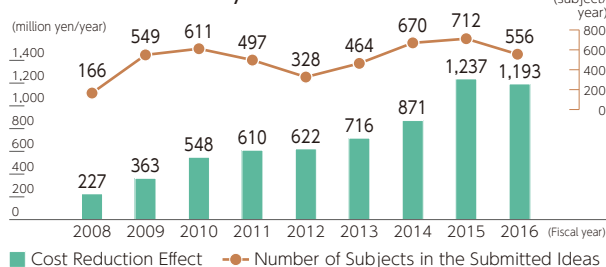
We are working to reduce wasteful use and improve efficiency with the effects of ideas for energy efficiency improvement

《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 4% per annum from the fiscal 2012 level in the Action ECO-21 Campaign. Meanwhile, Group companies and divisions set the target of reducing energy consumption per unit of production by 4% per annum from the fiscal 2012 level and strive to meet it through the discovery of subjects for energy saving and promotion of activities in a planned manner. In fiscal 2016, while the target was a reduction of 16% from the fiscal 2012 level, we reduced energy consumption by 15.6%.

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 use of external engineering companies, and proposed new ideas. In fiscal 2016, in addition to proposal of ideas, we engaged in cooperation in priority areas, which was

conducted with divisions to promote the activities until remedial measures were actually taken, and enhanced other initiatives by conducting the PDCA cycle to ensure improvement of the

● 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 also conduct measurement and analysis of power consumption during holidays and at night, as well as the diagnosis in overseas affiliates.

● Adoption of relevant technologies and use of external engineering companies :

We are introducing common technologies such as the operation of high-efficiency pumps and improvement of heat insulation in steam pipes across the company. When special technologies are required, we gain the cooperation of external engineering companies for the introduction.

● 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.

We will continuously work to meet the target of reducing both energy consumption per unit of sales and the absolute amount by 4% per annum in fiscal 2016 and beyond by using the PDCA cycle to achieve the target of reduction of 20% from the fiscal 2012 level in fiscal 2017.

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

Energy Saving Activities in Households

Sumitomo Electric Version of “My family’s Minister of the Environment - Eco Family”

The Sumitomo Electric Group worked for Eco-Life Activities to promote energy saving in households from fiscal 2008, and made efforts to meet the target of reducing CO₂ emissions from households by 5,000 tons per year until fiscal 2012. As a result, CO₂ emissions decreased by approximately 9,600 tons year-on-year in fiscal 2012.

While we have not set a numerical target for the reduction of CO₂ emissions in households since fiscal 2013, we maintain the website for Sumitomo Electric Version of My family’s Minister of the Environment - Eco Family, which is used as a household eco-account book and a forum to post ideas on energy saving efforts. We make use of this website to encourage employees to make energy saving efforts in households by, for example, commending those who are actively committed to the efforts through the website and providing foliage plants and other prizes from Sumiden Friend, Ltd. to the participants based on the points obtained from the use of the website.

We launched energy saving training to encourage the production field to make energy saving efforts voluntarily

The Sumitomo Electric Group has actively conducted energy saving diagnosis in plants in Japan and overseas under the initiative of the Energy Saving Office, and obtained results from the efforts. However, there was a problem that some plants took no actions after undergoing an energy saving diagnosis. We therefore started an energy saving training program to encourage plants to make energy saving efforts in a voluntary manner in fiscal 2016. This training program uses an A5 size handbook "Energy Saving Handbook with 'Standard (Desirable) of Energy Saving' and 'The Points to be checked in Plant Patrol' ("Energy Saving Handbook"), which summarizes the points for energy saving diagnosis and contains photos and diagrams to make the explanation easy to understand, as well as an appendix "Examples of calculating the effect of energy saving" to allow the staff to easily recognize the monetary value of the effects. We also translated the booklet into English, Chinese, Vietnamese, Malay, Thai and Indonesian in May 2017 to introduce it into overseas plants as well.

The energy saving training program is provided to around 10 people from each plant and completed in half a day. After a one-hour classroom lecture, the participants visit a production field with Energy Saving Handbook and spend about two hours to make a list of the points that can be improved for energy saving. Then, based on the list, a

Energy Saving Handbook with "Standard (Desirable) of Energy Saving" and "The Points to be checked in Plant Patrol" (Japanese, English and Chinese versions)



On-site training

roughly one-hour session is held including a Q&A session and the delivery of feedback by the lecturers.

The main purpose of this training is to have participants experience the joy of identifying points to be improved for energy saving. Participants sometimes find a point that even lecturers do not notice, which reminds the lecturers of the effect of energy saving diagnosis conducted by the staff who are familiar with the specific process.

We have provided the training program at 60 sites in Japan as well as 12 overseas sites mainly in China. As to the points identified to be improved for energy saving in the plants, the Energy Saving Office is now receiving inquiries on specific methods for the improvement and requests to support the production site. We are looking forward to the effects to be accumulated in the future.



Classroom lecture



(From left)

- Kanetsugu Kinugasa** Assistant General Manager, Energy Saving Office, Safety & Environment Department
- Yukinori Hashimoto** Assistant General Manager, Safety & Environment Department
- Nobuyuki Hirano** Assistant General Manager, Energy Saving Office, Safety & Environment Department
- Takayuki Mishima** Manager, Energy Saving Office, Safety & Environment Department
- Noriyuki Endo** General Manager, Energy Saving Engineering Department, Plant Engineering Division, Sumitomo Electric Technical Solutions, Inc.
- Naoyuki Akakabe** Assistant General Manager, Energy Saving Office, Safety & Environment Department
- Ryuichi Kishimoto** Energy Saving Engineering Department, Plant Engineering Division, Sumitomo Electric Technical Solutions, Inc.
- Mineko Miyawaki** Assistant Manager, Safety & Environment Department

CSR VOICE

We received energy saving training

Hisashi Ueda (left) Environmental Promotion Group, Safety & Environment Department
Fumio Maegawa (right) Supervisor, Tsu Electronics Works, Manufacturing Department, Manufacturing Division, Electronics Group
 Sumitomo Wiring Systems, Ltd.



We received energy saving training at the electronics plant of Electronics Group. Through the training, we found that the utility rules were not strictly followed and visualization of the equipment was insufficient in the plant and considered that it was necessary to take actions urgently. In the conventional energy saving diagnosis, our activities were accomplished when we improved the items indicated in the diagnosis. However, this training developed our abilities to find such items by ourselves using Energy Saving Handbook and improve them in a voluntary manner. Energy saving activities are not something to do by yourself or do just because you are told to do so. We will widely share the recognition we learned from the training that improvements should be found and made voluntarily with the involvement of all staff to make even more improvements.

※ The names of the departments and positions are those at the time of the interviews.

Reduction of CO2 Emissions in Logistics

We reviewed the methods and routes of transportation to reduce CO2 emissions

In fiscal 2016, per unit CO2 emissions from transportation in the Sumitomo Electric Group in Japan were reduced by about 2.0%^(note) from the previous fiscal year.

Sumitomo Electric reduced CO2 emissions in logistics due to reasons including an increase in railroad transportation from the Itami Works in response to the growth of orders for high-strength steel wires from a customer in Kitakyushu by about 20% year-on-year, as well as an increase in coastal transportation from the Osaka Works in relation to a large export project of power cables.

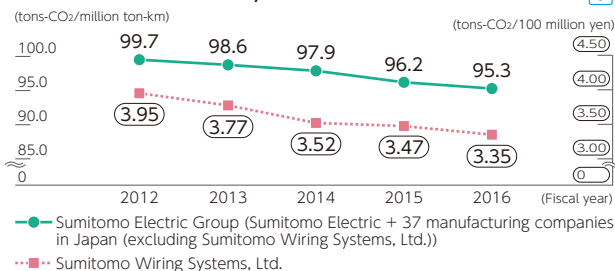
In the meantime, Sumitomo Wiring Systems, Ltd. improved transportation efficiency by devising the way of loading cargos on trucks for delivery to customers in the Kanto Region to reduce the number of trucks, and by establishing a relay point in Kitakyushu for transportation to the Kyushu Region to replace some transportations from plants with ferry transportation.

We will continue the group-wide efforts to reduce CO2 emissions from transportation.

(Note) 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.

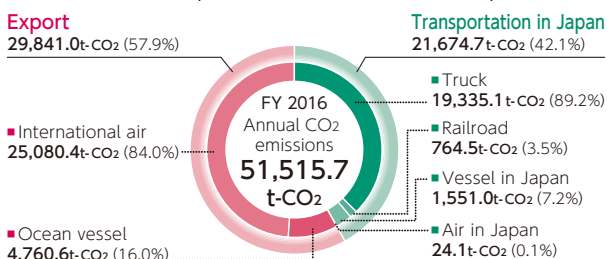
Per Unit CO2 emissions by Year



CO2 Emissions from Transportation by the Sumitomo Electric Group

In light of the globalization of our business activities, we strive to calculate data on CO2 emissions concerning transportation from Japan to the ports or airports in the destination countries for delivery of products to overseas destinations, the supply of raw materials and parts to overseas affiliates and other export activities. At present, CO2 emissions from our export activities were approximately 1.4 times higher than those from our transportation activities in Japan and accounted for roughly 58% of total CO2 emissions from our transportation activities. About 84% of the emissions from export activities were attributed to international air delivery.

CO2 Emissions from Transportation in the Sumitomo Electric Group in Fiscal 2016

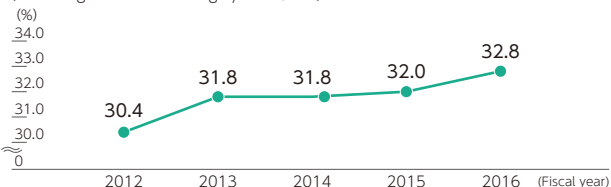


(Note) Boundaries of data collection: Sumitomo Electric Group (excluding Sumitomo Wiring Systems) CO2 emissions in Japan are calculated using the improved ton-kilometer method. CO2 emissions from export activities are calculated using the conventional ton-kilometer method. Based on the simple calculation tool for logistics CO2 emissions by Policy Research Institute for Land, Infrastructure, Transport and Tourism (PRILIT)

Promotion of Modal Shift

Sumitomo Electric is active in promoting modal shift mainly in the case of long-distance (500 km or longer) transportation. In fiscal 2016, mainly due to an increase in railroad transportation from Itami to Kitakyushu, the modal shift rate increased by 0.8 points from the fiscal 2015 level to raise the percentage of railroad and coastal transportation in the total amount of transportation to approximately 33%.

Modal Shift Rate* of the Sumitomo Electric Group by Year



(Note) Boundaries of data collection: Sumitomo Electric + 37 manufacturing companies in Japan (excluding Sumitomo Wiring Systems, Ltd.)

$$\text{Modal shift rate (\%)} = \frac{\text{Cargo transport by rail or ship (ton-km)}}{\text{Total amount of cargo transport in Japan (ton-km)}} \times 100$$

Adjustment of the Transport Lot Size with the Cooperation of a Customer

Sumitomo Electric sells copper single wires to SAN-EI Electronic Industries CO., LTD. (SAN-EI Electronics) in Komoro, Nagano, and delivers the products from the Osaka Works by truck.

Since the orders from SAN-EI Electronics were made in line with its production plan, the order quantity fluctuated significantly and the loading ratio of each truck was not very high.

To reduce CO2 emissions from transportation, we asked for the cooperation of SAN-EI Electronics to place orders in a volume suitable for the maximum load capacity of a 15-ton truck and received willing consent. As a result, we lowered the number of the trucks to deliver products to the company by approximately 8% (from 25 units to 23 units per month), and reduced CO2 emissions by about 1 ton per month in fiscal 2016.

CSR VOICE

We accepted the request for the adjustment of the order quantity

Mr. Tadashi Yanagisawa
 Manager of Material Procurement Section,
 Magnet Wires Production Division, SAN-EI Electronic Industries CO., LTD.



We purchase copper single wires from Sumitomo Electric and process them into ultrafine magnet wires and coil products to sell the products to automobile, OA device and other manufacturers. Our edgewise coil products are also employed in eco-friendly cars such as hybrid and electric vehicles. We received a request from Sumitomo Electric to adjust the order quantity to a suitable size for the load capacity of the truck in order to reduce CO2 emissions. While the products we receive are diverse in terms of weight and packing forms, we decided to give consent because our field staff considered that the adjustment would not place much burden on our production or order placement activities although the stock would increase somewhat. While there was some confusion immediately after the adjustment, our purchase activities are currently smooth. We are glad to hear that our cooperation resulted in the reduction of two trucks and 1 ton of CO2 emissions in a month to contribute to environmental conservation.

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》

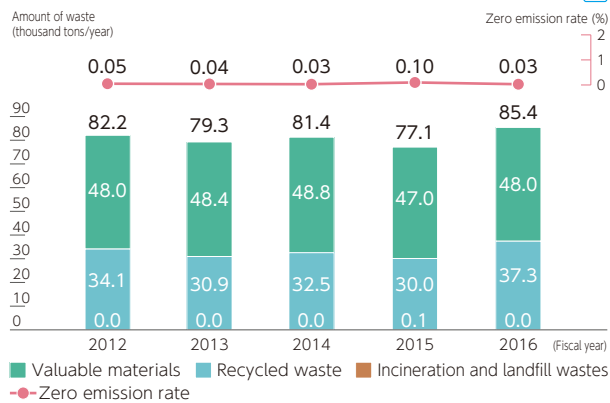
To help solve social problems such as shortage of landfill sites and illegal waste dumping and to make effective use of resources, it is necessary to avoid landfilling of industrial waste without serious efforts and recycle waste to the extent possible.

The Sumitomo Electric Group sets the zero emission rate as the indicator for the efforts and works to meet the target of reducing the rate to 0.3% or less.

$$\text{Zero emission rate (\%)} = \frac{\text{Amount of waste incinerated without heat recovery} + \text{Amount of landfill waste}}{\text{Amount of industrial waste} + \text{Amount of general waste} + \text{Amount of valuable materials}} \times 100$$

(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 amounts of valuable materials for fiscal 2015 have been corrected for the improvement of accuracy.

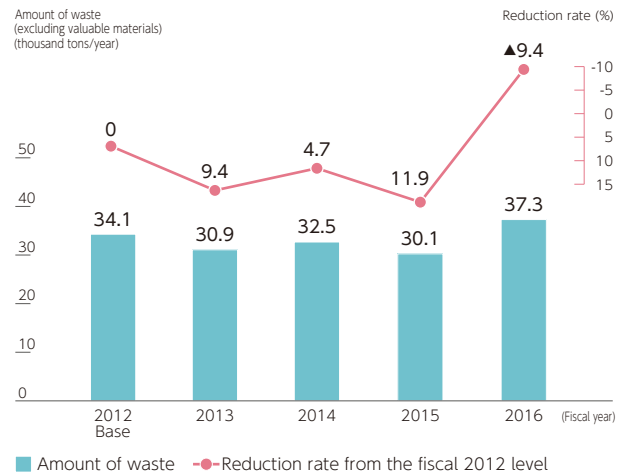
《Reduction of the Amount of Waste》

The Sumitomo Electric Group is also committed to reducing the amount of industrial waste generated in its facilities by improving production efficiency.

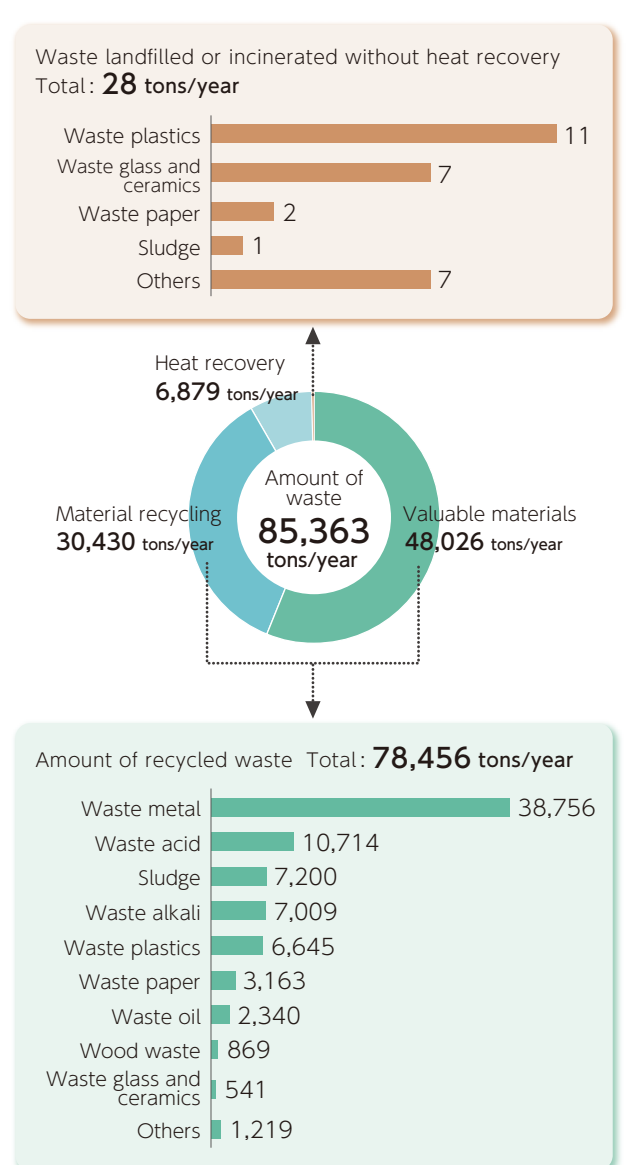
To reduce the amount of waste, we promote conversion of the waste into valuable materials through separation and search of uses, and also focus on reduction of defects and review of the process that caused defects in production sites, which are fundamental activities for manufacturing, as well as reuse of the waste generated by the company and reduction of waste volume.

In fiscal 2016, we failed to achieve the target with an increase in the waste liquid due to the insufficient capacity of the waste liquid treatment equipment. We will continue to make efforts with focus on the reduction of sludge generated through waste liquid treatment.

Waste Reduction Rate (Excluding Valuable Materials) in Japan



Amount of Waste by Type in Fiscal 2016 (in Japan)



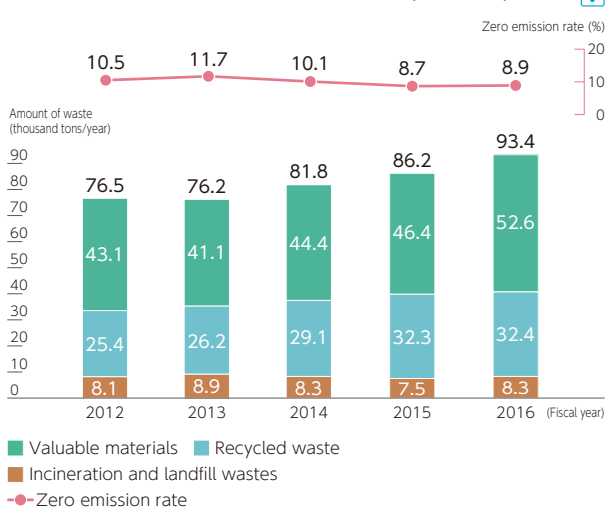
Reduction of the Waste to Be Incinerated Without Heat Recovery or Landfilled (Overseas)

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 serious efforts and recycle waste to the extent possible through separation of waste and other efforts to maintain proper waste management.

In consideration of the fact that we also operate in countries where the environment for recycling has not been developed, we revised the target zero emission rate for overseas Group companies to 9% or less from fiscal 2016.

Amount of Waste and Zero Emission Rate (Overseas)



Water Use Reduction

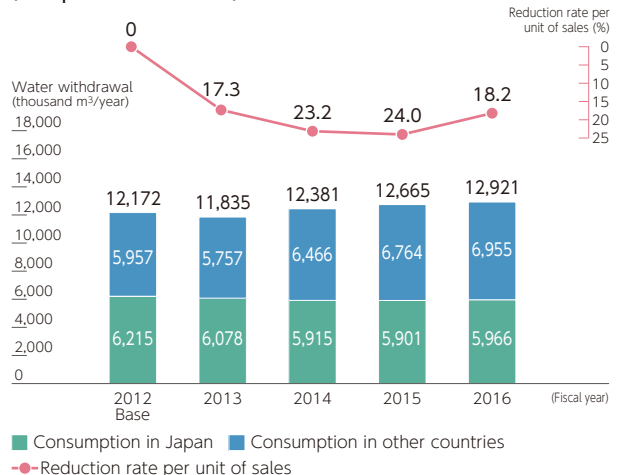
We monitor the total amount of water withdrawal

As the release of the Natural Capital Protocol* in fiscal 2016 indicates, the importance of water as a natural resource is growing. The Sumitomo Electric Group added the reduction of water consumption to its action items in fiscal 2008 and has actively worked for it since then. Our water consumption increased year-on-year in fiscal 2016 partly due to the growth of production in overseas bases where a large volume of water is used. In terms of water withdrawal by source, we take 87% of water from city water and 13% from groundwater. Effluent is discharged into sewer systems by 54% of the bases, rivers by 26% (which include the bases that discharge effluent into both sewer systems and rivers (10%)) or unknown destinations by 20%.

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.

In the meantime, we have evaluated water risks in the manufacturing sites of our Group and found that two of the countries where our manufacturing sites are located have high risks.

Water Withdrawal and Reduction Rate per Unit of Sales (in Japan and Overseas)



(Note) Water withdrawal is calculated as the sum of the withdrawal of city water, industrial water and groundwater.

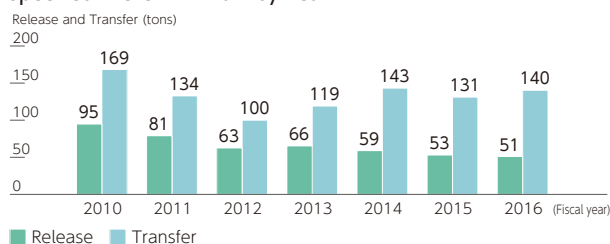
Reduction of the Release of Harmful Chemical Substances

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 44 sites of Sumitomo Electric's Osaka and Yokohama Works and 27 Group companies submitted such reports for fiscal 2016. Sumitomo Electric Group's total release and transfer of PRTR-designated substances in Japan were 51 tons and 140 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.

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 have been committed to reducing the release of chemical substances specified in the PRTR Law as an initiative of the Action ECO-21 (Phase VI) Campaign since fiscal 2015. In fiscal 2016, we made efforts to meet the target of reducing the release by 4% from the fiscal 2012 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 19.7% from the fiscal 2012 level to 51.4 tons in fiscal 2016, which met the above-mentioned target.

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	
Toluene	18.0	0.0	0.0	0.0	18.0	0.0	6.9	6.9	24.9
Phenol	5.5	0.0	0.0	0.0	5.5	0.0	14.6	14.6	20.1
Dichlorobenzene	5.6	0.0	0.0	0.0	5.6	0.0	14.0	14.0	19.6
Nickel compounds	0.0	0.2	0.0	0.0	0.2	0.0	18.9	18.9	19.1
Lead	0.0	0.0	0.0	0.0	0.0	0.0	14.0	14.0	14.0
Cresol	3.1	0.0	0.0	0.0	3.1	0.0	10.6	10.6	13.7
Xylene	2.8	0.0	0.0	0.0	2.8	0.0	5.6	5.6	8.4
Copper salts(water-soluble, except complex salts)	0.0	0.1	0.0	0.0	0.1	0.1	8.1	8.2	8.3
Formaldehyde	0.0	0.0	0.0	0.0	0.0	0.0	7.1	7.1	7.1
Boron compounds	0.0	0.0	0.0	0.0	0.0	0.0	6.7	6.7	6.7
34 other substances	15.3	0.8	0.0	0.0	16.1	0.6	33.1	33.7	49.8
Total	50.3	1.1	0.0	0.0	51.4	0.7	139.6	140.3	191.7

(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	0	0	0	0	0	0	2	2	2

(Note) Boundary of data collection: Sumitomo Electric + PRTR obligatory companies among its affiliates in Japan

(Unit: mg-TEQ)

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.

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 2016, a total of 923 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.

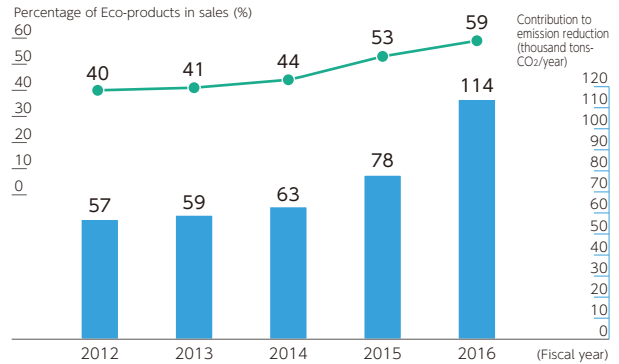
By the end of fiscal 2016, a total of 256 items have been registered as Eco-products. The sales ratio in fiscal 2016 was 59%.

《Anti-Global Warming Products》

In this system, we register the Eco products that especially contribute to the reduction of CO₂ emissions in the production stage or when they are used by customers, and calculate the reduction effect.

The products contributed to the reduction of CO₂ emissions by a total of 114 thousand tons in fiscal 2016.

Percentage of Eco-Products in Sales and Contribution to the Reduction of CO₂ 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.)

For methods to calculate contribution to the reduction of CO₂ emissions, see “Examples of Eco-Products” in P72.



Porous Metal “Celmet™” is an Eco-product that contributes to reducing environmental impact of development and production activities



Junichi Nishimura (left)
Manager of Electronic Materials
Engineering Section,
Engineering Department

Ichirou Oyama (right)
Section Chief of South
Celmet Section and
North Celmet Section,
Electronic Material Plant,
Manufacturing Division

Sumitomo Electric Toyama Co., Ltd.

Widely used in products that are essential for life such as batteries, air-heating equipment and air conditioners, our Celmet™ is a porous metal material with a three-dimensional mesh structure and maximum porosity of 98%. Demand for this product as an electrode material for batteries in hybrid cars is currently increasing with a growing awareness of the environment. Our unique special electroplating and thermal treatment are applied to the product to have high porosity, high conductivity and high strength at the same time, and the batteries using it can have a larger capacity and longer life. In response to the rapid expansion of the hybrid car market, we constructed new plants in 2007 and 2010 to increase the production of Celmet™. While we did not have much time, we made intensive efforts to take actions in cooperation with other divisions including quality assurance activities, the establishment of an inspection system and training of the operators. As a result, we were able to build

a foundation for the system to produce more products safely while maintaining high quality.

We have also been committed to alleviating the environmental impact in the production process. The amount of nickel, a rare resource, used in the product was reduced by approximately 22% per unit area from the 2010 level while per unit energy consumption in the electroplating process was lowered by approximately 16% to help save resources and reduce the weight. In addition, while waste plating solution was conventionally treated as industrial waste by an external waste disposer, we have established a process to recover nickel from it as metal using existing equipment in the plant.






We are now working in collaboration with Energy and Electronics Materials Laboratory to develop new Celmet™ that can be also used in next-generation batteries. We will continue to endeavor to reduce the environmental impact in the development and production activities to contribute to

the conservation of the global environment.



Celmet™

Examples of Eco-Products

<p>Contributing to the improvement of fuel efficiency of hybrid cars as electrodes of secondary batteries</p> 	<p>Contributing to energy saving in base stations with compound semiconductor power amplifying elements</p> 	<p>Contributing to the improvement of fuel efficiency of cars by trimming the weight</p> 	<p>Contributing to resource saving by extending the service life</p> 	<p>Contributing to the improvement of productivity of processed materials and fuel efficiency of automobiles</p> 
<p>CELMET® (porous metal) Sumitomo Electric Toyama Co., Ltd.</p>	<p>GaN HEMT Sumitomo Electric Device Innovations, Inc.</p>	<p>Lightweight wire harness Sumitomo Wiring Systems, Ltd.</p>	<p>Cemented carbide tools with longer service life Sumitomo Electric Hardmetal Corp.</p>	<p>Sintered products Sumitomo Electric Sintered Alloy, Ltd.</p>
<p>The contribution is calculated by estimating CO₂ emissions reduced with a hybrid car in accordance with the criteria set by Sumitomo Electric.</p>	<p>The contribution is calculated by estimating the reduction of CO₂ emissions achieved at a base station in accordance with the criteria set by Sumitomo Electric.</p>	<p>The contribution is calculated by estimating the amount of CO₂ emissions reduced by improvement of fuel efficiency of a car achieved by reducing the weight in accordance with the criteria set by Sumitomo Electric.</p>	<p>The contribution is calculated by estimating the amount of the resources saved and CO₂ emissions reduced from the production in accordance with the criteria set by Sumitomo Electric.</p>	<p>The contribution is calculated by estimating the amount of CO₂ emissions reduced in the production of the processed materials and in the use of oil pumps in accordance with the criteria set by Sumitomo Electric.</p>

Activities to Conserve Biodiversity

Basic Approach


The Sumitomo Electric Group considers the environment in its global business activities as a whole, ranging from procurement of raw materials to design and manufacturing of products, and through the development of sophisticated products while also promoting sustainability-conscious initiatives to protect the ecosystem.

We planted corals in the sea of Okinawa to help conserve biodiversity in the marine area

Sumitomo Electric planted 286 corals in the sea near Minatogawa, Urasoe City, Okinawa in cooperation with Okiden Kaihatsu Company, Inc., a group member of Okinawa Electric Power Company, Inc. (OEPC), in June 2016. This initiative was taken after we received an order from OEPC to lay a submarine cable between the main land of Okinawa and Tokashiki Island (Kerama Line No. 1) as a joint venture. The cable is 30.8 km long, which is the longest cable in Japan for the 22-kV transmission voltage class. A coral reef grows in a marine area neighboring a tropical ocean. Habitats of coral reefs in Japan include the Ryukyu Chain and Ogasawara Islands. While corals are eaten by marine creatures as food, the mucus produced by corals also serves as an important nutritional source for organisms around coral reefs. Thus, coral reefs underpin the diversity of the ecosystem.

Habitats of coral reefs on the earth are threatened by heavy typhoons, outbreaks of crown-of-thorns starfish, which are a natural predator of corals, breaching due to rising sea temperatures caused by global warming and other reasons and impacts of human activities such as sediment runoff and wastewater discharge.

To conserve coral reefs, it is important to take fundamental countermeasures that remove major causes of their destruction and wait for natural recovery. We hope that the coral planting helps conserve the ecosystem of coral reefs and preserve the biodiversity of the marine area.

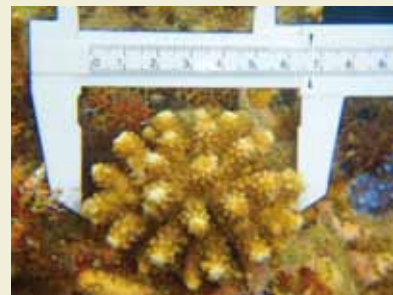
 Reports on the planted corals on the website of Okiden Kaihatsu Company, Inc.
<http://www.okidenkaihatsu.com/search/>



Submarine cable laying



Coral planting



A coral that was 4.3 cm wide when planted a year ago has now grown to 6.7 cm wide

Social Contribution

Contribution through Our Business Locations and Foundation

We will promote long-term social contribution in local communities even more and in a wider range of fields

The business activities of the Sumitomo Electric Group cover a vast range of technologies, markets and business domains, which involve various stakeholders. In addition to social contribution through business activities, we will continue to make long-term social contribution in a wide variety of fields in consideration of the following themes.

- Develop social contribution activities that meet local needs
- Establish partnerships with community-based organizations
- Continue long-term social contribution initiatives



Local community paper "Kakehashi"

We have had and continue to have warm communication that meet the expectation of local people

The Itami Works, which is located in the residential area, places high priority on harmonious relations with the local community and looks for various communication with them. We hold not only the Inari Festival in spring to commemorate our company's establishment, but also the Greenery-Floral Festival, which reached the 10th in autumn of 2016. Every year, the Greenery-Floral Festival gathers more than 1,000 people, including about 600 local residents, our employees, and their family. In the festival for 2016, we newly organized a handwork workshop in addition to a potted plant competition, potato digging and a mobile zoo. We saw many children smiling. In addition to holding these festivals, we hold sports classes and Athletics Festa, and offer our gyms for a regional volleyball match, to have communication with the local community in various forms. This year, we concluded an agreement to support Para-sports with Hyogo Prefecture. These initiatives are communicated to neighborhood associations through "Kakehashi," our local community paper. The 19th issue of Kakehashi was published in May 2017. For the distribution of the papers, we get cooperation from local volunteers.



Tatsuya Shiraga HR Group Yutaka Nakatsubo Administration Group Itami Works

Social Contribution

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," with

focus on 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 promotion of activities to contribute to local communities and support of volunteer activities and donations by employees.

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 2016, the SEI Group CSR Foundation received contributions of a little over 160,860 thousand yen in total from Sumitomo Electric (with the whole amount, including a little over 860 thousand yen donated through the cafeteria plan, appropriated for operation) and (1) donated 87 million yen in total to university courses, (2) supplied subsidies of 37.9 million yen in total to academic and research activities, and (3) provided scholarships of approximately 36.9 million yen in total for 33 Japanese students and 18 foreign students learning in Japan and 90 local students studying at overseas universities. In the program to make donations to university courses, we provided monetary support for two new courses along with the six courses continued from the previous fiscal year.

- "Implementation of a problem-solution oriented machine engineering education to develop human resources for manufacturing practice in the next generation" at Osaka University
- "Endowed lab. Innovation Management Science" at Kyoto University
- "Research course on tsunami marine hazards" at Kobe 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 (new)
- "Laboratory for Water, Food and Health Risk in Asia" at Yamagata University (new)

For the program to support academic and research activities, we received 168 applications. Out of them, we have selected 31 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.

 Group CSR Foundation page of our website
<http://www.sei-group-csr.or.jp/e/index.html>

CSR VOICE

I hope that more young Thai people have experience in Japan

Ms. Pakpilai Sambuntieng

3rd-year student, Industrial Engineering Course,
Faculty of Engineering, Thai-Nichi Institute of Technology



I am Pakpilai Sambuntieng, a third-year student of the Faculty of Engineering at Thai-Nichi Institute of Technology (TNI). While my father used to engage in the delivery of furniture, he cannot work now but only stay home after suffering a cerebral hemorrhage and my mother and I care for him. He can manage to walk independently but my mother works as a housekeeper to make a living. I am their only child and our house is located in Samut Prakan Province.

I received an SEI Group scholarship in addition to a student loan of the government for studying at TNI. Thanks to the scholarship, I can pay the tuition fee and have prospects to graduate.

While I also passed exams to enter other universities, I selected TNI based on the proximity to our house because I need to care for my father. At TNI, students can study Japanese, as well as special subjects, which was another reason I preferred TNI as I believe it is necessary to learn languages other than English.

There are many Japanese companies in the area where I live and I have heard from neighbors that they treat workers well, so I would like to work for a Japanese company after graduation. My favorite subjects are planning management and total quality management. I like to make a production plan and manage it, so I assume that I am suitable for working at Japanese factories. I plan to earn the required number of credits in the coming summer session in April and May, so I am scheduled to graduate after three and a half years of enrollment once I complete the four-month internship provided jointly by Japanese companies and the university.

Last year, I had an opportunity to receive support to have a week-long study tour to Japan. I visited Japanese companies and universities to have many inspirations that I could not have in Thailand. In particular, I witnessed efforts to reduce environmental impact, attitude to prepare for disasters and people trying to establish and maintain a social order willingly without being forced to do so, and the tour changed me dramatically. I hope that as many young Thai people, such as my juniors, as possible have opportunities to experience Japan. Such experience would broaden their horizon and enrich their lives. I expect that more support is given for such tours under the leadership of Japan.

I would like to thank the Sumitomo Electric Group for its social contribution activities that gave me an opportunity to further increase my interest in Japan. I hope that many more young Thai people have some sort of support, draw inspirations from Japan and develop a multifaceted interest in Japan in the future.

Volunteer Activities

We support volunteer activities by employees with various systems

We have introduced a volunteer holiday system* since April 2007, which allows employees to take cumulative paid holidays* (up to 10 days in a year) for performing volunteer activities.

* The number of users of the system is shown in the table of "Number of Users of the Employee Support Programs" in P54.

Collaboration with NPOs

We are committed to a program aimed at contributing to society and helping employees manage their health

We have promoted TABLE FOR TWO, a program* to contribute to society and support health management of our employees at our cafeterias since October 2011. Part of the proceeds is donated to help provide school meals in developing countries. In addition, we develop activities to donate profit on sale of PET bottle caps, used books and CDs as prizes for vaccines to be provided to children across the world through Japan Committee, Vaccines for the World's Children, an authorized NPO.

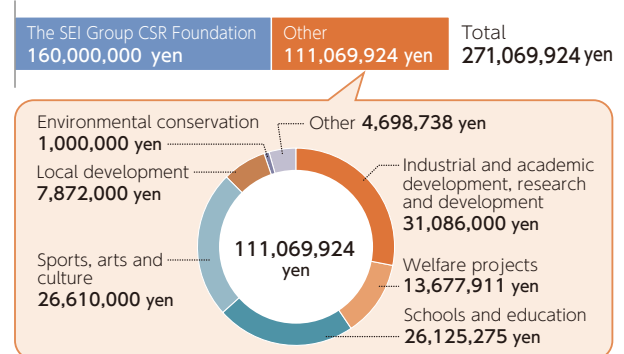
Social Contribution through Donations

We are making social contribution through donations from a global perspective

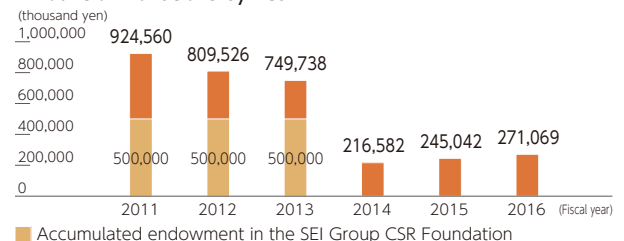
In fiscal 2016, we made donations in various areas including schools and education, industrial and academic development, R&D, art and culture, welfare, local development, environmental conservation and sports. For example, we gave financial support to symphony orchestras and opera performance as part 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, Japanese Red Cross Society, World Wide Fund for Nature (WWF) Japan, etc. In addition, we donated relief money for the victims of the Kumamoto Earthquake through the Japanese Red Cross Society. 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.

Glossary

* TABLE FOR TWO (TFT) program

In this program, a low-calorie, well-balanced healthy menu is offered daily at the company cafeterias, etc. and 20 yen is donated from the sale of each meal to help provide school meals to children in developing countries via TABLE FOR TWO International, an NPO.

* Matching gift system

The company concurrently donates an amount equal to the donation made by an employee in this system.



Based on the principle of “Harmony with the International Community” set forth in the Sumitomo Electric Group Charter of Corporate Behavior, the Sumitomo Electric Group, which has presence in about 40 countries around the world, aims to contribute to development of local economy and society while respecting the culture and customs of every region and country. To this end, along with social contribution through business activities, we are committed to various activities to support local communities and build harmonious relations with them.

Activities in Japan

A total of 55 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 658,410,000 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 2016 by Keidanren (Japan Business Federation).



Local cleaning activities (Tokyo Head Office of Sumitomo Electric) *1

Promoting community support activities and exchange with local communities

- **Local cleaning activities, promotion of greening, environmental conservation activities, etc.**

Sumitomo Electric: Cleanup of the area around each of its business sites *1

- Cleanup activities are performed in 29 of the 55 companies including the company mentioned above.

- **Supporting local disaster-prevention and safety activities**

Yokohama Works of Sumitomo Electric: AED training session attended by local residents as well (August) *2

- Performed in 20 of the 55 companies including the company mentioned above.

- **Opening corporate facilities (sports grounds, gyms, etc.) to the public**

- Performed in 11 of the 55 companies including Sumitomo Wiring Systems, Ltd.

- **Inviting local residents and students (from elementary, junior high and high schools) to plant tours**

Osaka Works of Sumitomo Electric: 160 local elementary school students in May *3

- Performed in 8 of the 55 companies including the company mentioned above.

- **Opening company sites to the public to organize events**

Itami Works of Sumitomo Electric: Organized Greenery-Floral Festival in October *4

- Performed in 5 of the 55 companies including the company mentioned above.

- **Publishing local community magazines**

Osaka Works of Sumitomo Electric in July 2016 and January 2017,

Itami Works in May and December 2016 and Yokohama Works in May and November 2016



AED training session attended by local residents as well *2



Plant tour for elementary school students *3



Invitation of local residents to the Greenery-Floral Festival *4



Participation in the Osaka Marathon as water station volunteers *5

Contributing to sports and cultural activities

- **Contributing to sports activities**

Sumitomo Electric: Sponsoring the 72st Lake Biwa Mainichi Marathon in March 2017

In Itami Works, jointly organizing athletic practice sessions for elementary school and junior high school students in Itami City (21 sessions a year)

Participation in the Osaka Marathon as water station volunteers in October *5

- Performed in 15 of the 55 companies including the company mentioned above.

- **Contributing to arts and cultural activities**

Sumitomo Electric Technical Solutions, Inc.: Participation in Yokohama City Sakae Ward lyceum (art and culture)

- Performed in 6 of the 55 companies including the company mentioned above.

Supporting education and training

- **Offering hands-on training programs, off-campus classes and other support to students and teachers**

Sumitomo Electric: Joint effort with the University of Tsukuba to support the career development of young human resources with a doctorate degree *6

- Performed in 21 of the 55 companies including the company mentioned above.

- **Holding on-site seminars**

Nissin Electric Co., Ltd.: Sending lecturers to the Future Forum for Female High School Students organized by Kyoto Prefecture

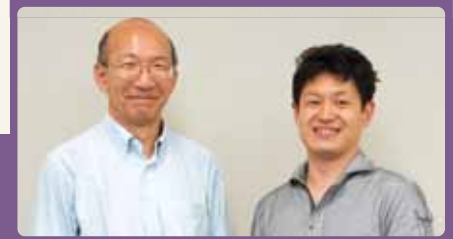
- Performed in 5 of the 55 companies including the company mentioned above.



Support of the career development of young human resources with doctorate degree *6

We aim to develop entrepreneurs who will change the future of Japan

The SEI Group CSR Foundation makes donations to excellent university courses that contribute to social development. One of them is a program of the Division of University Corporate Relations of the University of Tokyo to develop young entrepreneurs through a practical approach. The activities are introduced below.



Office of Innovation and Entrepreneurship, Division of University Corporate Relations, the University of Tokyo

Professor Katsuya Hasegawa
Project Professor

Mr. Taketo Sugawara
Assistant Professor

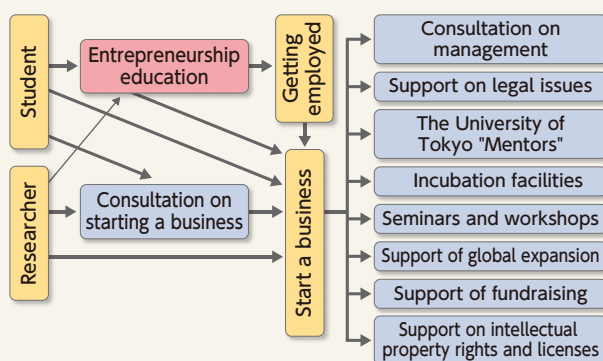
◆ "Entrepreneur Dojo" was launched in 2005

The University of Tokyo has been committed to entrepreneurship education as an advanced form of industry-university cooperation. With an aim to nurture more startup companies in Japan, we launched a university-wide entrepreneurship education program called "Entrepreneur Dojo" in 2005. In order to commercialize many research outcomes and technologies that have been developed in the university, you need entrepreneurs to run the business. The Entrepreneur Dojo program provides on-the-job training aimed at stimulating student's entrepreneurial mindset and making them aware of the career option to become an entrepreneur which is still not common in Japan. The program is intended for undergraduate and postgraduate students, as well as postdoctoral researchers, who have ideas and technical skills to potentially create a new business that can solve various problems in the society. The participants in the program form teams and receive practical training through activities including the development of business plans and business plan competition.



Lecture in the Entrepreneur Dojo program

■ Startup support by the Division of University Corporate Relations



◆ The project has begun to expand globally

We have received support from the SEI Group CSR Foundation to further expand this project since 2015 and the support is used to send personnel overseas, for example. In Asia, we have a student exchange program with Peking University. We also send student project teams and start-ups related to the University of Tokyo to the trade show at South by Southwest (SXSW), a conference in the United States. At this year's conference, a team from our university achieved the brilliant feat of winning the Interactive Innovation Awards in the student innovation category. The awards are given to innovative technologies and services and it was the first time that a team from Japan won one of them.



Trade show at South by Southwest (SXSW)

◆ We will increase students who can start a business with their own technologies

The Entrepreneur Dojo program gives practical instruction to students so that they can commercialize products with an eye on the global market from the beginning. This is why many technical students participate in the program. 2,385 persons in total have taken the program so far. About 300 students attended the program this year. However, this is only 1% of nearly 30,000 students including postgraduates at the University of Tokyo. It is important to further increase the rate. As more students take the program, Japan will have more entrepreneurs. Some of them, even if it may be just one in one hundred people, would run a business that can change the world. We hope to increase the people who start a business with their own ideas and technologies. Such people will constitute an important pool of human resources that support the Japanese economy and also become attractive target for investments. We would appreciate the continued support of Sumitomo Electric.

Promotion of CSR Activities in Affiliates

Sumitomo Rubber Industries, Ltd.

Sumitomo Rubber Industries established the Sumitomo Rubber Group's Basic Philosophy of CSR in 2008 out of the idea that it is necessary to clarify the code of conduct in the Group's CSR activities as a whole and further accelerate the management that pursues social value.

The Basic Philosophy consists of CSR Philosophy and CSR Guidelines. Our CSR Philosophy declares that through CSR activities we will become a corporate group that is trusted by society in a way that people see our continued existence as a positive thing, and our CSR Guidelines specify what we should do based on the philosophy. The guidelines are composed of five components, namely Green (green initiatives), Ecology (ecological process), Next (next-generation product development), Kindness (kindness to employees) and Integrity (integrity for stakeholders), with the acronym being "GENKI" after the Group's GENKI Activities, which are internal activities launched in 1988 to energize people.



Preparing for Tree Planting Activities (Weeding, Pruning) at Sakai Kyosei no Mori (Sakai Coexistence Park)

Based on the basic philosophy and guidelines of CSR activities, we develop new and unique CSR activities, and create new value through business activities, to further enhance our social value and thereby improve our economic value.

 <http://www.srigroup.co.jp/english/csr/>

Sumitomo Wiring Systems, Ltd.

To contribute to society, Sumitomo Wiring Systems (SWS) aims to help supply safe, convenient and eco-friendly cars to as many customers as possible by producing products used in such cars. In addition, we engage in various types of communication with local residents through social contribution activities so that we can be a company that is rooted in the local community and loved by the people.

Our specific initiatives include the assistance for the rehabilitation of disaster-affected areas, support for career education of elementary and junior high school students, sports activities of young people and events in the neighborhood and environmental conservation activities. We are also working to inherit the local traditional performing art of the historical Yokkaichi Suwa-Daiko Japanese drum as a company based in Yokkaichi. Our volunteer employees show the drum performance in local festivals and welfare facilities.

Last year, four companies located in Mie Prefecture including SWS established a joint company to create eco-friendly local communities, and the joint company began the development of infrastructure for hydrogen stations. Meanwhile, we recruited three players of PEARLS, a women's seven-a-side rugby team based in Mie Prefecture, to help diffusion and development of sports and improvement of sports competence in the prefecture.

In 2017, celebrating its 100th anniversary, SWS is committed to new sorts of CSR activities such as the loan of welfare vehicles to a specified nonprofit organization in the



Loan of welfare vehicles

neighborhood and donation of tools for boccia, a sport designed for persons with disabilities, to special support education schools in Mie Prefecture.

We also encourage our group companies, which are located in various parts of the world, to further enhance their social contribution activities. To this end, we introduce and commend various activities that our group companies have conducted in a suitable manner for the respective countries and regions as models to be followed by other group companies.

 <https://www.sws.co.jp/en/csr/index.html>

Sumitomo Riko Company Limited

To provide a basis for the fulfillment of our responsibility as a corporate citizen determined to earn the trust of communities and society at large, Sumitomo Riko established the corporate citizenship policy stating "Sumitomo Riko Group recognizes that we belong to the local community and, as a good corporate citizen, make efforts to create a better society through corporate citizenship activities".

We aim to make value-creating social contributions, which are positioned as activities that help meet society's challenges, and proactively work to create value for society through an active commitment to social issues and also help enhance our corporate value.

We have provided a Sumitomo Riko subsidy for "developing dreams, town and people" to assist local contribution activities in Kita-Owari, Aichi Prefecture, Matsusaka area, Mie Prefecture and Ayabe city, Kyoto Prefecture. The number of the areas where the program is organized increased to four this fiscal year with the launch of it in the area around our Fuji-Susono Plant. In this program, the subsidy is provided to activities that are considered to contribute to society especially in the five priority fields specified by Sumitomo Riko, namely diversity, the sound development of young people, building community, civil



The Sumitomo Riko Group subsidy for developing dreams, town and people is provided in four areas

activities and the promotion of coexistence with the natural environment. We invite candidate organizations in each of the areas and select four organizations in the "Dream course" which supports new activities and two organizations in the "Town and People course".

Sumitomo Riko will continue its Social contribution activities to earn the appreciation of communities all over the world.

 <https://www.sumitomoriko.co.jp/english/csr/>

Nissin Electric Co., Ltd.

Nissin Electric Co., Ltd., which celebrated the 100th anniversary of its incorporation on April 11, 2017, promotes its social contribution activities with focus on the three areas of 1) support the development of engineers 2) preserve historical and cultural assets mainly in Kyoto and 3) cooperate with local environmental conservation activities. We especially committed to the development of human resources of engineers who create innovations based on an idea that they are essential for continuous growth of the Japanese industry.

In this context, we have established a program to offer a grant-based scholarship to graduate students engaged in research of electricity, information technology and material and mechanical systems. Every February, an exchange meeting is held where the scholarship students report their research activities for the past year, and attendants from Nissin Electric encourage the students.

We will continue to make efforts to expanding the horizons of engineers that seek engineering and research careers and also support talented students with the ambition to acquire sophisticated skills. Through these initiatives, we will contribute to cultivate people who support the industry of the future.

Meanwhile, about the activities of preserving historical and cultural assets mainly in Kyoto, we support the cultural



Scholarship program to support the development of engineers

asset conservation activities, including those developed by Kyoto Prefecture and Kyoto City. For cooperation in local environmental conservation activities, we have begun to consider to support waste reduction and forest preservation activities.

In order to perform these activities steady and continuously, we established Nissin Electric Group Foundation for Social Contribution in March 2017. We aim to operate the programs in a more integrated manner through this fund.

 <http://nissin.jp/csr/index.html>



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 (the "Indicators") marked with "✓" for the period from April 1, 2016 to March 31, 2017, with the exception of the "Employment Rate of the Physically or Mentally Disabled" which is as of June 15, 2017, included in its CSR Report 2017 (the "Report") for the fiscal year ended March 31, 2017.

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 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information', 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements', issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines for the Assurance of Sustainability Information' of the Japanese Association of Assurance Organizations for Sustainability Information. 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 with the Company's responsible personnel to obtain an understanding of its policy for the preparation of 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 reviews of 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 also recalculating the Indicators.
- Visiting to two of the Company's subsidiaries selected on the basis of a risk analysis.
- Evaluating the overall statement in which the Indicators are expressed.

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 10, 2017

Comments from an External Expert

My findings on the CSR activities and information disclosure by the Sumitomo Electric Group are as follows:

Commendable points

■ Evaluation of the effectiveness of the Board of Directors

The Board of Directors of Sumitomo Electric started to evaluate its effectiveness in 2016 and a summary of the results is presented in the report of this fiscal year. It mentions a notable point, which is the recognition of the board that "what structure the board should have from the perspectives of diversity, etc." should be examined as a future challenge to further enhance the effectiveness of the Board of Directors. While many diversity measures of Japanese companies are intended for employees, diversity in a company generally means diversity in its management organization including the board of directors in a global sense. Quite a few studies in the US and Europe also claim that companies with more female directors have significantly higher profit margins. The fact that the Board of Directors of Sumitomo Electric has recognized the necessity to consider this issue indicates that the evaluation of effectiveness functions is actually working well for enhancing the governance and that the company's governance system is healthy.

■ Growth strategy with the use of diverse human resources

The promotion of diversity in human resources is also a priority CSR initiative of the Sumitomo Electric Group. At the same time, while Sumitomo Electric is a global company with over 240,000 employees in 40 countries around the world and the ratio of overseas employees of more than 84%, the company also positions the use of such diverse human resources as a core growth strategy. This approach to employees indicates that the Group focuses on business management based on "integrated thinking," which is essential in a sustainable society and that the important CSR issue is incorporated into the management strategy.

■ Response to gender issues

Among the efforts to promote diversity, the gender-related initiatives for female employees are especially delivering successful results. An action plan to respond to the Act on Promotion of Women's Participation and Advancement in the Workplace was developed in fiscal 2016 to further promote the recruitment and appointment of female employees. In addition, in April 2017, a new system to allow employees to take a leave to accompany their spouses assigned overseas was established to provide female employees, who used to have no choice but retirement on such an occasion, with an option to take a temporary leave. Such gender-related initiatives are also highly valued by society, and Sumitomo Electric was certified as an L-boshi company by the Ministry of Health, Labour and Welfare in August 2016 and selected as a Nadeshiko Brand in March 2017

by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange. All of these are major commendable points for this fiscal year.

■ Increase in the employment rate of the physically or mentally disabled

The Ministry of Health, Labour and Welfare plans to raise the legally required employment rate of persons with disabilities from the current rate of 2.0% to 2.3% by the end of fiscal 2020, and the rate will rise to 2.2% in April 2018. In the meantime, Sumitomo Electric has been committed to the employment of persons with disabilities, which is shown in the increases in the employment rate over time, and the rate has already exceeded 2.2% as of 2017. This is also highly commendable as a result of the business attitude to promote the employment of persons with disabilities not just to meet the legally required percentage.

Aspects needing improvement

■ Improvement of environmental performance

There are two items on which the Company failed to meet the targets in the Action ECO-21 Campaign, which are the reduction of the absolute amount of CO₂ emissions (in Japan and overseas) and waste (in Japan). The absolute amount increased from the fiscal 2012 level, the base year, in either case. Both CO₂ emissions and waste are important environmental issues in efforts to establish a sustainable society, and I hope that steady efforts are made to reduce them in the future.

■ Reduction of total working hours

While the SWITCH 17 Campaign, which was launched in fiscal 2014, sets a target of reducing total annual working hours to 1,900 to 2,000 hours, the figure keeps exceeding 2,000 hours except for the slight decline in fiscal 2016. Karoshi, or death from overwork, has become a social problem and more and more companies are committed to reducing working hours. In this context, I hope that Sumitomo Electric also strives to enhance the management of this issue in a continuous manner.



Professor, Faculty of Economics,
Sophia University
Yoshinao Kozuma

Sumitomo Electric's Response to the Findings



Yoshitomo Kasui
Managing Director
and Chairperson of
the CSR Committee

We thank Professor Yoshinao Kozuma for providing suggestive opinions on our Group's CSR activities and information disclosure. Professor Kozuma gave a high mark to our initiative to evaluate the effectiveness of the Board of Directors. We will continue to examine what structure the board should have from the perspectives of diversity, etc. to further enhance the function of the Board of Directors for the sustainable growth of Sumitomo Electric and medium- and long-term improvement of its corporate value. For our growth strategy with the use of diverse human resources, we position the promotion of diversity as a priority initiative in our mid-term management plan and will continue to work for the globalization of human resources and organizations. With respect to the response to gender issues and increase in the employment rate of the physically or mentally disabled, while we assume that our past efforts made certain results, we will continue and promote the initiatives. As to the items identified as aspects needing improvement, we will intensify our efforts to improve environmental performance and reduce total working hours. We will further develop our CSR activities while paying attention to their relevance to the SDGs so that our stakeholders enhance their understanding of our activities and attach a higher value to them.

The Findings by an External Expert in this English version are a translation of the original text in the Japanese version.

12th
anniversary

Sumitomo Electric Industries, Ltd.

Administration Division (CSR Promotion Office)

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