

# CSR Report 2016

Feature Energy Saving Activities in China



## 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 our commitment to CO<sub>2</sub> reduction through energy saving efforts, and introduces the activities of three companies in Wuxi and Suzhou, China, presenting energy saving initiatives developed in their plants and comments from local employees (P19 to 22).
- As a topic on the CSR core category "Products & Services," this report presents a demonstration project for a large-scale storage battery system at Minami-Hayakita Substation, which is jointly developed with Hokkaido Electric Power Co., Inc., and introduces comments from the executive officer in charge of the project and the site manager (P35 to 36).
- President Matsumoto had a talk with the president of Sumitomo Electric Wiring Systems(Europe), Ltd. (SEWS-E) , who is a Group Global Executive of the Sumitomo Electric Group, and exchanged opinions on the significance of diversity as a business strategy (P47 to 48).
- 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 2015, as well as the targets for fiscal 2016, are summarized to introduce our major activities in the CSR core categories (P31 to 32).
- 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, 2015 through March 31, 2016 (fiscal 2015).  
Some activities conducted in fiscal 2016 are also covered.

### ■ Boundary of This CSR Report

Sumitomo Electric Industries, Ltd. and its consolidated subsidiaries (353 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 in stock exchanges in Japan, and their consolidated companies are excluded, and Sumitomo Electric alone or only the Company and limited consolidated subsidiaries are included in some cases. The items referenced within such a specifically limited boundaries are indicated in the text or footnotes in the table or graph.
- The boundaries of the data compilation for "Corporate and Business Outline" (P7) are Sumitomo Electric and 389 consolidated companies.
- For details of the scope of data collection for environmental indicators, see Explanation of the Boundary in P63.
- The data in "Social Contribution" (P73 to 78) also cover some of the equity-method companies.

### ■ 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 2016

(Last CSR Report: published in November 2015; and next CSR Report: scheduled for release in November 2017)

### Responses to findings by an external expert

#### Efforts to achieve the targets in the Action ECO-21 Campaign should be enhanced through KPI management.

- » We examined the adequacy and achievability of the targets based on the situation outside Japan and revised targets for some overseas KPI items in fiscal 2016. The activities to meet the targets were also enhanced and the entire company worked together to strengthen energy saving activities and reduce environmental impact throughout the lifecycle of products. As a result, targets were achieved in a larger number of items and there was no item in which the performance deteriorated year-on-year. We will continue to promote thorough KPI management and effective environmental conservation activities to achieve the targets in all items of the Action ECO-21 Campaign.

#### Activities for the elimination of occupational accidents should be ensured in a continuous manner.

- » In fiscal 2015, the total number of occupational accidents decreased from the previous fiscal year as a result of commitment to priority safety activities. In particular, the number of accidents involving absence from work declined dramatically, which showed an outcome of our daily efforts. On the other hand, falls and other types of accidents are on the increase, and we will therefore continue the priority safety activities and work to ensure that all employees are involved in them.

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# Making Efforts to Become a “Glorious Excellent Company”

Masayoshi Matsumoto  
President & CEO  
Sumitomo Electric Industries, Ltd.

*M. Matsumoto*

## || 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” by fiscal 2017. Last year, we conducted an interim review of the plan while also considering changes in the external environment, past performance and other

factors. As a result, we replaced the initial numerical targets with higher ones, namely sales of 3,300 billion yen and operating income of 200 billion yen, and also added a new target index of ROE of 8% or more, in which there is a growing interest among investors, to the existing target index of ROA of 9% or more.

## || CSR Core Initiatives

In fiscal 2013, we specified the five CSR core categories in connection with VISION 2017, namely Products & Services, Supply Chain, Human Resources, Environmental Preservation and Social Contribution, to further strengthen our CSR activities. 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. To present our activities for social contribution through business operations, this year's report selects a representative product that contributes to solving social issues from each of the business sections, as the previous report did, and also introduces a demonstration test of a redox flow large-scale storage battery system developed jointly with Hokkaido Electric Power Co., Inc.

In the Human Resources category, promotion of diversity is set as the priority theme. Our Group operates business with more than 200,000 employees in about 40 countries around the world. Further growth of our Group therefore depends on the active use of human resources in our Group companies both in Japan and overseas. For more effective use of human resources, following the establishment of the Global HRM Policy in 2011, we appointed “Group Global Executives” and developed the program in 2014, and have worked for the practical application of the program. Promotion of diversity is a priority initiative in VISION 2017 not only from a CSR perspective but also as a business strategy to enhance our competitiveness. To reconfirm the significance of diversity as a business strategy, I had a high-level talk with one of the Global Executives.

The priority theme in the Environmental Preservation category is 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. This report introduces our energy saving activities in China as an example of our commitment to the efforts on a global scale. While also taking the expansion of our business into consideration, we will continuously promote energy saving and other measures for the conservation of the global environment based on recognition that environmental preservation is one of the most important business challenges.

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, we will continue to promote our activities in the Social Contribution category with focus on promotion of social contribution activities at business locations and contribution through the SEI Group CSR Foundation.

The CSR core initiatives are outlined above. 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 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 in 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 every effort to ensure that all corporate activities are conducted fairly and honestly and can be trusted by society.

## Closing Remarks

The Sumitomo Electric Group has inherited the Sumitomo Spirit that has a history of more than 400 years, and continuously grown through many challenges and difficulties. Keeping adherence to compliance and corporate ethics in mind as the absolute foundation, we will develop our business activities and continue to grow with the aims of becoming a Glorious Excellent Company that wins the trust of society including stakeholders and contributing to the creation of a new society.

This year, we improved the management structure based on the principles of Corporate Governance Code. For example, the number of outside directors was increased to two. We will continuously promote initiatives to further enhance the transparency of the business management.

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.

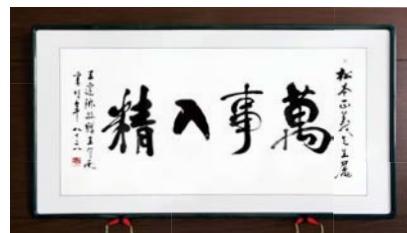
The Sumitomo Electric Group positions this "Banji-nissei" as the keyword representing the Sumitomo Spirit.



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 Name	Sumitomo Electric Industries, Ltd.
Established	April 1897
Incorporated	December 1920
President	Masayoshi Matsumoto
Capital Stock	99,737 million yen (as of March 31, 2016)
Head Office	4-5-33, Kitahama, Chuo-ku, Osaka, JAPAN

## Business Conditions in Fiscal 2015

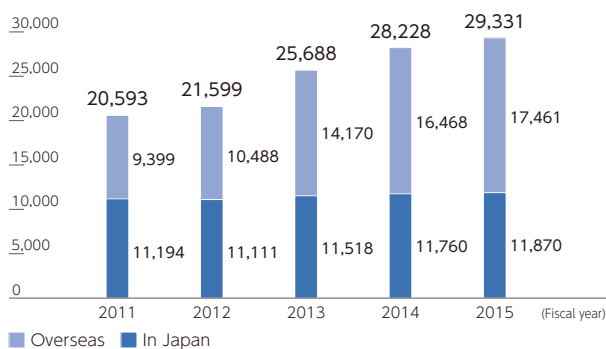
During fiscal 2015, although the US economy continued to show a recovery and the European economy also improved on the whole, uncertainty in the outlook for the global economy was heightened with concern about the impact of slower growth in emerging markets and other issues. The Japanese economy was also influenced by the slowdown in China's growth and other factors, and the economic recovery paused with sluggish growth in exports and personal consumption.

In the business environment surrounding the Sumitomo Electric Group, demand for automotive wiring harnesses and vibration-proof rubber in the United States and other overseas markets was firm. Demand for flexible printed circuits (FPC) for mobile phones and other products also increased.

Under these circumstances, our consolidated results for fiscal 2015 recorded a revenue growth with net sales of 2,933.1 billion yen, a year-on-year increase of 3.9%. Our operating income also grew by 6.7% from the previous fiscal year to 143.5 billion yen despite increases in depreciation expenses and research and development costs as a result of upfront investment, offset by the weak yen and our cost reduction efforts. Profit attributable to owners of the parent decreased by 24.0% year-on-year to 91.0 billion yen due to the posting of extraordinary profits in the previous fiscal year associated with selling shares in Sumitomo 3M Ltd. (which changed its trade name to 3M Japan Limited as of September 1, 2014).

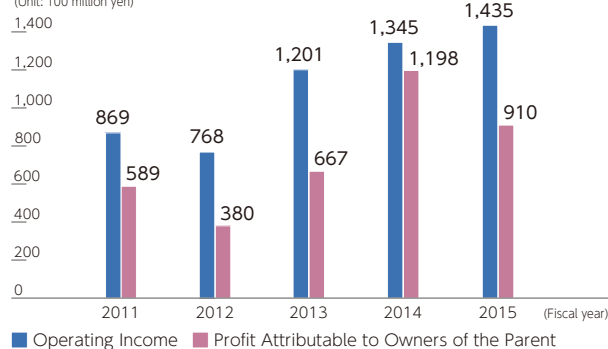
### Net Sales (Consolidated)

(Unit: 100 million yen)



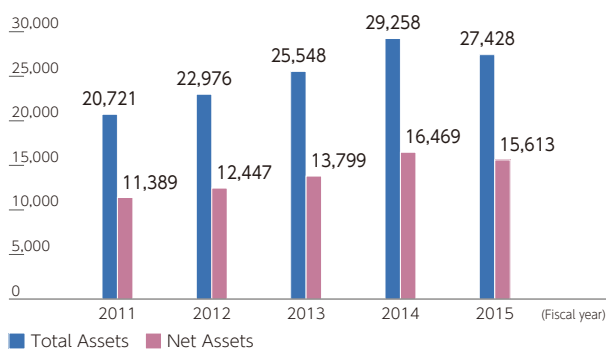
### Operating Income and Profit Attributable to Owners of the Parent (Consolidated)

(Unit: 100 million yen)



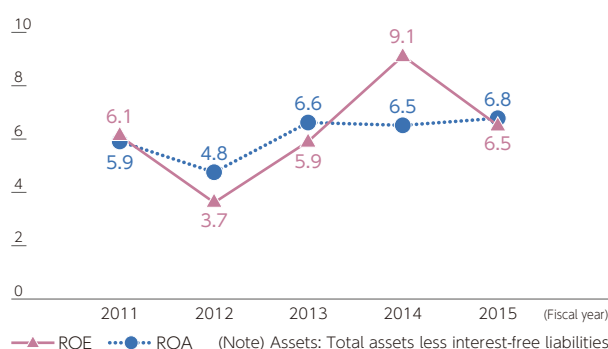
### Total Assets and Net Assets (Consolidated)

(Unit: 100 million yen)



### Return on Equity (ROE) and Return on Assets<sup>(Note)</sup> (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.

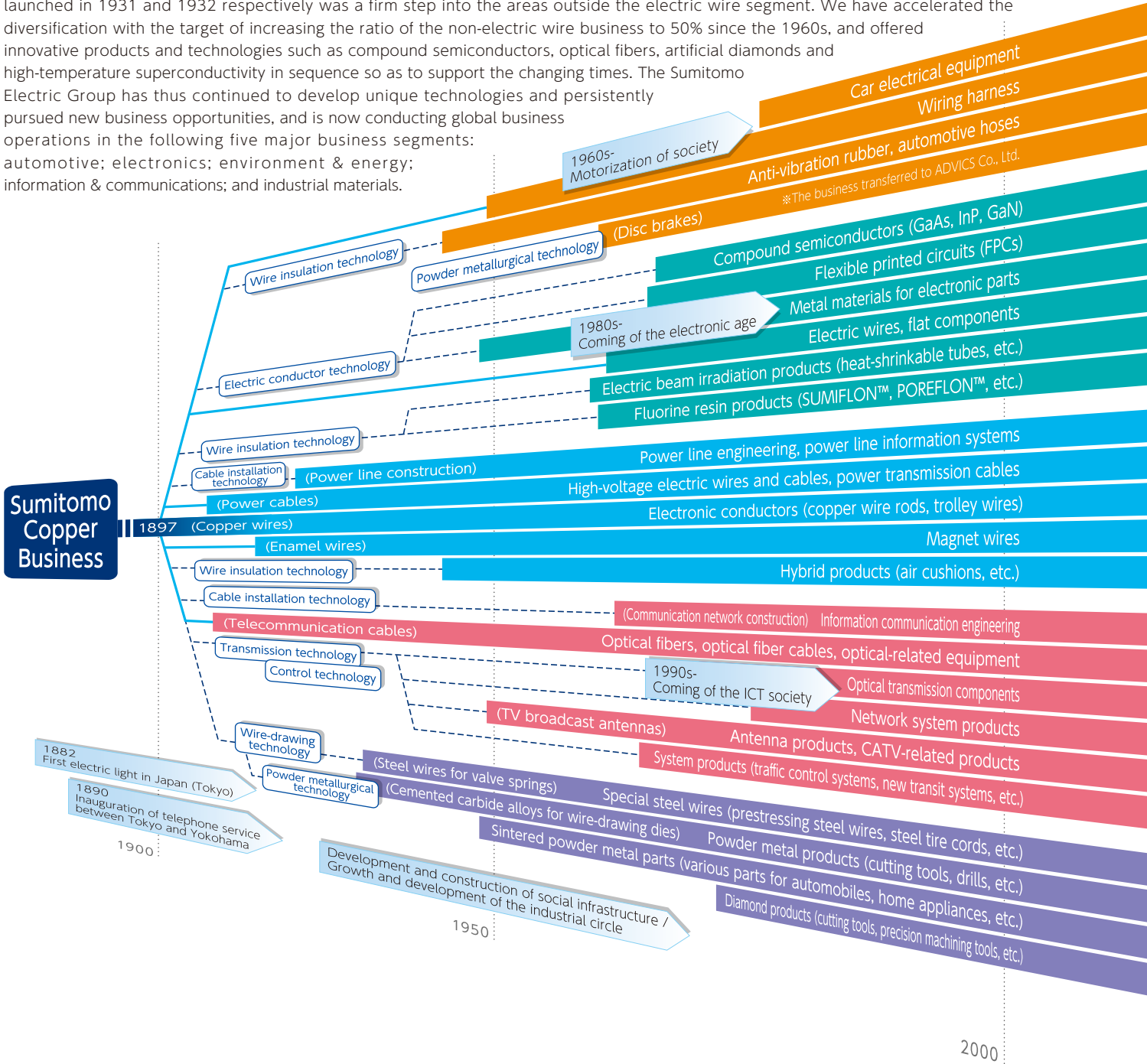


#### Other indicators (no change from the originally published targets)

- 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; information & communications; and industrial materials.



## History

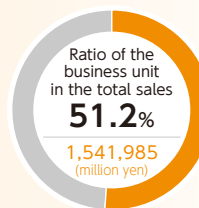
- 1897 • Sumitomo Copper Rolling Works was founded.
- 1900 • Started production of coated wires.
- 1908 • Started production of power cables.
- 1909 • Started trial production of telecommunication cables.
- 1911 • Established Sumitomo Electric Wire & Cable Works (the foundation of the Company). Manufactured 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

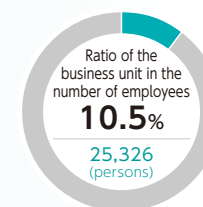
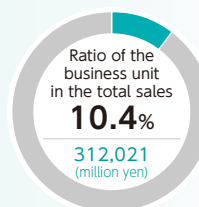
With a focus on the interface between the vehicle and driver, Sumitomo Electric offers various products to the global market. A representative example of these products is a wiring harness that transmits electric power and information to various points in an automobile. Growing public demands for more 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

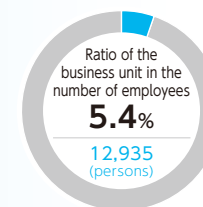
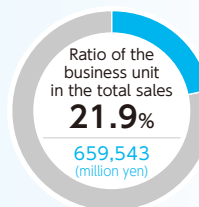
In the electronics field, devices are required to be ever smaller, lighter, more functional, and more sophisticated. To meet these requirements, Sumitomo Electric has been expanding its product lineup by continuously developing new materials, wires and other parts. Sumitomo Electric's leading-edge Technologies 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

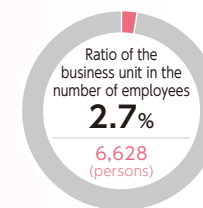
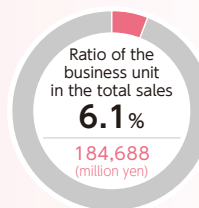
Since its establishment, Sumitomo Electric has made efforts to develop wire and cable technologies that are essential for ensuring a stable power supply. The Company is now moving toward new businesses in the field of renewable energy and smart grids to supply environmentally friendly and energy-efficient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



## Infocommunications

### Supporting communications

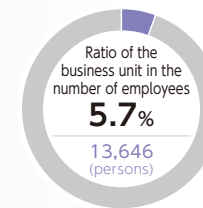
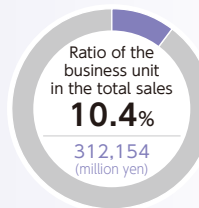
Sumitomo Electric provides various solutions that make our society safer, more secure and more comfortable. A wide array of these solutions include optical fibers/cables and other telecommunication-related products necessary for FTTH and other optical network construction, ITS-related products and access-based 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.



Under-floor pipe-shielded wiring harnesses for HEVs



Anti-vibration rubbers



Quick charging connector for EVs

- Social challenges
  - Response to global warming
  - Depletion of rare metals
- Social expectations
  - Improvement of fuel efficiency of cars
  - Measures to address depletion of resources
- New products and technologies contributing to the solution of the challenges
  - Improvement of automobile fuel efficiency through the reduction of vehicle weight

We succeeded in the development of stronger aluminum wiring harnesses that can be applied to engine parts for the first time in the world.

Aluminum wiring harnesses help reduce car weight, which improves fuel efficiency and thereby contributes to resource saving, energy saving and CO<sub>2</sub> emission reduction. In 2010, the Sumitomo Electric Group started to sell aluminum wiring harnesses made of aluminum alloy wires, which have similar conductivity to copper wires but are half the weight of them. Since then, the products have been adopted by various manufacturers in Japan and other countries, and we have established a system to supply aluminum wiring harnesses on a global scale.

In anticipation of further reduction of car weight in the future, we need to develop aluminum wires that can also be applied to bent parts and engines, which require heat resistance and vibration resistance as well as strength. Since 2010, we have communicated with car manufacturers to develop high-strength aluminum that can meet various requests. In 2015, we finally succeeded in the development of high-strength aluminum wires that can satisfy the demand for bending and heat resistance, and commercialized the high-strength aluminum wiring harnesses as a product created by integrating our technologies.

The development is also expected to contribute to the conservation of precious resources because aluminum has several times greater reserves than copper. We will strive to expand the lineup of aluminum wire products and further promote replacement of copper wires, thereby contributing to society.

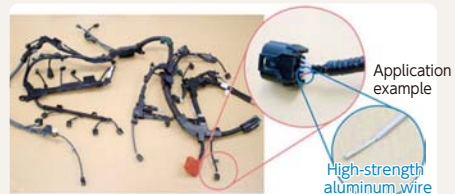


## Fumitoshi Imasato

Electric Wire & Cable R&D Department,  
Electric Wire & Materials R&D Division,  
AutoNetworks Technologies, Ltd.

### High-strength aluminum wiring harness

In recent years, automobiles have been required to be more fuel efficient and reduce CO<sub>2</sub> emissions, and the creation of lightweight vehicles has been a significant challenge to meet the targets.



In 2010, the Sumitomo Electric Group started to market aluminum wiring harnesses comprising of aluminum instead of copper, which had been traditionally used, to substantially reduce the weight while maintaining the high reliability. In 2015, we successfully developed high-strength aluminum alloy wires, which are even stronger than copper wires and allows aluminum wiring harnesses to be applied to components around an engine and other parts subject to high vibration.



Multicore optical fiber cables



Optical data links



Broadband network service devices

## Social challenges

- Depletion of network resources due to the increasing data traffic as a result of widespread use of smartphones and tablet terminals, use of 4K and 8K\* images, full-scale introduction of IoT\*, etc.

## Social expectations

- Smooth shift to the next-generation communication infrastructure that can meet demand for faster and larger-capacity data communication and diversification of relevant services

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

- Development of economical 10-giga systems that can be mixed with existing communication systems



## Our ultrafast optical access system can address increasing communication traffic.

While Sumitomo Electric, as a top vendor of 1 Gbit/s Ethernet passive optical network (1G-EPON) systems for 1G Fiber-to-the-Home (FTTH) services, which supported communication infrastructure networks in Japan, Taiwan and Hong Kong, we have developed a next-generation ultrafast access 10G-EPON system that can be used to provide 10G services and is also compatible with existing terminals for 1G services. The new system was employed by three of the top five cable operators in North America in 2015 to win the largest share of 10G-EPON in the very competitive North American market. In Japan as well, many cable operators, including heart@network Co., Ltd. and Bay Communications Inc., use the system. Thus, we have started to increase our share in both Japanese and overseas markets at the same time. I believe that our 10G-EPON system was adopted in the North American market, which has about three times larger broadband subscribers than the Japanese market and is said to set the standards for the global communication and broadcasting industry, especially due to (1) the high quality and reliability based on the "integrated manufacturing" of the ultrafast optical devices and other key parts within the Group and (2) high evaluation of the operability and maintainability based on the "connecting technology" to allow service providers to achieve interoperability with existing systems.

I have engaged in the supply of infrastructure for the combination of communication and broadcasting from both aspects of research and development as well as market expansion and commercialization. In cooperation with customers, we have developed high-quality video distribution services making use of FTTH and internet communication mechanisms for basic broadcasting stations such as digital terrestrial and broadcasting satellite television stations. We will also work to establish comfortable and reliable high-speed information communication infrastructure that can be used for the 2020 Tokyo Olympic and Paralympic Games along with future services such as 4K and 8K images and IoT.



### Hiroaki Nishimoto

General Manager of Broad Networks Division

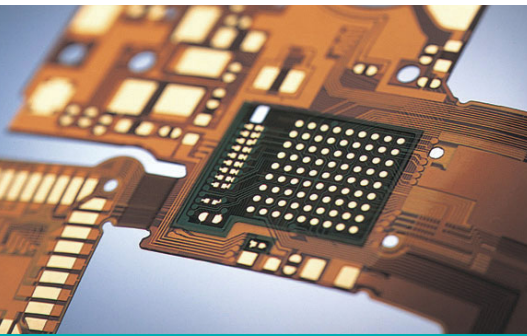
### 10G-EPON system

This 10G-EPON system can be used to provide ultrafast communication services at the speed of 10 gigabits per second (Gbps) in cable operators and other broadband service providers. The 10G-EPON system can split an optical fiber to be shared by multiple users that enables



high-speed communication at a low cost. Another major feature of the system is that it can be mixed with 1G-EPON, the system that is currently widespread, to encourage operators to introduce the new system. The 10G-EPON system has been employed by large cable operators in North America and deployed for commercial services for residential and business use. The deployment of our 10G-EPON system in cable operators in Japan is also underway.

# Electronics



Flexible printed circuits (FPC)



SUMITUBE™



SUMI-CARD™

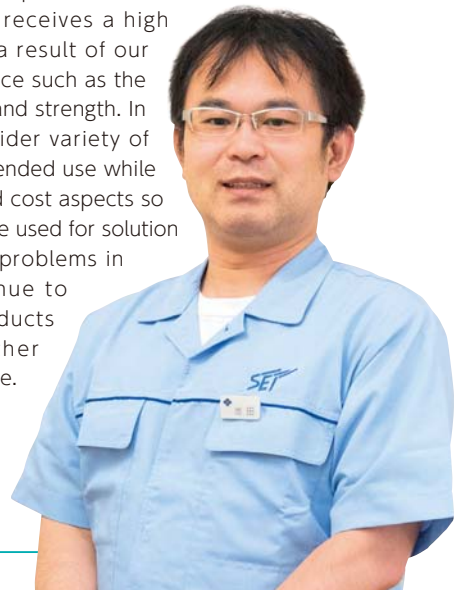
- Social challenges
  - Access to clean water
- Social expectations
  - Recycling of water
- New products and technologies contributing to the solution of the challenges
  - Durable, chemical-resistant and heat-resistant filters and modules to purify dirty water

## POREFLON™ Module is operated in more than 240 locations around the world to solve water-related problems, which have direct impact on our life.

Water pollution caused by domestic and industrial wastewater is currently a major problem all over the world. Water is an essential resource for our life. Sumitomo Electric has developed POREFLON™ Module for water treatment system using POREFLON™, a porous material with excellent chemical resistance and heat resistance. We are proud that this product can help solve water-related problems that have direct impact on our life and thereby make a great social contribution.

POREFLON™ Module is available in two types: submerged type, which is suitable for the treatment of sewage and industrial effluent; and external pressurized type, which is suitable for the drinking water production and the pretreatment of desalination of seawater. This product is effectively used in more than 240 locations around the world and, for example, can be used to reuse water and establish a water circulation system in the areas that suffer water shortage in Asia, North and South America and other regions.

While more than 10 years have passed since the release, POREFLON™ Module receives a high reputation from customers as a result of our efforts to improve the performance such as the membrane hydrophilic property and strength. In the future, we aim to offer a wider variety of equipment customized to the intended use while also considering the footprint and cost aspects so that our original technology can be used for solution businesses that address water problems in various fields. We will continue to sincerely work to develop products that can solve water and other environmental problems worldwide.



### Keiichi Ikeda

Manager of Membrane Engineering Group,  
Engineering Department,  
Water Processing Division

### POREFLON™ Module

Using polytetrafluoroethylene (PTFE), which has excellent chemical resistance, heat resistance and durability, we have developed a porous separation membrane making the best use of our unique processing techniques and created POREFLON™ Module for water treatment systems. This product features various characteristics, such as high strength and high permeability. In addition, it can be cleaned with various chemicals, and is easy to handle thanks to the effects of hydrophilic surface treatment. As a result, it can be used in a wide variety of water treatment applications.



# Environment & Energy



Copper wire rods



High-temperature superconducting (HTS) cable



Air cushion for railroad vehicles

- Social challenges
  - Need to address global warming
- Social expectations
  - Improvement of fuel efficiency of cars
  - Reduction of CO<sub>2</sub> emissions
- New products and technologies contributing to the solution of the challenges
  - Development of smaller and higher-output motors for hybrid vehicles to improve their fuel efficiency

With tireless technical innovation, we will further reduce the size of motors for hybrid vehicles to improve fuel efficiency and lower the cost.

Flat winding magnet wires developed in the Sumitomo Electric Group were adopted for the motors serving as the power sources of hybrid cars manufactured by Toyota Motor Corporation. When developing the wires, we reviewed the materials to reduce the thickness of the film while retaining the insulation property, and also achieved uniform film thickness by improving the production method. This enabled the magnet coils to be wound in higher density, which helped reduce the size of hybrid car motors and thereby realized higher fuel efficiency and cost reduction. In recognition of this product, Sumitomo Electric received the Technology & Development Award for the first time in 10 years at the Toyota Global Suppliers Convention.

Since hybrid car motors make a great contribution to the environment, the market is likely to expand on a global scale, and we expect to see growing demand for the flat winding coil wires developed by our Group. While I am in charge of sales, I would like to not just sell products but also contribute to the distribution of products that address recovery, recycling and other environmental issues for resource saving. Hybrid cars equipped with our products have recently begun to run on streets. I would like to continue my job with a sense of responsibility that I am playing a part in the development of environmentally friendly products.



Received the Technology & Development Award from Toyota Motor Corporation

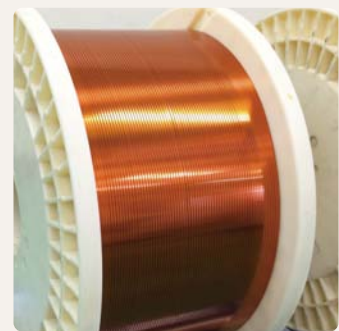


## Satoshi Nishida

Assistant General Manager of East Japan Sales Group, Magnet Wire Marketing & Sales Department, Magnet Wire Division

### Flat winding magnet wire

To meet the demand for the improvement of fuel efficiency and the reduction of CO<sub>2</sub> emissions in automobiles, hybrid cars are increasingly drawing attention. Sumitomo Electric Wintec, Inc. is manufacturing flat winding magnet wires to be used in hybrid car motors. These wires can be wound in a higher density than round wires with leaving less space to achieve a higher space factor. In addition, the quality film material and uniform film thickness allow a hybrid car motor to have an even smaller size and higher output. We will continue to improve the products to contribute to the development of environmentally friendly cars.



# Industrial Materials



Cutting tools



Sintered parts



Prestressed steels

## Social challenges

- Demand for enhanced productivity and reduced processing costs in machining
- Depletion of rare metal resources
- Environmental impact from metalworking processes
- Human right issues, etc. that occur in the context of conflict minerals

## Social expectations

- Extension of the tool life
- Recycling of rare metal resources
- Response to conflict minerals

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

- Improvement of productivity, reduction of processing costs and reduction of environmental impact through the extension of the tool life
- Establishment and maintenance of high-purity and efficient recycling technology

We will develop cemented carbide tools, which support various industries, with improved performance and extension of the tool life to reduce environmental impact.

I belong to Hardmetal Division and am in charge of the global development of cemented carbide tools. Since the start of the production and marketing of IGETALLOY™, a cemented carbide alloy tool, in 1931, Sumitomo Electric has developed new materials and various coating materials to contribute to the improvement of productivity and the reduction of processing costs in the field of machining. In addition to the automobile industry, the products also support machinery, electronics, aerospace and various other industries.

There are currently two important challenges for our cemented carbide tools. One is the expansion of their global market share. To meet the targets for VISION 2017, it is a key to increase the sales particularly in emerging markets. As an example of the efforts for it, we started mass production of indexable inserts, one of our main products, in India in July 2015 to increase our share in the Indian market. The mass production enabled the reduction of delivery time and costs. As a person in charge of the project, I worked to start local production in cooperation with relevant divisions and partner companies in India.

The other challenge is the establishment and maintenance of a system to recycle tungsten, which is a rare metal and the main material for the cemented carbide tools. We contribute to the reduction of environmental impact through recycling in addition to the extension of the tool life. Since I joined Sumitomo Electric, I have mainly worked to expand the share of our cemented carbide tools in foreign markets. I am now going through an important stage of life, which is childbirth and rearing. Making use of the experience, I would like to enhance the potential of cemented carbide tools with a higher level of enthusiasm.



## Ayumi Shigenaga

International Sales Group,  
Global Marketing Department,  
Hardmetal Division

## Cemented carbide tools



Cemented carbide tools are used for a wide range of cutting processes including cutting, shaping and drilling of various metals such as steel, casting, stainless steel and aluminum. They underpin production sites of diverse products ranging from large items such as car engines, aircraft bodies, bridges and power generators to small ones such as PC and mobile phone parts and dies.

The hardness and strength of cemented carbide tools are increasing, and the tool life is being extended. The main material is tungsten, a rare metal, and the Sumitomo Electric Group has in place a system to internally recycle all of tungsten in the products sold in Japan to avoid risks related to conflict minerals\*.

Our recycling technology with high efficiency also contributes to the reduction of environmental impact.

## 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. (Please see P43 for details.)

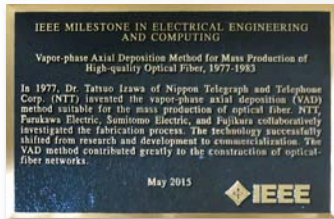


## 2015

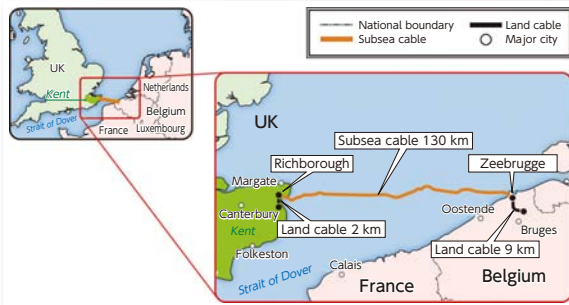
- 4** Awarded the Prize for Science and Technology (Development Category) of the 2015 Commendation for Science and Technology from the Japanese Minister of Education, Culture, Sports, Science and Technology for "Development of cross-linked polyethylene cable for super high voltage long distance DC power transmission"



- 5** The VAD Method was recognized as a prestigious the Institute of Electrical and Electronics Engineers (IEEE) Milestone for the excellent mass production of high-quality optical fiber indispensable for building optical communication networks



- 6** Won contract for DC ±400 kV XLPE submarine cable system between UK and Belgium



- 9** Sumitomo Electric Printed Circuits, Inc. Commended by the Ministry of Health, Labor and Welfare as a FY 2015 Excellent Business Facility Employing Persons with Disabilities



- 10** Achieved an optical fiber transmission speed of 2.15 petabits/s, which was faster than the previous world record

- 12** Decided to construct a new facility for the production of cutting tools in Fukushima

## 2016

- 1** Our redox flow battery system, a large-scale power storage system, received the Nikkei Sangyo Shimbun Excellent Award at the 2015 Nikkei Superior Products and Services Award



Received Thomson Reuters 2015 Top 100 Global Innovators Award



Awarded "Supplier of the Year" by Fiat Chrysler Automobiles N.V.

Received the 31st Kenjiro Sakurai Memorial Prize from the Optoelectronics Industry and Technology Development Association for "Development and commercialization of ultralow-loss optical fibers for submarine cables"

- 2** Received four awards of the Global Contribution Award, Technology & Development Award, "Superior" Value Improvement Award and "Excellent" Value Analysis Award from Toyota Motor Corporation

Received Reliability Report Special Excellence Award in the Environmental Reporting Category of the 19th Environmental Communication Award

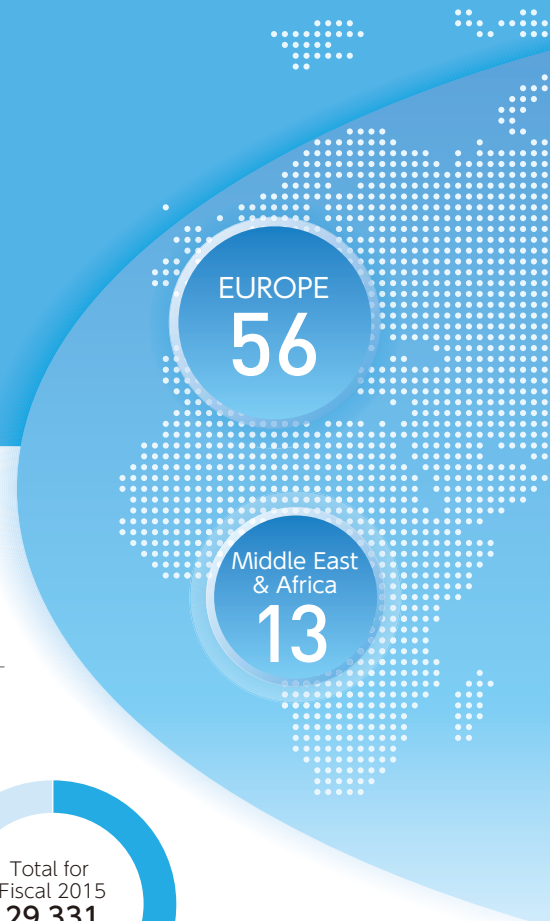


# Global Business Expansion

The Sumitomo Electric Group is developing business activities on a global scale, with 389 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.

EUROPE	JAPAN	North/South America
UK 7	Japan 114	USA 26
Italy 3		Argentina 1
Ukraine 1	<b>Asia &amp; Oceania</b>	Canada 2
Netherlands 3	India 7	Paraguay 1
Spain 1	Indonesia 12	Brazil 7
Slovakia 2	Australia 3	Mexico 9
Serbia 1	Cambodia 1	
Czech Republic 1	Singapore 4	<b>Middle East &amp; Africa</b>
Germany 13	Thailand 21	Egypt 2
Turkey 4	Philippines 11	Saudi Arabia 1
Hungary 3	Vietnam 9	Tunisia 3
France 5	Malaysia 5	Moldova 1
Bulgaria 1	South Korea 7	Morocco 4
Belgium 1	China 69	South Africa 2
Poland 4	Hong Kong 6	
Romania 2	Taiwan 5	
Russia 4		



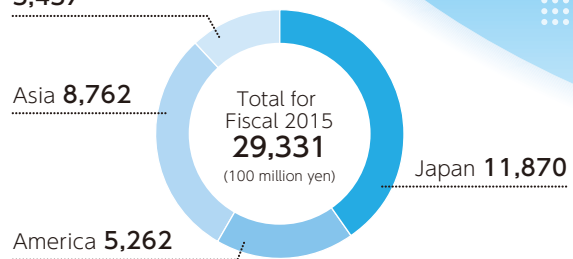
## Net Sales by Region (Consolidated)

Europe and others **3,437**

Asia **8,762**

America **5,262**

Middle East & Africa **13**



## 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.



Asia & Oceania  
**160**

North/South America  
**46**

JAPAN  
**114**

GLOBAL  
NETWORK

Companies Consolidated  
**389** in total

Breakdown of companies consolidated  
(as of March 31, 2016)

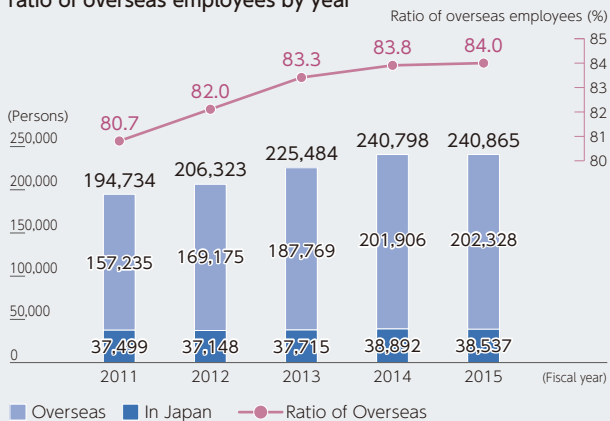
- Consolidated subsidiaries (353)
- Equity-method affiliates (36)

## Global development by business segment

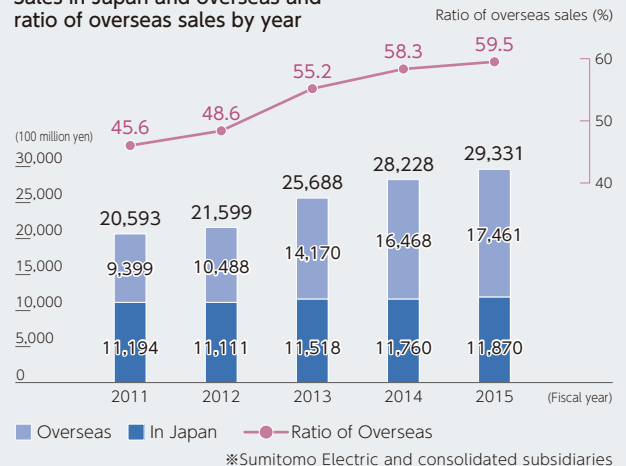
Beginning with the foundation of our first overseas manufacturing base in Thailand in 1969, we have promoted the establishment of overseas bases in consideration of market characteristics and needs for each business segment. In the parts of the world in which we have established our

bases, we are committed to job creation and human resource development while aiming to stabilize the local operation. We now have a total of 275 overseas affiliates with more than 240,000 employees.

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



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





Accelerating the introduction outside Japan

# Efforts to reduce CO<sub>2</sub> emissions through energy saving

At COP21 in 2015, Paris Agreement was adopted as an international framework to prevent global warming. Indicating the need to limit the temperature increase by the end of the 21st century to less than 1.5 degrees Celsius, this agreement sets a target of keeping a global temperature rise from the pre-industrial level below 2 degrees Celsius.

Prevention of global warming is a significant theme for the Sumitomo Electric Group as well. As an example of our efforts for the prevention on a global scale, this report presents the energy saving activities of three of our affiliates based in Wuxi and Suzhou, China.



**WIN-W**  
**Sumitomo Electric Wintec(Wuxi) Co.,Ltd.**  
 Production item: Magnet wires for coils  
 Number of employees: 397



**SPW**  
**Sumiden Powder Metallurgy (Wuxi) Co., Ltd.**  
 Production item: Sintered products  
 Number of employees: 755



**SPEC**  
**Sumitomo Electric Photo-Electronics Components (Suzhou), Ltd.**  
 Production item: Optical devices and optical transceivers  
 Number of employees: 664

# China

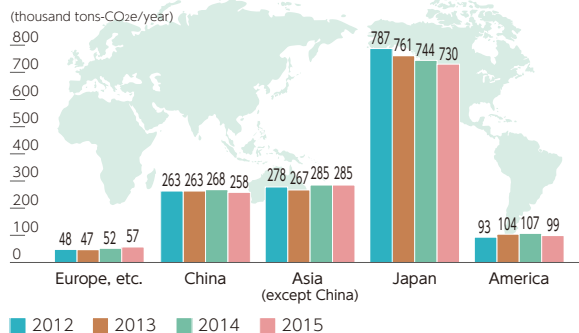
## Energy saving activities are expanded across the sea to meet the targets in VISION 2017

### Global development of energy saving activities

In Paris Agreement, the target is set in a way to ensure that greenhouse gas emissions are reduced to a level that can be absorbed by the global ecosystem by the second half of the 21st century.

For the Sumitomo Electric Group, prevention of global warming is linked with energy saving activities and is also a significant subject that can generate business opportunities. In the quantitative indicators specified in line with the mid-term management plan VISION 2017, we aim to reduce total greenhouse gas emissions from all of our domestic and overseas establishments by 5% from the FY2012 level. We also promote energy saving activities to meet the target of reducing energy consumption per unit of sales in manufacturing sites by 20% from the fiscal 2012 level in fiscal 2017.

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



### The slogan is “reduction of 4% with the effects of ideas for energy efficiency improvement”

Production activities of the Sumitomo Electric Group are growing overseas, especially in Asia. Since energy efficiency in such countries tends to be lower than that in Japan, it is an urgent task to introduce ideas obtained through energy saving activities in Japan into them. To improve the effects of our efforts, we launched the energy saving diagnosis program in 2008 and, since 2009, have conducted it in overseas establishments as well.

In the energy saving diagnosis program, we identify ideas on various aspects, such as change of the production conditions, improvement of quality and productivity and reduction of failures, under the slogan of “reduction of 4% with the effects of ideas for energy efficiency improvement,” and visit and inspect major sites to enhance their energy saving activities. Each division works together with Manufacturing Management & Engineering Unit in the program. Following pages present field reports on local energy saving activities

steadily developed in three of our Chinese affiliates.



# Elaborate diagnostic checks and accumulation of meticulous energy saving measures

01

**WIN-W** : Sumitomo Electric Wintec(Wuxi) Co.,Ltd.

## Detailed diagnosis and conference calls support energy saving activities



**Wang Ya Fei**

Section Manager of Machinery Section, Production Department

Having founded in Wuxi in 1994, our company manufactures magnet wires for air conditioner compressor motors and in-vehicle electric components along with ultrafine wires for watch. As we need to use enameling oven for the production process, electricity charges characteristically occupy a high proportion of our costs. We underwent energy saving diagnosis and have been committed to a wide range of energy saving measures in response to the results, including using inverters, reduction of lighting devices by installing a sunroof and adoption of high-efficiency motors. In 2014, we installed outside air intake equipment to be used in winter at our ultrafine wire plant to stop the use of air conditioners and lower the load. The enameling oven are now covered with locally procured nano materials to improve the heat insulation effect.

We have made such various efforts to meet the target of reducing energy consumption by 4% year-on-year, and achieved the target in the three years to fiscal 2015. We are also considering the review of the production process



Introduction of inverter

itself, and will continue to work to surely meet the target.

In particular, monthly conference calls with Head Office and Shigaraki Works of Sumitomo Electric Wintec, Inc., as well as

bimonthly conference calls involving all of the domestic and overseas production plants of the Group, are helpful for our efforts. We are pleased with the company climate that ideas on improvement provided by production staff are carefully examined by Head Office.



Adoption of high-efficiency motors

02

**SPW** : Sumiden Powder Metallurgy (Wuxi) Co., Ltd.

## SPW not only works to save energy in its plant but also helps local community reduce environment impact



**Liu Yun Zhou**

Director, Vice General Manager and General Manager of Manufacture Division

**He Wen Jing**

Section Leader, Safety Environment Department

Our company was established in Wuxi in 1995, and manufactures and sells sintered products used for engines and transmissions of cars, compressors of air conditioners and other devices.

We have taken energy saving measures including introduction of LED lamps for ceiling lighting of the plant and use of waste heat from circulating water of sintering furnaces for heating water in shower rooms for employees. In 2014, fluorescent lamps in the magnetic flaw detection room were replaced with LED lights, which did not only reduce power consumption but also suppressed temperature rise in the room because LED lights emit no heat. As a result, electricity use for air conditioning in the room was also reduced. Marking 20 years in business, our company will renew the sintering furnaces and air conditioners. We consider that there is room for the



Introduction of LED lights in the plant



Use of waste heat from sintering furnaces for heating shower water

reduction of energy use through hardware-based measures. Wuxi is located near Lake Tai, and we must protect the beautiful lake. In addition to reducing environmental impact of activities in our plant, we would like to be continuously committed to protecting the environment with a strong will to help society reduce the environmental impact.

**03** SPEC : Sumitomo Electric Photo-Electronics Components (Suzhou), Ltd.

### SPEC proactively promotes energy saving and environment improvement at the same time



**Wang Guo Cheng**  
Deputy Department Head, Production Department and Manager of Production Section

**Shi Yong Gang**  
Assistant Manager, Production Section, Production Department

Our company, founded in Suzhou in 2007, manufactures optical devices and transceivers as a mass production base of optical parts for the Group, while also enhancing product development function.

We underwent energy saving diagnosis for the first time in March 2016. While we had already taken voluntary measures including introduction of LED lights and installation of double windows, the diagnosis presented very detailed data and we received specific proposals. One of the indications was that the pressure of the cooling water supplied to the plant was slightly higher than the appropriate level, and we adjusted it immediately. We also consider that there are still other energy saving measures we have not taken yet, such as introduction of inverter pumps, and aim to meet the target of reduction of 4% year-on-year with the effects of ideas for energy efficiency improvement by all means. While our company distributes T-shirts to all employees and their family members at Christmas every year, the T-shirts provided in 2015

featured the conservation of the global environment to raise the awareness among employees.

We are also actively committed to the improvement of the working environment, and respond to requests from employees wherever possible, such as measurement of PM 2.5 and carbon dioxide concentration and installation of a floor heating system in the dining room. In recognition for such efforts, we were commended by Jiangsu Province as a model company with a good relationship with employees in 2012 and also as a model company with a good relationship with the union in 2013. Our company has thus established a favorable relationship with our employees.



Adjustment of the pressure of cooling water



Constant monitoring of environmental data

#### We will take measures to further enhance our efforts and ensure achievements

VISION 2017 sets an aggressive energy saving target for manufacturing sites, which is the reduction of energy consumption per unit of sales by 20% from the fiscal 2012 level in fiscal 2017. To achieve the target, we have promoted the energy saving diagnosis program in Japan and other countries and provided follow-up support in cooperation with the respective mother factories of the business units.

Energy saving activities aim to eliminate wasteful use of resources and energy through efficient production, which will result in less CO<sub>2</sub> emissions and an improved cost structure. In addition to efforts to directly reduce energy consumption, energy saving activities also include all improvement activities that result in less energy use, such as reduction of failure and loss, improvement of production yield and other quality improvement activities and increase of the production speed and other productivity improvement activities, as well as maintenance activities to reduce facility deactivation. We promote such energy saving initiatives not only in Japan but also on a global scale.

With an awareness of COP21, we recognize that it is a social responsibility for the entire Sumitomo Electric Group to aim to reduce greenhouse gas emissions both in Japan and overseas, and the Group will continue to make concerted efforts to fulfill the responsibility.

**Hirotake Komori**  
Manager of the Energy Saving Office, 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 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 also 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, which are chaired by the President because the position of the chairman is vacant, the Board of Directors deliberates and takes decisions on the matters mentioned above, makes decisions on the basic policy of the internal control system and supervises the development and operation of the system. There are currently 13 directors in the Company, who are all male and comprised of 11 executive directors and two outside directors not involved in business execution. Directors (14 persons excluding an outside director) received 846 million yen in total for fiscal 2015.

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.

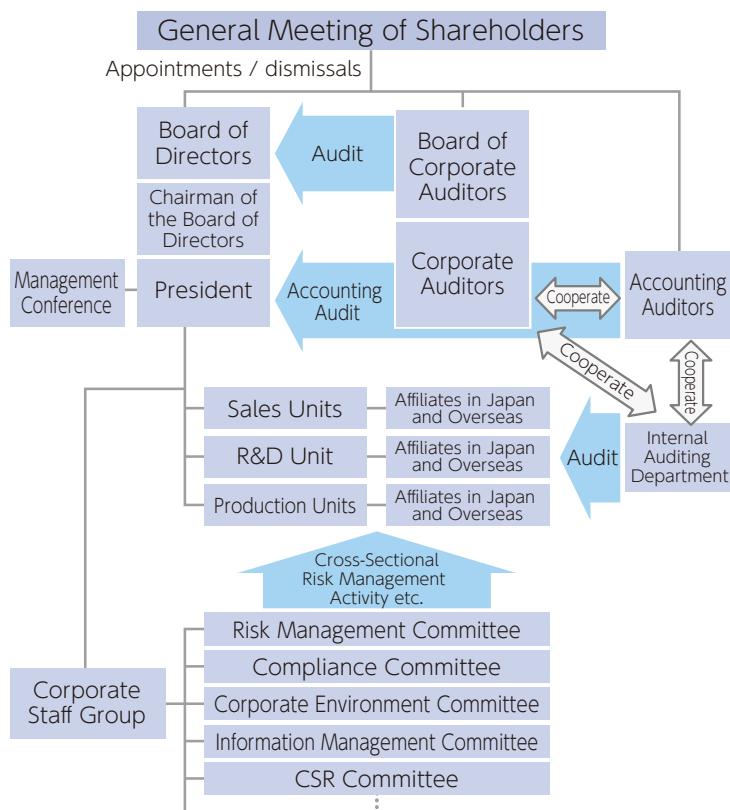
The section in charge of internal audits is the Internal Auditing Department, which surveys any problems and makes proposals on improvement to ensure proper and efficient

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

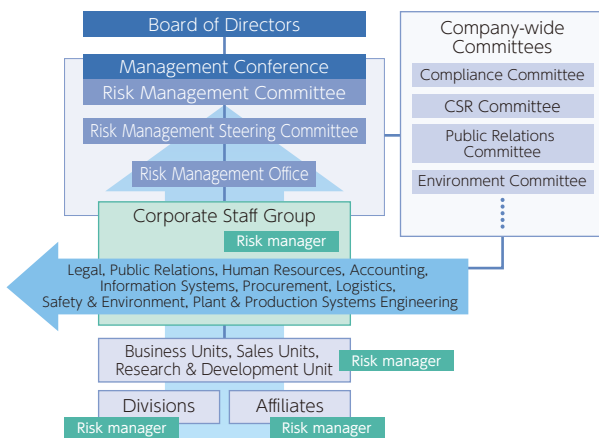
Risk management is performed based on the significance of the risks determined in consideration of the following issues:

- 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.

### 《 Establishment of a Risk Heat Map 》

The Sumitomo Electric Group is making efforts to establish a more efficient mechanism for risk management activities so that it can respond to the expansion of the business fields and changes in the external environment effectively. In fiscal 2015, 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, which was 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

### 《 Revision of Business Continuity Plans (BCPs) 》

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

In fiscal 2012, Sumitomo Electric reorganized the relevant rules to improve the information management system, 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 through improvement of the system in domestic and overseas affiliates and enhancement of the internal training program.

### 《Protection of Personal Information》

Sumitomo Electric established its Personal Information Protection Policy and Personal Information Protection Rules in April 2005. In accordance with them, we properly deal with the personal information of customers, business partners and employees handled in the course of our business while complying with laws, regulations and other rules relating to the protection of personal information. We also formulated the rules for handling specified personal information in November 2015 to ensure that specific personal information is handled properly in accordance with the law and to prevent leakage and other problems. In addition, we revised the personal information protection policy in February 2016 to specify the purposes of using personal information and the possibility of joint use with affiliates and to promote appropriate and efficient use of personal information.

### 《Strengthening of Information Security Measures》

We have launched the activities of the ICT Management Committee, which had already been operated in China and Thailand, in Indonesia and Malaysia as well to play a pivotal role in our global development. A total of 45 companies in these four countries are now working with us to enhance their information security measures, and have made such achievements as the reduction of the risk of infection with computer viruses and the implementation of information security training.

We also take measures to prevent the leakage of information on trade secrets and other important management assets. In addition to existing measures such as installation of antivirus software and intrusion prevention systems (IPS) and data encryption in mobile computers and USB devices, we have introduced a plugin to prevent wrong transmission of emails and a function to automatically encrypt files attached to emails across the Group worldwide including our Japanese and overseas affiliates.

Furthermore, to promptly identify and respond to any incidents relating to information security in our Group companies, we are now working for the establishment of Computer Security Incident Response Team (CSIRT), which is scheduled in the second half of fiscal 2016, under the initiative of R&D units and IT units.

### 《Prevention of Leakage of Important Technical Information》

Out of concern over the leakage of important technical information, a task team was formed in the Corporate Staff Group in April 2015. The team surveyed the actual situation of the management of technical information in pilot divisions in Japan and overseas, and identified problems. We will promote further strengthening of the management system in the future.

## 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 proper export activities.

### Record of Various Training Sessions in Fiscal 2015

Target of the training	No. of sessions	No. of participants	Main content
Staff in charge of classification	15	126	Tasks on how to classify goods and technologies
Export control sections	26	548	Export control practice
General employees	19	550	Outline of export control and internal rules
Domestic affiliates	3	71	Outline of export control
Overseas affiliates	6	107	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 2015, the Committee held four meetings (June, September and November 2015, and March 2016).

## Compliance Code of Conduct

The Compliance Committee has prepared the Sumitomo Electric Group Compliance Code of Conduct, which explain 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 in fiscal 2016 to ensure that the content is suitable for distribution to the employees of our overseas subsidiaries as well, 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. While the regular training seminars for managers were previously held at the end of each fiscal year, they are now organized from April to June to avoid the year-end period. The subjects of the seminars include prevention of illicit acts, compliance with competition laws, prevention of bribery and information management, and we also disseminate the Speak-Up System as mentioned below.

Target	Period
Officers (including executive officers)	Dec. 2015
Newly promoted personnel	Feb. - Mar. 2016
New employees of Sumitomo Electric	Apr. & Oct. 2015
Managers of Sumitomo Electric and its subsidiaries in Japan	Apr. - Jun. 2015

## 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 three 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.

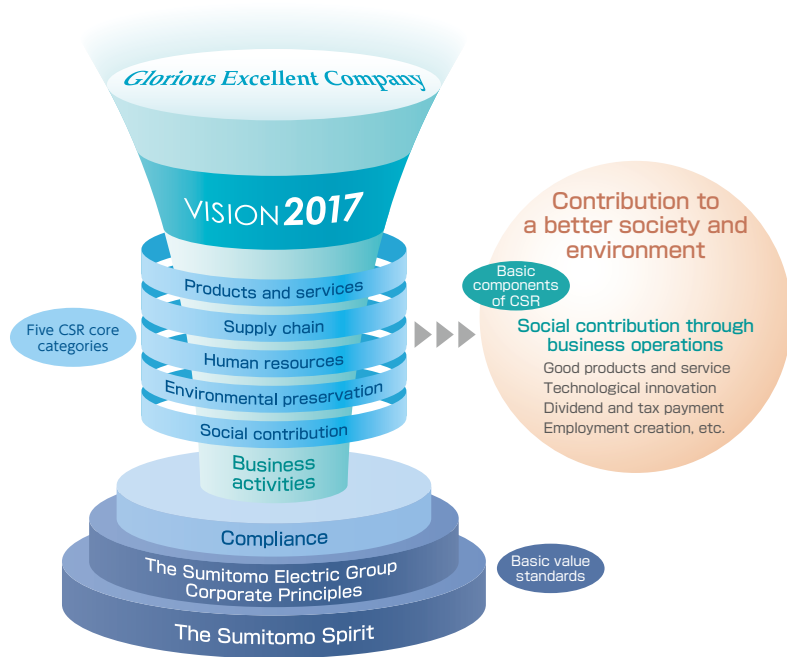
In addition, competition law basic course seminars were organized from October 2011 to September 2012. Since January 2014, we have also provided training sessions for overseas bribery prevention managers, and organized internal training sessions provided by these managers, as part of the anti-bribery 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 will contribute to a better society and environment through business operations in line with compliance regulations.

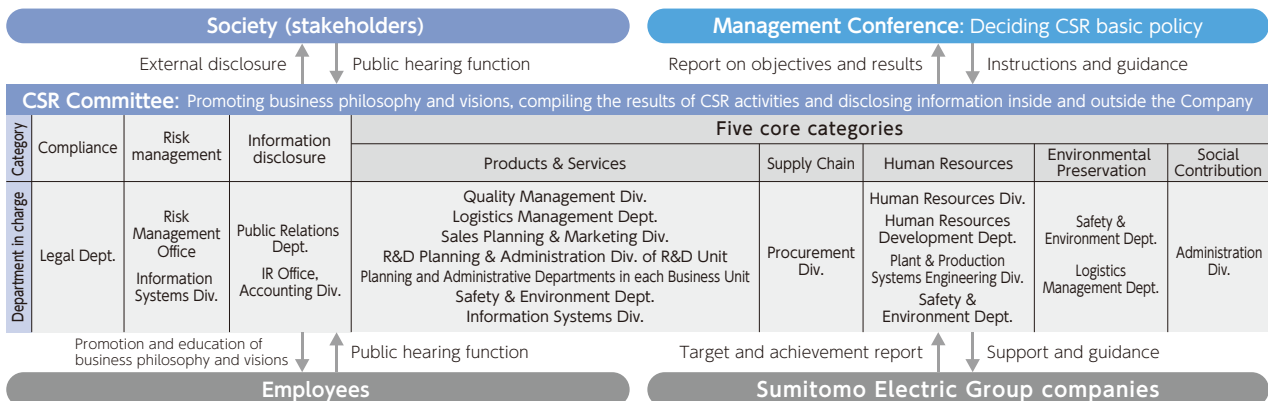
We have specified five CSR core categories: products & services; supply chain; human resources; environmental preservation; and social contribution. Based on this approach, we will establish good relationships with stakeholders and continue sustained growth with the aim of becoming a Glorious Excellent 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
<b>Central and Local Governments</b>	For us, central and local governments around the world are not only regulators but also customers of our products and services.	<ul style="list-style-type: none"> <li>Compliance with laws, regulations, administrative guidance, etc.</li> <li>Tax payments</li> <li>Cooperation for government policies to solve public problems</li> </ul>	<ul style="list-style-type: none"> <li>Communications through economic organizations and trade associations</li> <li>Notifications, response to surveys and questionnaires</li> <li>Consultation with competent authorities, public comments</li> </ul>
<b>Global Environment</b>	We promote environmental management based on our policy that places environmental conservation activities as a top business priority.	<ul style="list-style-type: none"> <li>Reduction of greenhouse gas emissions</li> <li>Promotion of energy saving and recycling</li> <li>Reduction of the amount of waste, reduction of the release of harmful chemical substances</li> </ul>	<ul style="list-style-type: none"> <li>Comply with the relevant laws and regulations</li> <li>Environmental conservation activities in accordance with the PDCA cycle</li> <li>Stakeholder dialogue</li> </ul>
<b>Customers</b>	We provide customers across the world with a wide range of products and services in five categories: Automotive; Information & Communications; Electronics; Environment & Energy; and Industrial Materials.	<ul style="list-style-type: none"> <li>Supply of socially useful and safe products and services</li> <li>Improvement of customer satisfaction on all aspects including delivery time, etc.</li> <li>Provision of accurate and appropriate information on products</li> </ul>	<ul style="list-style-type: none"> <li>Communication through daily operations</li> <li>Newsletters, e-mail delivery, websites</li> <li>Information exchange at exhibitions etc.</li> </ul>
<b>Local Communities and NPOs/NGOs</b>	The Sumitomo Electric Group conducts business activities through 390 companies located in approx. 40 countries all over the world (as of March 31, 2016).	<ul style="list-style-type: none"> <li>Respect for culture and custom, contribution to development</li> <li>Prevention of accidents and disasters, environmental conservation</li> <li>Cooperation and coordination for the solution of environmental and other problems</li> </ul>	<ul style="list-style-type: none"> <li>Participation in events, support of traditional performing arts</li> <li>Factory tours, opening of facilities, joint hosting of festivals</li> <li>Employees' contribution to local communities</li> <li>Communication through cooperation and support</li> <li>Stakeholder dialogue</li> </ul>
<b>Employees</b>	The Sumitomo Electric Group has approx. 241,000 employees consisting of approx. 39,000 employees in Japan and approx. 202,000 employees in other countries. Around 80% of the Group employees thus work outside Japan (as of March 31, 2016).	<ul style="list-style-type: none"> <li>Respect for human rights, personality and individuality</li> <li>Development, use and evaluation of human resources</li> <li>Creation of a work environment where all employees can demonstrate their capabilities</li> <li>Contribution to occupational safety and health</li> </ul>	<ul style="list-style-type: none"> <li>Surveys to create a lively work environment</li> <li>In-house magazines, Global Magazines</li> <li>Intranet, President's blog</li> <li>Management council meetings for discussion between labor and management</li> <li>Informal meetings between executives and employees</li> </ul>
<b>Shareholders and Investors</b>	The total number of our shareholders is approx. 55,000, and the number of shares issued and outstanding is about 800 million. By type of shareholders, financial institutions and foreign holders own 40.43% and 41.36% of the shares respectively, followed by Japanese individuals and others (11.49%) (as of March 31, 2016).	<ul style="list-style-type: none"> <li>Maintenance and improvement of the corporate value</li> <li>Proper return of the profits (as dividends)</li> <li>Timely and proper disclosure of corporate information</li> </ul>	<ul style="list-style-type: none"> <li>General meetings of shareholders</li> <li>Financial result briefings</li> <li>Reception of investors and interviewers</li> <li>Annual reports</li> <li>Investor relations website</li> </ul>
<b>Suppliers</b>	The Partners' Meeting held in fiscal 2015 gathered 130 of our main suppliers.	<ul style="list-style-type: none"> <li>Fair trade</li> <li>Support and cooperation for the achievement of CSR procurement</li> </ul>	<ul style="list-style-type: none"> <li>Communication through daily procurement activities</li> <li>Partners' meetings</li> <li>Communication through the supplier survey sheet and other channels</li> </ul>

## Disclosure of Corporate Information

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

## Communication with Shareholders and Investors

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

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

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

## Efforts to Disseminate Information

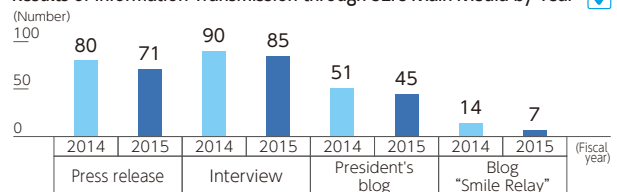
Sumitomo Electric continued its commitment to active dissemination of information on a wide range of activities of the Group through various media such as press releases, interviews, newsletter "SEI WORLD" and websites in fiscal 2015 to help our stakeholders improve understanding of the Group.

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 world-view. Since the launch, we have made continuous efforts to disseminate the VI concept by applying it to various publications and promotion materials.

"President & CEO Masayoshi Matsumoto's Blog" marked its ninth anniversary, and 45 entries were posted on the blog during fiscal 2015. This blog thus serves as an effective tool to promote communication with stakeholders.

Sumitomo Electric has actively promoted the disclosure of information in English for many years. Specifically, when we send the convocation notice to our shareholders, we also prepare the notice in a narrow sense and reference documents in English as one of our initiatives to enhance information disclosure to overseas stakeholders. While these documents have been translated since before, we additionally created the English translation of the business report for the first time this fiscal year. We will continue to make efforts to expand the range of information disclosure.

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



# Main Targets and Actual Results in Fiscal 2015 / Main Targets for Fiscal 2016

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 2015 and targets for fiscal 2016 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 2015	Results in Fiscal 2015	Evaluation	Page	Main Targets for Fiscal 2016
Products & services	Reduce complaints by 26% from the previous fiscal year	Increased complaints by 10% from the previous fiscal year (Change in the indicator: 29 in FY2014 → 32 in FY2015)	▼	39	Reduce complaints by 24% from the previous fiscal year
	Continue to promote Own Process Quality Assurance activities (sixth year) <ul style="list-style-type: none"> <li>In Japan <ol style="list-style-type: none"> <li>Stimulation of the activities in the "three activity areas"</li> <li>Stimulation of the activities through visit of the divisions involved in the activities and continuous exchange meetings</li> <li>Stimulation of the activities of the practitioners</li> </ol> </li> <li>Overseas <ol style="list-style-type: none"> <li>Development of quality control training for managers in global bases</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>In Japan <ol style="list-style-type: none"> <li>Performed theme-based activities (122 themes) at each division for each of the three activity areas</li> <li>Conducted follow-up inspection, organized 2 exchange meetings, issued 2 types of booklets introducing good practices</li> <li>Provided QR-T to 36 persons, conducted follow-up of theme-based activities</li> </ol> </li> <li>Overseas <ol style="list-style-type: none"> <li>Held 2 Quality Management Committee meetings in China, organized training for managers on a trial basis</li> </ol> </li> </ul>	△	37	Continue to promote own process quality assurance activities (seventh year) <ol style="list-style-type: none"> <li>Completion of the development of the mechanism for "Design and/or process change control"</li> <li>Company-wide development of the "3 points control of quality"</li> <li>Stimulation of theme-based activities and expansion of the scope</li> <li>Introduction of good practices through booklets and exchange meetings</li> <li>Development of education in China, ASEAN and North America</li> </ol>
Supply chain	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"> <li>In Japan: Group Procurement Collaboration Office in the Procurement Division conducted a CSR procurement questionnaire survey targeting main suppliers of 17 divisions and affiliates</li> <li>Overseas: Selected 39 representative suppliers of 5 International Procurement Offices (IPOs) (2 in China, 2 in ASEAN and 1 in the US) and conducted a CSR procurement questionnaire survey on a trial basis</li> </ul>	○	42 43	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"> <li>Continue to implement the training program that supports compliance</li> <li>Extend the application of common basic rules on procurement to overseas Group companies</li> </ul>	<ul style="list-style-type: none"> <li>Compliance training: Provided to 2,730 persons including employees of affiliates in the Group (the number increased by 7% from the previous year)</li> <li>Basic rules for procurement: On-site inspection was conducted in 8 affiliates in eastern area of China, and activities to disseminate the guidelines were also developed in other IPOs</li> </ul>	○	44	<ul style="list-style-type: none"> <li>Continue to implement the training program that supports compliance</li> <li>Extend the application of common basic rules on procurement to overseas Group companies</li> </ul>
Human resources	<ul style="list-style-type: none"> <li>Implement the Global HRM Policy <ol style="list-style-type: none"> <li>Promotion of the talent management cycle</li> <li>Setting of personnel rules to be commonly applied on a global scale</li> </ol> </li> <li>Develop global activities of the HR Division <ol style="list-style-type: none"> <li>Dispatch of trainees from the HR Division</li> <li>Acceptance of local employees of overseas Group companies into the HR department</li> <li>Dispatch of HR expatriates to Europe</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Identified human resources and continued to organize human resource meetings at Business Units</li> <li>Prepared HR guidelines in cooperation with HR managers of major overseas subsidiaries, which are scheduled to be released serially from fiscal 2016</li> <li>No cross-border trainee was dispatched from the HR Division in fiscal 2015</li> <li>The HR Division accepted 1 person temporarily transferred from an affiliate in China in April 2016</li> <li>Deployed an HR expatriate in Germany in May 2015</li> </ul>	△	45 46	<ul style="list-style-type: none"> <li>Implement the Global HRM Policy <ol style="list-style-type: none"> <li>Promotion of the talent management cycle and development of role models</li> <li>Setting of personnel rules to be commonly applied on a global scale</li> </ol> </li> <li>Develop global activities of the HR Division <ol style="list-style-type: none"> <li>Dispatch of trainees from the HR Division</li> <li>Acceptance of local employees of overseas Group companies as line managers of the HR Division</li> <li>Dispatch of HR expatriates to Vietnam</li> </ol> </li> </ul>
	Develop the SWITCH 17 Campaign (second year) <ul style="list-style-type: none"> <li><b>Whole Group</b> Continuation of the promotion activities, and consideration of an awarding system in the workplace</li> <li><b>Company-wide measures</b> Continued consideration of flexible working styles, ongoing consideration of measures to optimize working hours and encourage employees to take paid holidays, promotion of mental health measures, expansion of initiatives to promote self-development, etc.</li> </ul>	<ul style="list-style-type: none"> <li><b>Whole Group</b> Introduced the efforts of the workplaces on in-house magazines Visualized the situation on overtime and holidays taken by employees Discussed related initiatives at SWITCH 17 project manager meetings Conducted interviews as a joint initiative of labor and management to reduce total working hours</li> <li><b>Company-wide measures</b> Set and disseminated company-wide targets for the review of working styles Encouraged employees to take paid holidays in a planned manner (Positive-off holidays: 1 → 3 days) Sent emails to encourage employees to take holidays</li> </ul>	○	52	Develop the SWITCH 17 Campaign (third year) <ul style="list-style-type: none"> <li>Initiatives for the review of working styles (development of the momentum and design of the system)</li> <li>Continuous implantation of communication measures in each establishment and examination of company-wide measures</li> <li>Mental healthcare measures as part of healthcare measures based on the Health Management Declaration (use of a stress level test)</li> <li>Discussion of action guidelines for fiscal 2018 and thereafter</li> </ul>



Core Category	Main Targets for Fiscal 2015	Results in Fiscal 2015	Evaluation	Page	Main Targets for Fiscal 2016
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 20 or less	Eliminate serious accidents and accidents resulting in lost work time: 8, no lost work time accidents + accidents causing minor injury: 34	△	58	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
	Implement priority items for fiscal 2015 <ul style="list-style-type: none"> <li>Promote the establishment of the emphasized safety activities <ol style="list-style-type: none"> <li>Activities to prevent serious accidents</li> <li>"Safety! Power OFF Activity"</li> <li>Activities for ensuring safety in multi-worker operations</li> <li>Prevent recurrence of similar accidents</li> </ol> </li> <li>Promote an upward spiral of the activities <ol style="list-style-type: none"> <li>Global safety evaluation</li> <li>Dissemination and application of the safety global standards</li> </ol> </li> <li>Develop activities at the operation sites designated for safety management and activities subject to priority management in the departments where injury occurred frequently</li> </ul>	<ul style="list-style-type: none"> <li>Activities to prevent serious accidents in 118 bases in Japan and overseas Identified a total of 1,004 problems in the inspection Measures to deal with 862, or 86%, of them have been completed (as of April 15, 2016)</li> <li>Implemented global safety evaluation at 26 bases in Japan and overseas</li> <li>Conducted activities at the operation sites designated for safety management * at 5 bases, and conducted activities subject to priority management at 4 bases 《Points》 <ol style="list-style-type: none"> <li>Identified problems and difficult operations from the perspective of field staff</li> <li>Made improvement under the initiative of the top managers and supervisors (safe equipment and operations)</li> </ol> </li> </ul>	○	57 58	Implement priority items for fiscal 2016 <ul style="list-style-type: none"> <li>Promote the establishment of important safety activities <ol style="list-style-type: none"> <li>Activities to prevent serious accidents</li> <li>"Safety! Power OFF Activity"</li> <li>Activities for ensuring safety in multi-worker operations</li> <li>Prevent recurrence of similar accidents</li> </ol> </li> <li>Methods for implementation <ol style="list-style-type: none"> <li>Stimulation of bottom-up activities with a top-down approach</li> <li>Identification of daily changes and problems through the 1-2-3 activities*</li> </ol> </li> </ul>
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 (◎ or ○): 12 items, Performance improved (△): 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, and continue the examination of facilities in terms of water quality Overseas: Conduct audits at 8 Group companies in the Americas. Start the examination of facilities in terms of water quality with sites in China including those that have undergone legal compliance audits	In Japan: Promoted the second series of legal compliance audits, and conducted the examination of facilities in terms of water quality at 8 bases Overseas: Conducted a legal compliance audit at 6 bases, and conducted the examination of facilities in terms of water quality at 1 base	△	61 62	Conduct environmental audits In Japan: Promote the second series of legal compliance audits Overseas: Complete the first series of legal compliance audits
	Continue the practical training introduced in fiscal 2014, in which simulated diagnosis is conducted using the actual products based on "hiyari" or near-miss reports and past audits	Provided professional education on laws and regulations 4 times for 361 persons in total Provided position-based environmental education 43 times for 710 persons in total Provided sectoral education for 62 persons in total	○	61	Continue the practical training introduced in fiscal 2014, in which simulated diagnosis is conducted using the actual products based on "hiyari" or near-miss reports and issues indicated in past audits
Social contribution	Increase monetary contributions to university courses, scholarships and grants to academic and research activities supplied through the SEI Group CSR Foundation	<ol style="list-style-type: none"> <li>Monetary contributions to university courses: 112 million yen in total for 10 courses</li> <li>Subsidies for academic and research programs: 20.9 million yen in total for 21 programs</li> <li>Supply of scholarships: 32.2 million yen in total for 135 persons</li> </ol>	○	73	Increase monetary contributions to university courses, grants to academic and research activities and scholarships supplied through the fund (a total of 166 million yen)
	Promote cooperation with NPOs for support of the reconstruction of the Tohoku Region and other purposes	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	Support the reconstruction of the Tohoku Region and the areas affected by Kumamoto Earthquakes, and promote partnership and cooperation with NPOs

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

## \* Activities at the operation sites designated for safety management

At the operation sites designated as requiring prompt improvement of the health and safety activities due to occurrence of an occupational accident or other reasons, these activities are promoted to take necessary measures in a planned manner and improve the structure.

## \* 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

## 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 succeeded in the development and commercialization of nano-polycrystalline diamond, a dream material with potential to dramatically change manufacturing

**Katsuko Harano** Manager of Inorganic Materials Department, Advanced Materials Laboratory

Diamond is considered to be the hardest material and widely used in cutting tools. However, it has a weakness that it can easily crack in a specific orientation. Sintered diamond, which is a material for tools, also has a weakness that the existence of metal binders in it lowers its strength. In 2014, we succeeded in the development and mass production of innovative diamond that overcame these weaknesses, “nano-polycrystalline diamond (product name: SUMIDIA™ BINDERLESS),” for the first time in the world. This product is expected to dramatically change the manufacturing site in the future by, for example, enabling the operation on hard materials such as cemented carbide handled with two processes of grinding and polishing to be completed only with a cutting process. In recognition of this technology, we received the 55th Best New Products Awards from The Nikkan Kogyo Shimbun and the 60th Okochi Memorial Technology Prize. Diamond is a very useful material with various features in addition to hardness. We will continue to pursue its potential, aiming to develop products that can contribute to society.

## Research & Development

### We received the Okochi Memorial Technology Prize at the 60th Okochi Prize Ceremony in fiscal 2015 for the development of synthesis technology and applied products of nano-polycrystalline diamond

**Hitoshi Sumiya**  
Chief Engineer/Fellow, Manager of Inorganic Materials Department

**Katsuko Harano**  
Senior Assistant Manager, Inorganic Materials Department

**Takeshi Sato** Assistant Manager  
Advanced Materials Laboratory

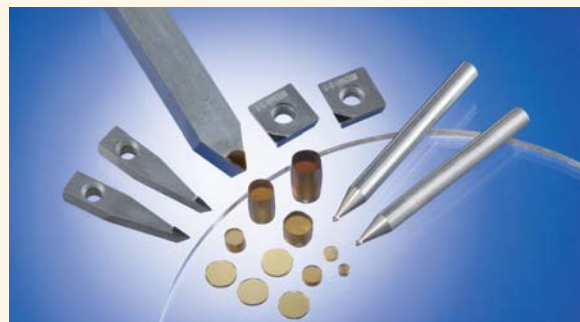
(The names of the departments and positions are those at the time of winning the prize.)

Commemorating the accomplishments of late Dr. Masatoshi Okochi, who made great contribution to the academic and industrial circles, the Okochi Prize was established as one of the most prestigious prizes in Japan. The prize is awarded annually to an outstanding achievement in the fields of production engineering and advanced production technologies in the country.

Nano-polycrystalline diamond has nano-sized microstructure and much higher hardness than conventional artificial diamond, and this new artificial diamond has overcome the weakness inherent to diamond that it can crack easily in a specific orientation.

The Okochi Memorial Technology Prize was awarded in

recognition of the success in the world's first mass production of the diamond with a synthesizing technique to turn graphite directly into nano-polycrystalline diamond at an ultrahigh pressure and temperature (150,000 atmospheric pressure or higher and 2,000°C or higher) as well as the commercialization of the diamond by processing it into a blade for precision cutting tools that can respond to even extremely hard materials such as hard metal.



Nano-polycrystalline diamond “SUMIDIA™ BINDERLESS”

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

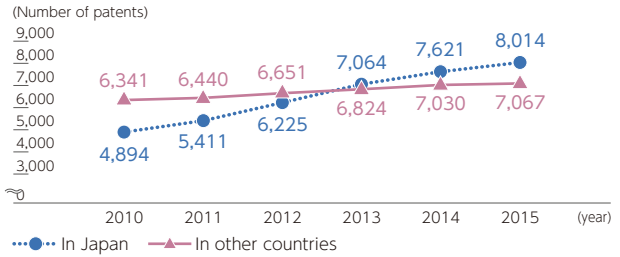
Technology is the engine of the future and the very source for growth. From our origins as a copper business, we have developed a wide variety of technological bases. We will continue striving to create new technologies and products with due consideration of future social needs, and further accelerate our commercialization of technology in response to this time of rapid change.

## Receiving Thomson Reuters Top 100 Global Innovators Award

Sumitomo Electric received Thomson Reuters Top 100 Global Innovators Award for three straight years from 2013. This award is given by Thomson Reuters 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



- 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 2015

#### Invention Incentive Award in FY2015 Kinki Region Invention Awards

#### Oil pump rotor (Patent No. 4600844)

The award-winning invention is a technique for the design of the tooth profile of an oil pump rotor. With this technique, we were able to downsize a pump, realize its higher discharge volume and reduce its driving power (driving torque). Rotors based on the technique are employed in hybrid electrical vehicles to improve fuel efficiency and reduce CO<sub>2</sub> emissions. The design is also applicable to pumps in non-automotive sectors, and is expected to help meet social needs such as energy and resource savings.

### Sumitomo Electric Sintered Alloy, Ltd.

- Masato Uozumi  
Assistant Manager, Development Group, Itami Manufacturing Department
- Kentaro Yoshida  
Senior Engineer, Product Development Group, Product Development Department
- Yuichiro Egami  
Engineer, Machining Engineering Group, Production Engineering Department

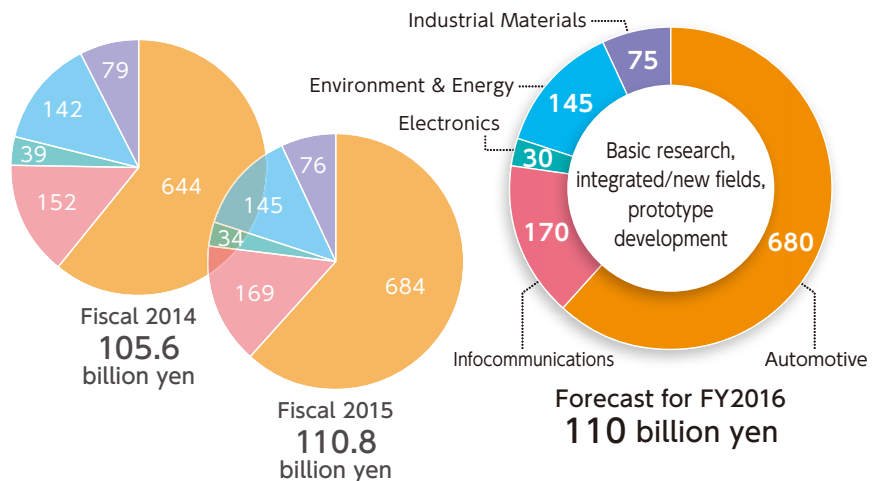


### Research and Development Expenditures

**VISION 2017  
Interim Revision  
Cumulative total:  
480 billion yen**

The annual amount in fiscal 2016 is forecast to be 110 billion yen, a similar level to that in the previous fiscal year, which was a record high.

### Research and Development Expenditures



## HEPCO Minami-Hayakita Substation 【Redox Flow Battery】

# Operation of one of the world's largest storage battery systems has been started

The operation of a large-scale storage battery system at Minami-Hayakita Substation, which was jointly developed by Hokkaido Electric Power Co., Inc. (HEPCO) and Sumitomo Electric, was initiated in December 2015. With a rated output of 15,000 kW and storage capacity of 60,000 kWh, it is one of the largest redox flow battery systems in the world, and attracting global attention.



Building housing the storage battery system

❖ Aiming for a “new style of electricity that is friendly to everyone” in all stages of power generation, transmission, distribution, storage and use



**Kikaku Tokumaru**

Deputy General Manager,  
Energy System Division  
Executive Officer

We aim to develop a society with new power and energy infrastructure through the smart energy system proposed by the Sumitomo Electric Group, and redox flow battery is a key technology and product to the society. In 2012, a large-scale redox flow battery with storage capacity of 5,000 kWh was installed in Yokohama Works of Sumitomo Electric. More than 5,000 people from Japan and other countries have visited the facility since then and highly valued the capabilities of the battery such as the safety and long service life along with applicability to various uses related to the improvement of power stability and efficiency. Meanwhile, in this demonstration test in Hokkaido, a redox battery system with storage capacity of 60,000 kWh, which is 12 times higher than that of the system in Yokohama Works, has been operated as one of the largest power storage systems in the world. Hokkaido is a prefecture where a large amount of renewable energy such as wind power and photovoltaic power has been introduced, and there is demand for large-scale battery to adjust electric power storage. In the demonstration project, we will work together with HEPCO to obtain results that can earn a high level of trust from customers.

I belong to the Energy System Division, which is in charge of the commercialization of the technologies and products created in R&D units. I would like to use the project as a foothold for the marketing of large-scale power storage systems not only in Japan but also foreign markets including the US and Europe. It is planned to add container-type and other compact types of storage battery to the product lineup in the future to enhance the presence of Sumitomo Electric. We will continue to offer our original technologies and products for the smart energy system covering all power stages of power generation, transmission, distribution, storage and use.



Monitoring room



Maintenance and inspection



## ❖ We will develop a sustainable future with redox flow battery



### Syuji Hayashi

Assistant General Manager,  
System Engineering Group,  
Energy Storage Engineering  
Department,  
Energy System Division

To launch this project, I served as the site manager of the battery facility installation work and engaged in all stages from the start of construction to the operation of the system. This system is based on the expertise and experience that Sumitomo Electric has accumulated on the redox flow battery. As an electrical facility, the system characteristically requires strict safety management. During the construction period of approximately 17 months, a total of about 200 people including suppliers worked on site, and the management of their daily and weekly work schedules, as well as sharing of information among them, was conducted in a meticulous manner. Then, in December 2015, the system was successfully completed, and the operation was begun in the same month. Considering that it is only the start of the main part, I am continuously working for daily duties with renewed determination.

This demonstration project aims to evaluate the performance of the redox flow battery in cooperation with HEPCO and clarify its superiority in performance and price over other types of battery.

By disseminating redox flow batteries, we would like to help solve the problems in renewable energy, such as the supply demand balance and surplus electricity, and establish an environment where renewable energy can be used more actively. We regard the demonstration test in the Minami-Hayakita Substation as an important step toward the sustainable future in which the redox flow battery plays a key role worldwide.

## 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 SEI's Just-In-Time approach: We will make continuous efforts to pursue just-in-time manufacturing by producing what is needed in the quantity needed when it is needed. While the methods to pursue it are wide ranging depending on the type of the products and production systems, they all aim to realize a common philosophy and we call it SEI's Just-In-Time approach.

## Development of QR-1 Campaign

**We have promoted this company-wide campaign for the improvement of quality and reliability since 1975**

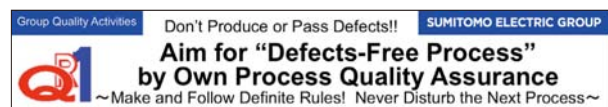
As the Sumitomo Electric Group's business activities consist mainly of business-to-business (B2B) transactions, we believe that above all further quality improvement for our products will lead to greater customer satisfaction. Thus, we launched the "reliability improvement campaign" throughout the Group 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.



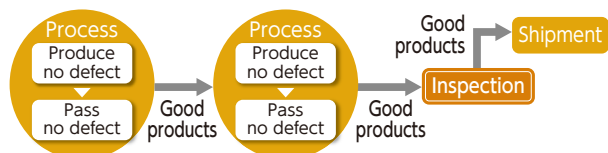
## "Own Process Quality Assurance Activities" Aiming for Zero Complaints

**We are introducing the degree of quality assurance assessment and efforts for improvement into overseas sites as well**

In the QR-1 campaign, 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, for five years since 2010. The divisions of the Sumitomo Electric Group, which manufacture various types of products, are committed to their important themes on own process quality assurance activities. The Quality Management Division works to promote such activities through practitioner training education, 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 rank of prevention of defect occurrence and that of prevention of 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 rank of prevention of occurrence is 2nd (no defect is produced in a normal operation), if that of prevention of 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.

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

## 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 of the divisions 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 May 28 and November 12, 2015 during fiscal 2015) 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 programs 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. We started a new quality management training course designated for managers as a nomination-based training program for those of departments, sections and groups related to product development, design, manufacturing and quality assurance in fiscal 2014, and have since worked to meet the target of providing the training to all managers within two years. Eventually, the course was held 57 times in total by the end of fiscal 2015, and taken by 978 persons, which represented about 90% 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-T,\* 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 2015, a total of 6,538 persons, including overseas employees, completed Quality Management Education programs. The cumulative number of the persons who took the programs since fiscal 2010 has reached 24,215. We will continue to develop the culture of quality first involving all employees.

## Global Quality Management System Audits

**We conducted audits of 78 Japanese bases and 26 overseas bases by fiscal 2015**

In order to evaluate the quality control activities of the units 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 78 sites in total. All of our main facilities in Japan have completed the second round of the audits. 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 26 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-T

"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.

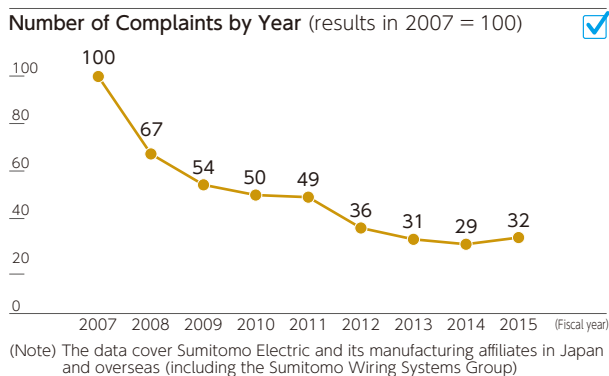
#### \*GKP

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."



### CSR VOICE

**We have reduced complaints by 60% through efforts in three domains**

**Satoru Nakatsuji**  
General Manager,  
Quality Assurance Department,  
Sumitomo Electric Fine Polymer, Inc.



Sumitomo Electric Fine Polymer, Inc. manufactures a wide range of products including heat-shrinkable tubings, fluororesin coating products and porous functional membranes, which are used by customers in automobile, electronics, semiconductor and various other sectors.

Meanwhile, we received many complaints about our irradiated products sold in Japan, and the average number of complaints received in a month was 4.1 in fiscal 2013 and 3.7 in fiscal 2014. Therefore, in fiscal 2015, we organized action plans for three activity areas, namely setting-up, maintenance and pursuit of defect-free process conditions, in cooperation with relevant divisions under the guidance of the Quality Management Division of Sumitomo Electric, and made efforts to ensure defect-free process conditions. Our activities in the area of setting-up included strengthening of checks in the design review and identification of risks in DRBFM\* while we introduced "3 points control of Quality" as an initiative for the area of maintenance and promoted efforts to achieve degree B of quality assurance for each defect in the area of pursuit. As a result, the average monthly number of complaints reduced to 1.5 in the second half of fiscal 2015, a decrease of 60% from the FY2014 level.

Although we still face many challenges, we will work to further stimulate the activities in the three areas to eliminate complaints.

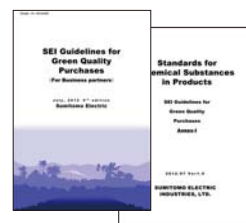
## Management of Chemical Substances in Products

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

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

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

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



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

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

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

The Sumitomo Electric Group has taken measures to replace the substances listed in the EU RoHS\* and ELV Directives\*, and is meeting customer demand for products that contain no prohibited substances. While four types of phthalates were added to the list of substances banned by the RoHS Directive, we have completed activities aimed at the discontinuance of their use in the products subject to the directive as part of an initiative in the Action ECO-21 (Phase V) Campaign. In the future, we will make efforts to avoid use of the phthalates newly added to the prohibited substances 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 preparing for final registration of the chemical substances subject to this obligation, and completed the registration of gallium arsenide (GaAs) in 2012. We are also making efforts to ensure appropriate response to the requirements of the REACH regulation including reporting of the SVHC\* contained in products.

In the meantime, to quickly respond to progressive tightening of regional regulations on chemical substances across the globe, we are working to collect information on regulations in Europe, China and other countries and share the information within the Group.

### Glossary

#### \* DRBFM

Design review based on failure mode (DRBFM) is a quality management method where design review is conducted with focus on changes from the proven design to identify and solve any problems.

#### \* 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.

## Improvement of Logistics Quality

**We endeavor to prevent accidents by adhering to the basics and sharing information**

The Sumitomo Electric Group is committed to the elimination of transport accidents and the improvement of logistics quality through the concerted efforts of the interested parties including logistics units, divisions and transport companies. We have been developing “1-2-3 activities” since fiscal 2014, which include patrol of the delivery sites by responsible staff to predict risks and take measures to avoid them, regular preliminary meetings on safety and quality held between transport companies and logistics units, review of standards, etc. and sharing of information on accidents via the corporate intranet to prevent the recurrence of similar accidents.

In addition, we organize a forklift basic operation competition for truck drivers in collaboration with transport companies in an effort to eliminate accidents related to forklifts. The event is also used as an opportunity to recheck the basic operation and provide a lecture on emergency procedures in case of oil leakage from a vehicle, aiming to enhance an awareness of safety related to truck transportation on the whole.

As a result of these efforts, the number of logistics accidents decreased by six year-on-year to 32 (excluding those in Sumitomo Wiring Systems, Ltd.), and the accident rate per transportation was also reduced to 0.009%.

## Activities for Improvement of Office Work Quality

**We are promoting the establishment of a framework that helps reduce office work mistakes in a more efficient and effective manner**

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) development 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, to prevent mistakes and (3) improvement of office work efficiency by “Kaizen” at the office.

In fiscal 2015, we revised the group-wide rules specifying the procedures to be taken in case of an office work mistake and developed an information system base to share information on the measures, which allowed us to share the office work quality level and specific problems of each division and affiliate. From now on, we will share the examples of measures based on such information and provide training on the universal approach of our Group to addressing office work mistakes in order to promote the establishment of a framework that helps reduce these mistakes in a more efficient and effective manner. While we have implemented office work quality improvement activities for more than 10 years, the basic policy and framework of the activities have been reviewed and the awareness of the activities has been enhanced to a certain level in Japan. The next fiscal year is the final fiscal year for VISION 2017, and the Sumitomo Electric Group needs to advance to a higher stage in order to generate specific results of the activities. In addition to further improvement of office work quality in each division and affiliate in Japan, we will also work to introduce the activities into overseas affiliates.

## Customer Satisfaction Improvement Activities by the Sales Group

**We also cover overseas affiliates in the 360-degree survey for sales staff**

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, a 360-degree survey has been conducted since fiscal 2002 for persons in charge of sales. Specifically, the sales capabilities of the sales persons are determined and assessed with a questionnaire administered to themselves, their superiors and clients (several companies). The assessment results are fed back to the sales staff and their superiors to encourage the staff to enhance their sales capabilities. In addition, the overall results are used to review the education and instruction methods.

While we have conducted a 360-degree survey in Sumitomo Electric and its affiliates in Japan, the survey was launched in overseas affiliates as well on a full-scale basis in fiscal 2013. The survey results will be used to strengthen the whole Sales Group in a way to respond to ongoing globalization and to take measures aimed at improving customer satisfaction.

## 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 promote CSR procurement using experience in conflict minerals investigation

Yosuke Morimoto Assistant Manager, Procurement & Logistics Department, Sumitomo Electric Device Innovations, Inc.

Sumitomo Electric Device Innovations manufactures devices for optical and wireless communication, which are essential for broadband network. All of us are making strenuous efforts to meet the rapidly growing worldwide demand in the information and communication fields.

I was in charge of investigating and conducting survey of conflict minerals in 2014, but since the Dodd-Frank Act had just been enforced, I struggled not only explaining our new action policy to suppliers and requesting their cooperation for the survey, but also organizing submitted data on hundreds of smelters in the world and preparing reports for our customers. I asked precursory and experienced suppliers for advice and relevant information, and drastically changed the investigation method based on the advice. Finally, I could complete all the surveys and greatly appreciate cooperation of suppliers.

In fiscal 2015, Conflict Minerals Investigation Promotion Group was set up as a specialized section and strengthened as an initiative for CSR procurement. I always feel impressed with the rapid development of communication infrastructure every time I have an overseas business trip, and I would like to continue to work in strong consideration of CSR from a global perspective.

## 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 (extracted)\*

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, which is an organization established in the Procurement Division and composed of the staff in charge of procurement in 23 divisions and Group companies. Specifically, the office members work together to promote VA\* (value analysis) activities 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 to share information on procurement 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.



\* For the entire policies, please see the following page.  
<http://global-sei.com/csr/sociality/procurement.html>



\* Value Analysis (VA)

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

## 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 (extracted)\*\*

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

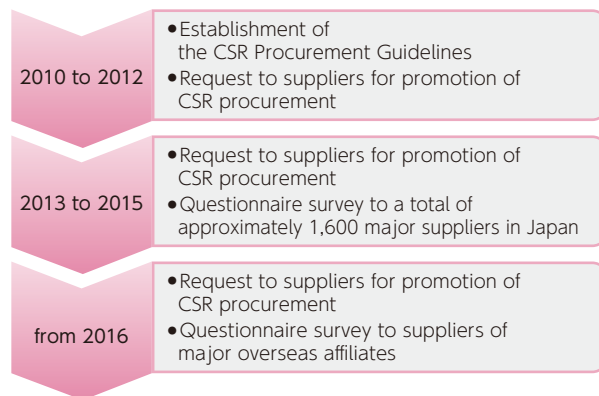
We check the progress of suppliers in their activities for the CSR Procurement Guidelines, and work for further dissemination and establishment among them

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 main suppliers of Sumitomo Electric and Group companies. A total of roughly 1,600 companies have cooperated with the survey by the previous year.

The survey allowed 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.

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



### CSR VOICE

## We work together to establish a healthy and robust supply chain

Mr. Shigeaki Suzuki President    Mr. Shuji Kuribayashi Supervisory Group Manager  
SAIJOINX Co., Ltd

With a history of 65 years, SAIJOINX is a manufacturer that supports development of sheet metal processing. As a group of professionals, we help customers that need assistance with various metal-related plans so that they can solve their problems and realize the plans. A total of about 100 employees currently work in our Kyoto and Yokohama sites.

Our customers, including Sumitomo Electric, are expanding into Germany, the United States and various other parts of the world. We serve as an innovation partner for them with know-how to supply products more quickly at lower prices.

We started business with Sumitomo Electric when we proposed manufacturing of sheet metal products in 2002, and have established a good relationship since then. Sumitomo Electric always considers our proposal carefully, and our relationship is not a hierarchical one but a partnership to work together to create good products.

We receive a wide range of inquiries as to CSR procurement, like other companies, these days. Although companies of a similar size to us are apt to assume that CSR procurement is a cost increase factor, we consider that any companies, irrespective of the size, should ensure and maintain the corporate ethics underlying CSR. We recognize that CSR procurement is one of the main activities of companies as long as they are part of society, and that it is natural to place importance to CSR throughout the supply chain. The attitude of a company toward CSR represents its way of existing. We believe that we can handle CSR procurement more easily as our CSR activities are developed and managed in the future.

Of course, we face difficult and time-consuming challenges when dealing with CSR. We would like to continue to work together with Sumitomo Electric and other customers to establish healthy and robust relationships like our daily business transactions.



## 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 63 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 as raw materials. To this end, we investigate the supply chain on conflict minerals, and 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.

We will ask suppliers to cooperate with our investigation mentioned above. In case that the use of minerals of concern is found, the relevant suppliers are requested to take measures to avoid their 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 2015, we had fears of a supply shortfall when a chemical manufacturer suspended operation due to a factory fire and when distribution was blocked due to an explosion accident at a hazardous material warehouse in Tianjin, China. In these situations, nevertheless, we were able to procure materials without impact on our production or that of our customers, due to the prior examination of alternative products and change of the distribution method in the above-mentioned activities, along 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. 130 suppliers participated in Partners' Meetings

The Sumitomo Electric Group organizes Partners' Meetings to enhance its relationships with suppliers. We use this opportunity to explain the outline of our business activities and 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 procurement policies, to ask for their cooperation and promote the guidelines actively. To help overseas suppliers establish CSR procurement as well, we present the guidelines at Partners' Meetings and reverse exhibition/negotiation meetings.\*

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



Partners' Meetings

## 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

#### 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

##### \* Subcontract Act

The Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors

As to the priority matters, we organized training seminars and conducted on-site inspection in Sumitomo Electric and its affiliates in Japan again in fiscal 2015. On-site inspection has also been started in overseas affiliates as a new initiative.

**Results of training and on-site inspection**

Training seminars	<ul style="list-style-type: none"> <li>Organized in 22 regions (video conference: 12 regions; delivery lecture: 10 regions)</li> <li>Attended by 2,730 persons in total</li> <li>Themes: Subcontract Act, Customs Law and internal control</li> <li>Courses: ① (all sections) basic/beginner course, ② course designed for sections in charge of purchase requests, ③ course designed for sections in charge of making contracts</li> </ul>	
On-site inspection	Subcontract Act and internal control	In Japan: 1 division of Sumitomo Electric, 12 affiliates Overseas: 8 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, internal control rules and the Customs Law. 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.

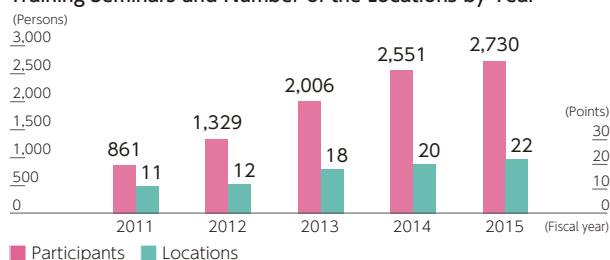
On-site inspection of overseas affiliates was launched in the previous fiscal year, and the regions where it is performed are still limited. We will increase the target regions and target sites in the future.

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



Procurement Compliance Training Seminars

**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 2015 was composed of 7 courses including "procurement-related laws and regulations" and "CSR, environment and ethics," 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, 254 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 18 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.

**Results of Education**

	Date	No. of courses	No. of lectures	No. of participants (total)	No. of companies
OFF-JT Education program	1st half of FY2015	7	28	135*	25
	2nd half of FY2015	7	28	119*	16
Key personnel development program	2nd half of FY2015	1	5	18	15
Training seminars at overseas liaison committee meetings of procurement staff	1st half of FY2015	4	5	87	42
	2nd half of FY2015	4	7	97	37

\*Number of those who passed the final exam



Training program to develop key personnel on the Subcontract Act

**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.

## 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.



### I am committed to cultivation of executive personnel in Greater China for development of the business activities of the Sumitomo Electric Group

Ying Zheng | Manager, HR & Administration Department, Sumitomo Electric Management (Shanghai) Co., Ltd.

I joined Sumitomo Electric Industries, Ltd. in 2008, and worked at the Osaka Head Office for approximately seven and a half years. Now I serve as the HR manager in Sumitomo Electric Management (Shanghai) Co., Ltd. in Shanghai, China.

When I returned to my home country for the first time in about eight years, I was surprised at the fierce competition in various business sections of the Chinese market, as well as the rapid change. Under such a business environment, we at the HR Center in China have worked to establish the China Talent Management System as a priority measure for the Global HRM Policy since 2015, making efforts to select and develop executive personnel for the Sumitomo Electric Group companies located in Greater China.

Participating in this project, I keep thinking about subjects related to business, companies and human resources. I would like to continuously work to establish a working environment where excellent personnel can play important roles regardless of nationality, race, gender or age in our business activities in Greater China, which account for about 20% of those of the Sumitomo Electric Group, to contribute to the development of the Group's business.

## 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 200,000 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 nationality, race, ethnicity, religion, age or gender, 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 pursue globally "the right person in the right position" regardless of nationality, race, ethnicity, religion, age or gender.
- 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 introduced the Global Grade System and the Group Global Executive Personnel System on April 1, 2014 to further promote the realization of the Global HRM Policy

Sumitomo Electric has adopted the Global Grade System, which is a personnel 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 management of Group companies in Japan and overseas or perform even higher duties. As the first step, we introduced a grade called GL (Global Leader) on April 1, 2014, and appointed board members and equivalents from overseas subsidiaries, other than those of listed companies, as the GL grade.

These executive personnel at the GL grade were also recognized as Group Global Executive Personnel. Sumitomo Electric's Head Office is in charge of management and decision-making regarding their treatment. At present 33 persons, most of whom are executives of overseas Group companies, are recognized as Group Global Executive Personnel. The personnel will be provided with a wide range of career opportunities to help them play more active roles as global leaders in the future.

### 《 Area Committee 》

We introduced the area committee system in 2015 to allow Group Global Executive Personnel to participate in business management beyond the borders of individual companies. The system aims to 1) enhance the presence of each business/base depending on the regional characteristics, 2) make use of the knowledge and experience of Group Global Executives and 3) establish a network of Group Global Executives to promote these activities. We have set up five committees of Americas, Europe, Indonesia, China and other Asia, which are working under the initiative of Group Global Executives.

### 《 Development of System for Cultivation and Appointment Plans through Establishment of Personnel Database 》

To provide various career opportunities to competent and enthusiastic staff within the Group and cultivate and appoint them, we are establishing a personnel database. Business Units also hold meetings with executives to identify excellent staff and formulate cultivation and appointment policies.

### 《 Selected Personnel Training Program for Managers in China 》

We started a regional program in China to provide training to the employees selected as competent and enthusiastic personnel in 2016. In the first year of the program, 21 executive candidates selected from among Group companies are scheduled to receive training on management and participate in Action Learning from January to November. The trainees will report their achievements at the Top Executives' Conference attended by top management of all Group companies in China as well as the president and other executives of Sumitomo Electric to be held in November 2016. We will continuously develop and appoint the personnel who will play central roles in the management of the Sumitomo Electric Group through various initiatives.

## Group Global Magazine "ALL SEI"

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

In February 2014, the Sumitomo Electric Group's bulletins, which used to be published separately in Japan and overseas, were integrated into "ALL SEI." This new periodical is commonly published across the Group as a communication tool for Group employees both in Japan and overseas.

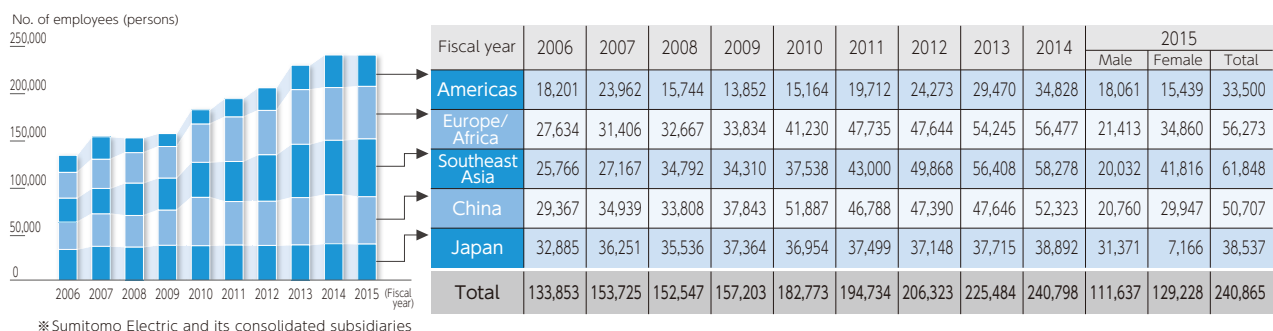
ALL SEI conveys the Sumitomo Spirit, the Sumitomo Electric Group Corporate Principles, messages from executives and information on our business performance, as well as information on our business and social contribution activities in various regions, in order to share information and cultivate a sense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

Interviews with our "global executives," who work actively in various parts of the world, have been published since the Autumn 2011 issue. The articles introduce specific examples of self-realization and career opportunities in the Sumitomo Electric Group in order to further enhance a sense of unity among Group employees as well as their motivation.



ALL SEI

Number of Group Employees in the World by Year Numbers as of March 31 of each fiscal year





# Diversity at Sumitomo Electric Group : A Dialogue between

**Masayoshi Matsumoto**

President & CEO Sumitomo Electric Industries, Ltd.



**Mike Lawson**

President Sumitomo Electric Wiring Systems (Europe), Ltd.

Masayoshi Matsumoto, the president & CEO of Sumitomo Electric, and Mike Lawson, the president of Sumitomo Electric Wiring Systems (Europe), Ltd. (SEWS-E), talked about the significance of diversity as a management strategy. They met each other for the first time in London in the 1990s when Sumitomo Electric established a joint venture with a British company Lucas Rists Wiring Systems, for which Lawson was working at that time. This joint venture then became a wholly owned Sumitomo Electric subsidiary and changed its name to SEWS-E.

## What is the meaning of diversity in our globalizing world?

**Matsumoto** ▶ You could say that the word diversity has diverse meanings, encompassing different cultures, races, and religions. Sumitomo has truly learned the many facets of diversity as it has expanded. It is interesting that the understanding of diversity in Japan differs from that in Europe and the rest of the world. When Japanese people talk about diversity, it usually refers to gender. But when Mike talks about diversity, he is using the word to have a more comprehensive meaning. Of course, Sumitomo Electric Group as a global company has an approach to diversity that focuses on women as well as all other facets.

**Lawson** ▶ For SEWS-E, the meaning of diversity is very broad. In terms of gender the U.K. is quite liberal, but SEWS-E has also made strides in advancing female leadership in the countries we have moved into. For example, our largest factory in Romania is led by a woman, which I did not think was possible 10-15 years ago.

SEWS-E approaches gender issues in countries in Europe and Africa with great consideration for the local culture. What works in Romania might not work in an Islamic country like Morocco or Egypt, and of course there are further considerations to be paid for the differences between local cultures in Islamic countries. In our factories in Morocco and the U.K.,

women are able to work night shifts, while in Egypt this is not common. Although we received permission from the Egyptian government to have women on night shifts, we decided to respect the local culture and not enact change too quickly. This is one of our cultural challenges, but we are still working to push and develop opportunities for women in the country.

**Matsumoto** ▶ I agree. A crucial factor of diversity comes when entering a foreign country, which is to be respectful of the local culture and adapt business practices with flexibility and a spirit of openness, taking into account ways of working in the local areas. When in Rome, do as the Romans do. But at the same time, we are also united by the Sumitomo Spirit.

**Lawson** ▶ Yes, I think that is a core strength. The anchor of our business is the core of Sumitomo: our history, culture, and base here in Japan.

## What are the leadership qualities you look for in a diverse workplace?

**Matsumoto** ▶ We look for specific characteristics in the people we choose for leadership positions. They have to have intelligence and a strong presence. They also need to have targets, and the determination to complete things. They should be resourceful, unafraid to follow their gut feelings to find their personal paths. In terms of personality, they should be cool and composed, open and natural, and fair and unselfish.



**Lawson** ▶ For me, firstly, you need to have respect for everybody who works for you. The majority of people who come to work have the same goals and objectives. They want to do well for their families, see their children grow up, be responsible in society, and be respected. This is fundamental to human beings, whether that person is in Egypt or the U.K. or Japan.

The second point would be to be quite humble and never pretend to know everything. The humble people in all countries should come to the fore. My last point would be the importance of having a banner to follow. An example is VISION 2017, which is something that everyone can rally behind as they can easily relate it to what they are doing.

One thing I would note is that often when you go into new countries, the first thing you do is find people with good language skills because you have to communicate. However, just because someone has good language skills does not mean they have leadership characteristics. You have to look beyond language skills to find people with management attributes.

**Matsumoto** ▶ Regarding language, I recommend employees to learn English since it is a universal language that can be used all over the world. I think this is important for communication at a global company like Sumitomo Electric Group.

**Lawson** ▶ That is true. SEWS-E currently employs just over 20,000 people, and of those employees 19,700 do not speak English as a first language. For those language skills, some people have to work much harder than others. For me it is simple, but for people in Morocco or Romania their hard work learning English is much appreciated.

Another point I want to make is that at SEWS-E, we do not set quotas for diversity, but instead operate based on the slogan “The Best Man or Woman for the Job.” Without quotas, we have still achieved diverse workplaces by identifying individuals with potential and making sure they get opportunities to grow through specific projects and management and leadership programs. I would also note that when it comes time to change management, it is important



not just to replace like with like. If you can find a local person who is qualified, then that person should be chosen.

**Matsumoto** ▶ Yes, we must have open minds when it comes to our employees. No matter what country the person comes from, if the person has the ability, he or she is the right person.

### What do you envision for the future of diversity at Sumitomo Electric Group?

**Matsumoto** ▶ The world is getting smaller with globalization and technology, so diversity is truly necessary or Sumitomo Electric Group will be left behind as its competitors forge ahead. Without diversity, we have no future. Some people view diversity as a threat because they are afraid of change. Our company needs to be open to new people and new ideas while at the same time reassuring the core of the company that diversity is something to celebrate. And of course, however we change, we will never lose the core spirit of Sumitomo.

**Lawson** ▶ I think it is important to recognize the steps Sumitomo Electric Group has taken in diversity, and then to move forward. Just in my time here, there have been a large number of changes, including initiatives by Matsumoto-san. He has been a strong leader, flying a banner for everyone in the company to follow. Nothing is too much trouble for Matsumoto-san, and he is always willing to discuss initiatives with people.

The last thing I want to emphasize is that there are opportunities for everybody at Sumitomo Electric Group. As we have heard from Matsumoto-san, there is a real desire from the top to let people expand and grow. Diversity is happening at Sumitomo Electric Group and we encourage all our employees to persevere to seize these opportunities.

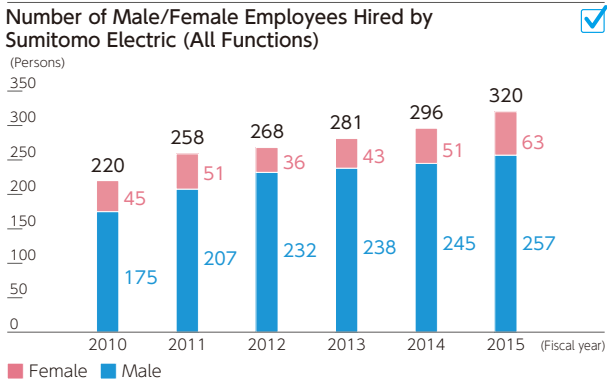
**Matsumoto** ▶ Yes, I want to stress that managers and employees are all in the same boat, so we need leaders with broad minds. No matter your country or cultural background, if you have the qualities for leadership we will give you the opportunity to succeed.



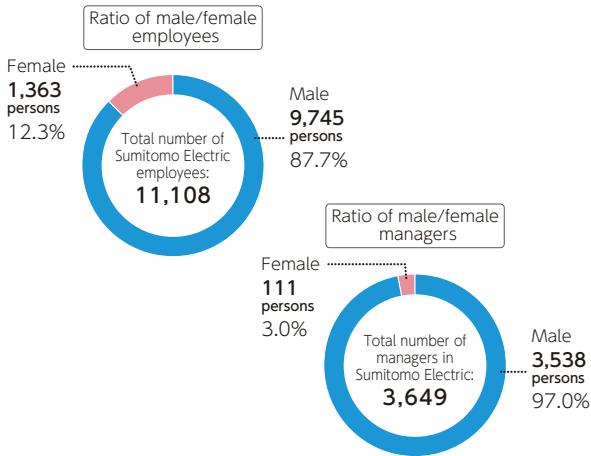
## Diversity in Recruitment

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

In fiscal 2015, Sumitomo Electric employed 167 new graduates for main career track in Japan, 24 of whom were female and 2 were overseas students. We also hired 44 mid-career employees. To support the development of our various business activities including those in new fields and global markets, we continue to actively recruit women, foreign students, mid-career employees and other diverse personnel.



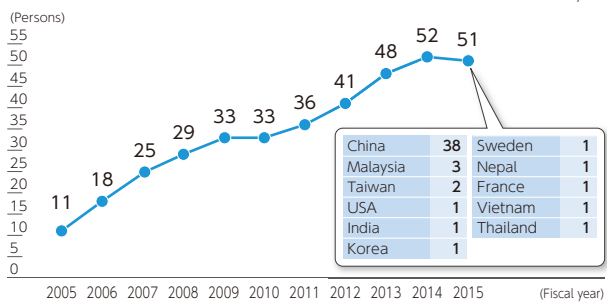
**Ratio of Male/Female Employees and Ratio of Male/Female Managers\*** As of March 31, 2016



\*Managers: assistant managers, section managers, division managers, management positions

**Number of Employees Working for Sumitomo Electric Who Were International Students**

(Persons)



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

## Organization of Town Meetings

Employees are provided with opportunities to have direct dialogue with executives

As an initiative 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 and promotion of diversity, as well as those specific to their functions, and share such problems to seek clues and solve them. The meetings also help the participants create networks with employees in other divisions who are close in age.

In fiscal 2015, we organized the first town meetings for team leaders in production sites at the four Works of Osaka, Itami, Yokohama and Kanto. Manager town meetings, which had been already organized, were held at the five locations of Osaka Head Office, Tokyo Head Office, Osaka Works, Itami Works and Yokohama Works.

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.

### CSR VOICE

#### I participated in the town meeting for team leaders

Hiroaki Masuda

Team Leader,  
RF Plant RF Manufacturing Section,  
Manufacturing Department, Energy System Division



Participation in the town meeting gave me a good opportunity to think about my workplace and the management of my team. There are not many chances to have contact with other workplaces when I engage in field operation and management as a team leader. So, it was very stimulating to exchange opinions with various members from 12 work-site divisions, including manufacturing, research and maintenance sections, mainly about efforts in the respective workplaces and motivation as a team leader.

Some participant said, "I try to talk with staff in charge of development on a daily basis and obtain any information, even if it is not important, to ensure smooth field operation." I found that close communication with not only field staff but also other persons concerned will help us operate the work in my workplace smoothly.

Team leaders must have capacity to bring the team members together while improving their own skills as field staff. With an awareness that I am in charge of manufacturing and team management, I will use the knowledge and findings acquired through the town meeting for my duties.

# 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]

1st half of fiscal 2016:

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

#### [Reference]

Women's share in the new graduates for main career track who entered the Company as of April 1, 2016: 16.9% for clerical staff and 11.3% 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]

1st half of fiscal 2016:

- 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

2nd half of fiscal 2016:

- Establishment of a network of employees that responds to diversity

### [Reference]

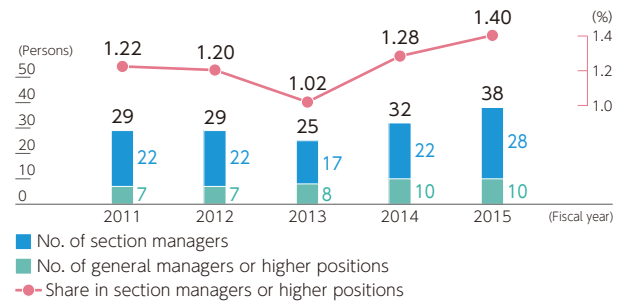
Women's share as of January 16, 2016:

Section managers or higher positions : 1.4%

Assistant managers: 7.8%

### Number and share of women in section managers or higher positions

as of January 16 of each fiscal year



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

## 《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.

## 《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, on a trial basis in fiscal 2015. 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.

CSR VOICE

## Hokatsu Concierge and teleworking

EMEA Team, Global Network System Division Akisa Kamakura



There are many children on the waitlist for childcare facilities in the district where I live, so search for childcare facilities must be started as early as possible. However, my maternity leave began before I took an action for it. I therefore used the Hokatsu Concierge service to obtain information on childcare facilities near my residence and workplace (such as the number of waitlisted children and simple comments about the facilities) quickly, and made use of it to select candidates. In addition, based on the information, I was able to start to look for a nursery school at an early stage after childbirth, and thanks to it, I found a vacancy in a nursery school and returned to work within a year from childbirth as I wished. While it was hard to work while taking care of the baby during the first few months after return to work, I have gradually learned to deal with them efficiently with cooperation of colleagues and family members.

I am now in charge of similar duties as I handled before the maternity leave while combining the shortening of daily working hours by 30 minutes with teleworking a day each week. While I used the teleworking system as a pilot case before the full-scale introduction, I think it is very helpful for the work life balance. I hope that the application of the system to various uses is considered in addition to child rearing and nursing care and the development of the system is promoted so that it can be used to establish a pleasant working environment.

## Utilization of Diverse Talents

**We aim to be a company where diverse talents can demonstrate their capabilities regardless of nationality, race, gender or age**

In the globalized modern society, many women hold important posts including top management, especially in the United States and European countries. The momentum to assist women in playing more active roles is also increasing in the Japanese society. Sumitomo Electric is committed to enhanced recruitment of women, active promotion of female employees and encouragement of them to keep working for the Company. These efforts are aimed not only at fulfilling social responsibility but also at recruiting excellent human resources regardless of gender and promoting marketing and new businesses from a multilateral perspective.

We also introduced the Masters Program in 2005 to reemploy experienced workers with sophisticated skills and expertise and make use of their abilities to train younger workers after their retirement. In the past three years, moreover, we appointed approximately 50 people, most of whom were previously working as temporary staff in sites of Sumitomo Electric, as full-time workers based on the business plan in consideration of their capabilities, skills, etc.

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.

## 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 whether they have disabilities or not**

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 ornamental 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. Currently, 61 employees are working at the company, including 38 persons with disabilities.



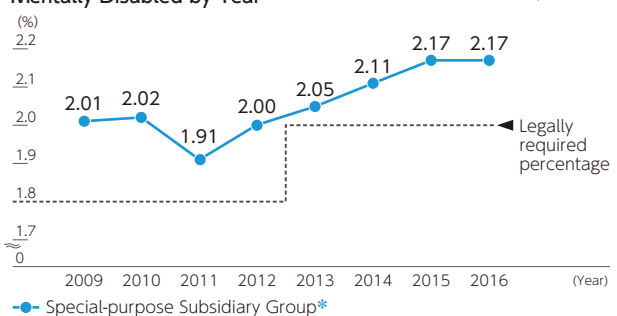
Sumiden Friend (Itami)

### Number of Employees with Disabilities at Sumiden Friend by Year

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

Employment rate as of June 15 of each year (Persons)

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



CSR VOICE

**We have become aware that we are members of society, and feel our growth**

Shosei Kawaguchi, Jun Tanaka, Koji Nakagawa Tokyo Branch, Sumiden Friend, Ltd.

We are working at Tokyo Branch of Sumiden Friend, Ltd. Besides maintenance of foliage plants, we engage in the jobs requested by divisions of the Sumitomo Electric Group such as recovery of waste paper and maintenance of meeting rooms and reception rooms. In particular, only Tokyo Branch staff work for the setup and cleaning of meeting rooms for conferences in Sumiden Friend. We have learned the importance of communication since we joined the company, because cheerful greetings can open communication with other people and change the atmosphere around us. Although we are still inexperienced in many ways, we would like to try various jobs to grow more.



Glossary

\*Special-purpose Subsidiary Group

Under this system, the percentage of employees with disabilities can be calculated for a corporate group as a whole including the parent company having special subsidiaries as well as related subsidiaries, subject to certain requirements.

## 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 purpose of 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 discrimination and various other 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 2015, 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 8,076.

As part of the enlightenment activities, we organize an in-house contest for human rights slogans every year. The contest in 2015 received 3,754 slogans.

### 《 Establishment of Consultation Services 》

We have set up a service to provide consultation and receive reports, which is supervised by the Compliance Committee, as well as consultation services in regards of sexual harassment and the work environment. 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 launched in fiscal 2014, which also inherits the previous initiatives, individuals and workplaces set targets on the four categories of work style (review of the way of working), healthcare (physical and mental health management), communication (improvement of communication at the workplace) and self-development, and work to meet the targets. Specific activities of the campaign include display of posters and establishment of the website to describe the intent of the campaign and know-how for implementing the activities, as well as appointment of a person in charge of the promotion of SWITCH 17 Campaign as a workplace leader at each division to promote the activities at the individual and workplace levels. Outstanding efforts in the workplace are introduced in in-house magazines. To create a workplace that attracts diverse human resources and allows them to work lively, which is essential to win the global competition 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 the encouragement of employees to take paid holidays respectively, and strive to achieve them.

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.

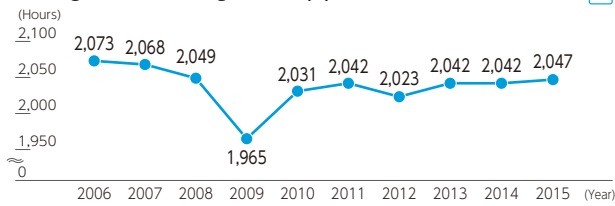
Reduction of total annual working hours	Target for FY2017: 1,900 to 2,000 hours in a year
Encouragement of employees to take paid holidays	Target for FY2016: No employees take less than 10 paid holidays in a year Target for FY2017: Average number of paid holidays taken by an employee in a year is 15 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
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
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

**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 the calendar year of January to December.

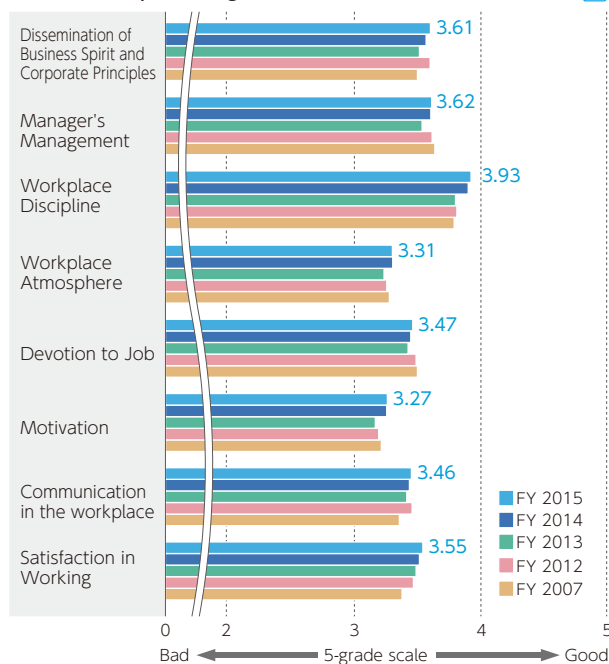
**Implementation of the Survey to Create a Lively Working Environment**

**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 2015 as well, about 20,000 employees were surveyed in September and October, including those of Group companies. Some staff of 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, as well as the person and staff in charge of the SWiTCH 17 Campaign on a workplace basis. Each workplace specifically identifies possible problems and promotes measures to solve them.

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



**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, all health insurance societies are obliged to implement a "Data Health Plan" with an aim to facilitate a shift from medical care of chronic diseases to preventive care and health management, and 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 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.

Sumitomo Electric Health Insurance Society has established the Sumitomo Electric Data Health Plan with three pillars of 1) development of health awareness by introducing an incentive point system, 2) enhancement of specific health guidance and 3) strengthening of measures to encourage employees to have health checkups and prevent diseases from being more serious, and started the initiatives in fiscal 2015. From now on, we will further strengthen our efforts to enhance awareness of health (health literacy) among employees and realize health management by providing active support to the employees who engage in health improvement activities and promoting organized health improvement measures in cooperation with the Health Insurance Society.

**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. In addition, we are working to enhance the support system to allow all employees to have their stress levels tested. This initiative is also aimed at responding to the amendment of the Industrial Safety and Health Act, which makes it mandatory to offer stress check from December 2015. 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 doctor and other specialists.

**Number of Employees Who Took Mental Health Training Course**



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

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

## 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 on the basis of the Act on Advancement of Measures to Support Raising Next-Generation Children.

In fiscal 2015, we worked to improve the convenience of the welfare system to support employees in finding a child-care center to leave their preschool children (named "Hokatsu Concierge") to help the employees who have taken childcare leave return to work quickly. We also introduced a teleworking system in July 2016 to increase job opportunities for the employees subject to 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.



Mark Certifying Corporate Support for Parenting, Kurumin\*

## 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.

#### 《 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, 2016, these three centers take care of 56 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.

### 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			
2008	3 (3)	119 (50)	122 (53)	44	7	183	190	16	37	4
2009	4 (3)	106 (56)	110 (59)	68	7	172	179	23	40	5
2010	3 (3)	100 (51)	103 (54)	61	14	205	219	20	61	7
2011	2 (1)	114 (50)	116 (51)	61	17	228	245	32	61	16
2012	12 (10)	115 (60)	127 (70)	65	18	254	272	22	64	6
2013	15 (13)	106 (56)	121 (69)	55	21	245	266	26	62	7
2014	16 (12)	134 (54)	150 (66)	71	19	264	283	30	57	7
2015	29 (28)	124 (57)	153 (85)	92	20	276	296	31	56	9

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

## We used the daycare center in the company "SEI Yokohama Kids"

**Kazuya Masuda** Optical Infrastructure Devices Group, Optical Network Devices Department, SEI Optifrontier Co., Ltd.  
**Tomoko Masuda** HR Group, Yokohama Works

After return to work from childcare leave, we leave our first daughter to the daycare center. With a cozy atmosphere with about 30 children, the center organizes various events such as birthday parties, star festival, potato digging and Christmas parties, as well as English and physical exercise classes. She enjoys going to the facility every day.

Its closeness to our workplaces gives us a sense of security because we can get there quickly in case that she is sick or in other emergency situations.

It is also helpful that the center is operated according to the operation schedule and we can therefore leave her to it even when we have to work on a weekend or a national holiday. In addition, there are opportunities to have contact with other users at the time of dropping and picking her up as well as excursions and sports festivals, and we are glad that our internal network with other employees has been expanded through them. Our second daughter will also start going to the center soon. Making use of the daycare center, we would like to do our best for both work and child rearing.



### 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.

## 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 recruits, 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 applicants 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 training (OJT) centering on management by objectives.

In particular, (1) Sumitomo Spirit, Corporate Principles and CSR, (2) Management policies and visions, (3) Compliance, (4) Safety, environment and quality 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.

### Record of the training sessions organized across the Sumitomo Electric Group in fiscal 2015

Applicable employees	Total number of participants	Total length of training
Sumitomo Electric employees	39,433 persons	292,179 hours
Employees of Group companies in Japan	16,481 persons	68,038 hours
Employees of overseas Group companies	8,201 persons	32,026 hours
Total	64,115 persons	392,243 hours

### Record of unique training sessions organized in individual Group companies in fiscal 2015

Applicable employees	Total number of participants	Total length of training
Domestic Group companies (27 companies)	13,602 persons	86,034 hours
Overseas Group companies (73 companies)	113,650 persons	236,445 hours
Total	127,252 persons	322,479 hours

## Cultivation of Manufacturing Personnel

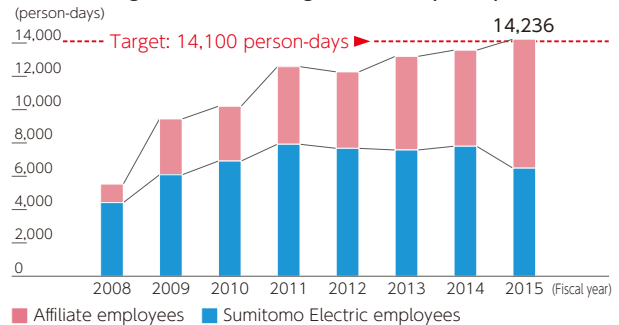
**Based on the basic concept that "manufacturing is human resource development," we promote cultivation of manufacturing personnel through the three main initiatives of ① basic training on manufacturing, ② practical training and ③ small-group activities.**

### ① Basic training on manufacturing

The underlying concept is to learn with actual machines and products based on principles through all five of their senses. Designed to deal with the latest technologies, the curriculums are wide ranging from training on subjects essential for manufacturing, such as safety, environment, quality, improvement and shop-floor management, to professional courses on the Group's proprietary technologies and techniques and equipment control and maintenance technologies. These programs are systematically organized as the course of the Faculty of Manufacturing Technology of the SEI University and provided in a planned manner. The number of the participants is also growing every year.

Overseas, in addition to basic training on safety, quality and other subjects, we organize training on basic maintenance of equipment with focus on safety in China and Southeast Asia on a regular basis.

### Basic training on manufacturing (number of participants)



### 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 (manufacturing innovation professionals' workshop)) and GKP (Genba Kaizen Pro Jissen Dojo (on-site improvement professionals' workshop)). In this training, actual important challenges of the respective divisions are selected as the themes, and participants perform practical activities to solve them. Since the start in 2009, a total of 466 participants have performed practical activities on 346 important themes, which contribute to human resource development and problem solution.

### ③ Small-group activities

Sumitomo Electric develops and promotes small-group activities performed to solve problems and achieve 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 36 thousand participants across the Group in working on 2,923 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.

## Improvement of Management Capabilities and Promotion of Diversity

### We are committed to improvement of team management capabilities

Managerial personnel receive position-based training on communication to achieve the targets for the teams and facilitate the growth of their subordinates, while newly appointed line leaders are provided with training on labor management and employee performance evaluation. We thus make continuous efforts to improve the management capabilities of employees.

In fiscal 2015, we introduced two new training programs to improve team management capabilities, in which members of the management take time to exchange opinions with each other and share findings, on a trial basis.

To ensure that teams make achievements, it is necessary to promote diversity and allow each of the team members to display their abilities. To this end, we have incorporated diversity education into the curriculums of all training programs for newly promoted personnel to make them aware of the importance. In addition, to support women in playing more active roles, we organize a training program in which the employees on maternity leave who will return to work soon receive advice from senior female workers about work and life after return to work, as well as a self-discovery training for experienced female employees to reexamine their abilities and

potentials. Thus, we are actively committed to 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, in which executives of Group companies worldwide are invited to Japan, and the Global Leadership Development Program (GLP), which is a training program to invite general managers 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 actively develop other global training programs, including 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 is provided twice every year in each of Europe, China, Southeast Asia and the United States.

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 that provide operational assistance.

### 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 participated in the GLP in 2015

**Angsana Phummee** Deputy Manager of Electronics Department, Sumitomo Electric (Thailand) Limited

I am grateful that I had an opportunity to participate in the Global Leadership Development Program for fiscal 2015. Through this program, I improved my understanding of Sumitomo's history, the Sumitomo Spirit, management strategies, compliance, etc. The team discussion about the promotion of diversity also made me reaffirm the importance of taking care of each employee.

I believe that diversity is not an impediment but an opportunity to accept differences in nationality, culture, language, gender, etc. with an open mind. In this program, employees working in Group companies around the world gather in Japan. As different participants had different ideas, we had to cooperate with each other. This experience has made me realize that it is important to become not only a good leader but also a follower. In addition to diversification within a company, the external business environment, such as suppliers, customers and competitors, is also being diversified. It is necessary to keep an eye on it, properly understand and analyze the situation and steadily meet the demand. As to diversity, I will not only act on proper understanding of it but also try to address it completely with the greatest care.



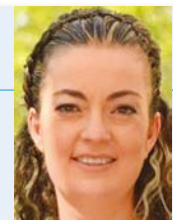
### CSR VOICE

#### What I thought when I participated in MPSS

**Lilia Gutierrez** Accounting Manager, Sumitomo Electric HardMetal de Mexico. S.A. de C.V.

I participated in MPSS held in Chicago last year, which was a good experience for me to learn the history of the Sumitomo Electric Group as well as the Sumitomo Spirit. As English is not my mother tongue, I was not able to understand all of the contents. Nevertheless, explanations were clear, and the overall structure also helped me understand them. I also developed relations with participants from other Group companies.

In the training program, I received many materials that would be also very useful for my daily duties. The program consisted of two workshops. After learning the Sumitomo Spirit in Workshop 1, the participants were required to practice it in their workplaces during the three-month interval as homework. In Workshop 2, we presented what we actually did during the period to each other. I still remember 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 not acting rashly or carelessly in pursuit of easy gains, even after completion of the training. The basic concept of the Sumitomo Spirit is applicable to the private life in addition to the work. I consider that learning of the Sumitomo Spirit has improved my communication and relationship with people around me.



### Glossary

#### \* ITP

Abbreviation of Introduction Training Program, which provides the minimal knowledge that all employees in the Sumitomo Electric Group should know

## 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 2015

- No. of accidents resulting in lost work time: zero
- No. of no lost work time injuries and minor injuries: 20 or less

### Priority subjects for fiscal 2015

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 Strengthening of the 1-2-3 activities
  - ② Activities to prevent serious accidents
    - Identification of hazard sources through inspection, and implementation of countermeasures
  - ③ "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)
  - ④ Activities for ensuring safety in multi-worker operations
  - ⑤ Prevent recurrence of similar accidents
    - Completion of measures to prevent recurrence of accidents involving injury in the respective divisions
    - Horizontal diffusion of measures to prevent accidents involving injury into other divisions
  - ⑥ Encouragement of employees to do radio gymnastic exercises

#### 《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
- Plant disaster prevention activities
  - Inspection of special material gas and combustible gas facilities, electrical devices and outdoor utilities to identify any problems and assess the degree of obsolescence
- Safety measures for construction work and operation at height
  - Development of safety measures for supervision of work
  - Cultivation of construction representatives and managers

#### 《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
  - Strengthening of position-based education and KKP\*
  - Development of local safety key personnel
- Activities at the operation sites designated for safety management and activities subject to priority management
  - Improvement of the structure to ensure that injury does not occur
  - Early improvement through the specification of activities subject to priority management (yellow card)

## Examples of Activities to Prevent Serious Accidents

### Forklift safety measures (Forklift safety education at Itami Works)

#### ■ Education for pedestrians (classroom lecture: 1 hour)

This lecture was given to all pedestrians working in the Works, including Sumitomo Electric employees (except forklift operators), temporary staff, contract workers and interested persons of subcontracting companies. Characteristics of forklifts and disaster risks were explained and visually presented with videos. The number of participants was 2,710.



#### ■ Education for forklift operators (classroom lecture and practical training: 5 hours)

This education was provided to all people who operate forklifts in the Works, including Sumitomo Electric employees, temporary staff, contract workers and interested persons of subcontracting companies. The classroom lecture was given as to the characteristics of forklifts, how to operate a forklift, maintenance and inspection, examples of disasters, inspection method, relevant laws and other subjects. In addition, a test was conducted on a course prepared in the Works for the evaluation of practical skills. Only those who passed the test can operate a forklift in the Works. The number of operators who completed the course was 538.



# Safety Performance and Future Actions

## In fiscal 2015, the number of the accidents involving injury decreased slightly from fiscal 2014

During fiscal 2015, we had 42 accidents involving injury in total, which were broken down into 8 injuries resulting in lost work time, 21 no lost work time injuries and 13 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 20 or less no lost work time injuries or minor injuries. Nevertheless, accidents involving serious injury fell substantially with a year-on-year decrease of the total number by 4 and, in particular, a year-on-year decrease of the number of injuries resulting in lost work by 7. We believe that this is a result of the four priority safety activities promoted 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) Prevent recurrence of similar accidents.

Looking at the injuries by situation, while the promotion of the priority safety activities had certain effect, injury by inserting a hand into moving parts still occurred, and both injury by fall and injury of staff increased. This indicates that safety activities have not been implemented by all employees and the measures have not been completed.

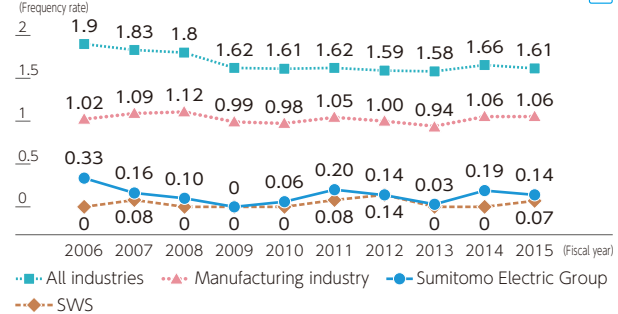
In fiscal 2016, based on the results in fiscal 2015, we are making efforts to achieve a more realistic target of zero injuries resulting in lost work time and 30 or less no lost work time injuries or minor injuries, as part of our activities to "become a company with the highest level of safety," as set in VISION 2017. Specifically, we will continue the above-mentioned four priority safety measures implemented in fiscal 2015 to ensure that the activities take root.

## 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 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
Fiscal 2014	Accidents resulting in lost work time	7	3	5	15	0	1	16
	No lost work time injuries	10	6	2	18	0	7	38
	Minor injuries	7	4	2	13	0	7	38
	Total	24	13	9	46	0	8	54

(Note 1) From fiscal 2015, accidents involving injury in Sumitomo Wiring Systems, Ltd. (SWS) are not included in the number of those in the Sumitomo Electric Group.  
 (Note 2) The data on employees of the Sumitomo Electric Group cover Sumitomo Electric and its affiliates (excluding the 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 those of SWS and its affiliates.  
 (Note 3) The category of "minor injuries" was added as a result of the revision of injury categories in the SWS Group.

## 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 employees of Sumitomo Electric and its affiliates in Japan, and the frequency rate in SWS covers the employees of SWS.

### CSR VOICE

## We achieved zero accident for two straight years

Ryuichi Yoshikawa General Manager of Manufacturing Department, Sumitomo Electric Toyama Co., Ltd.

Everyone, goanzen ni (safety first)! Sumitomo Electric Toyama manufactures aluminum wires, aluminum alloy wires for mechanical and electronic parts and lead wires for electronic parts, as well as porous nickel "Celmet™," which is used in electrodes of secondary batteries, etc. In our safety records, accidents involving injury occurred for three consecutive years from fiscal 2011. With recognition that our safety performance was in a critical state, we promoted safety activities to achieve the target of no accident in a year in line with the President's policy of achieving zero accident based on uncompromising efforts under the guidance of Safety & Environment Department, Plant Engineering Department and Advanced Production Systems Engineering Department of Sumitomo Electric. Specifically, we performed safety activities with the following four items as the main pillars, aiming to involve all workers in a real sense and take both top-down and bottom-up approaches at all positions.



Morning safety meeting

① **Improvement of safety awareness:** Under the concept that each person is the main player in safety activities, we held a safety meeting for 30 minutes every morning. A test was conducted to evaluate the level of understanding on safety among the workers in a Q&A style, and one of them presided to ensure that the safety meeting was organized voluntarily. As a result, safety awareness among the workers was improved dramatically. We also organized a session to study good examples of kaizen (improvement) of the Sumitomo Electric Group to help workers enhance their own improvement capabilities. In the session, all workers provided ideas for the improvement of safety status of the workplace and implemented the PDCA cycle by themselves to identify and improve unsafe conditions and unsafe actions more quickly.

② **Upward spiral of leadership:** We took various measures to promote an upward spiral of leadership of General Manager of Manufacturing Department, plant managers, safety managers, section chiefs/deputy section chiefs and group leaders. The measures included on-site inspection by general managers of manufacturing departments and plant managers with focus on specific themes, forklift and crane competition organized by safety managers, inspection by section chiefs/deputy section chiefs to ensure compliance with work standards and site inspection by group leaders to have dialogues and find causes of problems. Through these measures, we enhanced communication with workers and established a more open workplace.

③ **Strengthening of hardware-based measures:** With an aim to eliminate high risk operations and unsafe conditions, we took hardware-based measures to address troublesome operations that are difficult to improve, under the initiative of technical and design staff divisions. (A total of 200 measures were taken in the entire company.)

④ **Improvement of the production system:** There were three challenges of (1) complicated flow lines of forklifts, (2) response to constant demand for quick delivery and (3) poor workability in a narrow layout area. To solve them, we respectively (1) shortened the flow lines of forklifts by half through the improvement of the layout using an automatic forklift flow line analyzer, (2) cut the production lead time to one-third by using the fast-in, fast-out (FIFO) diagram management and (3) increased the space with the reduction of work-in-progress and product inventory to two-thirds by decreasing the lead time and adhering to the FIFO method. Through these achievements, we created a more pleasant workplace.

As a result of the promotion of safety activities with the involvement of all workers in a real sense by spending much time and labor through uncompromising efforts based on the President's policy, we realized zero accident for two straight years in fiscal 2014 and fiscal 2015. In fiscal 2016, we will complete the unfinished measures and transform the safety awareness developed through the safety activities into capabilities to point out any problems for each other in our continuous safety activities to establish a workplace where no injury occurs or can occur.

### 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.

## 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 will accumulate a lot of energy saving activities, even if each of them is small, to make a great achievement**

**Minoru Habu** Qualified Energy Manager, Safety & Environment Group, Manufacturing Department, Sumitomo Electric Tochigi, Co., Ltd.

Sumitomo Electric Tochigi, Co., Ltd. consumes a large amount of electricity and is one of the top five domestic companies in the Sumitomo Electric Group in terms of power use. Therefore, we have traditionally been committed to energy saving efforts in a serious manner. I have been in charge of equipment technology and safety environment for 20 years. I walk around the production site for energy saving and identify any wasteful use of energy. We are making continuous efforts to take as many energy saving measures as possible, such as repair of each air or steam leakage, optimization of the pump capacity and introduction of energy saving pumps, because even if the effect of each measure may be small, the accumulation of them can lead to a great achievement.

While promoting these efforts, we have also introduced new technologies to reduce the amount of waste, including a device to recycle waste sulfuric acid, and enhanced separation activities to obtain valuables and recycle waste. Our environmental activities contribute to the reduction of environmental impact of the Sumitomo Electric Group as a whole. Each of the employees will continue energy saving activities with a high awareness.

## 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.

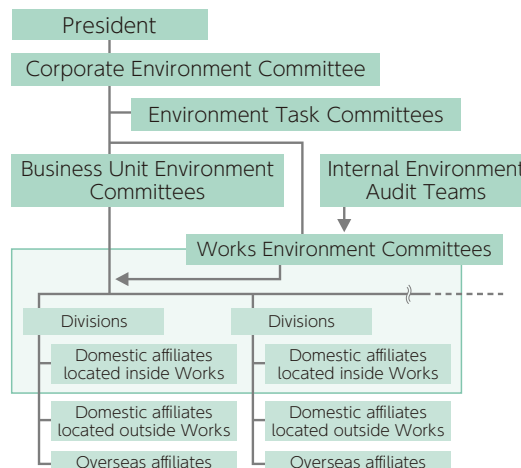
##### Action Guidelines

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

**We oversee the Group's environmental preservation activities on a global basis**

The Corporate Environment Committee is the supreme Group organization for making decisions related to environmental management. It oversees the entire Group's environmental preservation activities on a global basis.



# Response to Environmental Risks and Opportunities through Environmental Management

Environmental activities include pursuit of efficient production and reduction of unnecessary use of resources and energy, which also lead to a more robust cost structure.

The Sumitomo Electric Group actively develops activities to identify environmental risks and respond to them based on the recognition that such activities not only reduce the risks and avoid damage to our reputation, but they also provide opportunities to increase the corporate value as well as business opportunities.

Main environmental risks	Opportunities and specific activities
Compliance violation	Detailed environmental audits are conducted in all sites and affiliates in Japan and overseas to identify any events that can result in violation of environmental laws and to take measures to address them.
Emission of pollutants	We assess environmental facilities in all sites in Japan and overseas and take measures that prevent environmental problems.
Chemical contamination	We prepare guidelines on chemical control in the factories handling poisonous and deleterious substances, etc., and develop activities to inspect and improve the control of chemical substances in all sites and affiliates in Japan and overseas.
Global warming	Various energy saving initiatives are actively promoted, including the energy saving diagnosis program to identify the items to be improved, because such activities result in helping prevent global warming and also reduce energy cost.
Waste reduction / resource saving	We actively engage in efforts to reduce waste generation through recycling, conversion of waste into valuable materials and reduction of waste volume, and also promote such activities from the perspective of material flow.
Chemical substances in products	We ensure commitment to this issue to maintain our reputation and prevent occurrence of recovery cost and compensation for damage.
Environmentally conscious products	By producing many lines of environmentally conscious products, we seek to enhance the value of our products and increase our market share.

## 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 2015	Fiscal 2015 results	Evaluation	
		in Japan	over seas					
Environmental efficiency	Monetary value of environmental impacts (CO <sub>2</sub> , wastes, harmful substances, NOx and SOx) / sales	●	●	Reduce 5% from FY 2012	Reduce 3% from FY 2012	Reduced 25%	◎	
Reduction of environmental impacts from business activities	(1) CO <sub>2</sub> emissions (in Japan and overseas): reduction of the absolute amount	●	●	Reduce 5% from FY 2012	Reduce 3% from FY 2012	Reduced 2.7%	△	
	(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 12% from FY 2012 (4% per annum; reduce 20% in 5 years)	Reduced 26%	◎	
	(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 3% from FY 2012	Reduced 20%	◎	
	(4) Reduction of CO <sub>2</sub> in logistics: reduction of CO <sub>2</sub> per unit of sales	●	—	Reduce 5% from FY 2012	Reduce 3% from FY 2012	6.7%	◎	
Promotion of resource conservation and recycling	(1) Reduction of the zero emission rate (in Japan)	●	—	0.3% or less	0.3% or less	0.1%	◎	
	(2) Reduction of the zero emission rate (overseas)	—	●	9% or less*	5% or less	8.7%	△	
	(3) Amount of waste (in Japan): reduction of the absolute amount	●	—	Reduce 5% from FY 2012	Reduce 3% from FY 2012	Reduced 11.9%	◎	
	(4) Water use: reduction of water use per unit of sales [Water use / sales]	●	●	Reduce 5% from FY 2012	Reduce 3% from FY 2012	Reduced 24.0%	◎	
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 3% 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)	50% of the ratio in sales (in Japan)	53%	○
	(3) Products with less CO <sub>2</sub> emissions	●	—	Contribute to reducing CO <sub>2</sub> emissions by 100 thousand tons/year	Contribute to reducing CO <sub>2</sub> emissions by 75 thousand tons/year	78 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)

\* We reviewed the target overseas zero emission rate for fiscal 2017 in fiscal 2016, and replaced the original target of 5% or less by 9% or less in consideration of the situation that we are increasing business activities in the countries where the recycling system has not been developed.

## Monitoring Based on Environmental Efficiency

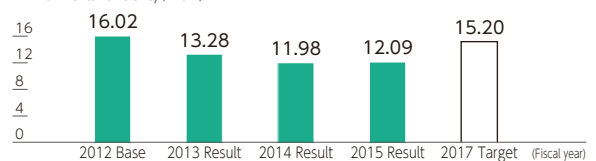
In fiscal 2015, environmental efficiency was improved by 25% from the fiscal 2012 level

The Sumitomo Electric Group has defined environmental efficiency as the sum of the damages of various environmental impacts (converted into monetary value according to LIME\*, a life cycle impact assessment method based on endpoint modeling) divided by sales, as a group-wide indicator on environmental management. We will continue to enhance our efforts to meet the targets for the Action ECO-21 (Phase VI) Campaign on a global scale.

### Environmental Efficiency

= Monetary value of environmental impacts (CO<sub>2</sub>, wastes, harmful substances, NOx and SOx) / Sales

Environmental efficiency (x10<sup>-4</sup>)



(Note) Data on CO<sub>2</sub> 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.

### Glossary

#### \* LIME

Life Cycle Impact Assessment Method Based on Endpoint Modeling (LIME) is a method for evaluating the impact of products and services on the environment.

## 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. In fiscal 2014, we also started inspection of environmental facilities to enhance sensibility in environmental management.

Training system	Training menu		Title of the training
General training	General environmental education		Environmental awareness education Sumitomo Electric Group's environmental activities
	Legal and compliance education		Education on environmental laws Education on legal issues
	Sectoral education	ISO14001	ISO 14001 internal auditor education
		Energy saving	Education on energy saving methods and the improvement
		Eco-Life Activities	Sumitomo Electric Group Eco-Life Activities
		Waste	Waste separation and treatment
	Chemical substances	Management of harmful substances contained in products	
Management of poisonous and deleterious substances			
Position-based training	General environmental and sectoral training		Environmental laws, chemical control, energy saving
On-site training	Sectoral education	Energy saving	Education on energy saving methods and the improvement
		Others	Other education

In fiscal 2015 as well, we provided systematic education on general environmental issues, environmental laws, chemical control and global warming as part of the position-based training program. A total of 710 employees participated in 43 sessions during the fiscal year.

## 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 》

The Sumitomo Electric Group implements audits based on ISO 14001. In addition, to ensure compliance with relevant laws and reduce even more environmental impact, we have conducted environmental audits with a focus on compliance with environment-related laws and the efforts in the Action ECO-21 Campaign since fiscal 2008, and finished the audits of all manufacturing sites in Japan by the end of fiscal 2011. We are now planning to start the second round of the audits in fiscal 2016.

Environmental audits of manufacturing sites outside Japan were also started in fiscal 2010. As of the end of fiscal 2015, we have completed 44 of the 46 sites subject to audits: Following the audits of 11 sites in China in fiscal 2010, we conducted audits of four sites in Thailand and four sites in Malaysia in fiscal 2011, of three sites in China and four sites in Indonesia in fiscal 2012 and of three sites in China, two sites

## Environmental Accounting

Since our CSR Report 2010, we have collected and disclosed environmental accounting data based on a new disclosure approach in reference to the concept of the Connected Reporting Framework (CRF)\*.

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 2014 from the boundaries of collection newly added or excluded in fiscal 2015 (no boundaries were newly added or excluded in this fiscal year).

Change due to sales change: [Emissions or amount of waste in fiscal 2014 from the boundaries of collection for fiscal 2015] x (Sales in fiscal 2015 / Sales in fiscal 2014 - 1)

Actual change: Calculated by subtraction

	Financial items								
	Investment (million yen)			Expense (million yen)			Economic effect (million yen)		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Reduction of greenhouse gas emissions	Investment in energy saving (Note 1)			/			Reduction of energy cost (Note 1)		
	2,717	1,918	2,036				534	639	608
Waste reduction	Investment in resource saving and recycling (Note 2)			Waste disposal cost (Note 3)			Sale of valuables materials (Note 3)		
	23	10	210	983	1,080	1,037	107	89	104
Cost of management activities	/			1,157	1,049	1,097	/		
Cost of social activities	/			6	14	7	/		
Cost of environmental remediation	/			8	9	8	/		

in the Philippines, two sites in Vietnam and two sites in Taiwan in fiscal 2013, of three sites in the United States in fiscal 2014, as well as the audits of two sites in the United States, three sites in Germany and one site in Hungary in fiscal 2015. In fiscal 2016, we have scheduled to audit two sites in the United States as well as three sites in Thailand and one site in Vietnam, which has recently joined the Group. In Japan, we conduct audits in compliance with 120 items of 23 environmental and related laws as well as the ordinances of the prefectures and municipalities where the sites are located. Overseas as well, we survey environmental and related laws in the countries and regions where our bases are located and conduct audits in accordance with them.



For our domestic sites, to prevent environmental accidents, we launched the evaluation of facilities that may affect effluent quality in fiscal 2012, and evaluated nine sites in fiscal 2012, 11 sites in fiscal 2013, six sites in fiscal 2014 and seven sites in fiscal 2015. We also started the evaluation of overseas facilities in fiscal 2013, and evaluated seven sites in fiscal 2013, seven sites in fiscal 2014 and one site in fiscal 2015. In fiscal 2016, we will complete the evaluation of facilities in Japan and continue the evaluation of overseas sites.

### 《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.

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

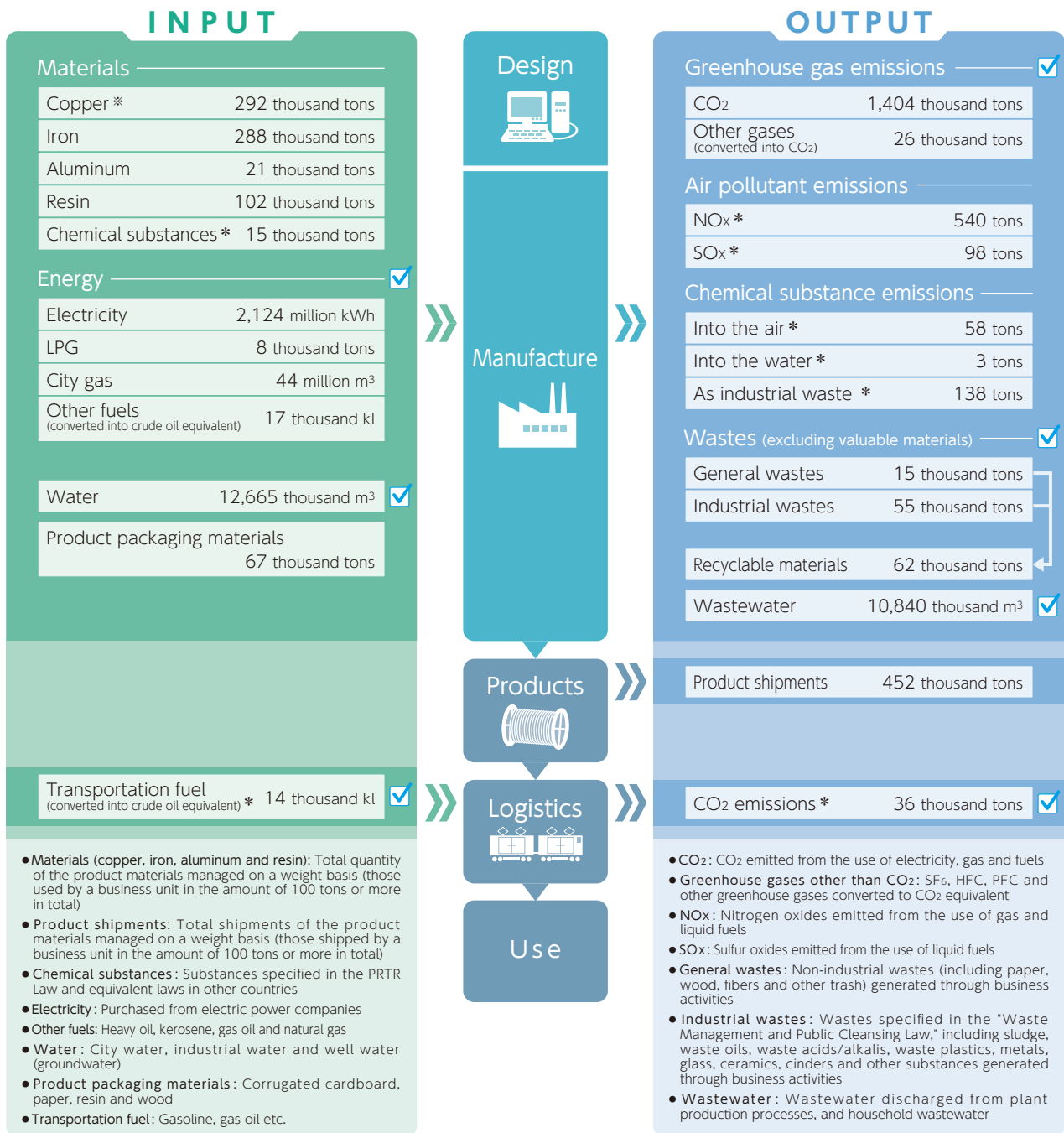
We have set 58 check items for our sites in Japan and 42 items for our overseas sites to audit their activities and progress.

### 《Confirmation of Legal Compliance》

In fiscal 2015, the following three violations of laws and regulations (cases where guidance, recommendation or order to pay fine was issued by the authority) were reported to the Safety & Environment Department of Sumitomo Electric.  An affiliate in Mexico received an order from the authority to pay a fine for excess of the regulatory value on effluent in August 2015. Another affiliate in Taiwan received an order from the authority to pay a fine for insufficient paperwork for a facility management notification in September 2015. Another affiliate in Mexico received an order from the authority to pay a fine for insufficient report on waste in January 2016. We will continue to make efforts to ensure compliance.

Non-financial items		
Performance (in Japan)	Change factors in fiscal 2015 (in Japan)	Strategy/opportunity and risk
<p>GHG emissions (thousand tons-CO<sub>2</sub>e/year) Reduction rate (%)</p> <p>2012 2013 2014 2015 Target (Fiscal year)</p> <p>■ GHG emissions ● Emission reduction rate (from the fiscal 2012 level)</p>	<p>GHG emissions (thousand tons-CO<sub>2</sub>e/year) (Note 4)</p> <p>2014 Change due to boundaries change Change due to sales change Actual change 2015 (Fiscal year)</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) Reduction rate (%)</p> <p>2012 2013 2014 2015 Target (Fiscal 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>2014 Change due to boundaries change Change due to sales change Actual change 2015 (Fiscal year)</p>	<p>We set the reduction of 3% from the fiscal 2012 level as the target for fiscal 2015. 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, which enabled neutralization of acid waste liquid with alkali waste liquid to render the two types of waste liquid harmless and thereby reduce the amount of waste. 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>

# Materials Flow (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, 1,430 thousand tons, account for the vast majority of 1,600 thousand tons, which are estimated GHG emissions from the boundaries of consolidation for financial reporting in fiscal 2015. In the meantime, out of the 255 consolidated subsidiaries excluding the 3 listed companies mentioned above, the environmental management of our Group covers 145 companies in production units (45 in Japan, 31 in China, 33 in Asia (except China), 14 in the Americas and 22 in Europe and other in fiscal 2015). Our trial calculation indicates that environmental impact, such as GHG emissions, of the 145 companies is estimated to occupy 99% of that of the 255 subsidiaries.



## Reduction of Greenhouse Gas Emissions

### We reduced CO<sub>2</sub> emissions both in Japan and overseas

In the Action ECO-21 (Phase VI) Campaign, the Sumitomo Electric Group set the targets of reducing GHG emissions by 3% from the fiscal 2012 level in fiscal 2015, and promoted various energy saving activities in the fiscal year to meet the target and prevent global warming.

As a result, we reduced GHG emissions both in Japan and overseas in fiscal 2015 from the previous fiscal year, and the emissions in the whole Group were reduced by 2.7% from the fiscal 2012 level.

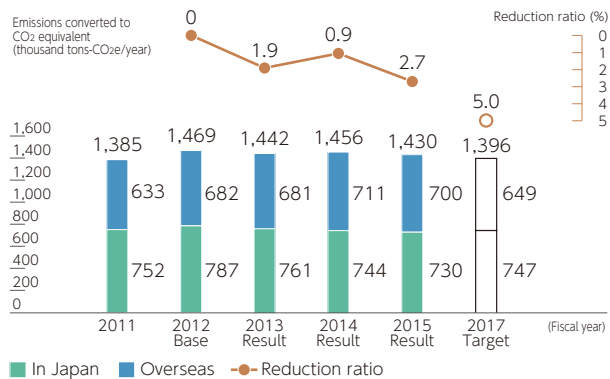
This is an outcome of steady development of energy saving efforts promoted actively throughout the Group under the initiative of the Energy Saving Office. Ongoing improvement of the energy efficiency in our overseas companies has also contributed to the reduction while we are shifting our production facilities to overseas sites.

We continue to set an aggressive target of reducing GHG emissions by 5% from the fiscal 2012 level by fiscal 2017. To achieve this target, while maintaining the conventional cooperative activities, we have appointed a new Energy Saving Task Committee member from each parent division to encourage the divisions to promote energy saving activities in a more organized and voluntary manner. The Energy Saving Office will give support to ensure that this system fully functions.

As part of the support activities, we will prepare a handbook that introduces the issues to be considered in energy saving efforts, and organize an on-site training program using the handbook in Japan and overseas.

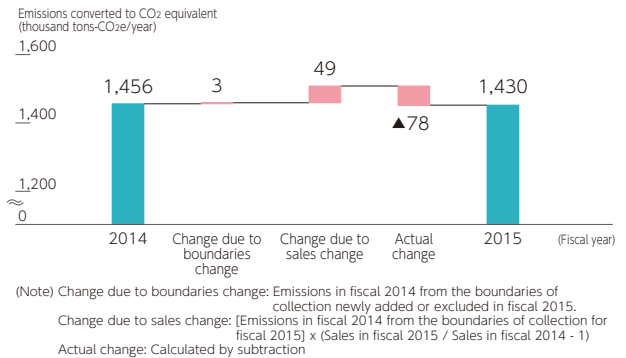
This program aims to provide know-how on energy saving and enhance the sensibility of employees on energy saving and thereby to encourage plant workers to voluntarily make concerted efforts to save energy through reduction of standby power consumption and improvement of productivity as well as more in-depth measures such as revision of the production conditions.

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

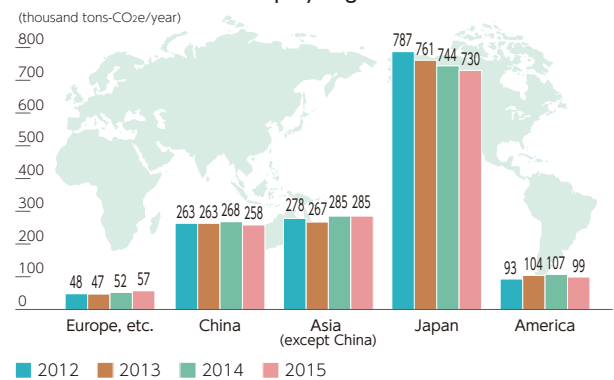


(Note) GHG emissions are calculated based on the Greenhouse Gas Emissions Accounting and Reporting Manual Ver. 3.5 (2014) by the Japanese Ministry of the Environment and Ministry of Economy, Trade and Industry (except the emission factors, which are mentioned below).  
 Basic policy on the emission factors: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



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

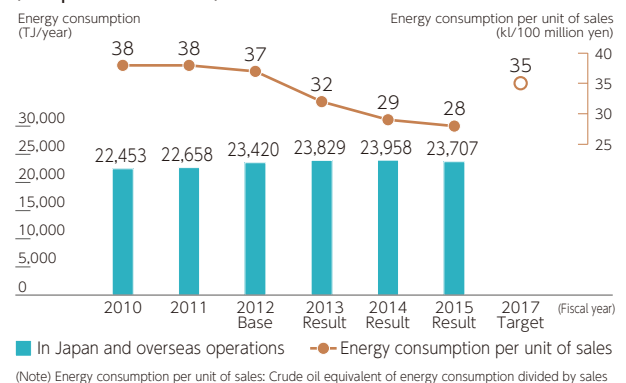


## Reduction of Energy Consumption

### Both the absolute value of energy consumption and the value per unit of sales decreased slightly

We reduced energy consumption per unit of sales by 26% from the fiscal 2012 level in fiscal 2015. This significant improvement was attributed to sales growth supported by the depreciation of the yen, along with improvement of energy efficiency. In the future, to ensure that the target is continuously achieved until fiscal 2017, we plan to introduce the evaluation of energy consumption per unit of production based on production indicators so that the activities of the divisions can be assessed more properly without influence of external factors such as exchange rate fluctuations. Through the achievement of the target in each division, we will strive to meet the target for the whole Group.

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



## Disclosure of Environmental Information

### We are actively promoting disclosure of environmental information

We also respond to requests from external organizations for supply of information. In fiscal 2014, we started to provide emission data by category for Scope 3 of CDP\* in the CSR Report and increased the number of the categories to publish the data.

#### Greenhouse Gas Emissions in FY2015 (thousand tons-CO<sub>2</sub>e/year)

Scope	Emissions (thousand tons-CO <sub>2</sub> e/year)	Checkmark	
Scope 1	183	✓	
Scope 2	1,247	✓	
Scope 3	2,810		
Category	Description	Emissions (thousand tons-CO <sub>2</sub> e/year)	
1	Purchased goods and services	1,930	
2	Capital goods	484	
3	Fuel- and energy-related activities not included in Scope 1 or Scope 2	215	
4	Upstream transportation and distribution	36	✓
5	Waste generated in operations	45	
6	Business travel	31	
7	Employee commuting	69	

(Note 1) Scope 1: Direct emissions from the use of fossil fuels, etc. in our facilities (including SF<sub>6</sub> and other greenhouse gases)  
 Scope 2: Indirect emissions from the use of electricity and steam supplied from outside our facilities  
 Scope 3: 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

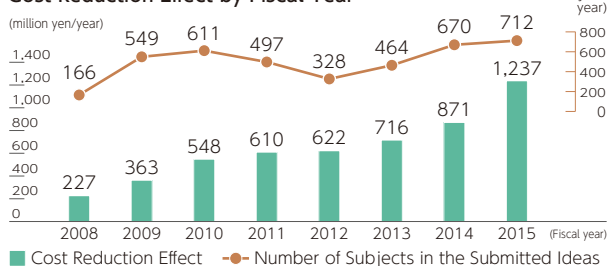
#### 《Energy Efficiency Improvement Measures to Reduce Energy Use》

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. Group companies and divisions also strive to accumulate energy saving effects to meet the target of reducing the absolute energy consumption by 4% from the fiscal 2012 level.

In fiscal 2015, while the target was reduction of 12% from the fiscal 2012 level, we reduced energy consumption by 11.9%.

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 2015, 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 effectiveness. The specific measures are described below.

#### •Measurement-based evaluation :

We determine the number of steam and air leaks, the amount of energy loss in steam traps, compressors' power consumption, etc. with measuring instruments. The measurement results show the expected effects of improvement efforts in a quantitative manner, and help make actual improvements. We also conduct measurement and analysis of power consumption during holidays and at night, as well as the diagnosis in overseas affiliates.

#### •Cooperation in priority areas :

In addition to the equipment-related energy saving measures proposed in the energy saving diagnosis program and other conventional initiatives, measures to improve overall efficiency on intangible aspects including production engineering and equipment utilization rate are also promoted through close cooperation with divisions, business units and Sumitomo Electric Technical Solutions, Inc.

#### •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 into relevant divisions. When special technologies are required, we use external engineering companies for the introduction.

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

### Offices other than manufacturing sites also promote energy saving activities

We reduced GHG emissions per floor area in offices by 20% from the fiscal 2012 level in fiscal 2015 while the target was set to be reduction of 3%.

To promote the efforts, 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 have taken energy saving initiatives and formulated rules to promote and establish 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
- ⑤ Turning off or down unnecessary lights etc.

## 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 CO<sub>2</sub> emissions from households by 5,000 tons per year until fiscal 2012. As a result, CO<sub>2</sub> 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 CO<sub>2</sub> 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.

## Energy saving activities in two plants that consume a large volume of electricity

Kiyohara Sumiden, Ltd. and Sumitomo Electric Tochigi Co., Ltd. are both located in Kiyohara Industrial Park, which is one of the largest industrial complexes in Japan situated inland by the clear Kinugawa River in Utsunomiya City, Tochigi Prefecture. These two companies consume so much electricity that both are among the top five Sumitomo Electric Group companies in Japan in terms of power use.



**Tadashi Sugiyama** General Manager  
**Yoshinobu Onishi** Assistant Manager, Plant Engineering Group, Manufacturing Department

### Sumitomo Electric Tochigi Co., Ltd.

Sumitomo Electric Tochigi Co., Ltd. started production activities in 1985, and its main products include steel cords used to reinforce car radial tires (high-strength steel wires). The plant uses large gas furnaces and hundreds of electric motors to manufacture products. We are making energy saving efforts including recovery of waste heat from the furnaces to generate hot water and steam, as well as introduction of LED lights and high-efficiency motors and air conditioners. We also strive to reduce gas consumption, along with power use, by adjusting the air ratio in boilers and furnaces in a more meticulous manner. In addition to such equipment improvement, we are committed to improvement on the "software" aspects, such as review of the operation of compressors and inverters. As exemplified by the accumulation of these energy saving efforts, we are making steady efforts with creative ideas.

In recent years, steel tire cords have been required to be stronger to reduce the weight and contribute to the improvement of fuel efficiency of cars. This gives us an opportunity to take advantage of the features of our products, which have high strength and high quality. We also consider that such features result in the reduction of total CO<sub>2</sub> emissions throughout the life cycle of the products including emissions at the stages of production and use. We will keep working for research and development in cooperation with tire manufacturers and contribute to the reduction of environmental impact



Generation of steam with waste heat recovered from the quenching furnace



Steel cords for radial tires

through energy saving and various other efforts.



**Hiroshi Takamizawa**  
 Manager of Plant Engineering Group, Manufacturing Department

### Kiyohara Sumiden, Ltd.

Having started production activities in 1998, Kiyohara Sumiden, Ltd. supplies optical fibers and preforms used for base materials of optical fibers to customers all over the world. Our company consumes much electricity because of the large production volume, in addition to the process to transform quartz glass, which has high melting point, into fibers in ultra-high purity. We are therefore committed actively to reduction of power use mainly in air conditioners and other utilities. All of our manufacturing processes are implemented in clean rooms, and we have focused on saving energy used by air conditioners because it is most effective.

Specifically, the number of freezers was cut from seven to three by introducing inverter ones and review of the system, and we optimized the setting of air conditioners in consideration of temperature and humidity. We are also working to improve their operation through such initiatives as reduction of the waiting time of furnaces by the use of IT. While exhaust gas is generated as a by-product, we are also trying to reduce energy use of blowers and other devices in the process to purify the gas as our original initiative.

As a result of these efforts, the energy consumption in fiscal 2015 was lower than the fiscal 2012 level although our production increased during the period. We have also succeeded in plant management, and the energy consumption per unit of products produced was lowest ever. We will keep accumulating the effects of ideas for energy saving, and promote detailed saving activities.



High-efficiency freezers



Reduction of the waiting time of furnaces by the use of IT

## Reduction of CO<sub>2</sub> Emissions in Logistics

### We reviewed the means and routes of transportation to reduce CO<sub>2</sub> emissions

In fiscal 2015, per unit CO<sub>2</sub> emissions from transportation in the Sumitomo Electric Group in Japan were reduced by about 1.6%<sup>(note)</sup> from the previous fiscal year and by about 6.7%<sup>(note)</sup> from the fiscal 2012 level.

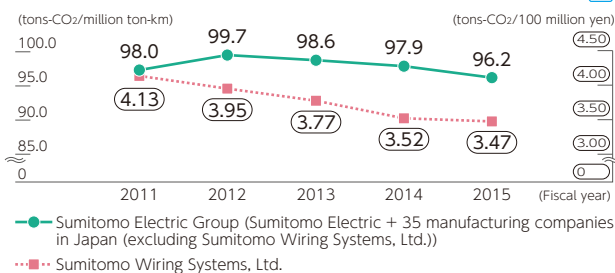
Sumitomo Electric reduced CO<sub>2</sub> emissions in logistics with an increase in transportation by railroad and large vehicles as a result of various initiatives. For example, while railroad and coastal transportation was used to deliver copper wire rods to Miyagi Prefecture, the product is now transported by railroad only. Trucks were replaced by trailer trucks in the collecting transportation of discarded electric wires from a power company. With growth in the export of copper wire rods, domestic transportation of the products to the port of shipment by trailer trucks was increased.

In the meantime, Sumitomo Wiring Systems, Ltd. improved transportation efficiency by using coastal transportation for delivering products from plants in the Kyushu region to their destinations in the Tohoku region and by replacing trucks with railroad for supply of parts from the logistic center in the Kanto region to plants in the Tohoku region.

We will continue the group-wide efforts to reduce CO<sub>2</sub> emissions from transportation.

(Note) Per unit CO<sub>2</sub> emissions in the Sumitomo Electric Group in Japan  
Sumitomo Wiring Systems, Ltd. adopts CO<sub>2</sub> emissions per sales amount as the basis for the calculation while other Group companies use CO<sub>2</sub> emissions per cargo transport (t-km). Therefore, the weighted average of each year-on-year CO<sub>2</sub> emission reduction rate, or of each CO<sub>2</sub> emission reduction rate from fiscal 2012 level, is calculated based on the CO<sub>2</sub> emissions.

### Per Unit CO<sub>2</sub> emissions by Year

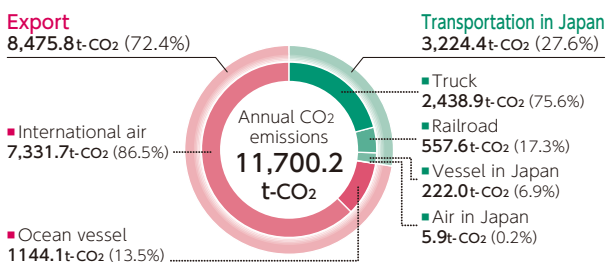


## CO<sub>2</sub> Emissions from Export Activities

In light of the globalization of our business activities, we calculated CO<sub>2</sub> emissions concerning transportation from Japan to the ports or airports in the destination countries for delivery of products to overseas destinations, supply of raw materials and parts to overseas affiliates and other export activities. The results of the calculation showed that CO<sub>2</sub> emissions from our export activities were approximately 2.6 times higher than those from our domestic transportation in Japan and accounted for roughly 72% of total CO<sub>2</sub> emissions from our transportation activities. About 87% of the emissions from export activities were attributed to international air delivery.

We will also consider reduction of the use of international air delivery, along with modal shift in Japan.

### CO<sub>2</sub> Emissions from Transportation in Sumitomo Electric in Fiscal 2015



(Note) Boundaries of data collection: Sumitomo Electric

## Promotion of Modal Shift

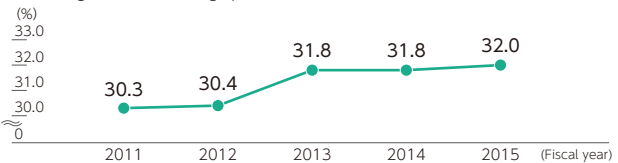
### We increased the use of railroad transportation through coordination with our customers

Sumitomo Electric is active in promoting modal shift mainly in the case of heavy and long-distance (500 km or longer) freight transportation. In fiscal 2015, railroad and coastal transportation for delivery to the destination in Miyagi Prefecture was shifted to transportation by railroad only.

Sumitomo (SEI) Steel Wire Corp. relocated manufacturing facilities that had been located externally to the works in order to reduce transportation between the processes, and also increased the destinations of delivery by railroad from its affiliate in Muroran. Through these efforts, the modal shift rate increased by 0.2 points (approximately 0.6%) from the previous fiscal year.

### Modal Shift Rate of the Sumitomo Electric Group by Year

(Excluding Sumitomo Wiring Systems, Ltd.)



(Note) Boundaries of data collection: Sumitomo Electric + 35 manufacturing companies in Japan (excluding Sumitomo Wiring Systems, Ltd.)

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

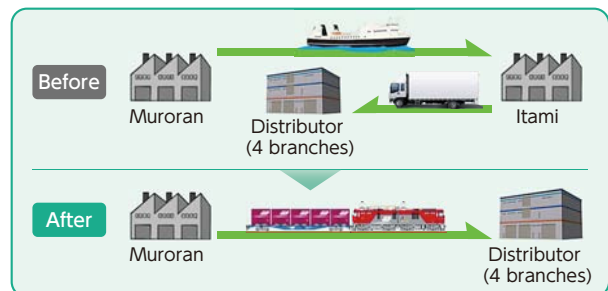
Sumitomo Electric has acquired certification as a company engaged in the initiatives of Eco Rail Mark\* from the Railway Freight Association.



## Shift to Direct Delivery by Railroad (Review of the V-shaped Transportation)

Sumitomo (SEI) Steel Wire Corp. largely reduced CO<sub>2</sub> emissions by changing the modes and routes of transportation of steel wires for springs from Hokkaido Steel Wire Co., Ltd., its manufacturing affiliate located in Muroran, Hokkaido, to four branches (in Fukushima, Saitama, Chiba and Shizuoka Prefectures) of Company A, its distributor. Previously, because Company A ordered the wires in small lots, the products for Company A were first transported from Muroran to Itami, Hyogo, in which the main site of Sumitomo (SEI) Steel Wire is located, by coastal transportation together with products to be delivered to other companies, and then distributed by truck with other items produced in Itami, to improve transportation efficiency.

To further improve transportation efficiency and reduce CO<sub>2</sub> emissions, Sumitomo (SEI) Steel Wire asked Company A to consolidate orders and also requested Hokkaido Steel Wire to consolidate manufacturing of the products. As a result, the lot size of an order from each branch of Company A has increased to a suitable level for railway container transportation, and the products are now delivered from Muroran directly to the branches using railway containers. This improvement reduced CO<sub>2</sub> emissions by approximately 22 tons per year, or about 78%, in comparison with the previous transportation method.



### Glossary \* Eco Rail Mark

A certification mark awarded by the Ministry of Land, Infrastructure, Transport and Tourism, Government of Japan. The use of the mark is allowed only for products or companies that use rail transportation, which generates relatively less CO<sub>2</sub> emissions and is therefore environmentally friendly, in accordance with designated criteria. The mark included in packages and advertisements of products serves as a judgment standard for customers' purchase decisions.

## Efforts to Achieve Zero Emissions and Reduce the Amount of Waste (in Japan)

We are promoting resource saving and recycling

### 《Promotion of Zero Emissions》

In our efforts for the zero emission rate, we achieved the target of maximum 1% zero emission rate in the domestic Group companies as a whole in fiscal 2009, and have worked to decrease the rate to 0.3% or less since fiscal 2013.

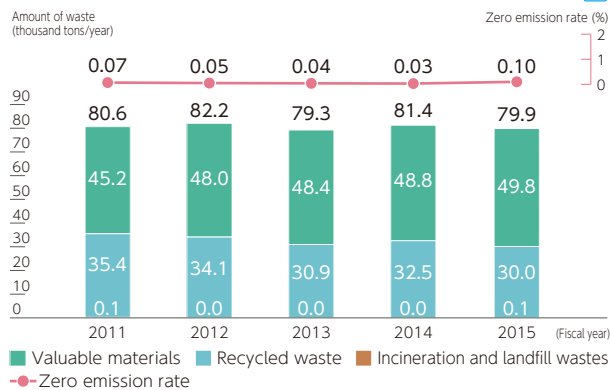
The zero emission rate in the Group in Japan as a whole in fiscal 2015 was 0.10%, which met the target as in the previous fiscal year.

While most of waste is recycled, we will be also committed to recycling of the remaining waste that is difficult to recycle, as well as the waste newly generated from new products, etc., to maintain this level.

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

(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) In accordance with the change of the way of calculating the zero emission rate in the Action ECO-21 (Phase VI) Campaign launched in fiscal 2015, part of the valuable materials that were previously not included in the denominator (the materials that were already treated as valuable in fiscal 2000) are also included in the amount of valuable materials. Accordingly, the amount of valuable materials and zero emission rate in and before fiscal 2014 have been adjusted retroactively.

### 《Reduction of the Amount of Waste》

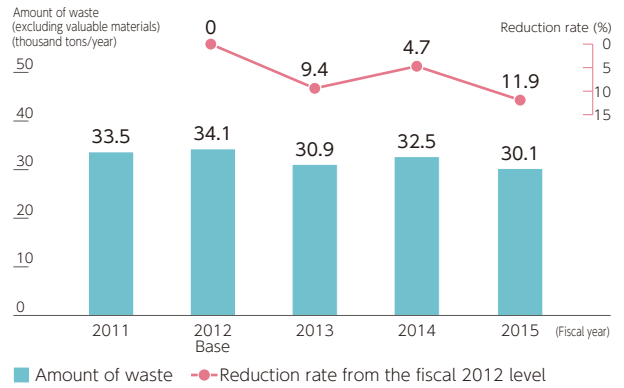
We make efforts to reduce the amount of waste with the target of reducing the absolute amount by 1% per year with fiscal 2012 as the base year. While production growth tends to be accompanied by an increase in the amount of waste, we achieved the reduction of 11.9% from the fiscal 2012 level in fiscal 2015, which exceeded the target of the reduction of 3%.

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 within the company and reduction of waste volume.

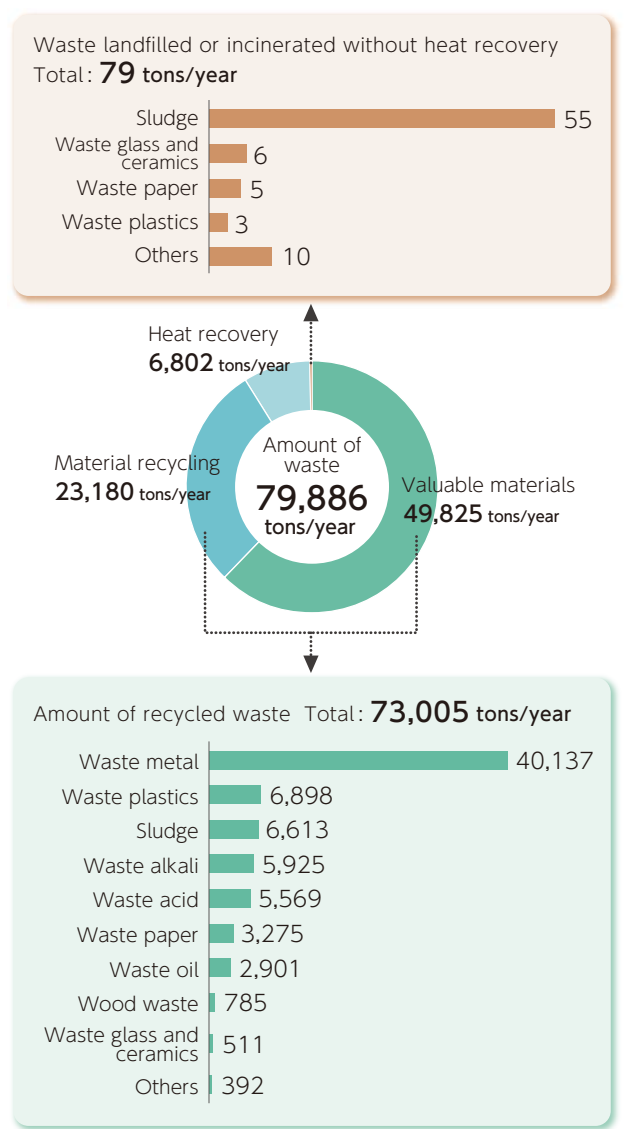
In fiscal 2015, the amount of waste was significantly reduced with the operation of waste acid and alkali treatment equipment at Sumitomo Electric Printed Circuits, Inc., which

manufactures flexible printed circuits. In addition, the generation of excess sludge was reduced through proper management of the effluent treatment process. We thus make steady efforts to reduce waste generation.

### Waste Reduction Rate (Excluding Valuable Materials) in Japan



### Amount of Waste by Type in Fiscal 2015 (in Japan)



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

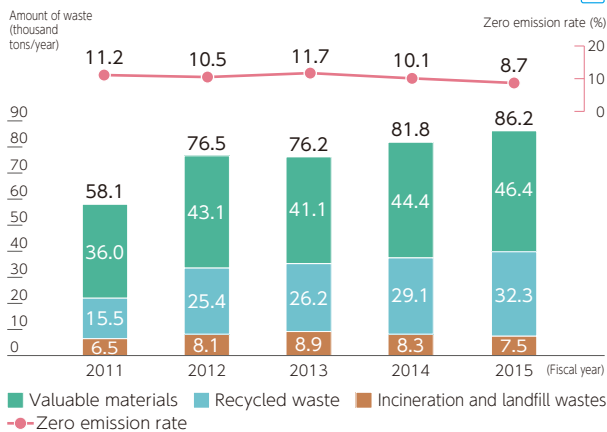
We will continue to promote our activities to reduce the zero emission rate

We are committed to resource saving and recycling in overseas Group companies with the target of reducing the zero emission rate to 5% or less from fiscal 2010.

The zero emission rate in fiscal 2015 was 8.7%. While the target was not achieved, the rate was reduced by 1.4 points from the previous fiscal year. Recycling was promoted with thermal recycling of general waste, which was previously landfilled, by changing the disposal service providers, as well as thorough segregation of waste in the bases where waste generated from the production process was landfilled.

We will continue to encourage the overseas Group companies that have not met the target zero emission rate to reduce the amount of waste incinerated without heat recovery or landfilled in cooperation with staff in their parent divisions.

### Amount of Waste and Zero Emission Rate (Overseas)



(Note 1) In accordance with the change of the way of calculating the zero emission rate in the Action ECO-21 (Phase VI) Campaign launched in fiscal 2015, part of the valuable materials that were previously not included in the denominator (the materials that were already treated as valuable in fiscal 2000) are also included in the amount of valuable materials. Accordingly, the amount of valuable materials and zero emission rate in and before fiscal 2014 have been adjusted retroactively.

(Note 2) The amounts of incineration and landfill wastes and recycled waste for fiscal 2012, 2013 and 2014 have been corrected for the improvement of accuracy.

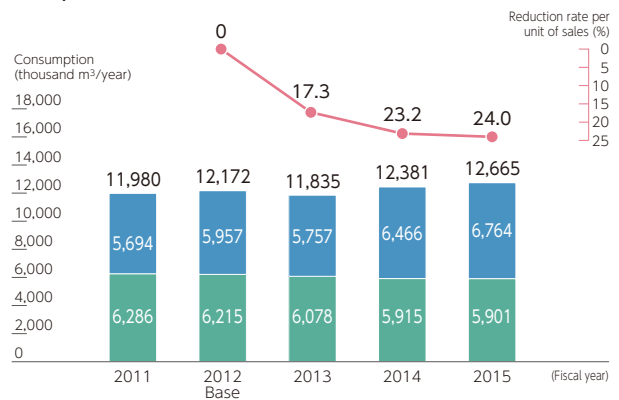
## Water Use Reduction

We increased absolute water consumption but reduced the volume per unit of sales

We have been actively committed to reducing water consumption as an action item since fiscal 2008. In fiscal 2015, while water consumption increased year-on-year partly due to the growth of production especially in overseas bases where a large volume of water is used, we reduced the volume per unit of sales by 24.0% from the fiscal 2012 level, which exceeded the target and also represented a little improvement from the level in the previous fiscal year.

As water leakage accounts for a surprisingly high percentage of the water consumption, we are making steady efforts for prevention of water leakage and management of water use. We are also committed to reduction of water consumption through collective use of gas washing columns, improvement of efficiency of water-cooled air conditioners and installation of electrolytic scale removal systems, in parallel with efforts to reduce energy consumption in these facilities, as well as the reuse of the wastewater that used to be discharged.

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



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

## Waste Segregation in Overseas Affiliates (the United States) — JUDD Wire, Inc.

JUDD Wire, Inc. is our manufacturing base for electronic wire products in Massachusetts.

It has conventionally promoted recycling activities, including the recycling of waste plastics, metals, oil, etc. generated from the process of manufacturing electronic wires and the separation and recycling of paper and bottles from general waste, as well as donation through the separation and collection of cellular phones and ink cartridges.

The only type of the waste that was still landfilled was general waste that could not be recycled. As part of the activities of the Sumitomo Electric Group to achieve zero emissions, the waste has been disposed of by a company that incinerates general waste to generate power since fiscal 2015. With this change, Judd Wire achieved the target zero emission rate.

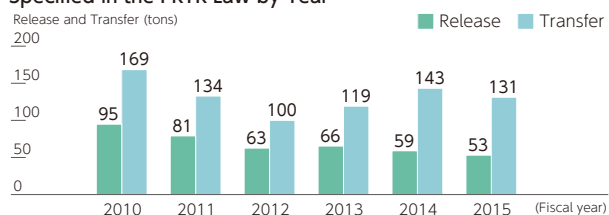


## Release and Transfer of Chemical Substances Specified in the PRTR Law\*

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 2015. Sumitomo Electric Group's total release and transfer of PRTR-designated substances in Japan were 53 tons and 131 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 set the target of reducing the release of chemical substances specified in the PRTR Law by 3% from the fiscal 2012 level as an initiative of the Action ECO-21 (Phase VI) Campaign, and started the activities to meet the target in fiscal 2015.

In the sites that release 1 ton or more to the air in a year, we cut the atmospheric release based on the catalytic combustion method\* and revised the release factor based on the measurement of the air emission concentration of the target substances. As a result, the annual release was reduced to 52.5 tons in fiscal 2015, which represented a decrease of 16.1% from the fiscal 2012 level to meet 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	22.0	0.0	0.0	0.0	22.0	0.0	8.5	8.5	30.5
Phenol	4.6	0.0	0.0	0.0	4.6	0.0	14.6	14.6	19.2
Nickel compounds	0.0	0.2	0.0	0.0	0.2	0.0	16.0	16.0	16.2
Lead	0.0	0.0	0.0	0.0	0.0	0.0	16.0	16.0	16.0
Dichlorobenzene	3.2	0.0	0.0	0.0	3.2	0.0	12.0	12.0	15.2
Cresol	3.4	0.0	0.0	0.0	3.4	0.0	11.4	11.4	14.8
Xylene	3.1	0.0	0.0	0.0	3.1	0.0	6.3	6.3	9.4
1-bromopropane	6.3	0.0	0.0	0.0	6.3	0.0	0.7	0.7	7.0
2-aminoethanol	0.0	0.0	0.0	0.0	0.0	0.4	5.2	5.6	5.6
Bis(2-ethylhexyl)phthalate	0.0	0.0	0.0	0.0	0.0	0.0	5.4	5.4	5.4
35 other substances	8.5	1.2	0.0	0.0	9.7	0.2	34.0	34.2	43.9
<b>Total</b>	<b>51.1</b>	<b>1.4</b>	<b>0.0</b>	<b>0.0</b>	<b>52.5</b>	<b>0.6</b>	<b>130.1</b>	<b>130.7</b>	<b>183.2</b>

(Unit: tons)

Chemical substance	Release					Transfer			Total amount
	Into air	Into water	Into soil	Into landfill	Total release	By sewage	By disposal	Total transfer	
Dioxins	0	0	0	0	0	0	2	2	2

(Unit: mg-TEQ)

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

## 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 are continuously conducting soil and groundwater remediation and groundwater monitoring

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

We continue to control the facilities subject to the law We manufacture no products using 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 reduction of environmental impact from our business activities, we are striving to increase environmentally conscious products as an initiative stated in our 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 2015, a total of 817 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.

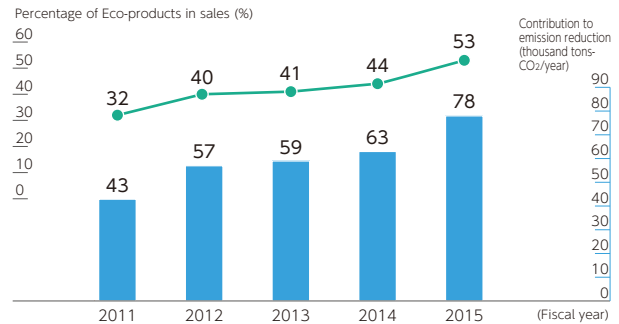
By the end of fiscal 2015, a total of 234 items have been registered as Eco-products. The sales ratio in fiscal 2015 was 53%.

### 《 Anti-Global Warming Products 》

In this system, we register the Eco-products that especially contribute to the reduction of CO<sub>2</sub> emissions from society, and calculate and disclose the reduction effect, in order to contribute to the prevention of global warming.

The products contributed to the reduction of CO<sub>2</sub> emissions by a total of 78 thousand tons in fiscal 2015.

### Percentage of Eco-Products in Sales and Contribution to the Reduction of CO<sub>2</sub> Emissions



#### Calculation method

The percentage of Eco-products in sales is calculated as the value of the shipments\* of the products certified Eco-products divided by the total value of shipments\*.

(\* Shipments are those from manufacturing departments in Japan. However, they exclude shipments from electronic conductor departments, which mainly work to supply intermediate goods within the Group.)

For methods to calculate contribution to the reduction of CO<sub>2</sub> emissions, see "Examples of Eco-Products" in P72.

## Eco-Products Report

### We developed a high-efficiency "regenerative DC/DC converter" that helps improve the fuel efficiency of gasoline-fueled cars



Ryuichi Mizumoto  
Manager



Yoshikazu Sasaki  
Assistant General Manager

Design Department 2, Power Electronics Division, Electronics Group, Sumitomo Wiring Systems, Ltd.

We have developed a regenerative DC/DC converter that is used for car engines and electrical systems to control charge and discharge with high efficiency. This converter uses deceleration energy generated at the time of braking to charge and discharge a capacitor (storage battery). The product structure adopts our patented high heat-dissipation board "PS Board™," which is lighter by 100 g than currently used metal base substrates. PS Board also has adhesive and insulation layers with high thermal conductivity and its heat radiation performance is 1.5 times higher than competing products, increasing output current by 10 A. These improvements of the performance enable more efficient use of deceleration energy and help the vehicles equipped with the converter enhance the fuel efficiency and reduce CO<sub>2</sub> emissions. The development was conducted with frequent design meetings to thoroughly

discuss the reliability and approach of the design with other members. While radio noise was a problem at first, we solved it through vehicle evaluations and durability evaluations to reduce the noise. We also achieved high conversion efficiency in the circuit to meet the demand of car manufacturers.

This product was developed at the request of Honda R&D Co., Ltd., a car manufacturer, through cooperation between AutoNetworks Technologies, Ltd. and Sumitomo Wiring Systems, Ltd. from order receipt to the stage before mass production.






Mass production of the converter has been already started, and five car models are now equipped with the product in the market. Its energy-saving performance raises the fuel efficiency mainly of gasoline-fueled vehicles. While an increasing number of electronic items are mounted on vehicles, products that efficiently use electricity are required. In the future, we will further enhance the conversion efficiency of the converter and design high-output circuits to contribute to the improvement of fuel efficiency, manufacturing of environment-friendly products and thereby creation of an environment-friendly society.



Regenerative DC/DC converter



## Examples of Eco-Products

Contributing to the improvement of fuel efficiency of hybrid cars as electrodes of secondary batteries	Contributing to energy saving in base stations with compound semiconductor power amplifying elements	Contributing to the improvement of fuel efficiency of cars by trimming the weight	Contributing to resource saving by extending the service life	Contributing to the reduction of resource use with high productivity of processed materials
				
<b>CELNET® (porous metal)</b> Sumitomo Electric Toyama Co., Ltd.	<b>GaN HEMT</b> Sumitomo Electric Device Innovations, Inc.	<b>Lightweight wire harness</b> Sumitomo Wiring Systems, Ltd.	<b>Cemented carbide tools with longer service life</b> Sumitomo Electric Hardmetal Corp.	<b>Sintered products</b> Sumitomo Electric Sintered Alloy, Ltd.
The contribution is calculated by estimating CO2 emissions reduced with a hybrid car in accordance with the criteria set by Sumitomo Electric based on the Automobile Fuel Efficiency List (March 2014) published by the Japanese Ministry of Land, Infrastructure, Transport and Tourism and other data.	The contribution is calculated by estimating the reduction of CO2 emissions achieved with the effect of the device in the improvement of efficiency at a 2.6 GHz base station based on the criteria set by Sumitomo Electric.	The contribution is calculated by estimating the improvement of fuel efficiency of a car achieved by reducing the weight of the wire harnesses (based on criteria in "Guidelines for Environmental Factors for Products (second edition)" of Japan Auto Parts Industries Association).	The contribution is calculated based on resource saving by the extension of the service life and reduction of CO2 emissions from the production using the "Embodied Energy and Emission Intensity Data for Japan Using Input-Output Tables" of National Institute for Environmental Studies.	The contribution is calculated by estimating the amount of the resources saved and CO2 emissions reduced in the production of the processed materials due to the high material utilization rate and the decrease of energy consumption, based on literature of Japan Powder Metallurgy Association.

## Activities to Conserve Biodiversity

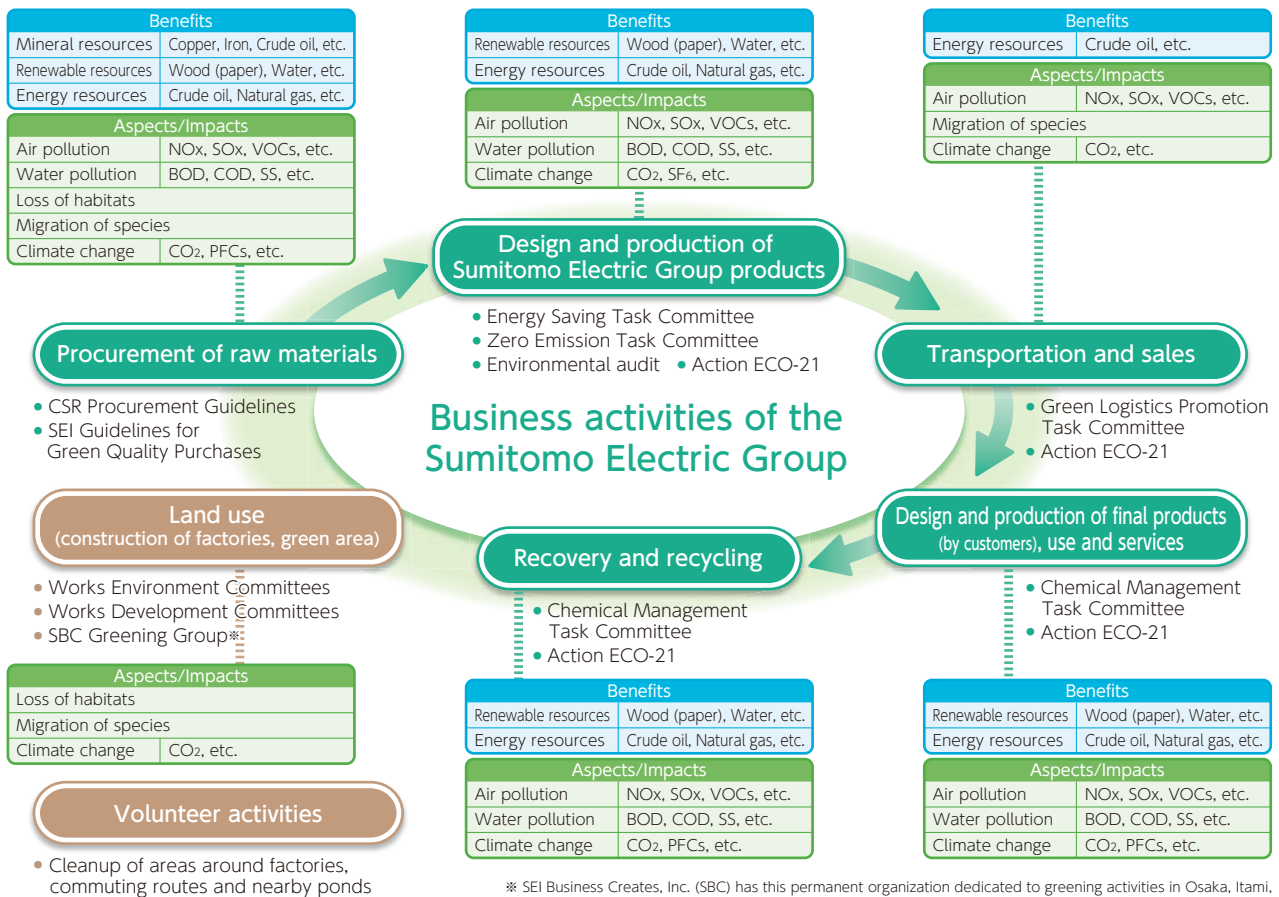
The Action ECO-21 Campaign is linked to biodiversity via activities to conserve the ecosystem

### Basic Approach

The Sumitomo Electric Group aims to procure raw materials and design and manufacture products in a way that protects the ecosystem and maintains sustainable resource use. We also seek to contribute to the environment preservation on a global basis by providing high-performance products.

### Relations with Business Activities and Response

The Sumitomo Electric Group contributes to conservation of biodiversity through business activities, as well as environmental activities in the Action ECO-21 campaign, as mentioned below. For example, our efforts to promote zero emission activities prevent or minimize the expansion of waste landfill sites, and thereby help provide habitats for wildlife.



\* SEI Business Creates, Inc. (SBC) has this permanent organization dedicated to greening activities in Osaka, Itami, Yokohama Works, and in manufacturing site in Kanto and Kumatori.

### 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



### We are fully aware that trust of local residents is essential for our business

**Keiji Muraoka** Assistant General Manager of Administration Group, Osaka Works

I am always thinking hard about how we can increase opportunities to let local people know more about the Osaka Works. In addition to conventional initiatives, such as opening of sports grounds, plant tours, invitation to the Inari Festival and publication of a semiannual local community paper, we have invited local residents to Rose Festa held at the rose garden in the Works since 2011. Fortunately, the festival has become so popular that we receive many inquiries about it like "When is it held this year?" and 1,000 people or so visited the event in 2016. We have also started to lend light tents that can be easily assembled for local events. Looking at the current situation of the local community, I suppose we can do much more for local residents. I have been in charge of contribution to the local community at the Osaka Works for seven years. We would like to further enhance exchanges with local people and work for contribution to them, which is an important theme for the Sumitomo Electric Group.



Inquiries and letters from local residents

## 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 2015, the SEI Group CSR Foundation received contributions of a little over 163,880 thousand yen in total from Sumitomo Electric (with the whole amount, including a little over 880 thousand yen donated through the cafeteria plan, appropriated for operation) and (1) donated 112 million yen in total to university courses, (2) supplied subsidies of 20.9 million yen in total to academic and research activities, and (3) provided scholarships of approximately a little over 32.3 million yen in total for 17 Japanese students and 18 foreign students learning in Japan and 100 local students studying at overseas universities.

## 《Program to Make Donations to University Courses》

- "Plant Bioengineering for Bioenergy Laboratory" and "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
- "Research on terminal care for elderly patients with chronic heart disease" at Saga 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
- "Research on neuroimaging" at Tohoku University
- "Course on environmental laws and policies toward reconstruction from the earthquake disaster and the nuclear power plant accident" at Hitotsubashi University
- "Elucidation of molecular mechanisms responsible for pathophysiology of diseases and clinical application by analysis of endoplasmic reticulum microfragments." at Hiroshima University (new)

We also invited applicants to the program to support academic and research activities, and received 186 applications. Out of them, we have selected 21 research programs including basic science research that needs research funds and exploratory study by young researchers, and offered subsidies to them.

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

### CSR VOICE

#### I am dreaming of working as a bridge between China and Japan

**Ms. Siyao Wang**

Third year student majoring in international economics and trade, School of Japanese Studies, Shanghai International Studies University



I am Siyao Wang from Shanghai, China, a third year student of Shanghai International Studies University (SISU). I belong to School of Japanese Studies and major in international economics & trade (in Japanese).

I would like to express my sincere gratitude for the scholarship provided by the SEI Group CSR Foundation. This scholarship was definitely very helpful to enrich my college life. Looking back my college life so far, I had both successes and failures. In such occasions, the scholarship gave me power and encouraged me to keep working hard without getting too excited or to stand up again without fear of difficulties. For me, the scholarship is not just financial support but also spiritual assistance. It gave me a message that some people believe in me and put their hope on my future. Thanks to such support, I have tried various things and grown.

I am now studying at Hosei University in Tokyo, Japan in a half-year exchange program with exemption of tuition fees. Everything around me, including people and landscape, is new to me and I feel thrilled every day. Of course, there were some concerns and troubles, but I now enjoy overcoming such negative feelings. I want to enrich my study abroad life, which has almost come to the end.

I started an internship at Sumitomo Electric Management (Shanghai) Co., Ltd. in November 2015. It was a new challenge for me and also the first step as a member of society. While the internship lasted only four months, I received much support and, above all, learned many things from the enthusiasm of the employees for jobs and their sincere attitude toward details.

While economic exchanges between China and Japan are expanding, I hope to find a job in which I can use my expertise I learned at university and contribute to the promotion of the friendship between the two countries, and will continue to make efforts for the dream.

I would like to thank the Sumitomo Electric Group for its social contribution activities in China, and wish that the Group will have many more successful years.

## 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 an NPO

### 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.

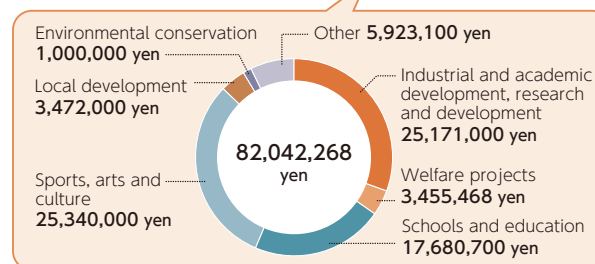
## Social Contribution through Donations

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

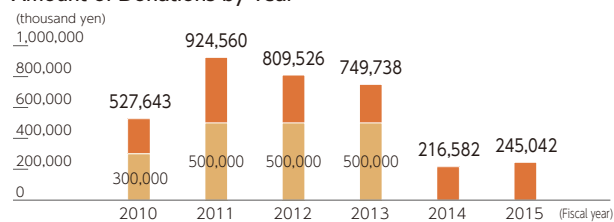
In fiscal 2015, we made donations in various areas including schools and education, industrial and academic development, R&D, art and culture, welfare, local development, environmental conservation and sports. For example, we gave financial support to symphony orchestras and opera performance as part 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 sponsorship money to "OSAKA 2020 Dream Program" for the 2020 Tokyo Olympic and Paralympic Games. We thus developed a wide range of social contribution activities.

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

The SEI Group CSR Foundation	Other	Total
163,000,000 yen	82,042,268 yen	245,042,268 yen



### Amount of Donations by Year



■ Accumulated endowment in the SEI Group CSR Foundation

(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.



In accordance with the basic principle of “Harmony with the International Community,” 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 54 companies of Sumitomo Electric and its group companies are covered. They include Sumitomo Riko Company Limited, Nissin Electric Co., Ltd. and Sumitomo Densetsu Co., Ltd., which are listed in stock exchange.

#### 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

- Cleanup activities are performed in 34 of the 54 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

- Performed in 25 of the 54 companies including the company mentioned above.

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

- Performed in 5 of the 54 companies including Sumitomo Electric Fine Polymer, Inc.

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

Sumitomo Electric Sintered Alloy, Ltd. received 27 local elementary school students in February 2016

- Performed in 12 of the 54 companies including the company mentioned above.

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

Osaka Works of Sumitomo Electric: Organized Rose Festa in June

- Performed in 4 of the 54 companies including the company mentioned above.

- **Publishing local community magazines**

Osaka Works of Sumitomo Electric in July 2015 and January 2016,

Itami Works in April and December 2015 and Yokohama Works in May and November 2015



● AED training session attended by local residents



● Plant tour for elementary school students



● Invitation of local residents to Rose Festa

#### Contributing to sports and cultural activities

- **Contributing to sports activities**

Sumitomo Electric: Sponsoring the 71st Lake Biwa Mainichi Marathon in March 2016

In Itami Works, jointly organizing athletic practice sessions for elementary school and junior high school students in Itami City (18 sessions a year)

- Performed in 10 of the 54 companies including the company mentioned above.

- **Contributing to arts and cultural activities**

STARNET Co., Ltd.: Supporting the Osaka Symphoniker Society (Osaka Symphony Orchestra)

- Performed in 5 of the 54 companies including the company mentioned above.



● Athletic practice session for junior high school students

#### Supporting education and training

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

Itami Works of Sumitomo Electric: Accepting junior high school students for a work participation program “Try - Yaru Week” in May and June

- Performed in 25 of the 54 companies including the company mentioned above.

- **Holding on-site seminars**

Kiyohara Sumiden, Ltd.: Sending lecturers to a local high school for “Business People Panel Discussion” in March 2016

- Performed in 5 of the 54 companies including the company mentioned above.



● Material support for those affected by the Nepal earthquake

### Activities in other countries

- **Employee volunteerism in local communities**

SEI Trading India Pvt. Ltd.: Material support for those affected by the Nepal earthquake

- **Donations of money and goods to local schools and communities**

Sumitomo Electric Wiring Systems, Inc.: Donation of school supplies and stuffed toys in the United States

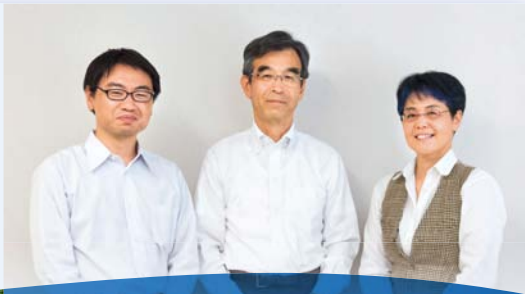


● Donation of school supplies and stuffed toys in the United States

“Research on tsunami marine hazards” at Graduate School of Maritime Sciences, Kobe University

## We will create “preparations” for giant tsunami from the perspective of the sea

The SEI Group CSR Foundation makes donations to excellent university courses that contribute to social development. One of them is research on hazardous events that can occur by tsunami in the sea (tsunami marine hazards) at Graduate School of Maritime Sciences, Kobe University. The research activities are introduced below.



Graduate School of Maritime Sciences, Kobe University

**Dr. Satoshi Nakada**  
Specially Appointed Assistant Professor

**Dr. Eiichi Kobayashi**  
Professor Emeritus

**Dr. Mitsuru Hayashi**  
Associate professor

### The Great Hanshin-Awaji Earthquake motivated the research on marine hazards

Our research started with the establishment of the Marine Hazard Study Group at Kobe University of Mercantile Marine, which was the predecessor of the Graduate School of Maritime Sciences, Kobe University, in 1997 after the Great Hanshin-Awaji Earthquake. We were conducting research based on an idea that it is necessary to study disasters caused by huge earthquakes from the perspective of the sea as well as land when the Great East Japan Earthquake occurred.

While only the damage of giant tsunami on land tends to be considered, tsunami also causes damage to the sea where it has occurred. We aimed to further accelerate the research and explore this field, which had not been addressed in the study of disaster reduction. Then, we applied for the program



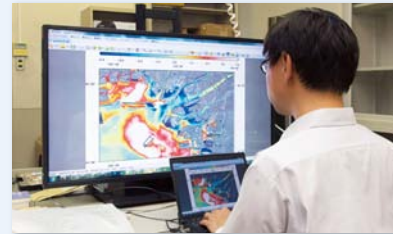
Image of risk factors in the sea studied in this course

of the SEI Group CSR Foundation in 2012. Our “Research course on tsunami marine hazards” was selected and we started the course to promote management of risks in the sea from various aspects with tsunami as the theme in fiscal 2013.

### To prepare for Nankai great earthquakes that hit large cities

The Cabinet Office of Japan predicts that the probability of Nankai Trough Megaquake with a magnitude of 8 to 9 occurring within 30 years is over 70%. The plate called Nankai Trough generates a large-scale earthquake on a 100 to 150-year cycle, and the next earthquake would be the first major one that hits large cities along the sea including Osaka Bay. In addition to direct onshore damage and offshore damage to vessels, huge tsunami would cause damage to marine transportation and logistics and serious changes in water quality in surrounding waters. As the damage would have long-term adverse impact on the Japanese society and economy, it is an urgent task to establish measures to minimize the damage and enable quick recovery in consideration of all kinds of damage.

We are now working to prepare a prediction map showing the wave height and flow velocity of tsunami and the distribution of tsunami vortexes in Osaka Bay based on calculation with high resolution 3D tsunami simulation technology using supercomputers. In addition, we are calculating the amount of sediment resuspension to estimate environmental pollution affecting the ecosystem.



Development of an integrated analysis environment (HyOGO) to analyze the impact of tsunami on the marine environment and vessels

### Aiming to send persuasive information based on visible data

The data obtained as the outcomes of the research conducted for three and a half years will be used as basic materials for future disaster reduction measures. Currently, they are applied to realize the practical use of a tsunami dynamic hazard map that enables vessels to address the situation on a real-time basis.

A feature of our course is the enhanced cooperation network with researchers from a wide range of fields including economics, sociology and fisheries science in addition to maritime sciences. It is our mission to use the extensive network to actively and continuously send persuasive data to local governments and companies so that disaster of tsunami caused by a giant earthquake can be reduced. Sea is a core element of economic activities in Japan. We will continue the research with a strong awareness that maintenance of safety and security of the sea is a social contribution that helps ensure safety and security of society.



Example of a dynamic hazard map in Osaka Bay



Study to understand hydro dynamical phenomena related to vessels in an experimental tank

## Promotion of CSR Activities in Affiliates

### Sumitomo Rubber Industries, Ltd.



Tree planting activities (Tamba Romance Forest)

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.

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.



Performance of Yokkaichi Suwa-Daiko Japanese drum by employees

To contribute to society, Sumitomo Wiring Systems (SWS), which will be celebrating its 100th anniversary in 2017, aims to help supply safe, secure 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 to be a company that is rooted in the local community and loved by the people.

Our initiatives include support of sports activities of young people and local events, involvement of employees in local disaster prevention activities and environmental conservation activities. We are also working to inherit the traditional performing art of the historical Yokkaichi Suwa-Daiko Japanese drum as a company based in Yokkaichi. Our employees show the drum performance in local festivals and welfare facilities.

In 2016, four companies located in Mie Prefecture including SWS established a joint company to operate hydrogen stations to promote widespread use of fuel cell vehicles and create environment-friendly local communities for the realization of a hydrogen society, and the joint company began operations at its hydrogen stations. Meanwhile, we co-sponsored the G7 Ise-Shima Summit Meeting held in Mie Prefecture, engaged employees as volunteer interpreters and recruited two players of PEARLS, a women's seven-a-side rugby team. We have thus been committed to new sorts of activities to contribute to local communities.

We also encourage our Group companies in Japan and overseas to establish and further enhance their social contribution activities. At the annual SWS Harness Partners & Top Executives' Global Conference, we outline various activities developed by our affiliates according to circumstances of the individual countries and regions and commend the companies engaged in such activities. Those activities are also introduced to other Group companies.

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

## Sumitomo Riko Company Limited




Preparatory school for foreign preschool children

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 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 position value-creating social contribution as an activity that helps meet society's challenges and aim to create value through corporate citizenship activities addressing social issues, leading to the enhancement of corporate value. Moreover, we are active in the following five priority fields: 1) contribution to diversity, 2) contribution to the sound development of young people, 3) contribution to building community, 4) contribution to civil activities and 5) contribution to the promotion of coexistence with the natural environment.

We have started to operate a preschool for the children of non-Japanese nationals residing in Komaki City, Aichi Prefecture, who will enter elementary school in the following year, in cooperation with the Komaki International Association. In this preparatory school, volunteers teach the children the basic Japanese reading and writing skills they will need at school and behavioral norms at elementary schools so that they can smoothly adapt to life at school.

Sumitomo Riko intends to continue this initiative that helps the youngsters be happy and enjoy school.

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

## Nissin Electric Co., Ltd.




On-site science class for elementary school students using solar cars

In 2015, which was close to the 100th anniversary of its foundation, Nissin Electric drew up the basic policy and focus areas of its social contribution activities. The basic policy aim to accomplish our mission set in the corporate principles, "Forge a bright future for both people and technology," by contributing to society through our core businesses and also involving each employee actively in social contribution activities to make society a better place as a member of society. Under the policy, we focus on the three areas of 1) develop electrical engineers and other human resources, 2) preserve historical and cultural assets mainly in Kyoto and 3) cooperate with local environmental conservation activities.

Our initiatives for the develop electrical engineers and other human resources are wide ranging including organization of on-site science classes for elementary school students using solar cars in several locations in Japan, as well as a scholarship program for students of graduate schools in the electric field.

For the preserve historical and cultural assets mainly in Kyoto, we endeavor to maintain and preserve Sekison-tei, a house where Junichiro Tanizaki, a literary legend, once lived, and also support the cultural asset conservation activities developed by governments such as Kyoto Prefecture and Kyoto City.

As part of our cooperate with local environmental conservation activities, our employees participate in cleanup campaigns organized in the areas where the works of Nissin Electric are located, along with Gion Festival Zero trash campaign, as volunteers.

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



## Independent Assurance Report

To the President and CEO of Sumitomo Electric Industries, Ltd.

We were engaged by Sumitomo Electric Industries, Ltd. (the “Company”) to undertake a limited assurance engagement of the environmental and social performance indicators marked with “” for the period from April 1, 2015 to March 31, 2016 (Nevertheless “Employment Rate of the Physically or Mentally Disabled” is as of June 15, 2016) (the “Indicators”) included in its CSR Report 2016 (the “Report”) for the fiscal year ended March 31, 2016.

### 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, which are derived, among others, from the G4 Sustainability Reporting Guidelines of the Global Reporting Initiative and Environmental Reporting Guidelines of Japan’s Ministry of the Environment.

### 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, 2016



## Comments from an External Expert

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

### Commendable points

#### ■ Establishment of Corporate Governance Guidelines

In response to the start of application of the corporate governance code, Sumitomo Electric established Corporate Governance Guidelines setting forth its basic ideas and policy concerning corporate governance in October 2015. In addition, the Company increased the number of independent outside directors to two, which is one of the priority issues in the code, and newly added an ROE target to the targets for VISION 2017. This report makes it clear that all principles in the code are implemented.

Corporate governance is an important behavioral principle for organizations to achieve sustainable growth of business through consideration to stakeholders and healthy management. It is also essential for long-term maintenance of good CSR management. Therefore, I commend Sumitomo Electric for having announced its internal policies proactively ahead of other companies.

#### ■ Development of measures to promote diversity

To promote diversity, which is one of its CSR core initiatives, Sumitomo Electric developed various measures again this fiscal year. I am especially impressed with the establishment of the action plan for recruitment and appointment of women in response to the Act on Promotion of Women's Participation and Advancement in the Workplace enacted in March 2016. While the Company has already addressed gender issues in the workplace through such measures as the expansion of its programs to support employees in balancing work and life, the action plan presents quick and specific initiatives including setting of numerical targets for the next two years. This is a major commendable point for this fiscal year, along with the increasing trend in the number of male workers who take childcare leave and/or take leave when their spouses give birth, which demonstrates the effectiveness of the measures to promote diversity. In addition, the number of male and female employees by region on a consolidated basis, which serves as basic data for measures related to diversity, is published from this fiscal year. I pay respect to the efforts of those who steadily worked to establish the information collection system.

#### ■ Safety management of workplace

The record on "thorough implementation of measures to eliminate occupational accidents," which I pointed out as an aspect needing improvement in the previous fiscal year, showed substantial improvement. This fiscal year, although the target on accidents involving injury was not achieved, the number of injuries resulting in lost work time was reduced almost by half, and it seems that the four priority safety activities have made certain progress. The results of analysis of injuries by situation

are also disclosed to demonstrate that the problems in safety management have been identified properly. I hope that the efforts to eliminate occupational accidents are continuously made.

#### ■ Strengthening of the risk management system on a global scale

Risk management initiatives including BCP and information security measures were steadily developed on a global scale, and the group-wide risk management system was strengthened. I hope that the efforts are enhanced in the future to ensure that a risk management system is established at the same level to that of the parent company throughout the Group.

### Aspects needing improvement

#### ■ Expansion of the reporting boundary

Although steady improvement is made every year, expansion of the reporting boundary to provide information on a consolidated basis is still a significant challenge for CSR management in the Group. For example, with respect to employment rate of the physically or mentally disabled, which is subject to regulation in Japan, it is preferable to grasp and disclose the status in all Group companies in Japan. While most of the personnel-related data are disclosed on a non-consolidated basis at present, there is a lot of room for improvement in this situation. An integrated information collection system should be established to ensure that such information can be managed on a group-wide basis.

#### ■ Improvement of initiatives outside Japan

I hope that overseas Group companies enhance their initiatives in the future. In particular, while Group policies for promotion of diversity are presented in the dialogue of the two presidents, indicators of the progress like KPI should be shared across the Group. I also suggest that overseas bases are included in the boundary of the initiatives to create "safe and sound workplace" for the promotion of fair labor practices.



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 efforts for the establishment of Corporate Governance Guidelines. We will strive to further enhance our corporate governance in order to achieve sustainable growth and medium- and long-term improvement of our corporate value. For the development of measures to promote diversity, we will steadily implement the action plan to achieve the targets set on recruitment and appointment of women. In addition, we will make continuous efforts to materialize the Global HRM Policy. As to safety management of workplace, while we assume that our priority safety activities made certain results as indicated by Professor Kozuma, we will be continuously committed to initiatives to become a company with the highest level of safety. For strengthening of the risk management system on a global scale, we will also continue to promote activities to establish a risk management system throughout the Group. As to the items identified as aspects needing improvement, we will intensify our efforts for expansion of the reporting boundary and improvement of initiatives outside Japan. We will further develop our CSR activities 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.

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