

# SUSTAINABILITY DATA BOOK 2020

2019.4.1 ▶ 2020.3.31

Showa Denko Materials Co., Ltd.

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## Editorial Policy

### About the Data Book

This data book is published to help our various stakeholders understand the sustainability activities of Showa Denko Materials. We have been publishing annual reports as our report of the year while disclosing CSR information on the CSR information site. For this fiscal year, we have consolidated the information in this data book so that it will be easier to search the information. We put together information by items while referring to the GRI Sustainability Reporting Standards.

### Organizations Covered

Showa Denko Materials Co., Ltd., and its 91 consolidated subsidiaries (Japan 14, overseas 77) and 2 equity-method associates and joint ventures (a total of 93 Showa Denko Materials Group companies). (As of March 31, 2020) The respective organizations are indicated in the tables/charts with the data.

### Reporting Period

This report mainly focuses on the results of initiatives in fiscal year 2019 (April 1, 2019 to March 31, 2020). However, for items that was updated afterwards, it can be updated each time, and the update month is listed on the cover page when updated.

### Publication

October 2020

### Guidelines Consulted

GRI Standards "GRI Sustainability Reporting Standards"

### Disclosure of Parent Company Information

For information of the Showa Denko Group, please refer to the website indicated below:



The Showa Denko Group Website  
<https://www.sdk.co.jp/english/>

### Web Address of the Top Message



Message from the President and CEO of Showa Denko Materials  
[www.mc.showadenko.com/english/company/top\\_message.html](http://www.mc.showadenko.com/english/company/top_message.html)

### For Inquiries

Brand Communication Department  
Showa Denko Materials Co., Ltd.  
TEL : +81-3-5533-7000

## Corporate Data

As of October 1, 2020

Corporate name	Showa Denko Materials Co., Ltd. The Trade name of the company has changed from Hitachi Chemical Company, Ltd. in October 1, 2020.
Establishment	October 10, 1962
Head Office address	GRANTOKYO SOUTH TOWER, 1-9-2, Marunouchi, Chiyoda-ku, Tokyo 100-6606, Japan
Representative	Hisashi Maruyama, President and CEO
Paid-in Capital	15.5 Billion Yen
Principal Lines of Business	<b>[Functional Materials]</b> <ul style="list-style-type: none"> <li>• Electronics Materials</li> <li>• Printed Wiring Board Materials</li> <li>• Electronics Components</li> </ul> <b>[Advanced Components and Systems]</b> <ul style="list-style-type: none"> <li>• Mobility Components</li> <li>• Energy Storage Devices and Systems</li> <li>• Life Science</li> </ul>
Consolidated Sales Revenue	681 Billion Yen (per Financial Statements in fiscal year 2019)
Number of Employees (Consolidated)	23,095(As of March 31, 2020)

## Basic Concept of Sustainability

### CSR Policy

#### 1. Commitment to Corporate Social Responsibility (CSR)

Showa Denko Materials, including all its executives and employees, recognizes CSR as a vital part of corporate activity and is fully committed to carrying out its social responsibility in accordance with this CSR Policy for the sustainable development of society and business.

#### 2. Contribution to Society through Our Business

Showa Denko Materials will contribute to realization of a prosperous and vibrant society by providing safe, high-quality products and services through business activities based on its superior research, technology and product development.

#### 3. Disclosure of Information and Stakeholder Engagement

Showa Denko Materials will disclose information with high fairness and transparency in order to maintain and develop a relationship of trust with its various stakeholders, and act responsibly towards them through various means of communication.

#### 4. Corporate Ethics and Human Rights

Showa Denko Materials will undertake its business based on the principles of fairness and sincerity, act with the utmost respect for human rights and pursue a high standard of corporate ethics in the global business environment encompassing diverse cultures, morals, ethics, and legal systems.

#### 5. Environmental Conservation

Showa Denko Materials will strive to minimize environmental footprints and utilize resources towards the development of a sustainable society that is in harmony with the environment.

#### 6. Corporate philanthropic Activities

Showa Denko Materials will promote social contribution activities as a good corporate citizen in order to realize a better society.

#### 7. Comfortable Working Environment

Showa Denko Materials will make every effort to create a pleasant and motivating working environment for all its employees and to fully support those employees who are capable of carrying out self-fulfillment and self-development through their work.

#### 8. Responsible Partnership with Business Partners

Showa Denko Materials will make every effort to promote fair and sound business practices among our business partners by fostering a common awareness of social responsibility.

### CSR Promotion System

Showa Denko Materials ensures all divisions cooperate in advancing the Group's CSR activities. Starting in fiscal year 2011, the Group Environment and CSR Committee meets every three months to share information on CSR across the Group. These meetings are held on the same day as quarterly results meetings to provide an opportunity to discuss and decide on basic policies and important issues related to CSR activities throughout the Group. Meetings are convened by the CEO and attended by senior management (Corporate Officers and representatives of Group companies inside and outside Japan, as appropriate) of Showa Denko Materials. Corporate Officers and others in senior management report on the status of CSR-related goals achieved by their respective departments, and discuss measures to prevent recurrences referring to the most recent cases of industrial accidents and compliance infractions. The minutes of these meetings are distributed to all Group companies.

In addition, as a member of Showa Denko Group, we are promoting CSR activities in collaboration with our parent company, Showa Denko K. K.

#### CSR Promotion System



## Basic Concept of Sustainability

### The Codes of Conduct and the Codes of Conduct Handbook

In 2010, Showa Denko Materials established the Codes of Conduct, a set of specific standards of behavior commonly applicable to all employees. The Codes set forth actions and rules that must be followed by all employees. Under the leadership of top management, we will thoroughly implement these Standards to ensure that all our business activities are conducted on the basis of corporate ethics and compliance. In 2018, we revised the Codes in light of new social and business challenges, such as the development of a sustainable society, and reorganized the overall structure to make the Codes easier to understand.

In 2012, we drafted a handbook for the Codes of Conduct so that each and every employee can gain a deeper understanding of the Codes, how to ensure that the contents of the Codes are reflected in their daily responsibilities and community life, and how to rigorously uphold them.

With the revision to the Codes of Conduct, we have also reviewed the content of the handbook. We distributed the handbook to all employees after preparing it in 11 languages, including Japanese, to ensure dissemination of the philosophy of the Codes of Conduct. The handbook will guide corporate employees when they have questions or are uncertain about their decision-making. All employees can use it to practice corporate ethics and ensure legal compliance.

During Corporate Ethics and Compliance Month (October of every year), we raise awareness of compliance by having all group employees read through the handbook, hold meetings in their workplaces to deliberate on case studies, and self-inspection to raise compliance awareness.

#### Reference



Showa Denko Materials Codes of Conduct (Expected to be released in October 2020)  
[www.mc.showadenko.com/english/company/conduct.html](http://www.mc.showadenko.com/english/company/conduct.html)

### Guidelines Regarding the Transparency of Relationships with Medical and Other Similar Institutions

Showa Denko Materials, as a group that contributes to health and lives around the world through products related to advanced life science, conducts corporate activities in accordance with laws and regulations in and outside Japan, industry guidelines, and our internal Codes of Conduct and its spirit.

As a highly ethical and credible life science company, we have established guidelines on transparency and provide information on our website about funding of medical institutions in order to improve transparency of our relationships with medical and other institutions in accordance with "The Guidelines for the Relationships between Business Activities and Medical and Other Institutions", published by the Japan Association of Clinical Reagents Industries.

### Materiality (Key Issues for Our Sustainable Growth with Society)

To realize our sustainable growth along with society, Showa Denko Materials identifies materiality and reflects it to key measures and KPIs for our Medium-term Management Plan.

We conducted the first materiality analysis in 2013, and since then, have reviewed the materiality every three years. The second round of review took place in 2018, following the first in 2015. We utilized the materiality for our review of the main policies of the 2021 Medium-term Management Plan, and now are working toward our sustainable growth by setting key measures and KPIs for each materiality issue.

#### Analysis Process in 2018

##### Step 1 > Identify issues

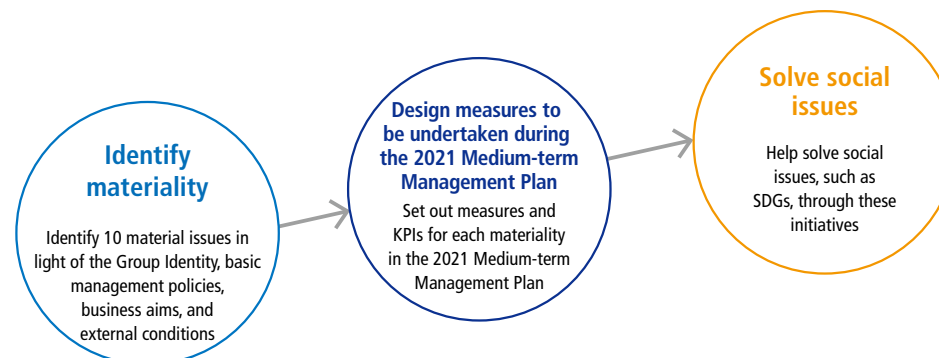
- Our materiality in 2015 was classified using the six types of capital (refer to the next page) defined by the International Integrated Reporting Council (IIRC) in its International Framework report, namely intellectual, manufactured, financial, human, social and natural capital.
- We will identify social issues that have significant impacts on us by assuming changes in the business environment in the future due to our changes in circumstances and the SDGs (Sustainable Development Goals), World Economic Forum Global Risk Report, and MegaTrend Analysis.
- On this basis, we formulated proposals for materiality and had them reviewed by external experts.

##### Step 2 > Approval by management

- The then Corporate Officers' Meeting and the then Board of Directors examined and passed a resolution of the 10 Material Issues

##### Step 3 > Reflection to the Medium-term Management Plan

- We examined key policies for the 2021 Medium-term Management Plan based on issues raised after reviewing materiality, the 10-year Strategy, and the 2018 Medium-term Management Plan.
- We then defined the main measures and KPIs for each materiality, and reflected them in initiatives for sustained growth in the 2021 Medium-term Management Plan.



## Basic Concept of Sustainability

### 10 Materialities and Key Measures of 2021 Medium-term Management Plan in Relation to SDGs

Six Types of Capital for IIRC	No.	Materiality	Reasoning behind the identification of materiality	Key Measures of 2021 Medium-term Management Plan	Related SDGs
Intellectual Capital	01	Strengthening ability to discern true needs	It has become more difficult to discern needs (true needs), i.e., needs with market value, as a result of more complex industrial structures and changes in the sources of added value (from functional value to customer experience). Therefore, it becomes more necessary than ever before that we have the ability to discern true needs.	Strengthen the management of development themes, improve team-based marketing ability for growth applications, enhance training in business creation, etc.	
	02	Strengthening business designing ability to enhance business value-added	It has become more difficult to identify areas ripe for innovation with materials, and conditions are not conducive for best products alone to increase the added value. While collaborating with various stakeholders, we must strengthen our capability to design value and expand profits.	Improve strategic stories for new products, share stories about new business creation, enhance quality of sales staff, etc.	
	03	Strengthening technology platform	We must further strengthen its core technologies (materials, process, and evaluation technologies) while expanding its business domains and addressing technology innovation in IoT and AI, as well as advancing its materials technologies.	Develop new materials technologies, advance core technologies in manufacturing processes, enhance intellectual property, etc.	
Manufactured Capital	04	Improving productivity globally	We must improve productivity by using new technologies such as IoT and AI to expand core operations for value creation. We must also optimize our production structure in line with expanding the Group's scale.	Development and deployment of smart factory technologies, optimization of manufacturing management (use of IT, etc.) high added value of indirect operations (working style reform), and formulation and improvement of BCP, etc.	
Financial Capital	05	Strengthening financial standing	To sustain stable growth, we must build a robust financial foundation that can withstand changes in the external environment, such as unforeseen economic crises and changes in demand in key markets, and sharp fluctuations in foreign exchange rates.	Improve free cash flow by enhancing its global financial management system, etc.	—
Human Capital	06	Promoting diversity & inclusion to strengthen corporate competitiveness	We must have diverse human resources with different nationalities, genders, skills, backgrounds, and experiences to create innovation and reinforce competitiveness. We intend to enhance our diversified management infrastructure and create a corporate culture where all employees can work together and improve their abilities mutually.	Promote diversity at the decision-making level and set up pipelines for these promotions, etc.	
	07	Strengthening group governance	As Group's scale expands at an accelerating pace, we must continue to strengthen Group management, starting with compliance and quality management, while improving auditing functions and understanding conditions at each Group company and region.	Provide training to prevent inappropriate behavior, improve auditing and inspection and acceptance system, enhance effectiveness of Board of Directors, prevent environmental safety accidents, reinforce IT security, etc.	
Social Capital	08	Timely and appropriate communication with stakeholders	We must manage its operations to meet expectations as a good corporate citizen, and engage in timely and appropriate communications with all stakeholders. We must also nurture a culture that values discussions among employees while sharing our Group Identity with all employees to harness superior team skills.	Improve communications with local communities, strengthen relationships with customers and suppliers to further instill the Group Identity, reinforce social contribution activities, etc.	
	09	Implementation of social responsibility in the entire value chain	We must identify and properly address risks related to socially unacceptable behavior in the value chain while also addressing risks of problems caused by internal behavior in the Group.	Raise awareness of CSR with suppliers, work towards a low-carbon society by reducing CO <sub>2</sub> emissions, and help create an advanced recycling society by reducing waste and water usage, etc.	
Natural Capital	10	Pursuing businesses that offer solutions to environmental and social issues	We must advance business that creates economic value while also solving issues affecting society and the global environment, such as by working towards SDGs, etc.	Provide materials that contribute to the realization of 5G/CASE, prevent global warming by reducing CO <sub>2</sub> emissions in the entire product life cycle, contribute to people's health by spreading regenerative medicine, create technologies and products that contribute to SDGs, etc.	

## Basic Concept of Sustainability

### Contribution to Achievement of SDGs

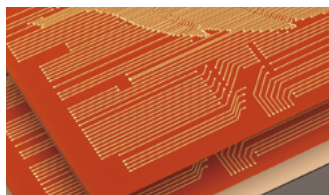
Showa Denko Materials, through its entire business, promotes proactive activities for SDGs, and contributes to realizing sustainable society as a member of global society.

#### Information and Communication : Products for next-generation wireless communications (5G) technology and products for next-generation automotive technology (CASE)

##### ● Semiconductor mounting materials for 5G base stations:



Conductive to building smart logistics and smart grids via 5G communication, thereby contributing to efficiency enhancement in resource usage and mitigation of environmental problems, etc.



Switchboard material

##### ● Sealing materials for High performance semiconductor encapsulant:



High-reliability, high-speed processing semiconductors contribute to the practical application of the active safety control of vehicle, which helps prevent mis-operation by the elderly and the reduction of traffic accident deaths and injuries.



Epoxy encapsulating material

#### Energy Storage : Vehicle batteries that are conducive to enhancing fuel efficiency and a hybrid energy storage system that helps to spread renewable energy

##### ● Battery for idling stop vehicle:



With the provision of in-vehicle ISS batteries equipped with an idling stop system that improves fuel efficiency, thereby contributing to the reduction of CO<sub>2</sub> contained in exhaust gas through improving performance and widespread use.



Turflong Premium compatible with idling stop vehicle

##### ● Hybrid energy storage system demonstration project:



The demonstration project in Germany was completed at the end of February 2020, and we have shown that the system can contribute to regional power grid stabilization where a large amount of renewable energy has been introduced.



Test facility for the Niedersachsen demonstration project (Large-scale hybrid storage battery system)

#### Mobility : In-vehicle products that reduce environmental impact

##### ● Insulation material around the engine:



Conductive to purification of exhaust gas by maintaining high temperature of purification system, and also to the sound insulation and anti-vibration of engine, then consequently, the cleanliness of urban environment and the comfort of passengers could be improved.



High-temperature insulation materials

##### ● Copper-free friction material:



Conductive to the control of river, lake, marsh and ocean pollution by trace amounts of wear copper powder generated during braking, thereby contributing to the prevention of health hazards caused by water pollution.



Disc brake pad

#### Life Science : Regenerative medicine-related technology

##### ● Regenerative medicine-related technology:



With Apceh Biopharma in Europe joining our group company, we will build a synergistic base that can provide high-quality and inexpensive regenerative medicine-related technologies in the three regions of Japan, Europe and the United States, thereby contributing to the achievement of universal health coverage through regenerative medicine.



Clean room in Apceh Biopharma

##### ● Diagnostic Reagent Business:



This system measures the levels of allergenspecific IgE antibodies in human serum, which helps physicians identify the allergens responsible for the patients' symptoms. The system simultaneously measures 48 IgE antibodies, including antibodies to pollen, food and animal allergens, in a 0.2ml sample, enabling the collection of a large amount of data in a single test then help improving Quality of Life.



Diagnostic Reagent Business





## Governance Report

→ Corporate Governance

→ Risk Management

→ Compliance

→ Information Security

## Corporate Governance

### Basic Policy on Corporate Governance

Showa Denko Materials' basic policy on corporate governance is to carry out business management in the interests of all stakeholders; and we pursue agile business execution, professional decision-making, and a structure that enables supervisory function.

### Corporate Governance Structure

In June 2020, we changed our corporate governance structure from a "company with nominating committee, etc." to a "company with company auditors." We promote agile business execution under the Board of Directors and Corporate Officers who were appointed by the Board of Directors, and the Company Auditors fulfills a supervisory function.

In view of the acceleration of business integration with Showa Denko K. K. which is our parent company, its Board members are concurrently assigned as our Board of Directors.

With respect to Group Companies, by dispatching our Directors and Company Auditors to Group Companies, we ensure business execution with a sense of unity as a group and enhance the supervisory function for them.

### The Internal Control System

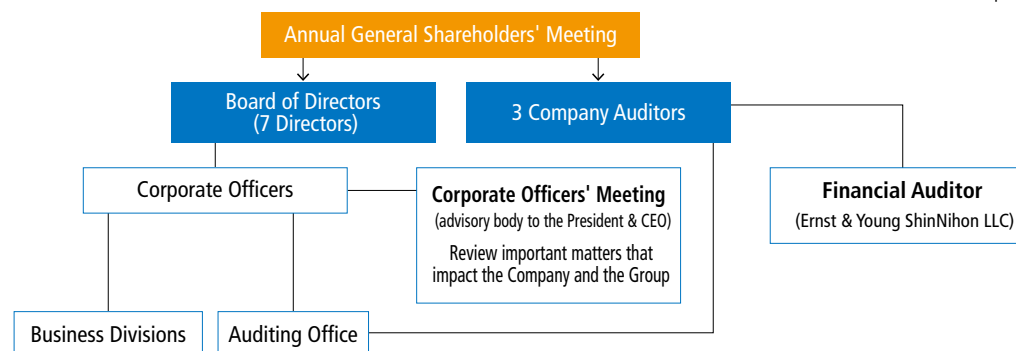
Showa Denko Materials is developing its internal control system upon establishing the internal control system by its Board of Directors to ensure the appropriateness of the business operations of the Company and its Group Companies in compliance with the Companies Act.

The main contents regarding our internal control system are as follows:

- Systems regarding retention and management of information in relation to the execution of the duties of Directors of the Company
- Rules and other systems related to management of the risk of loss of the Company and our Group Companies
- Systems to ensure that the execution of the duties of Directors of the Company and our Group Companies is performed efficiently
- Systems to ensure that the execution of the duties of employees of the Company as well as Directors and employees of our Group Companies complies with laws and regulations and the articles of incorporation
- Systems related to reporting of particulars regarding the execution of the duties of Directors of our Group Companies
- Other systems to ensure the properness of business activities in a business group comprised of the Company and any parent company or Group Companies

In addition, we set forth matters necessary for the execution of duties by Company Auditors to ensure appropriate business operation of the Company and its Group Companies through an audit structure that is independent of the Directors, etc.

#### Corporate Governance Structure

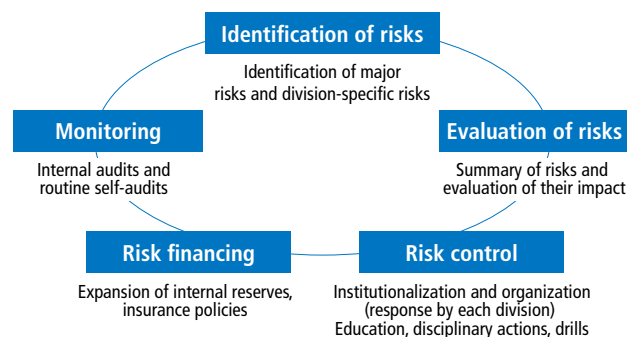


# Risk Management

## Basic Policy on Risk Management

Showa Denko Materials has established the "Risk Countermeasures Activities Implementation Guidelines" identifying the risks that we should work on as a Group, and stating that executives and employees have a role to play in preventing the occurrence of risks before they arise. In addition, we have clarified the criteria for establishing the Risk Countermeasures Headquarters, the members of the Countermeasure Headquarters, activities and communication standards for preparation for an emergency. Risks, which could pose a significant threat to management, are specified through risk assessment in terms of types of risk, divisions in charge, scale of damage, and frequency of occurrence, to assess their impact on management. These risks are reported in the Corporate Officers' Meeting.

### Risk Management Process



### Main Risks and Countermeasures

Category	Main risks	Countermeasures
Health & safety Business continuity	Damage caused by earthquakes and tsunamis	<ul style="list-style-type: none"> <li>Developing manuals on the initial response, which varies from business site to business site; formulating BCP, and conducting drills</li> </ul>
	Infection with diseases, pandemics	<ul style="list-style-type: none"> <li>Formulating BCP against new worldwide strains of influenza, make alternate production arrangements and support the preparedness of overseas Group companies</li> </ul>
Stable revenue	Recession, fall in demand, intensified competition	<ul style="list-style-type: none"> <li>Formulate medium/long-term strategies, dynamic business operations by each business division</li> </ul>
	Failure to detect product defects, leaks to outside	<ul style="list-style-type: none"> <li>Application to quality management systems, stringently enforce manufacturing processes</li> </ul>
Social responsibility	Unfair trading (bid-rigging, bribery)	<ul style="list-style-type: none"> <li>Promote audits, education, various compliance programs</li> </ul>
	Leakage of customer/ client information	<ul style="list-style-type: none"> <li>Thoroughly manage information through the development of rules and self-auditing, raise awareness by e-learning</li> <li>Evaluate Information security and execute measures to improve Information security</li> </ul>

## Business Continuity Management

Showa Denko Materials is committed to reducing the risk of any disruption to its ongoing business and preparing itself for the unlikely event of a risk materializing to respond to the trust of our customers and society.

As part of these efforts, the Group has put in place a Business Continuity Plan (BCP) to address such contingencies as a major earthquake or pandemic (e.g., a new influenza pandemic) and continues to work to increase our state of readiness every year.

At the same time, the Group is placing emphasis on training exercises simulating BCP scenarios. The items discovered through these exercises are reported to the Corporate Officers' Meeting shared among the entire management including Corporate Officers and utilized to improve next year's BCP. By repeating and continuing these kinds of BCP training, the Group hopes to nurture abilities that enable flexible and prompt handling of crisis situations.

### Reference

**Stable Supply of Products**  
(P22)

### TOPICS Corresponding to the Risk of Spreading the New Coronavirus (COVID-19)

Since Showa Denko Materials has already established a business continuity plan (BCP) on the assumption of the influenza pandemic, we set up an Infection Control Headquarters by applying BCP in response to the new coronavirus COVID-19 infection.

At the beginning of the establishment of the Control Headquarters, the Headquarters had decided on the response policy every day, and once a week after July. CRO, or Chief Risk Officer, Corporate Officers in charge of risk management, and heads of major departments of the head office participate in the Infection Control Headquarters to deal with it.



## Compliance

### Basic Policy on Compliance

Showa Denko Materials positions compliance at the heart of its CSR activities. The Group defines compliance as much more than merely observing regulatory requirements. Instead, it entails adhering to and improving our ability to comply with voluntary industry standards, corporate ethics, social norms, and each employees' sense of appropriate behavior.

In addition, we established a Code of Conduct in 2010 to show the specific code of conduct that all Group employees should follow at a minimum. This exactly the same Code of Conduct is shared as a rule by all Group companies in Japan and overseas. We explain to our employees the importance of compliance, including the possible consequences of a violation of our Code of Conduct.

### Compliance Structure

Showa Denko Materials is working to prevent compliance violations by examining compliance at the Corporate Officers' Meeting and the Group Environmental and CSR Conference. In addition, we have Compliance Committees and Compliance Officers at each office and Group companies, and established a compliance system that is integrated with the entire Group.

We are given opportunities every year to participate in the internal training seminars and take e-learning programs on compliance with competition laws and bribery, which are central to the Codes of Conduct and the Global Compliance Program. At the same time, to ensure that all Group employees have a genuine understanding of compliance with international standards, presidents of business offices and Group companies deliver their own unique messages to employees to help them recognize the importance of compliance.

In the unlikely event that a legal violation incident occurs, employees are required to follow a predetermined sequence and promptly report all details to the designated departments and sections, and to consult with corporation lawyer toward an early resolution and prevention of recurrence. Details of any

breach of compliance are also required to be reported in the Corporate Officers' Meeting then a summary has been sent directly from the Showa Denko Materials Headquarters via e-mail to all management-level Showa Denko Materials employees (employees with positions equal to section chief and above), the presidents of domestic and overseas Group companies, and compliance officers. Through such efforts, the entire Group is notified those breach incidents. Managers receiving the notice are required to discuss it with all subordinates, and are required to check and make sure potential occurrence of similar cases are not lurking in their own operation. In addition, managers must keep a record of known facts, which are confirmed by compliance department, Headquarters performed by the Auditing Office.

#### Reference



The Codes of Conduct and the Codes of Conduct Handbook  
(P3)

### Corporate Ethics Month

Showa Denko Materials has designated October as "Corporate Ethics Month" every year. In fiscal year 2019, a message from the President was translated into 11 languages and transmitted to Group companies in Japan and overseas. Moreover, workshops were held by corporation lawyers and case discussions were held at each work group level to reconfirm the Codes of Conduct, giving all employees the opportunity to think about compliance. In the discussions specific case examples were introduced to stimulate debate and the exchange of opinions, thereby raising everyone's awareness and understanding of the Codes of Conduct.

### Compliance Training and Audits

Showa Denko Materials emphasizes training designed to raise employees' awareness about compliance. Training courses, which cover a wide range of contents including compliance with competition laws, prohibition of bribery, and eradication

of harassment, are provided in the form of workshop to deepen participants' understanding. In fiscal year 2019, we held workshops at various sites in Japan and overseas as special training to prevent the recurrence of inappropriate inspections. New and mid-career recruits undergo training on CSR, compliance and human rights without exception, and the Codes of Conduct Handbook is distributed to all employees in both in Japan and overseas Group companies to ensure compliance with the requirements.

In fiscal year 2019, compliance department, Headquarters leads 152 training courses (107 in Japan and 45 overseas). The number of participants reached about 5,500.

Compliance audits were conducted at one office of Showa Denko Materials Co., Ltd. three Group companies in Japan, and seven overseas companies. In addition to confirming how well management systems and training for the promotion of compliance are being implemented and business partner screening as an anticorruption measure is being conducted, audits uncover areas for improvement, which were reported to management.

#### Transition of Participants to Compliance Training

FY	2015	2016	2017	2018	2019
Participants	3,350	4,110	4,491	4,606	5,541

#### Compliance Training Results in Fiscal Year 2019

Subject	New hires	Others	Totals
Compliance (in general)*	287	1,469	1,756
Prevention of the recurrence of inappropriate inspections	—	2,326	2,326
Harassment issues	—	496	496
Antimonopoly Act	—	963	963
Total	287	5,254	5,541

\* Comprehensive training including the Antimonopoly Act, bribery, antisocial forces, prevention of insider trading, and export controls.

## Compliance

### Compliance Consultation and Whistle-Blowing System

The Showa Denko Materials Hotline was set up as a counseling and whistle-blowing program for employees to turn to when they encounter compliance issues. Requests for counseling and information are handled quickly and discretely, while strictly maintaining confidentiality with due care for whistle-blowers to protect them from any disadvantageous treatment.

Inquiries concerning compliance are accepted by postal mail, email, via the intranet, and by telephone by the unit responsible for handling compliance issues and via an external hotline where calls are handled by legal advisors. In line with the growing globalization of business activities, counseling and whistle-blowing information from overseas are also available. To publicize the system, posters and cards that showcase the hotline are distributed to all business sites and Group companies in and outside Japan.

A wide variety of requests for counseling and information are accepted including matters relevant to noncompliance with various laws and regulations such as the competition and anti-corruption law, violations of the Group's work rules, and infringements on human rights such as harassment, as well as inappropriate conduct and acts against social justice.

In fiscal year 2019, the number of hotline received were 90 calls from employees in Japan and overseas. We addressed each report appropriately and as needed, working with the related business units. There were no reports that led to serious legal violations.

#### Transition of Consultation and Whistle-blowing Calls

FY	2015	2016	2017	2018	2019
Number of calls	34	27	32	53	90

### Anti-Trust Act Rigorously Observed

At Showa Denko Materials the Anti-Trust Act positioned as a core of compliance management, a message from the president issued in the Corporate Ethics Month in October every year calls for thorough adherence to the act.

In July 2019, a corporation lawyer was invited to conduct

Anti-Trust Act workshops for all employees. A total of 743 employees participated in the workshops. If there is even a hint of a breach of the Anti-Trust Act, employees mainly in sales and marketing, business, and technology divisions are obliged to record the details in the Compliance Information Record Notebook and report to their supervisors and other competent departments. Employees related to sales divisions are also obliged to obtain the approvals in advance from their supervisors and record the details in the same notebook in case of the necessity to attend a meeting of a particular industry organization. All records are subject to biannual audits. In fiscal year 2019, audits were conducted in April and October by the unit in charge of compliance. In audits, all concerned employees are interviewed to ascertain the facts recorded in the Notebook. This initiative has also been implemented at Group companies in and outside Japan with the same type of audits being conducted.



Compliance information record note

### Prevention of Antisocial Transactions

Showa Denko Materials has traditionally avoided any contact with antisocial forces. In addition to its policy of steadfastly refusing any demand for interaction, the Group has established a Compliance Committee at each of its business sites and endeavored to put in place a framework, including self-audits, designed to block any connections with antisocial forces. As a member of Tokuboren (the Federation on Special Organized Crimes within the Jurisdiction of the Tokyo Metropolitan Police Department), the Group makes ongoing efforts to ensure the elimination of contact with antisocial forces. In accordance with Organized Crime Exclusion Ordinances, Showa Denko Materials incorporated a clause in its contracts with customers, suppliers, and all other third parties specifically precluding any transactions with antisocial forces as part of its work.

### Anticorruption Measures

Showa Denko Materials' Global Compliance Program is established

as a regulation common to the Group, which serves as a guideline for maintaining appropriate relationships with public officials in Japan and abroad. The Codes of Conduct clearly state that we strictly prohibit and will have no involvement in bribery or other corrupt business practices, and that, when working with political entities, we will build and maintain sound and transparent relationships. Based on the Codes of Conduct, all Group companies have established related rules, including Rules Pertaining to Prevention of Bribery, to establish thorough compliance with these rules by employees throughout the entire Group.

In fiscal year 2017, the Group revised its rules in order to further strengthen its anti-bribery framework. We clarified the procedures for screening business partners and added more items regarding the employment of public servants, to target further risk mitigation.

The number of dismissed employees, terminated contracts, lawsuits, etc. resulting from corruption in fiscal year 2019 was continuously zero.

### Protecting National Security Interests and Complying with Export Controls

In fulfilling its responsibilities as an organization that actively develops business overseas and in order to contribute to the maintenance of peace and security in the international community, Showa Denko Materials strictly observes the Foreign Exchange, Foreign Trade Act and foreign regulations governing exports in the countries where it operates. In addition, the Group takes steps to put in place rules and regulations relating to Security Export Controls that match the business conditions at each Group company.

Based on these rules and regulations, decisions are made whether export approvals are required for specific products and technologies at design and development departments. Sales departments investigate concerns regarding transaction counterparties and conduct stringent due-diligence screening. The Group additionally conducts periodic audits as well as director and employee training programs.

By corresponding to the accelerating global business expansion, we will continue to make improvements in fiscal year 2020 by focusing on cooperation with overseas Group companies and the control of technology as priority items.

## Information Security

### Basic Policy on Information Security Management

Showa Denko Materials has formulated an overarching Information Security Policy, which has been implemented by in the Information Security Management System that covers all of our information assets containing personal information. The system serves further as an administrative framework to ensure ongoing improvement of Information Security Policy including the planning, deployment, assessment, and review of our information security measures.

The Group also works continuously to ensure that Information Security Policies and systems are functioning properly. This is done through the Information Security Committee, directed by the President and chaired by Corporate Officers to implement measures to improve management systems, audits, and employee training every year, and to regularly monitor and continuously improve the status of the management.

### Personal Information Protection

Showa Denko Materials continues to implement a Personal Information Protection System (Personal Information Mechanism) that is based on its Personal Information Protection Policy, which incorporates the Group's philosophy toward personal information protection. At the same time, Showa Denko Materials has initiated an e-learning education program for all employees, and periodically conducts audits of the status of operations. The Group has also set up external contact counters at each business office and clarified responsible persons so that they can respond promptly to customer and employee questions regarding personal information. No serious incidents of leaks or breaches of personal information occurred in fiscal year 2019, as in the past.

### Information Security Audits

In fiscal year 2019, Showa Denko Materials Co., Ltd. self-audited itself and 12 domestic Group companies following an audit checklist for information security and personal information protection. The Group likewise audited 39 Group companies overseas according to global security self-check list.

### Information Security Training

Every year, Showa Denko Materials conducts e-learning training on information security and personal information protection for its entire workforce including all officers, employees and temporary employees in order to raise awareness and ensure understanding of company internal regulations.

A simulation drill is also performed each year for email address holders to prepare them for targeted attack emails, which has become a recent threat.

Comprehensive data security training is provided for new recruits as part of their generalized training curriculum. The new recruits are not allowed to access the company's internal network until they commit to maintaining data security by signing a written pledge. They are also required to take six essential courses through e-learning after their assignment.

### Information Leakage Measures

The Group maintains the appropriate level of security. We also have following measures in place to prevent data leaks via computers and other information devices and external storage media.

- Installing anti-virus software and encryption software in all computers
- Installing email recipient confirmation tool
- Installing email/web filtering system
- Files are automatically locked so that any information cannot be exported to external media by employees below section-chief class.

No incidents of leaks of confidential information occurred in fiscal year 2019, as in the past.



## Environmental Initiatives

- Environmental Management
- Prevention of Global Warming
- Saving Resources and Recycling
- Pollution Prevention
- Environmental Initiatives within the Supply Chain
- Preserving Biodiversity
- Overview of Environmental Impact (Material Balance)



## Environmental Management

### Basic Policy on Environmental Management

Showa Denko Materials regards environment as one of the most important management issues and promotes environmental management in cooperation with stakeholders under the Action Guidelines for Environmental Conservation. In order to realize a sustainable society in harmony with the global environment, the entire Group work together globally to reduce environmental impacts through business activities, products, and services, and to solve environmental issues such as climate change.

#### Purpose

In order to realize an environmentally harmonious and sustainable society through products and services, Showa Denko Materials is committed to meeting its social responsibilities by promoting globally-applicable "MONOZUKURI" (designing, manufacturing or repairing of products), which is aimed at reducing environmental burdens of products throughout their entire life cycles, ensuring environmental conservation.

#### Action Guidelines

1. Global environmental conservation is a critical challenge shared by all humans. Showa Denko Materials is committed, therefore, to fulfilling its responsibilities by assisting in the realization of an environmentally harmonious and sustainable society as one of its management priorities.
2. Showa Denko Materials will make efforts to contribute to society by developing highly reliable technologies and production processes, while identifying needs considering concerns related to global environmental conservation and limited resources.
3. Members of the board in charge of environmental conservation are responsible for facilitating appropriate environmental conservation activities. Departments responsible for environmental conservation should endeavor to promote and ensure environmental conservation activities, including improving environment-related rules and regulations and setting goals for environmental burden reduction. These departments should also confirm that their environmental conservation activities are conducted in a proper manner and ensure that these activities are maintained and improved.
4. Showa Denko Materials will promote globally applicable MONOZUKURI with the aim of reducing environmental burdens at every stage, including product research and development, design, production, distribution, sales, usage, and final disposal.
5. Showa Denko Materials will investigate and review the environmental impact caused in the course of its MONOZUKURI processes. Showa Denko Materials will also introduce excellent technologies and materials useful to safeguard the environment, in other words, to reduce environmental burdens through energy and resource saving, chemical substance management, recycling, and other measures.
6. Showa Denko Materials' environmental conservation efforts are not only to be focused on observing international environmental regulations and those of national and local governments, but also on conserving the environment by implementing voluntary environmental standards when necessary.
7. Regarding globally-applicable MONOZUKURI\* activities, impact on the local environment and community are to be considered. In addition, measures that meet local communities' requests should be implemented.
8. Showa Denko Materials will educate its employees on the observance of environment-related laws, raise their environmental awareness, and encourage their interest in society at large and broad-based environmental conservation activities.
9. Showa Denko Materials will evaluate potential environmental problems and prevent them from occurring. In the event that any environmental problem occurs, we will take appropriate measures to minimize the impact on the environment.
10. Showa Denko Materials will make efforts to disclose information on its environmental conservation activities to its relevant stakeholders. We will also actively communicate with these stakeholders so as to strengthen mutual understanding and forge cooperative relationships with them.

\* MONOZUKURI literally means "manufacturing." In this context, it means the entire process of creating value in products and services we produce.

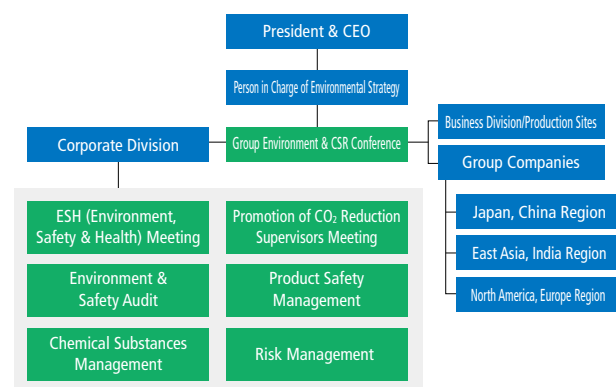
## Environmental Management

### Environmental Management Promotion Structure

At Showa Denko Materials, the Group Environment and CSR Conference meets four times a year; the CEO chairs it which consists of the other Corporate Officers the directors of each business division and representatives from both domestic and overseas business sites and the Group companies. Discussion and policy decisions on overall Environment and CSR Conference take place, in addition to environmental burdens, business risks, and opportunities associated with environmental issues at the global level (climate change, circular economy, water-resource reduction, and conservation of ecosystems) that are incorporated into new policy decisions and initiatives.

Our major production sites have 100% acquired ISO 14001 certification respectively and are tackling environmental issues in line with the needs of the individual localities and businesses through incorporating the environmental action plan that applies to the entire Group. Additionally, these activities are combined with information exchange, lateral cooperation through various committees and environmental audits to raise the level of each other's activities.

#### Environmental Management Structure



### Implementing Environmental Audits

Self-conducted environmental audits are implemented on a regular basis each year by Showa Denko Materials. Audit teams comprising members selected from each production site and from Group companies have been conducting environmental safety audits since 1973 under supervision of the general manager of the Environment & Safety Management Dept., who functions as the head auditor at Showa Denko Materials' head office.

Audits for the entire Group include inspections of environmental management structures and systems, compliance with environmental legal and regulatory frameworks, improvement in environmental performance, and other similar items based on the Environmental Report, which is issued by each site annually and the onsite confirmation results. Results are summarized in the Audit Report. Respective sites then use it to develop and implement plans to improve their activities on a continual basis.

At overseas sites, in fiscal year 2013, we began implementing environmental safety audits at our sites in China, Southeast Asia and around India, North America and Europe. Prior to fiscal year 2015, our audits somewhat prioritized safety. However, in consideration of environment-related demands in recent years, from fiscal year 2016 onwards audit has been separated into environment and safety and we implement audits that strengthen our efforts to address environmental concerns, including reviews of environmental risks.

In fiscal year 2019, we also conducted audits in Japan and overseas as planned. Our efforts allowed us to gain a full grasp not only of the existing issues and the possible risks in the future at each site but also the progress of advanced initiatives, which we expanded across the group more than ever, and opportunities to make further improvements within the Group. We will continue to carry out audits to ensure the continuous improvement of the entire Showa Denko Materials' Group's environmental safety activity level.

### Environmental Education

Showa Denko Materials trains legally qualified personnel at each site as well as provides e-learning environmental education programs organized by Showa Denko Materials.

We also trains personnel to become ISO 14001 internal auditors. These staff are trained by internal instructors on laws and regulations applicable to the Group through case studies and incident-based exercises to gain a deeper understanding of ISO standard. Trainees who complete the ISO 14001 internal auditor training program improve their skills as auditors by taking part in the environmental safety audits. This involvement also allows them to communicate with other business sites and expand their case knowledge.

### Compliance with Environmental Laws and Regulations

Showa Denko Materials constantly monitors laws and regulations governing environmental issues for revisions of environmental-related laws and to stay abreast of governmental developments in Japan and the four global centers (Europe, North America, China, Southeast Asia) so that any changes can be conveyed to the entire Group, and expands and responds to information within the group. Within Showa Denko Materials, any possibilities of violation of environmental laws or exceeding of regulated levels are immediately reported to the relevant departments and administrative authorities and followed by appropriate measures. In fiscal year 2019, there were two violations of environmental laws in the Greater China region, but there were no environmental pollution and environment-related complaints received from local residents. We have completed all the corrective and preventive measures for the violations. We will share our reflections within the Group in order to help make further improvements in environmental compliance.



## Environmental Management

### Environmental Action Plan

Between fiscal year 2019 and fiscal year 2021, we will take actions in accordance with following environmental action plan that were set according to the goals of the new Medium-term Roadmap. We will continue to promote environmental activities by the entire Group aiming to achieve the set targets in all categories.

#### ■ Showa Denko Materials Group Environmental Action Plan for 2019 to 2021 (main items)

Category	Item	Indicator	Purpose	Fiscal year 2019 Target	Fiscal year 2019 Result	Fiscal year 2020 Target	Fiscal year 2021 Target
Governance	Comply with laws and regulations	Ensure zero violations of laws and regulations	Provide guidance with a focus on business sites with higher compliance risks and encourage such sites to reinforce their activities to mitigate risks in order to prevent the recurrence of violation of laws and regulations	Zero	2	Zero	Zero
	Strengthen global environmental control	Transfer of responsibility for environmental audits of overseas group companies to the regional headquarters in charge of overseeing local entities	Enhance the accuracy of audits by strengthening regional specialization through the transfer of responsibility for environmental audits, for which auditors had been dispatched from Japan, to the regional headquarters in charge of overseeing local entities	Transfer rate: 80% or more (accumulated total)	80% or more	Transfer rate: 80% or more (accumulated total)	
Low-carbon society	Reduce CO <sub>2</sub> emissions from products and services	Reduce CO <sub>2</sub> emissions (1,000 t-CO <sub>2</sub> ) from FY2010 base year	Expand the amount of reduction of CO <sub>2</sub> emissions from products and services	12	12	13	14
	Reduce CO <sub>2</sub> emissions from production sites	Improve CO <sub>2</sub> emissions per production unit from FY2010 base year	Contribute to measures against global warming by enhancing energy usage efficiency at each production site and promoting the reduction of CO <sub>2</sub> emissions and activities aimed at curbing emissions	12.5%	11.3%	10.6%	12.8%
Highly recycling-oriented society	Improve water usage efficiency Measures to the water scarcity	Improve water usage per production unit from FY2010 base year	Improve water usage efficiency and resolve the water scarcity problem by ensuring sustainable intake and supply of fresh water	16.0%	16.2%	19.6%	21.8%
		Promote water risk management in accordance with water stress level	Implement water risk assessment for each region on a regular basis and promote measures aimed at minimizing risks related to water resources	Minimization of risks	Promoted Initiatives	Minimization of risks	
	Improve resource usage efficiency Reduce waste and promote recycling	Improve valuable resource waste generated per production unit from FY2010 base year	Reduce waste generation by preventing the generation of waste, reducing the amount of waste and promoting recycling and reuse	-5.7%	0.4%	-0.1%	3.0%
		Landfill waste rate (excluding hazardous waste and general waste)	Aim to achieve zero landfill waste gradually in order to effectively use waste as a resource	3.5% or less	1.8%	3.5% or less	
Natural symbiosis society	Reduce chemical emissions	Improve chemical substances released into atmosphere per production unit from FY2010 base year	Reduce emissions of chemical substances that have a negative impact on people and ecosystems through process improvement and usage of substitute substances	4.4%	7.5%	8.7%	10.1%
	Promote disposal/substitution of regulated substances	Respond to regulations adequately	Promote disposal of PCB (polychlorinated biphenyl) before deadline as well as systematic update or removal of facilities, equipment, etc. that use substances such as mercury and substitute CFCs for which regulations will likely be tightened in the future	Disposal of PCB before the deadline and response to other regulations	Appropriate Respose	Disposal of PCB before the deadline and response to other regulations	
	Contribute to conservation of ecosystems	Promotion of symbiosis with communities Actively explore opportunities for activities and implement them	Contribute to the conservation of ecosystems through overall corporate activities including the enhancement of understanding among employees, CSR activities, exchange with stakeholders in the communities and value chains (in connection with main businesses)	One activity per year	One or more activities per year	One activity per year	

\* The scopes for aggregation of environmental initiatives are based on 45 major production sites of Showa Denko Materials in Japan and overseas in fiscal year 2019 (and schedule to be 49 sites for fiscal years 2020-2021 due to increase in business sites).



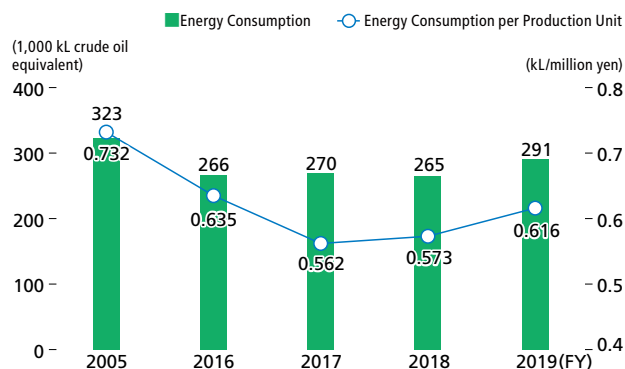
## Prevention of Global Warming

### State of Energy Consumption

Showa Denko Materials works to reduce energy consumption associated with its manufacturing activities as a means of addressing global warming and fossil fuel depletion. In fiscal year 2019, our major production sites consumed in total energy equivalent of 291 thousand kL of crude oil. Energy consumption increased by 10% year-on-year, while energy consumption per production unit increased by 8%. These changes can be explained as a temporary fluctuation caused by the unseasonal weather last summer in Japan and the changes to the product line. We will continue to promote energy-saving initiatives to improve resilience to external factors.

In addition, the Showa Denko Materials has been installing solar power generation systems to generate renewable energy at each site. We installed solar power generation systems not only in Japan but also in overseas business sites including India, China and Thailand. The total capacity of energy generated from renewable energy source in fiscal year 2019 was 605MWh.

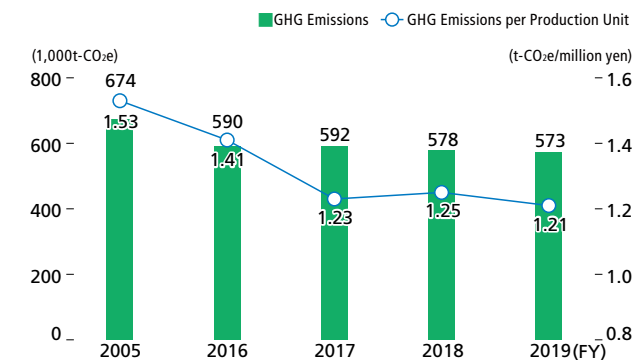
### Transition of Energy Consumption



### Greenhouse Gas Emissions

To prevent further global warming, Showa Denko Materials works on reducing greenhouse gas (GHG) emissions by monitoring emissions from energy sources and other sources. In fiscal year 2019, a total of 573 thousand tons-CO<sub>2</sub>e (Scope 1: 115 thousand tons-CO<sub>2</sub>e, Scope 2: 445 thousand tons-CO<sub>2</sub>e) were emitted from our major production sites. GHG emissions per production unit at our major production sites decreased by 3% from the previous year. We will continue to push ahead with energy-saving activities and aim to curb emissions of GHG from non-energy sources to help prevent further global warming.

### Transition of Greenhouse Gas Emissions



GHG emissions are calculated based on emissions coefficients stipulated in the Japanese Act on the Promotion of Global Warming Countermeasures. GHG emissions associated with the use of electric power at overseas production sites are calculated based on emissions coefficients of each country in 2005 published by the International Energy Agency in 2010.

### TOPICS Reducing Offices' Environmental Impact

The Showa Denko Materials Group has been working to reduce the environmental impact of not only its production sites but headquarters, branch offices and research sites as well. When we relocated Showa Denko Materials' headquarters to its current location in Marunouchi, Tokyo, in January 2013, we simultaneously consolidated the head offices and branches of Group companies to improve efficiency in energy consumption. Offices and research sites have also made an effort to reduce their environmental impact through Group-wide initiatives including replacing commutes and business trips with teleworking, internet conferences, and other means that promote of work style reforms in addition to preparing meeting materials in electronic form instead of paper, temperature control of air-conditioning systems, and turning off the office lights during the lunch hour.

## Prevention of Global Warming

### Carbon Management Strategy

Showa Denko Materials began working on its Carbon Management Strategy in fiscal year 2008 and introduced a Carbon Evaluation System in fiscal year 2010 as a unique way to evaluate carbon emissions in addressing global warming. This in-house financial evaluation system that positions CO<sub>2</sub> emissions as one of the costs incurred during manufacturing and translates the balance between target emissions and actual emissions into profit or loss. With the introduction of environmental tax on the horizon, we also focus on making proactive environmental investments by making CO<sub>2</sub> costs (CO<sub>2</sub> emissions × CO<sub>2</sub> unit value) more visible, and raising our awareness of the fact that CO<sub>2</sub> emissions lead to lower profits and subsequently higher taxes. Since fiscal year 2011, we have been working on the activities based on internal carbon pricing (ICP) in accordance with our strategy of advancing one step ahead.

Since fiscal year 2013, we have been following up on the effect of increased energy savings, particularly on CO<sub>2</sub> emissions per unit of sales (t-CO<sub>2</sub>/production unit). In order to quantitatively discuss environment-related matters (carbon emissions) from a management point of view, the balance between revenues and environmental impacts is assessed for each business division according to our CO<sub>2</sub> Profit and Loss Account at the CO<sub>2</sub> Reduction Promotion Officers' Meeting and reflect them on future business strategies. At the same time, we work to continuously reduce CO<sub>2</sub> by promoting awareness at all business units that CO<sub>2</sub> emissions are cost and, that they need to be managed with the PDCA (Plan–Do–Check–Action) cycle.

Currently, we are also running CO<sub>2</sub> reduction programs at 16 of our overseas group companies, and they are engaging in similar activities as those undertaken in Japan.

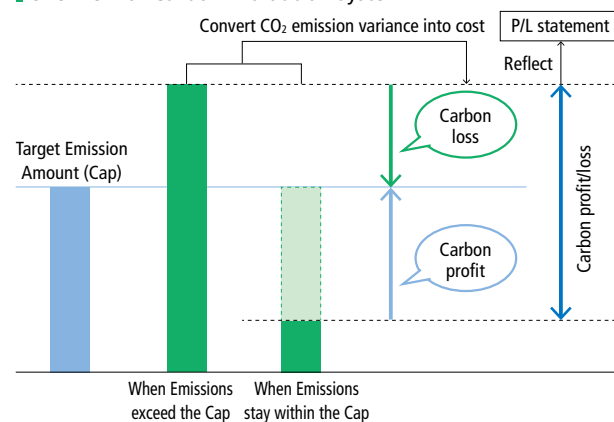
Our initiative of "Energy saving through the introduction of battery case formation equipment in a lead acid battery production plant" in Vietnam, which was chosen as the financing project under the Joint Crediting Mechanism (JCM)\* model project offered by the Ministry of the Environment in 2015, was completed in December 2018 and registered as a JCM project in May 2019. We have assessed CO<sub>2</sub> reduction through June 2020 and are now in the process of applying for the first JCM credit.

From fiscal year 2020, we started working on the dissemination of renewable energy.

We will proactively contribute to the achievement of SDGs through carbon management activities.

\* JCM/Joint Crediting Mechanism

#### Overview of Carbon Evaluation System



### Addressing Climate-Related Risks and Opportunities

Showa Denko Materials identifies "10 materialities" in order to achieve sustainable growth over the long term with society, such as resolving global environmental issues including climate-related risk and opportunities, and reflect the results in three-year Medium-term Management Plan and Environmental Action Plan.

Climate-related risks include, but are not limited to, an increase in operation costs due to tightening of regulations on greenhouse gas emissions, global warming, the possibility of plant shut-down due to flooding or drought caused by extreme weather, and a decline in corporate value when failing to properly respond to these risks.

In line with the tightening of GHG emission regulations, Showa Denko Materials' climate-related opportunities include the creation lightweight solutions, heat management technologies, and an increase in the demand for secondary battery-related products in the mobility and energy sectors. We may also propose entirely new solutions for new energy or environmental themes with our advanced materials technology.

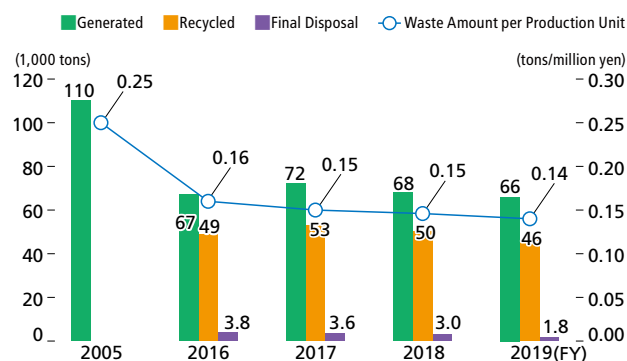
We incorporate specific measures and management indicators into the KPIs and targets of the Medium-term Management Plan, which are then regularly checked and their progress discussed at meetings of the Group Environment and CSR Conference and other occasions.

## Saving Resources and Recycling

### Waste Discharge

Showa Denko Materials works to advance closed-loop sourcing and recycling in its manufacturing processes, taking steps designed to reduce waste-associated environmental impacts and effectively use our planet's limited resources. Initiatives range from curbing waste generation through loss reduction based on Material Flow Cost Accounting (MFCA) to increasing the recycling ratio of waste, reducing the amount of landfill disposal, and proper disposal. In fiscal year 2019, the Group discharged 66 thousand tons of waste in total at our major production sites. While waste amount per production unit at our major production sites declined by 2% year-on-year. Our recycling rate was 71%, which was 2% worse than the previous year. The final disposal rate (landfill rate) was 1.8% which is improving year by year. Going forward, we will identify the issues to be addressed at each site and continue to make further improvements in the future.

#### Transition of Waste Generated



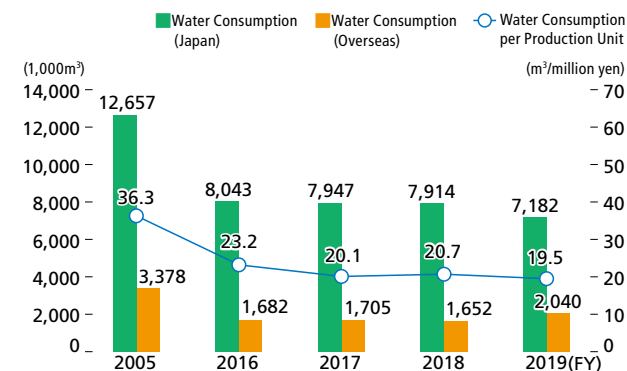
### Proper Management of Waste Disposal

To improve appropriate management of waste disposal at domestic production sites, we encourage sharing of information within the Group regarding industrial waste disposal contractors, and the use of electronic industrial waste manifests. In fiscal year 2016, we are almost complete with our transfer process to the electronization of waste manifests, and are operating most of the waste disposal through electronic manifest, with exclusions for certain sections.

### Water Resources Input

Showa Denko Materials works to reduce the water consumption particularly in regions with high water risks. In fiscal year 2019, the amount of water consumption was 9,222 thousand m<sup>3</sup> at our major production sites. Water consumption per production unit at our major production sites improved by 5% year-on-year. We will make further improvements by refurbishing old facilities in a planned manner, controlling the water balance, and strengthening inspections.

#### Transition of Water Consumption



## Pollution Prevention

### Preventing Air Pollution and Reducing the Burden on the Living Environment

Showa Denko Materials is also focused on the prevention of air pollution and works on reducing its impact on living environments. With regard to air pollution, we work to reduce emissions of compounds and NOx (nitrogen oxides) and SOx (sulfur oxides) emissions from boilers and gas-combustion exhaust equipment and volatile organic compounds (VOC) which is the cause of Photochemical oxidants and suspended particulate matter. In fiscal year 2019, our major production sites emitted 625 tons of VOCs, 80 tons of NOx, and 17 tons of SOx. We will continue to handle VOC properly and manage treatment facilities at each production site.

Other impacts including noise, vibration, and odors are properly managed through regular measurements at each production site.

### Management of Effluent and Water Pollution

Since Showa Denko Materials is a company that handles many chemical substances, it also focuses on the management of wastewater quality. Wastewater generated in the production process is appropriately treated before being discharged

into public water bodies such as rivers and sewers. When discharging wastewater, we maintain quality by establishing voluntary management standards that are stricter than legally regulated values. In fiscal year 2019, 6,861 thousand Km<sup>2</sup> of wastewater was discharged at our major production sites, of which COD (chemical oxygen demand) and BOD (biochemical oxygen demand) discharged to public water bodies totaled 39 tons and 23 tons, respectively. We will continue to maintain properly-managed wastewater quality.

### Appropriate Management of Chemical Emissions/Transfer

Our production sites in Japan properly manage the amount of chemicals subject to Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Law) that are released into the air or public waters, as well as properly manage the amount of movement discharged outside the business sites and sewerage as waste.

### Measures against the Risk of Chemical Emissions

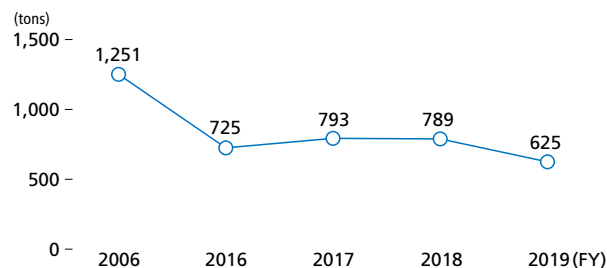
Showa Denko Materials works diligently to correctly manage

chemicals contained in its products to ensure customers can use them safely. In addition to the introduction of GHS labels on chemical containers indicating their composition, content, hazardous material information and the proper issuance of SDSs, we are working to improve the environmental conformity of our products through disuse, replacement and reduction of hazardous chemicals.

### Preventing Soil Contamination and Hazardous Substance Leaks

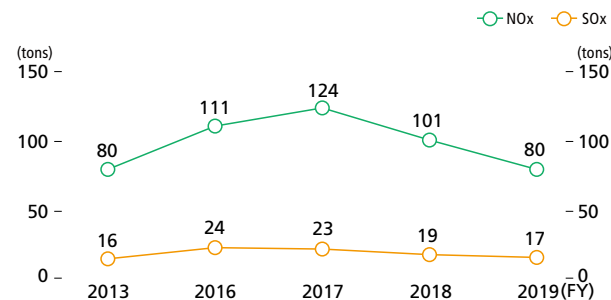
In the past, Showa Denko Materials used chlorinated organic solvents to rinse its products and intermediate goods, which caused contamination of the soil and groundwater at some of its sites; it has not, however, spread beyond these premises. The contamination of these sites has been reported to relevant authorities and the soil has been decontaminated by circulated aeration. Contamination levels are now below regulatory thresholds, but we are continuing with the decontamination work and regularly measure concentration levels. Having learned from these experiences, we are also strengthening the management of hazardous substances throughout the Group.

■ Transition of VOC Emissions

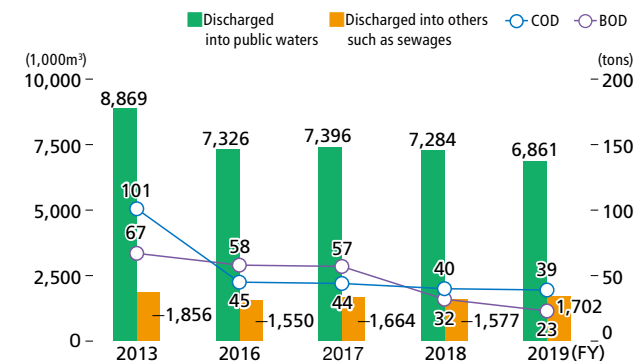


\* In fiscal year 2016, the number of chemicals compiled as VOCs was expanded from 41 to 77.

■ Transition of NOx and SOx Emissions



■ Transition of Effluent Discharged



## Environmental Initiatives within the Supply Chain

### Curbing Product-derived Environmental Impact

Showa Denko Materials Group is participating in activities that help our customers curb product-derived environmental impact by promoting Sustainable Engineering that capitalizes on our strengths as a manufacturer of high-performance materials and energy storage devices.

Sustainable engineering is the sum total of Showa Denko Materials' technological capabilities that form the foundation of a sustainable business. At the heart of sustainable engineering is business innovation. We seek to minimize our impact and burden on the earth and contribute to finding solutions for global environmental problems by combining and integrating our core technologies. We are proactive in bringing to market products that offer high environmental value, excellent performance and cost advantage. In this way, we are further strengthening our position in the market in the area of sustainable technology amid intensifying competition.

In our Medium-term Management Plan starting in fiscal year 2019, we have set a goal for the reduction of resource usage in a subsection of products and are promoting various activities to achieve this goal. We will continue to make further improvements to our target products and contribute to the reduction of product-derived environmental impact.

### Status of Product Recycling

Although some products made out of chemical materials are extremely difficult to recycle, Showa Denko Materials works to maximize efficient resource utilization to the fullest extent possible. Our energy storage devices and systems business actively cooperate with organizations such as the Battery Association of Japan (BAJ) to establish a framework for the recycling of automotive batteries. We have also acquired regional certifications for collecting industrial batteries to push further ahead with efficient and appropriate recycling of used batteries.

## Preserving Biodiversity

### Preserving Biodiversity

Showa Denko Materials became one of the first Japanese core member companies of the Ecosystem Focus Area of the World Business Council for Sustainable Development (WBCSD) in 2007. Since then we have been proactive in our efforts to preserve biodiversity. The Group has incorporated advanced initiatives that take advantage of the unique characteristics of individual localities in the Action Guidelines for Environmental Conservation.

In fiscal year 2019, Showa Denko Materials commenced planting activities in China, in addition to our planting activities carried out elsewhere in previous years. Furthermore, at the Hikone Works, dozens of our staff participate in the environmental beautification activity on "Lake Biwa Day" every year. We will also raise awareness of ecosystem preservation, and promote various ecosystem preservation activities that utilize the unique characteristics of individual businesses and localities at our other sites.



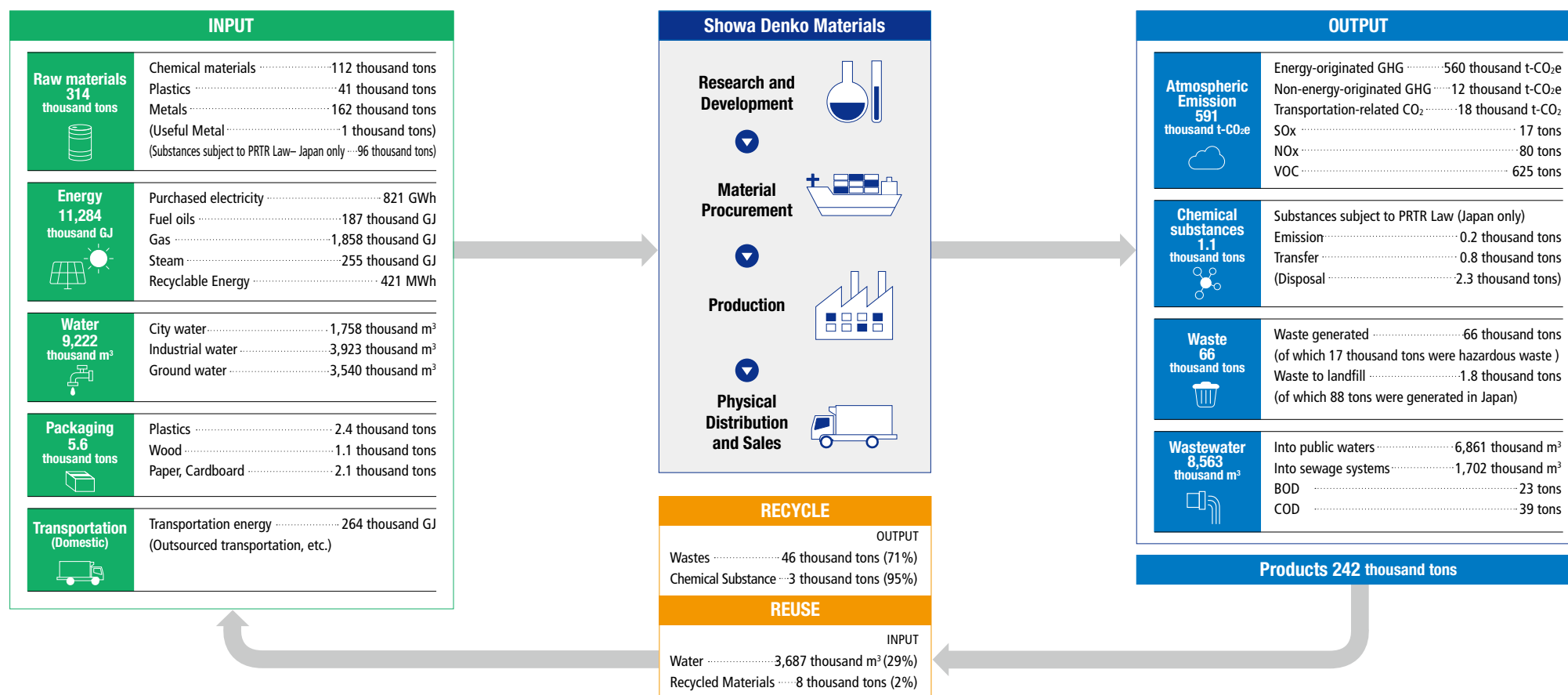
Beautification activity on "Lake Biwa Day"

## Overview of Environmental Impact (Material Balance)

### Overview of Environmental Impact (Material Balance)

Showa Denko Materials is actively engaged in promoting MONOZUKURI with a low environmental impact. Emphasis is placed on low environmental impact to realize a sustainable society that harmonizes with the environment through the supply of environmentally conscious products and services. At each of our production sites, we are working to determine our business activity input and output, and to reduce our environmental impact at each step of the manufacturing process.

#### Material Balance at Major production Sites (FY2019)







## Social Initiatives

- Engagement with Stakeholders
- Quality Assurance
- Supply Chain Management
- Respect for Human Rights
- Promoting Diversity & Inclusion
- Human Resource Development and Evaluation
- Communication with Employees
- Occupational Safety and Health
- Social Contribution Activities

## Engagement with Stakeholders

### Interactive Communication with Stakeholders

Showa Denko Materials has lively interactive communication with its stakeholders. Through this we aim to become aware of issues and implement measures to improve them, thus earning the understanding of our stakeholders and appropriate valuations.

The results of our communication with stakeholders are shared with each department along with an analysis of whether they have a significant impact on our business operations, and are proactively used as suggestions for the business.

Amid society's growing interest in the extent that improvements are made by corporations, by taking into account

the opinions of stakeholders we will continue to improve and promote a type of structure that will utilize society's opinions on a global scale in our business operations.

To us, information disclosure does not just mean releasing information that is applicable to the timely disclosure regulations required by laws and regulations. We believe that through proactive disclosure of nonfinancial information, including that dealing with environmental and social issues, we eliminate the risk that we might lose the trust of stakeholders. At the same time, we view it as an opportunity to create an organization brimming with vitality.

Main Stakeholders	Main issues and goals	Departments that will serve as a main counter	Primary form of communication and performance
Customers / Trading partners	We aim for the development of next-generation technologies and the steady supply of reliable products through good partnerships with customers and suppliers. We identify and deal with risks from a perspective of the entire value chain.	Innovation development / Sales / Quality assurance / Procurement	<ul style="list-style-type: none"> <li>Promotion of Open Innovation</li> <li>Operations of the Quality Management System</li> <li>Providing Stable Supply of Products</li> <li>Working to Maintain Supplier Relationships</li> </ul>
Employees	We provide a pleasant and safe working environment while respecting human rights and promoting individual growth through education.	Human resources	<ul style="list-style-type: none"> <li>Promoting Diversity &amp; Inclusion</li> <li>Human Resource Development and Evaluation</li> <li>Town Meetings and WOW-BB Activities</li> <li>Occupational Safety and Health</li> <li>Build motivating working environments</li> </ul>
Society	We make ongoing contributions to local communities, civil and international society through understanding the circumstances of the regions where we do business.	CSR Administration	<ul style="list-style-type: none"> <li>Social Contribution Activities</li> <li>Communicating with Local Communities</li> </ul>
Government / Administration	We constantly update our knowledge of, and strictly adhere to, the statutory and regulatory requirements of the countries and regions where we do business and fulfill obligations as a good corporate citizen.	Legal affairs Administration	<ul style="list-style-type: none"> <li>Strengthening dialogue with government officials</li> </ul>
Global environment	In assuming the responsibility toward the next generation, we will make conservation of the global environment a significant issue for management, and will engage in technological development and production activities in consideration of such conservation.	Environment	<ul style="list-style-type: none"> <li>Environmental Management Promotion Structure</li> <li>Minimizing the Environmental Impact of Our Business Activities</li> <li>Environmental Initiatives within the Supply Chain</li> <li>Implementing Environmental Audits</li> </ul>

\* As the Company (former Hitachi Chemical Company, Ltd.) was delisted on the First Section of the Tokyo Stock Exchange, Inc. on June 19, 2020, the description of investors and shareholders has been omitted from this table.



## Quality Assurance

### Basic policy on Quality Assurance Activities

Showa Denko Materials established its "Philosophy of Quality Assurance Activities" in 1988. Under these philosophy, we strive to continually, improve product quality in every stage, from design and development through assessment and testing using appropriate quality control techniques to test manufacturing and mass manufacturing.

#### Philosophy of Quality Assurance Activities

##### 1. "Quality & Customer First Policy"

Quality is given priority over all other matters in our products, which aim at being useful in a society and getting a satisfaction of customer.

##### 2. "Develop the Original New Technology/Product with Proper Implementation of Test & Experimental Manufacturing"

Make sure of customer's requirements, grasp market trends, and develop original new technology and product.

Carry out practical test and experimental manufacturing sufficiently before production.

##### 3. "Set-up the Reliable Quality Class, and Inspect from Customers' Viewpoint"

Set-up the reliable qualities level by means of exact process controls and advanced facilities/technologies with the cooperation of all concerned section.

Perform the sufficient inspection from the viewpoint of customers.

##### 4. "Settle in All Sincerity to Non-Conformance on Delivered Product, and Prevent Recurrence"

In case non-conformance on delivered product is found out, reconsider the content without any prejudice, clear up the cause of inappropriate product delivery. Settle the problem with a sincerity heart in order not to apply nuisance to customer.

Learn the lesson and transfer to all division as common text, and never repeat similar problem.

##### 5. "Maintain & Improve the Quality Level with QA Training"

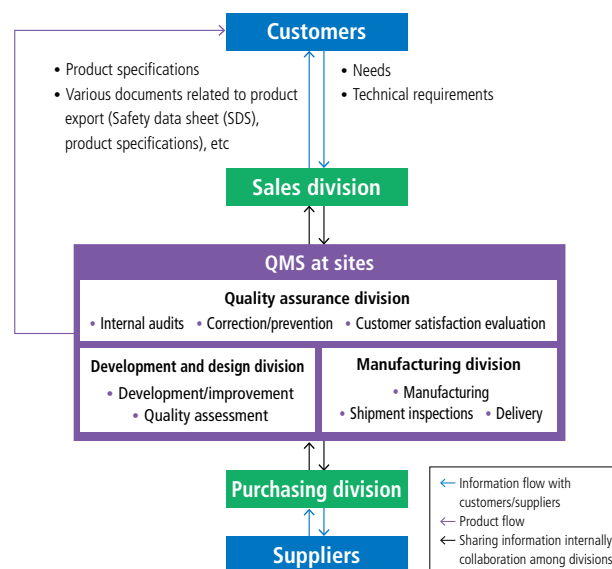
Give training on quality assurance manners and methods to all personnel, and strive to maintain and to improve the quality level of our products.

### Operations of the Quality Management System

To put the Philosophy of Quality Assurance Activities into action, Showa Denko Materials audits and improves its various processes on a continuous basis under the framework of the Quality Management System (QMS). By operating standardized QMS by each product group at all production sites and sections of its sales departments, we are striving to improve and maintain the level of our service to fit our customers' increasing global business needs.

The affiliated bases in both Japan and overseas exert day-to-day efforts to be able to satisfy customers' quality demands pursuant to the management system and in compliance to the product/quality control standard that correspond to each product. Also, the purchasing division provides information on material quality and chemical substances being purchased from all over the world to the Development and Design Division and the Quality Assurance Division in a prompt manner.

#### Quality Management System (QMS)



### Initiatives for Improving Quality

To improve quality through assessment and testing, the Showa Denko Materials uses quality control methods tailored for the specific characteristics of products handled by each division of Development and Design, Manufacturing, and Quality Assurance.

For example, before moving to mass production, the Development and Design Division rigorously verify the product by applying Quality Function Deployment (QFD) and design Failure Mode Effect Analysis (FMEA) whether it the product meets customer quality requirements and that quality can be maintained during mass production. Our manufacturing division makes use of Statistical Process Control (SPC) and process FMEA to stabilize quality. At our Quality Assurance Division, we conduct audits to verify that the complete sequence of processes is conducted in conformity with the specifications agreed with customers.

### Management of Chemical Substances Used in the Products

Showa Denko Materials has set up and been using an original framework for centralized management of safety information and handling information of chemical substances since 2011. Through this system, beyond just corresponding to laws and regulations in Japan, the company is also able to correspond to the chemical substance registration and substance volume report system other than in Japan, such as Korea and Taiwan. Furthermore, the company strengthened the control of used materials and of information on chemical substances included in the products by expanding the application of this system to newly reorganized Group companies.

Engagement with Stakeholders	Quality Assurance	Supply Chain Management	Respect for Human Rights	Promoting Diversity & Inclusion	Human Resource Development and Evaluation	Communication with Employees
Occupational Safety and Health	Social Contribution Activities					

## Quality Assurance

### Disclosing Product Environmental Information

Showa Denko Materials strives to manage and disclose information on chemical substances included in its products in an appropriate manner. Standards relating to management of chemical substances in accordance with laws and regulations have been established and are put in place in the entire Group.

In fiscal year 2019, we established a system for exchanging information with sales companies in each country of export and have shared information regarding legal compliance. The company also provided employees with internal training adding new programs, so that they can attain expert knowledge required for chemical substance management and the latest legal regulatory trends. The training sessions were attended by 177 employees.

### Stable Supply of Products

In order to fulfill its mission to ensure stable supply of its products, Showa Denko Materials works to strengthen its relations with its material suppliers and subcontractors. Notably, following the Great East Japan Earthquake in 2011, it has been working on further fortifying Business Continuity Management (BCM) with its business partners, including measures in place to minimize the influence of disruptions in the supply of materials on its customers by storing certain amount of stock to prepare for emergency situations in cases where materials are sourced from multiple suppliers or can be obtained from a single supplier due to their unique attributes.

The company expands overseas production sites through M&As, considering operating multiple sites to prepare for possible emergencies, thereby reducing the risk, when establishing a new production site.

#### Reference



Business Continuity Management  
(P7)

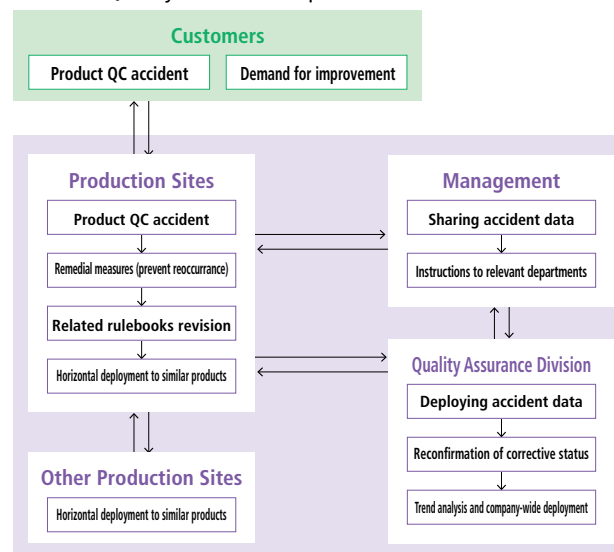
### Initiative Toward Customer Satisfaction

Showa Denko Materials gathers customers' product evaluation information and their intentions regarding future applications, and uses them to improve the quality of our products.

Sharing of quality information is being promoted by quality information communication network that extends throughout the entire group companies, both Japan and overseas. This network is being utilized to carry out prompt action toward improving problems at each base or business division. The company introduces standardization by reviewing the form and by adding regulations specific to individual problems of each business division, so that it can more accurately convey problems that became clear through subdividing needs and diversifying usage development.

Furthermore, the company has continuously deployed its original e-learning program, serving as product liability enlightenment education toward employees involved with production, at all production sites in Japan and overseas.

#### Flow of Quality Assurance Improvement



### Measures to Prevent a Recurrence of Inappropriate Product Testing

In fiscal year 2019, we worked on the establishment of a product testing system that eliminates the manual process as much as possible, as well as reform of corporate culture that does not cause compliance violations, as measures to prevent a recurrence of inappropriate product testing which was first come to light in fiscal year 2018. As one measure to reform our corporate culture, we commenced function-specific training in fiscal year 2019. We provide the training for employees in quality assurance, sales, development, and manufacturing departments (first defense line) to prevent a recurrence of the aforementioned problem in line with actual business practices.

With respect to all of our operational sites at which their ISO9001<sup>\*1</sup>/IATF16949<sup>\*2</sup> certification had been canceled or suspended due to the revelation of inappropriate product testing, etc., all of them re-acquired certification or were released from certification suspension after a review by the certification organization. We will continue to work to prevent a recurrence of such violations and restore the trust of our stakeholders.

\*1 An international standard for a quality management system, which is a management system standard for providing consistent products and services and improving customer satisfaction.

\*2 An international standard for quality management systems specialized in the automobile industry, which is a management system standard for preventing defects in products and services and reducing variability and waste in the automobile industry.

## Supply Chain Management

### Basic policy on Supply Chain Management

Acquiring materials that meet customer requirements in terms of quality, delivery time, price, and advanced technology are essential for us to be able to provide customers with better products. In this context, the Group works to build a robust supply chain by seeking out suppliers around the world, who have strong management and supervisory abilities, and are capable of providing stable supplies of materials. In recent years, the Group focused especially on risk control of only one manufacturer and acquisition of new suppliers in Leading Competitive Countries (LCCs), especially in developing countries.

In addition, the Group is implementing audits and questionnaire surveys to assess the actual state of suppliers' CSR in order to recognize the suppliers' quality control/compliance structure, environmental conservation initiatives, etc. By encouraging improvement and sharing awareness, we will fulfill CSR as a unified force in the supply chain in the aspects such as respecting basic human rights, ensuring the health and safety of our workforce, complying with legal and social norms and ensuring environmentally conscious practices.

### Working to Maintain Supplier Relationships

Showa Denko Materials has formulated the Procurement Policy and the Guidelines for Procurement Activities as part of efforts to fulfill their CSR in the supply chain. Under these policies, the Group has been undertaking efforts to construct fair relationships with suppliers. Amid the growing importance of sustainable business practices and in order to deepen mutual communication with suppliers, in fiscal year 2011 the Group created and published the Supply-Chain CSR Procurement Guidelines and Green Procurement Guidelines on its website. These guidelines are handed out to new suppliers at the start of each trade to spread awareness.

The guidelines ask for suppliers' support and cooperation in implementing the guidelines, which cover some topics such as working hours, wages and benefits, management of water usage, and other issues.

#### Reference



##### Information about Procurement

[www.mc.showadenko.com/english/purchase/index.html](http://www.mc.showadenko.com/english/purchase/index.html)

##### Procurement Policy—basic thought on procurement activity

[www.mc.showadenko.com/english/purchase/policy.html](http://www.mc.showadenko.com/english/purchase/policy.html)

##### Guidelines for Procurement Activities

[www.mc.showadenko.com/english/purchase/dealings\\_policy.html](http://www.mc.showadenko.com/english/purchase/dealings_policy.html)

##### Supply-Chain CSR Procurement Guidelines

[www.mc.showadenko.com/english/purchase/guidebook.html](http://www.mc.showadenko.com/english/purchase/guidebook.html)

##### Green Procurement Guidelines

[www.mc.showadenko.com/english/purchase/green.html](http://www.mc.showadenko.com/english/purchase/green.html)

### Strengthening Cooperation with Suppliers

Showa Denko Materials works to enhance cooperation with its material suppliers by recognizing the risks that they face through periodic ISO monitoring and technical communication meetings. It enables the stable supplies of products to customers and consistent improvements in quality. We also implement comprehensive supply chain management (SCM) that includes activities ranging from briefing meetings, disclosing information business partners may need, and communicating via website aiming to support the establishment of environmental management systems. In this context, our business partners sometimes ideas on how to lower costs, for example by changing delivery specification or cutting logistic costs by making use of a consignment inventory services.

Additionally, the Green Procurement Guidelines request suppliers to cooperate in positively addressing environmental activities and reducing environmental load.

#### CSR Procurement and Audits

Showa Denko Materials has distributed the "Supply-Chain CSR Procurement Guidelines" to roughly 400 of its major suppliers companies since fiscal year 2014. In fiscal year 2017, the Group has made substantial revisions to the Guidelines for the first time in three years and added Human Rights Policy and Conflict Minerals Procurement Policy to it. The Group distributed the revised version to all of its major suppliers (approximately 2,000) who have ongoing business with Showa

Denko Materials. The Guidelines will also be provided to new suppliers at the start of each new transaction agreement. Additionally, we will begin requesting each supplier to submit a confirmation of consent as part of the efforts to enhance their understanding of Showa Denko Materials' views. Furthermore, We conduct audits of our suppliers every year in order to confirm that their system enable a stable supply of high-quality materials. In fiscal year 2019, we audited 314 companies.

#### Number of Supplier Audits\*

FY	2015	2016	2017	2018	2019
Companies	137	162	147	215	314

\* Non-consolidated

#### New Supplier Selection

When selecting a new supplier, Showa Denko Materials conducts due diligence that includes examining the supplier from a CSR perspective as well as evaluating the price and quality of the product to be procured and checking the creditworthiness of the supplier. In all cases, the general manager of the procurement department checks the results. If there are irregularities, the trading with the supplier might be rejected. For the purpose of eliminating anti-social forces, Showa Denko Materials confirms whether the supplier has social credibility. It is the policy of Showa Denko Materials to refuse to conduct business with a supplier assessed to have no social credibility.

#### Approach to Conflict Minerals

In accordance with the Showa Denko Materials Procurement Policy and the Conflict Minerals Procurement Policy, the Group tracks the supply chain back to determine the country of origin of the minerals used in accordance with our customers' request.

Section 1502 of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act was enacted with the goal of cutting off sources of funding for armed insurgent groups that inflict serious human rights abuses in the Democratic Republic of the Congo and neighboring regions. Showa Denko Materials believes that the intent of this law should be observed and will continue to respond sincerely to any requests for investigations.

## Respect for Human Rights

### Respect for Human Rights

Sustainable and global corporate development requires a deep respect for human rights and each individual's personality among all employees working across all business regions within the Group both in Japan and overseas. It is also essential to shape a corporate culture that allows employees to freely demonstrate their individuality and creativity. With this in mind, Showa Denko Materials strictly complies with all related laws and regulations in each countries, and supports international norms and codes regarding human rights including the Universal Declaration of Human Rights<sup>\*1</sup>. At the same time, the Group implements employee education and training that is consistent with the central labor standards of the ILO<sup>\*2</sup>, which include protecting freedom of association and the right to collective bargaining; prohibiting forced labor; abolishing child labor; and eliminating discrimination in hiring and employment practices as well as the 10 principles of the United Nations Global Compact<sup>\*3</sup>.

\*1 Universal Declaration of Human Rights: Adopted by the 3rd UN General Assembly in 1948 as "a common standard to be achieved by all people and all countries".

\*2 ILO (International Labour Organization): A UN agency that advises and guides governments in each country to improve working conditions and social welfare.

\*3 Global Compact: A voluntary initiative advocated by the United Nations to create a global framework for sustainable growth.

### Human Rights Due Diligence

In fiscal year 2013, Showa Denko Materials created the Showa Denko Materials Group Human Rights Policies, which are applied to all the Group companies in Japan and overseas. Each of the Group company is now establishing its own system to implement human rights due diligence and providing support for the victims of human rights violation. These initiatives are in response to ISO 26000 as international standard for corporate social responsibility released in November 2010 and The United Nation's Guiding Principles on Business and Human Rights in June, 2011. These require companies to express their human rights policy and due diligence covering external stakeholders as well. Initiatives for human rights are now expected to be the requirements for global business.

#### Reference



Showa Denko Materials Group Human Rights Policy  
(Expected to be released in October 2020)

[www.mc.showadenko.com/english/company/human\\_rights.html](http://www.mc.showadenko.com/english/company/human_rights.html)

### Human Rights Education

In regard to education related to respect for human rights, Showa Denko Materials conducts an orientation program designed for newly hired employees and experienced hires, as well as a level-specific training program for newly appointed managers. Compliance training programs provided by each business site or Group companies also cover the topic on respect for human rights. Of the 152 training programs hosted by the Compliance Group Legal Department (former Risk Management Department) in fiscal year 2019, 39 programs included the contents of respect for human rights, which more than 953 employees in total attended. E-learning education on human rights is also provided for all employees.

#### Reference



Compliance Training and Audits  
(P8)

### Operation of the Human Rights Grievance Mechanism

Although we do everything possible to prevent non-compliance, including human rights violations, we have set up whistleblower desk inside as well as outside the Company as a handling measure in the event that any such violation might occur. There were 32 reports pertaining to human rights violations in fiscal year 2019, none of which had significant impact on management, and we took appropriate actions to these cases.

Further, we have distributed the Showa Denko Materials Group Supply-chain CSR Procurement Guidelines to about 2,300 suppliers. In addition, we conduct basic surveys on human rights and the actual conditions of education at our business partners.



## Promoting Diversity & Inclusion (D&I)

### Basic Policy on Promoting Diversity & Inclusion (D&I)

From the integration with Showa Denko K. K. anew, Diversity & Inclusion has a greater meaning than ever before for Showa Denko Materials, which aims to be a "world-class functional chemical manufacturer," as one of its management strategies.

#### Diversity & Inclusion Slogans of Showa Denko

**"Make the most of the potential of yourself."**

**"Make the most of the potential of others."**

"Develop the Group's employees and organizations into individuals and entities that are able to cooperate with each other while making use of their diverse\* features, values, and ideas to continue making profits and creating new value."

\* While sharing the same philosophy, have diverse backgrounds regarding nationality, gender, race, sexual orientation, sexual identity, experience, and skills, etc.

### Forming a Pipeline for Career-track Female Employees

We have implemented various measures such as training, workshops, and individual development plans for the purpose of nurturing "career-track female employees who develop their careers autonomously with the assistance provided by their superiors," and "managers who can support the growth of subordinates whose backgrounds are diverse. Through these efforts, the ratio of men and women in their 30s promoted to positions equivalent to section chief, which is a volume zone, where a difference of 10% or greater between men and women in fiscal year 2016 occurred, was almost the same in fiscal year 2019. The ratio of women in managerial positions (Showa Denko Materials, non-consolidated) also increased from 3.1% in fiscal year 2016 to 4.0% in fiscal year 2019.

We have been continuously dispatching our female managers and candidates for managerial positions to J-Win (Japan Women's Initiative Network), a non-profit organization (NPO) that has promoted corporate diversity from their first term in 2007 in order to flip the switch regarding awareness changes in order for women themselves to take leadership roles. In addition, in fiscal year 2019, three male managers working in our offices joined the male network members in the same NPO, where they had the opportunity to think about diversity and inclusion as their own issues. In fiscal year 2020, three new male managers will participate in the NPO to promote understanding.

### Initiatives Concerning LGBT, Balancing Childcare/Nursing Care and Work, and Support for Foreign Employees

With respect to LGBT support, we are gradually improving the environment and implementing measures such as holding lectures with LGBT speakers, creating ALLY stickers, and certifying same-sex partners as de facto spouses, enabling them to take family allowances and vacations, etc. In 2019, we received the highest rank of "Gold" in the "PRIDE Index 2019," which evaluates initiatives on sexual minorities such as LGBT. From April 2020, to prevent unexpected outing when working in a self-identifying nature, the names of those used for business are being uniformly managed as business names.

Although some male employees take childcare leave lasting one month or more, the ratio of male childcare leave taken in fiscal year 2019 remained low at 5.2% (Showa Denko Materials, non-consolidated). We set a target of 7% childcare leave in the Next-generation Action Plan submitted in 2020 and will implement measures through the joint efforts of labor and management.

Supporting a balance between work and nursing care is one of our challenges with the change in the population structure of Japanese society; thus, we have been organizing seminars to support the balance between work and nursing care since 2017 on a continual basis. In fiscal year 2019, we held a nursing

care seminar for HR personnel so that they would be able to provide more appropriate support to employees. Furthermore, we are providing basic knowledge through a work-care balance handbook in an effort to help support our employees to prepare themselves and to provide support for their mental care.

Following a session with non-Japanese employees and Corporate Officers who were the support project owners in fiscal year 2018, we held a round table talk with the President in fiscal year 2019 to frankly discuss thoughts and feelings about work at Showa Denko Materials. We also assigned senior non-Japanese employees as supporters to non-Japanese new graduates who joined the company in fiscal year 2019, creating a system that allows the new graduates to feel free to consult about their concerns, mainly matters related to daily life.

#### Number of Female Managerial Positions (Non-consolidated numbers)

	FY	2015	2016	2017	2018	2019
Managerial positions (Manager or higher)	Number of female	22	25	25	35	33
	Proportion of female (%)	2.7	3.1	3.1	4.5	4.0
Pre-Management (Corresponding to the chief)	Number of female	18	18	32	29	50
	Proportion of female (%)	2.9	2.6	4.2	3.7	6.2

#### Ratios of Basic Salary and Total Remuneration of Female Employees to Those of Male Employees (in Managerial Positions Only) (FY2019)

Ratio of basic salary (female/male)	Ratio of total remuneration(female/male)
95.4%	95.8%

\* The treatment is the same for male and female employees. The differences are due to age structure and job grade structure.



## Promoting Diversity & Inclusion (D&I)

### Implementing Unconscious Bias Workshops at Our Group

In addition to the basic measures that have so far focused mainly on minorities, in fiscal year 2019, we implemented workshops focused on the unconscious bias toward creating an inclusive workplace environment where individual differences are respected and innovation that functions within the organization is likely to occur, including at our domestic group companies. At the workshops, the President, Vice President, officers, managers, and male and female career-track employees exchanged ideas on an equal footing within the same group. The workshops served as an opportunity to experience the differences in people's thinking and value systems, become aware of the unconscious bias (unconscious prejudice, preconceptions, and perceptions) that exists in our minds and workplaces, and think about how each individual can change their own behavior. In fiscal year 2019, the workshops were held 22 times, with a total of 750 participants. We will continue organizing the workshops in fiscal year 2020.



Unconscious Bias Workshops

### Promoting Employment of Disabled People

To help people with disabilities be employed according to their ability and aptitude and live an independent life like people without disabilities, Showa Denko Materials works on expanding the range of occupations available to employees with disabilities and improving facilities for them.

In fiscal year 2019, employees with disabilities accounted for 2.49% on a domestic consolidated basis (targeting 14 companies with over 50 employees) and 2.29% on a non-consolidated basis. Both of these ratios exceeded the Japanese legal requirement. We remain committed to help people with disabilities find employment at Group companies, and aim to enhance information sharing in this regard.

#### ■ Employment Ratio of Disabled People (%)

FY	2015	2016	2017	2018	2019
Japan, consolidated	2.44	2.45	2.50	2.46	2.49
Non-consolidated	2.16	2.25	2.28	2.28	2.29

### Promoting Wider Opportunities for Re-employed Workers

In 2001, Showa Denko Materials established a Senior Employment System designed to offer extended employment to those over 60 years of age. It provides opportunities to continue applying their substantial experience and skills after reaching retirement age, and addresses changing social conditions such as the falling birth rate, aging population, and raising the age for receiving pensions, giving people the option to continue working until they receive their pensions.

Under the system, a worker is reemployed if he/she wishes at the mandatory retirement age of 60 and agrees to the conditions set out by the Company. Re-employed employees may continue working until the age of 65 in accordance with the Employment for Senior Citizens Law. As of the end of March 2020, 292 employees were employed under this system.

### Supporting Career Development

Showa Denko Materials has introduced a career management program as an initiative to support career development.

Under the career management program, employees think about their future career plan and communicate with their superiors through interviews. They discuss with their superiors what they would like to be in the future, the career steps they want to take toward the vision, and the required abilities/actions, and develop capacity building measures by sharing opinions on the skills they need to develop, request for a transfer, and other matters.

In fiscal year 2019, the Group provided training on the career development support system, the importance of dialogue, and interview skill improvement for employees in new managerial positions to provide an opportunity for them to better understand career development and re-think their medium- to long-term career goals.

## Human Resource Development and Evaluation

### Employee Training and Career Development Support

Showa Denko Materials focuses on on-the-job training (OJT) as the core of employee training and also provides "off-the-job" training (Off-JT), self-development and other learning programs.

In the training programs, the Group has established an educational framework according to the employee's level and job category; such as a Two-year program for new university graduates, newly appointed senior staff members, and section heads. A total of 877 people participated in these programs in fiscal year 2019. The Group also offers various self-development programs such as optional programs that employees can freely select and correspondence courses. In addition, Showa Denko Materials has introduced an internal job posting system, a free agent (FA) system, and a career guidance meeting between employees and their superiors to support employees in shaping their own careers.

### Developing Global Human Resources

Showa Denko Materials is actively engaged in nurturing "World Class Professionals (WCPs)", a group of personnel who, based on the corporate principles and culture of the Group, can brush up their techniques and skills at the world-class level, challenge themselves to bring about reform through continued delivery of results and reflection, and commit themselves to self-growth, ultimately contributing to society by improving the Group's performance.

The Group adopted three official communication tools; the Kepner-Tregoe (KT) Method, Coaching and English. As a systematic problem-solving thought process, the KT Method has been used in actual discussion during meetings and decision-making processes to help participants to understand situations and make decisions and choices.

For English training, in addition to existing correspondence courses, the Group has reviewed new programs and released e-learning and TOEIC-related courses by compiling programs that have a high expectation to improve employees' English abilities. An average of nearly 1,000 employees take these courses every year.

### Promoting Dialog Via Coaching

Showa Denko Materials promotes dialogue among employees through coaching centered on internal coaches with the purpose of transforming itself into a "dialogue organizations" and a "challenging organizations" by launching a Global Coaching Program with the aim of encouraging practices toward the creation of new value.

With the Global Coaching Program, which is a training program for internal coaches, each Corporate Officers selects internal coaches from divisions they are in charge of. At the first kickoff meeting for the coaching program, the President states the objectives of the program and what is expected of the selected coaches, thereby offering encouragement to participants.

Internal coaches coach five stakeholders (those who receive coaching), including at least three from other divisions, a requirement aimed at energizing interdivisional communications. In addition, the internal coaches learn coaching skills at a study school that utilizes coaching tuition given by professional coaches and a conference call system. Having lasted around eight months, the program raises the awareness of new challenges of the internal coaches and stakeholders alike.

In fiscal year 2019, 28 internal coaches selected in and outside Japan received training. Including 140 stakeholders, a total of 168 people attended the programs as well as in English, Chinese and Thai.

In addition, the scope of Coaching when changing careers that was previously performed at the time of promotion to a section manager was expanded from fiscal year 2019 when transferring, promoting, and hiring general employees. As a result, 583 employees conducted coaching. Upon receiving notification from the Human Resources Department, an applicable individual can freely select the internal coach he/she desires. Employees can have opportunities to think about their career from a higher and broader perspective by receiving coaching at the most effective timing of career transition points and it is also an opportunity to promote dialog across the divisions in our Group. In a survey conducted for those who were subject to Career Changing Coaching in November

2019, about 90% of the people who took part in the coaching session answered that they were "very satisfied" or "satisfied", with many indicating that they have gained new awareness and understanding, or sorted out their current situation, as well as resolved anxiety over a new environment. In fiscal year 2020, Showa Denko Materials will continue to make further changes to be a "dialogue organizations" and a "challenging organizations" throughout the company.

#### Transition of Participants in the Global Coaching Program

FY	2015	2016	2017	2018	2019
Participants	1,506	960	972	960	168*

\* In addition, 583 employees participated in Career Changing Coaching

### Promotion of Fair and Impartial Evaluation of Human Resources

Showa Denko Materials believes fair and impartial evaluation of human resources is the key to supporting the Group's growth. Under this recognition, the Group has introduced three basic policies for evaluating human resources premised on ensuring a linkage between reward, capability, and achievement. The three policies are following three points: clarify any gaps between the required capabilities and skills and those possessed by each employee; provide opportunities to close any gaps and motivate employees to achieve results; and ensure the fair treatment of employee's achievement.

As a part of its policies, the Company works to set up a global personnel evaluation system to conduct fair personnel evaluations throughout the entire Showa Denko Materials. Specifically, the Group promotes, the Global Talent Standard (GTS), and Management by Objectives (MBO).

GTS is a systematization and verbalization of the competencies required for our employees based on the core of the Group Identity. As the Group's original standard, GTS is incorporated into personnel evaluation. MBO aims to develop businesses and foster human resources through a process that helps employees achieve objectives identified based on dialogues between employees and their superiors.

## Communication with Employees

### Working On Wonders Beyond Boundaries (WOW-BB) Activities

Showa Denko Materials Group launched Working On Wonders Beyond Boundaries (WOW-BB) activities in fiscal year 2014 to work toward realizing the Group Vision. As the business environment for the Group undergoes dramatic changes, the aim of the WOW-BB activities is to facilitate the creation of products and services that deliver wonders beyond the expectations of customers and society. This entails breaking through our own limitations and developing an aggressive corporate culture, gaining the ability to look ahead and read the future social environment and anticipate customers' needs from a long-term viewpoint.

To this end, we hold the "WOW Global Awards" program, in which all employees participate. Every year, the WOW Global Award is voluntarily entered by employees, and the team challenges the program during the practice period until selection.

In fiscal year 2019, there were 875 entries from all over the world, and a total of approximately 12,000 employees worked to realize the excitements of society and customers.

#### Purpose of WOW-BB

Proactively creating and delivering what society is looking for

#### Marketing based on self-discovery



To be a strong challenging group of repeating innovation through each one's practice.

### Town Meetings

Showa Denko Materials has been holding Town Meetings since fiscal year 2010. Town Meetings are designed to nurture a corporate culture of dialogue with Corporate Officers from Showa Denko Materials Co., Ltd. visiting the offices of Group companies in Japan and overseas to hold direct briefings on Group Vision, budget policy, Medium-term Management Plan etc., and to take in questions from employees. Not only providing employees with a better understanding of the Company's business policies and plans, Town Meetings aid Showa Denko Materials in becoming a vigorous, free and open corporate group while allowing a corporate culture of dialogue—essential for the frank exchanges of opinion—to take root.

Town Meetings in fiscal year 2019 were held while returning to the original purpose: The Corporate Officers decide participants in light of the business environment and issues of each division and implement necessary communication measures in order to improve the direct engagement with employees.

### Promoting Work-style Reform

The main focus of work-style reform is the establishment of a system and environment in which diverse human resources can work in good health while engaging in co-creation. In terms of the system, we have already introduced a flex work system without a core time, and a work-at-home system that allows employees to work in a designated place other than their home, for which there are no restrictions on the number of days or eligibility. In terms of the environment, we will gradually roll out measures to prevent secondhand smoke, and also carry out educational programs to make our employees aware that health is the basis of productivity and creativity, as a part of health management. We are working on our own initiatives as well, such as adding a question intended to check labor productivity in the stress check items.

The Showa Denko Materials Co., Ltd. was selected as a Health & Productivity Management Outstanding Organizations in fiscal year 2020.



### Building a Motivating Work Environment

Showa Denko Materials is implementing employee survey toward its global group on continual basis to gain employee's feedback regarding organizational culture and management system. For the survey conducted in September 2019, we gained response from total of 67 companies, 13 domestic and 54 overseas (total of 7,936 employees). The score improved slightly compared to the previous year.

These results are reported in the Board of Directors and to Corporate Officers and are then shared to small meetings held at each company/division. In consideration of discussion contents of these meetings, we are promoting the construction of satisfactory workplace environment and organizational change geared toward the future growth.

In addition to these efforts, we also provide wages and welfare benefits in an appropriate manner in accordance with local laws and regulations of each country where the Group companies operates, thereby creating an environment in which employees can continue to work.

#### Employees Survey Score\* (%)

FY2018	FY2019	FY2019/2018 (Index)
61.4	62.9	102

\* Positive feedbacks with the scores of four or more out of the perfect score of five.

### Our Relationship with Labor Unions

Showa Denko Materials Co., Ltd. and its Group companies have labor agreements with labor unions organized at each company. These agreements state that both labor and management will consult with each other before any changes are made in working conditions for employees.

At the few Group companies that do not have labor unions, labor and management work to create a culture of constructive communication. Employees are able to express their opinions of working conditions through an employee representative.

## Occupational Safety and Health

### Basic Policy on Occupational Safety and Health

Showa Denko Materials has a Safety and Health Policy which is based on its basic philosophy of "Safety and Health Always Come First", and has been working with all of its employees in Japan and overseas to promote initiatives to create safe and comfortable working environments.

The basis of our safe acts is stipulated in the 10 Safety Principles. It states at the beginning of the sentence, "Everyone has the responsibility corresponding with its position, and eradicates occupational injuries by implementing "10 Safety Principles" as the basis of safe conduct". The principles stipulate the practice of responsible behavior according to each position. In article 1, "thorough implementation of KY (Kiken-yochi or risk prediction), and finger pointing & call" is defined.

In order to avoid accidents/injuries, we have made it a rule to identify dangers by KY, set up the targets to avoid them and implement finger pointing and call to make sure its effect. We have also revised the commentary version of "10 Safety Principles" in order for all the employees to understand and implement the Principles. Under the Group's "My Pledge for Safety" oath that is made by each employee, which states that they practice safe acts throughout their daily duties, starting from fiscal year 2015, we began an initiative in which all employees can share actions taken for potential risks. We will continue to undertake efforts to enforce safety by actively engaging in communication regarding the oath. From fiscal year, President and other Corporate Officers also pledges for safety, rolling out this movement company-wide to enhance the safety consciousness of employees.

### Promotion System and Occupational Safety and Health Initiatives

Showa Denko Materials has established a Safety and Health Management System for each business site, and has established a Safety and Health Committee in which representatives of workers participate. We are promoting various measures based on discussions between employees and management on the results of surveys on the level of compliance with safety and health laws/regulations, and the reduction of working hours and workplace accidents. Furthermore, alongside promoting safety and health activities involving all employees, such as KYT (Kiken Yochi or risk prediction Training), Pointing and Calling, sharing cases of Hiyari-Hatto (close call) incidents, and improvement proposals, we are making efforts to prevent accidents/disasters through our safety and health training.

Risk assessment for preventing accidents and disasters is conducted by setting specific evaluation criteria for each risk category. Within the risk categories, we identify and manage tasks that place heavy strain on the body, such as unnatural and repeated movements. In addition, in the case of installing new or remodeling old machinery and equipment, we conduct a safety review and take safety precautions according to international safety standards. We also evaluate workers exposure to chemical and physical media and provide appropriate protective equipment based on the used standards.

At overseas production sites, we have held Safety Meetings to provide on-site based safety guidance, including practical KY education, risk assessment, and Main Points for Safety and Health and other education programs. At the same time, we are making efforts to improve the level of our safety and health standard by implementing periodic safety and health audits.

In the unlikely event of an accident or disaster, we promptly report it to management, and to share information to all of the sites in three languages (Japanese, English, and Chinese) using the Accident and Disaster Report Management System, to prevent the recurrence of similar disasters.

### Performance on Occupational safety and Health

In fiscal year 2019, we worked at all our sites to reduce the number of disasters with five activity themes (participation of all employees, priority orientation, information sharing, standardization, and high motivation), and compared to the previous fiscal year, domestic data remained flat and overseas data increased. For this reason, in fiscal year 2020, we attempt to reduce our industrial accidents by ensuring our safety in order to eliminate the "unsafe conditions" and reforming our awareness to eliminate "unsafe behavior" from a new perspective.

As for our working environment, there were 21 workplaces that classified as control class III\*1 in Japan in fiscal year 2018 due to the addition of regulated chemical substances, the increase in production volume, and aging facilities in recent years. However they were taken up as priority improvement issues in fiscal year 2019, and those workplaces decreased to two by promoting improvement of the working environment, including capital investment. In fiscal year 2020, we work to reduce the number to zero. Regarding the working environment overseas, we comply with the laws and regulations of each country where we are located.

\*1 Control class III: Conditions in which the average concentration of airborne hazardous substances exceeds the administrative control level and therefore management of working environment is deemed inappropriate

#### Number of Lost-workday Injuries (Consolidated Group Companies in Japan)

FY	2015	2016	2017	2018	2019
Number of accidents	2	3	4	5	5

#### Number of Lost-workday Injuries (Overseas Production Sites)

FY	2015	2016	2017	2018	2019
Number of accidents	20*2	19*2	41*2	17	27

\*2 The reported number in previous years has revised due to the change of the scopes for aggregation.

#### Measurement Results of Working Environment (Control class III)

FY	2015	2016	2017	2018	2019
Workplaces	6	11	12	21	2



## Occupational Safety and Health

### Operation of the Occupational Health and Safety Management System (OHSAS18001)

We have acquired the OHSAS 18001 certification for occupational health and management systems at Showa Denko Materials' production sites and research centers throughout Japan. We are carrying out risk assessment based on the OHSAS 18001 to systematically and appropriately reduce and manage all risks at these sites. Additionally, we are continuing to improve our occupational health and safety management systems to reduce the risk of work-related accidents and associated management risk. We incorporate occupational health and safety targets of Showa Denko Materials as well as common priority themes of the Group into the Occupational Safety and Health (OSH) Management Plan at each site. In order to prevent accidents caused by chemical substances, we are also implementing chemical substance risk assessment based on our chemical substance risk assessment guidelines to prevent risks in handling chemical substances.

We have also established the Occupational Safety and Health Management System based on OHSAS 18001 at all production sites of all domestic Group companies, and have been working to continually improve these systems and performance, and promote independent health and safety programs.

Additionally, we are promoting the introduction of occupational health and safety management systems at our overseas production sites. We are committed to establishing a health and safety management structure on a global scale to prevent any incidents such as accident at work or fire and explosions.

With the publication of ISO 45001:2018 (hereinafter "ISO45001") in March 2018, we are promoting the shift to ISO 45001. In November 2018, we established a working group consisting of representatives of our domestic sites, and have been working to create model manuals, audit check sheets, and educational materials. OHSAS18001 certified offices are scheduled to complete the transition examination by December 2020. We are building an occupational health and safety management system that complies with ISO45001.

Our domestic frequency rate (consolidated) in fiscal year 2019 was 0.25 with severity rate was 0.006, both of which were better than the national statistics (frequency rate: 1.20, severity rate: 0.18) for domestic manufacturers (business establishments with 100 staffs or more) in 2019 published by the Ministry of Health, Labour and Welfare.

#### Occupational Accident Frequency Rate and Severity Rate (Consolidated in Japan)

FY	2015	2016	2017	2018	2019
Frequency rate	0.10	0.15	0.20	0.24	0.25
Severity rate	0.007	0.001	0.012	0.010	0.006

\* Frequency rate represents the number of people injured or killed due to occupational disasters per one million employee-hours worked and indicates the frequency of lost-time injuries

\* Severity rate represents the number of work days lost per 1,000 employee-hours worked and indicates the severity of accidents

### Implementation of Inspections and Training with regard to Occupational Safety and Health

Safety and Health Audits are implemented in each Showa Denko Materials Group site in Japan once a year to check the effectiveness of our occupational safety and health management systems for continuous improvement. In 2019, in addition to providing training programs for the internal auditors of the occupational safety and health management system three times (total attendees:50), we also provided regular occupational safety and health training courses at three levels: basic (19 attendees), supervisor (8 attendees) and administrator (18 attendees). We also offer regular safety and health education programs that fit the needs of each business site. In fiscal year 2019, we planned to hold the second round of the Global Environmental and Safety Presentation Meeting as well for the purpose of sharing information on safety activities on a global basis, crosscutting communication, revitalization of safety activities, and boosting motivation. However, we decided not to hold the Meeting considering the status of the spread of COVID-19 infection. We posted the result of safety activities and information on the

safety activity contest (KY contest, excellent cases of health and safety activities, and experience-based safety facilities) on our company website for information exchange and sharing, and informed of the awards presentation online.

For overseas Group companies, the Group has been conducting environmental and safety audits at each company since fiscal year 2013 to maintain and improve occupational health and safety standards. In fiscal year 2019, we established a structure of regional headquarters (RHQ) control function in Greater China, ASEAN, the Americas, and Europe in order to build an autonomous risk management system for each overseas region. We intend to strengthen our environmental safety management systems even further to reduce the number of accidents that occur.

Showa Denko Materials provides safety and health education to our employees utilizing the "Main Points for Safety and Health," which form the basis of our safety and health management for meeting safety and health targets, including compliance with the Industrial Safety and Health Act and application of international safety standards. In fiscal year 2019, we revised the document to update the laws and JIS revisions since the issuance of the initial version in 2012 and to add lessons learned from past accidents. The document was translated into several languages and distributed to our overseas production sites, and is being utilized as global common standard for health and safety management.

### Implementation of Disaster Prevention Drills

Showa Denko Materials implements general disaster prevention drills at all domestic production sites twice a year to update our disaster prevention management system, facilities, equipment, and to improve our awareness of disaster prevention. The self-defense firefighting team takes a lead in conducting these drills including fire extinguishing drills, emergency response drills and others, by considering emergency situations.

We conduct evacuation drills to prepare ourselves for tsunami caused by large earthquakes, through activities such as securing locations to evacuate when a tsunami warning is issued, and stocking up on drinking water, food and floating protectors to mitigate damage in the event of a tsunami.

## Social Contribution Activities

### Basic Concept on Our Social Contribution Policy

Showa Denko Materials is promoting social contribution activities in accordance with policies common to all Group companies. We aim to realize a sustainable society as advocated by the SDGs (Sustainable Development Goals) and to contribute to education for children who will be responsible for manufacturing in the future, hence we build relationships of trust with various stakeholders through our activities.

In addition, we have designated the areas of social contribution activities that we focus on as environmental, educational, and local community. Under our Group Identity, we make effective use of our strengths and resources to cooperate with our stakeholders and deploy our activities globally to resolve social issues.

### Employee Support System Regarding Social Contribution Activities

In addition to standard annual leave, Showa Denko Materials has a cumulative paid annual holiday system for employees engaging in volunteer work, in which they can take a holiday for successive days or in units of one or half a day.

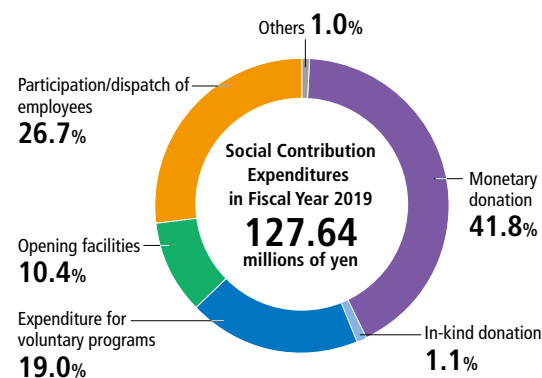
### Targets and Plans in Social Contribution Activities

Showa Denko Materials works to enhance social contribution activities as an initiative planned according to "timely and appropriate communication with stakeholders," one of the 10 materialities for sustainable growth, which were specified for our 2021 Medium-term Management Plan. We are carrying out relevant activities to achieve the targets set within the Management Plan.

Specifically, annual targets are set for indicators such as the number of branches to install green curtains, and the number of chemistry (science) lab workshops to be set up and participants in these workshops, which are reviewed yearly. The Group keeps track of spending on social contribution activities to help improve these activities further.

In fiscal year 2019, a total of 4,428 people participated in Showa Denko Materials' social contribution programs. The total number of employees who participated as volunteers was 990 people.

#### ■ Social Contribution Expenditures in Fiscal Year 2019



FY	2015	2016	2017	2018	2019
Social Contribution Expenditures (Millions of yen)	138	159	263	171	128

### TOPICS

#### Social contribution activities that we are carrying out as support for coping with COVID-19

##### ● Donated 700 protective garments to medical professionals

In May 2020, Showa Denko Materials donated a total of 700 protective garments to Yokohama City. The protective clothing is for medical professionals who are working at the forefront of the fight to prevent the spread of COVID-19 infection. We engage in the development of production methods and contract manufacturing of regenerative medicinal products, etc. in the US, Japan and Europe, and we use protective clothing for aseptic manufacturing work at the production facilities in the countries in these regions. In response to the request for cooperation from Keidanren (Japan Business Federation) to provide protective clothing and alternative products for medical gowns, we donated 700 sets of protective clothing, hoods, and boot covers from our production site in Yokohama City.

##### ● Donated approximately 6,000 science experiment study booklets to children

Showa Denko Materials holds science and chemistry experiment workshops for children to prevent them from losing interest in science, which is a pressing social issue, thereby increasing the number of children who are interested in science. Approximately 4,000 children participate in our science experiment workshops annually. Since we are unable to organize the science experiment workshops in 2020 due to the spread of new coronavirus infections, from August to September, 2020, we donated the textbooks that we use in our science experiment workshops to approximately 6,000 children in elementary schools, nurseries, and kindergartens in the neighborhood of our office.









Engagement with Stakeholders	Quality Assurance	Supply Chain Management	Respect for Human Rights	Promoting Diversity & Inclusion	Human Resource Development and Evaluation	Communication with Employees
Occupational Safety and Health	Social Contribution Activities					

## Social Contribution Activities

### Examples of Social Contribution Activities

Field	Concepts of Initiatives	Main Programs	
Environment	<p>Showa Denko Materials has identified the protection of the global environment as a key objective not only of its business operations but also of its social contribution activities, and therefore conducts a wide variety of related activities at its business sites in Japan and overseas.</p>	<p><b>Green Curtain Project</b> This activity started in fiscal year 2006, and is aimed at raising the environmental awareness of employees and people in local communities, in response to the social issue of "global warming." In this activity, participants enjoy themselves while developing and disseminating "green curtains" that create a comfortable environment without relying on air conditioners at domestic and overseas offices and areas around offices.</p> <p><b>Environmental Rehabilitation Project Around Kasumigaura: "Connect with Nature with Soy Sauce and Rice"</b> Since fiscal year 2012, we have been carrying out activities to regenerate the Satoyama (undeveloped woodland near populated areas) environment by planting fringed water lily (water algae) in Kasumigaura, and growing rice and improving the environment on abandoned cultivated land in Sakuragawa City, Ibaraki Prefecture. We are aiming at improving the water quality and preserving the surrounding ecosystem in response to the social problem of deterioration of the water environment in Kasumigaura, from where we also obtain water for industrial use.</p>	 
Education	<p>While children's disinterest in science is regarded as a social issue, Showa Denko Materials makes use of its characteristics as a chemical company to promote activities to convey the joy of science to children, and prompt children's spontaneous learning by developing their inquisitive spirit.</p>	<p><b>Science Workshop for Kids</b> In response to the social issue of declining interest of children in science, in fiscal year 2012, we started an experiment class, "Interaction with Science Class for Children," in which our employees work as instructors at nursery schools, kindergartens, elementary schools, etc. around our production sites. The classes have been expanding every year, and in fiscal year 2019, we organized a class in Thailand—the first time at an overseas location.</p> <p><b>Chemistry Lab Held in Summer for Children and Their Parents</b> <b>[Cooperation: The Chemical Society of Japan, Public Interest Incorporated Foundation]</b> In order to convey the joy of science and chemistry to children, we hold a science experiment class along with a tour of our production site at the "Business Site Tour for Parents and Children" held at each business site during summer vacation. People in the community can also join in this event.</p>	 
Local Communities	<p>In order for our local community residents to enjoy living with us, we carry out cleanup activities in which our employees participate, business festivals inviting local residents, and various other community contribution activities.</p>	<p><b>Environmental Dialogue Meeting</b> Our Shimodate Works holds an "Environmental Dialogue Meeting with Local People" every year. With the participation of people from the local community, we explain our environmental, safety, and local contribution activities using the Environmental Report and conduct a plant tour.</p>	
Others	<p>Showa Denko Materials provide disaster recovery assistance and academic pursuits and sports support in our business areas in Japan and overseas.</p>	<p><b>Disaster Recovery Assistance</b> We donated a monetary contribution, our product, "Mildy Sheet," a mat used for emergency disaster evacuations, and wrap films for food packaging.</p> <p><b>Scholarship System</b> We are working on scholarships for international students studying environmental management at Oxford University (UK), an aid program for poor students at Shanghai Jiao Tong University (China), etc., and TEST for AFRICA to fund education for African students.</p>	

## Social Data

### Employees

#### Number of Employees (Group)

FY	2015	2016	2017	2018	2019
Total	19,117	20,043	22,623	22,989	23,095
Japan	9,197	9,121	9,465	9,499	9,496
Overseas	9,920	10,922	13,158	13,490	13,599
Overseas (Asia)	9,327	9,283	11,185	11,355	11,133
Overseas (outside Asia)	593	1,639	1,973	2,135	2,466

#### Number of Employees (Non-consolidated)

FY	2015	2016	2017	2018	2019
Number of employees	6,209	6,484	6,480	6,528	6,615
Female	724	762	787	812	897
Male	5,485	5,722	5,693	5,716	5,718
Proportion of females	11.7%	11.8%	12.1%	12.4%	13.6%
Average age	40.7	41.3	41.9	42.3	42.9
Female	37.0	37.8	38.4	38.8	39.3
Male	41.2	41.8	42.4	42.8	43.4
Length of service (years)	17.4	18.0	18.3	18.3	18.4
Female	13.5	14.1	14.2	14.2	14.4
Male	17.9	18.6	18.9	18.9	19.0

#### Grad Hiring (Non-consolidated)

FY of entering	2015	2016	2017	2018	2019
Number of college graduates	77	93	93	111	112
Female	14	21	25	34	26
Male	63	72	68	77	86

#### Employment Ratio of Disabled People (%)

FY	2015	2016	2017	2018	2019
Japan, consolidated	2.44	2.45	2.50	2.46	2.49
Non-consolidated	2.16	2.25	2.28	2.28	2.29

#### Number of Managers and Directors (Non-consolidated)

FY	2015	2016	2017	2018	2019
Number of managerial positions	807	812	803	786	817
Female	22	25	25	35	33
Male	785	787	778	751	784
Proportion of females	2.7%	3.1%	3.1%	4.5%	4.0%
Manager or higher	329	325	309	307	322
Female	6	8	8	9	10
Male	323	317	301	298	312
Proportion of females	1.8%	2.5%	2.6%	2.9%	3.1%
Assistant managers	627	704	755	782	808
Female	18	18	32	29	50
Male	609	686	723	753	758
Proportion of females	2.9%	2.6%	4.2%	3.7%	6.2%

#### Birth and Child Raising (Non-consolidated)

FY	2015	2016	2017	2018	2019
Number of employees who take maternity leave	34	45	39	41	38
Number of male employees who take childcare leave	34	45	40	43	46
% of employees who return to work after childcare leave	100	97.7	100	97.6	100

#### Ratios of Basic Salary and Total Remuneration of Female Employees to Those of Male Employees (in Managerial Positions Only) (FY2019)

Ratio of basic salary (female/male)	Ratio of total remuneration(female/male)
95.4%	95.8%

\* The treatment is the same for male and female employees. The differences are due to age structure and job grade structure.

#### Employees Survey Score\*

FY2018	FY2019	FY2019/2018 (Index)
61.4	62.9	102.4

\* Affirmative response rate with 5 full points and above 4 points



## Social Data

### Other Data

#### Occupational Safety (Consolidated Group Companies in Japan)

FY	2015	2016	2017	2018	2019
Frequency rate	0.10	0.15	0.20	0.24	0.25
Severity rate	0.007	0.001	0.012	0.010	0.006

#### Number of Lost-workday Injuries (Consolidated Group Companies in Japan)

FY	2015	2016	2017	2018	2019
Number of accidents	2	3	4	5	5

#### Number of Lost-workday Injuries (Overseas Production Sites)

FY	2015	2016	2017	2018	2019
Number of accidents	20* <sup>2</sup>	19*	41*	17	27

\* The reported number in previous years has revised due to the change of the scopes for aggregation.

#### Measurement Results of Working Environment (Control class Ⅲ)

FY	2015	2016	2017	2018	2019
Workplaces	6	11	12	21	2

#### Transition of Participants in the Global Coaching Program

FY	2015	2016	2017	2018	2019
Participants	1,506	960	972	960	168*

\* In addition, 583 employees participated in Career Changing Coaching

#### Health-related indicator

FY	2018	2019
Rate of employees who have responded to the mental health survey (%)	88	92.6
Presenteeism* index	93.7	93.3
Rate of employees who have received a regular health checkup (%)	100	100
Rate of employees who have received a specified checkup (%)	91.9	93.3

\* Loss resulting from lower productivity due to reduced physical/mental health; 100 indicates highest level of performance.

FY	2015	2016	2017	2018	2019
Social Contribution Expenditures (Millions of yen)	138	159	263	171	128
Number of employees to social contribution activities	1,031	950	1,028	1,064	990

FY	2015	2016	2017	2018	2019
Transition of Participants to Compliance Training	3,350	4,110	4,491	4,606	5,541
Transition of Consultation and Whistle-blowing Calls	34	27	32	53	90

FY	2015	2016	2017	2018	2019
Number of supplier audits (companies)	137	162	147	215	314



## Environmental Data

**Environmental Data** (The scopes for aggregation: 45 main production sites of the Showa Denko Materials Group in Japan and overseas)

Category	Data point	Unit	Base FY	2015	2016	2017	2018	2019
Energy consumption	Total input	TJ (heat equivalent)	12,521	8,497	10,312	10,446	10,276	11,284
		thousand kL (crude oil equivalent)	323	219	266	270	265	291
		GWh (electricity equivalent)	1,880	1,466	1,480	1,480	1,458	1,586
	Gasoline	kL	-	313	322	343	339	105
	Kerosene	kL	-	1,534	1,318	968	1,041	741
	Light oil	kL	-	1,490	1,619	1,855	1,487	1,571
	Heavy oil	kL	-	3,531	3,071	3,428	2,889	2,017
	LPG	tons	-	10,181	11,139	13,188	11,581	9,311
	LNG	tons	-	6,144	5,341	6,828	9,358	6,084
	City gas	thousand m <sup>3</sup>	-	28,910	29,868	40,214	36,567	27,009
	Purchased electricity	GWh	-	946	985	1,182	1,185	907
	Renewables	MWh	-	268	252	265	831	1,785
	Steam	TJ	-	257	267	271	266	250
Material inputs	Basic unit (crude oil equivalent)	kL/millions of yen	0.732	0.601	0.635	0.562	0.573	0.616
	Metals	thousand tons	-	149	159	176	171	162
	Plastics	thousand tons	-	49	47	54	51	41
Water usage	Chemicals	thousand tons	-	204	195	143	135	112
	Total input	thousand m <sup>3</sup>	16,034	9,311	9,725	9,652	9,566	9,222
	City water	thousand m <sup>3</sup>	-	882	1,273	1,267	1,417	1,758
	Industrial water	thousand m <sup>3</sup>	-	4,149	3,904	3,973	3,979	3,923
	Ground water, etc.	thousand m <sup>3</sup>	-	4,280	4,548	4,412	4,170	3,540
	Recycled and reused	thousand m <sup>3</sup>	-	3,756	3,680	3,906	3,844	3,687
	Basic unit	m <sup>3</sup> /millions of yen	36.3	25.5	23.2	20.1	20.7	19.5

## Environmental Data

Category	Data point	Unit	Base FY	2015	2016	2017	2018	2019
Greenhouse gases	Total Emission	thousand t-CO <sub>2</sub> e	674	482	590	592	578	573
	From power generation	thousand t-CO <sub>2</sub> e	674	473	581	582	565	560
	From other sources	thousand t-CO <sub>2</sub> e	-	9	9	10	13	12
	Scope 1	thousand t-CO <sub>2</sub> e	-	109	119	121	122	115
	Scope 2	thousand t-CO <sub>2</sub> e	-	373	471	471	456	445
	Voluntary energy-saving measures	thousand t-CO <sub>2</sub> e	-	5	3	9	4	4
	Basic unit	t-CO <sub>2</sub> e/millions of yen	1.528	1.320	1.409	1.233	1.249	1.212
Effluents	Total effluents	thousand m <sup>3</sup>	-	8,809	8,876	9,061	8,861	8,563
	Effluents discharged into public waters	thousand m <sup>3</sup>	-	7,419	7,326	7,396	7,284	6,861
	Discharged into others such as sewage	thousand m <sup>3</sup>	-	1,390	1,550	1,665	1,577	1,702
	COD	tons	-	39	45	44	40	39
	BOD	tons	-	43	58	57	32	23
Air pollutants	SO <sub>x</sub>	tons	-	20	24	23	19	17
	NO <sub>x</sub>	tons	-	116	111	124	101	80
	VOC	tons	1,251	519	725	793	789	625
Waste	Total waste	thousand tons	110	54	67	72	68	66
	Recycled	thousand tons	-	45	49	53	50	46
	Hazardous waste	thousand tons	-	12	14	14	14	17
	Dumped or incinerated	thousand tons	-	1	4	4	3	2
	Basic unit	tons/millions of yen	0.25	0.15	0.16	0.15	0.15	0.14
Transport impact (in Japan)	Energy	TJ	-	313	308	311	306	264
	CO <sub>2</sub> emissions	thousand t-CO <sub>2</sub>	-	21	21.1	21.3	21.0	18.0
	Basic unit	t-CO <sub>2</sub> /millions of yen	-	0.069	0.068	0.064	0.066	0.060
PRTR (in Japan)	Handled	tons	-	107,604	112,583	116,061	113,341	96,498
	Released	tons	-	240	302	282	272	239
	Transported	tons	-	1,275	1,144	1,156	1,073	840
	Removed via decontamination	tons	-	3,156	3,136	3,013	2,718	2,252
	Recycled	tons	-	2,236	3,915	4,926	4,957	3,149
Product output	Major production sites	millions of yen	441,229	365,001	418,715	479,941	462,985	472,236
	Production	thousand tons	-	341	325	291	280	242



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