

## Sustainability (CSR)

# Aiming for Sustainable Growth Alongside Society

The Shin-Etsu Group will fulfill its social responsibility and strive to create and expand new value demanded by society through all our business activities based on products and technologies.

## CSR Promotion Structure

The Group's social responsibility is to execute its corporate mission and contribute to shareholders, investors, customers, business partners, regional communities, employees and all other stakeholders. To achieve this, we promote activities based on the establishment of a Basic CSR Policy and various internal regulations. We established the CSR Promotion Committee, chaired by the president, comprising managers from relevant divisions and departments, to promote Companywide CSR activities in all aspects of corporate activities.

### Basic CSR Policy (Formulated June 2011)

The Shin-Etsu Group:

1. Will do our best to increase the Group's corporate value through sustained growth and make multifaceted contributions to society.
2. Will carry out all of our company activities by always making safety our utmost priority.
3. Will constantly pursue energy-saving, resource-saving and the reduction of the environmental impact, and seek to help create a sustainable future world in which we all live in harmony with the Earth.
4. Will endeavor to contribute to the prevention of global warming and the conservation of biodiversity by means of our cutting-edge technologies and products.
5. Will strive to respect human dignity, assure equality in employment opportunities and support the self-fulfillment of our employees.
6. Will appropriately disclose information in a timely manner.
7. Will carry out trustworthy corporate activities that are based on the integrity of the Group's ethical values.

### CSR Organizational Chart: CSR Promotion Committee



\*Renamed as the ESG Promotion Committee as of August 1, 2017.

## Supporting and Implementing Principles and Global Charters

The Shin-Etsu Group signed and put into practice the Responsible Care Global Charter of the International Council of Chemical Associations (ICCA) in 2006. In 2014, we signed the revised Responsible Care Global Charter. In 2010, the Shin-Etsu Group became a participant in the United Nations Global Compact (UNGC) and has been voluntarily supporting and practicing in its business operations and strategies the UNGC's Ten Principles with regard to human rights, labor standards, the environment and the prevention of corruption. Furthermore, since November of that same year, we have also participated in Global Compact Network Japan and incorporate the latest trends in CSR

obtained from the Supply Chain and SRI/ESG Subcommittees to promote CSR throughout the Group. These principles are all in line with the Group's corporate mission and Basic CSR Policy. The Shin-Etsu Group will continue to uphold these initiatives and charters and will endeavor to build even deeper relationships of trust with people around the world.



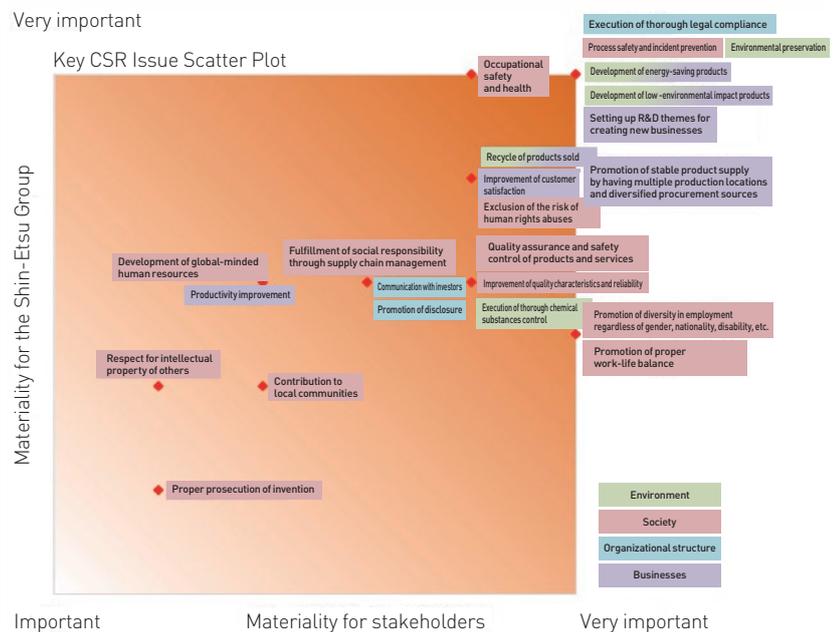
# Identifying Key CSR Issues (Materiality)

Since the establishment of the CSR Promotion Committee in 2005, the Shin-Etsu Group has promoted CSR initiatives within all its business activities. In 2015, we conducted a careful examination of global CSR guidelines and demands from stakeholders. The CSR Promotion Committee conducted a survey of all divisions and major Group companies to identify key issues facing the Group. Then, the Managing Directors' Meeting, the decision-making body for the

execution of operations comprising all directors, deliberated to define key CSR issues that require specific attention.

The Group targets "Contributions to the Earth's Future" by addressing all these issues equally and putting the Corporate Mission Statement into practice. In most cases, these efforts conform to the United Nations' Sustainable Development Goals (SDGs).

## Process of Specifying Shin-Etsu Group Key CSR Issues



## Shin-Etsu Group Aims Contributions to the Earth's Future

Strengthen existing businesses  
Create new businesses



# Shin-Etsu Group Key CSR Issues

Please visit the CSR section of our Web site for detailed information on each initiative.

**WEB** <https://www.shinetsu.co.jp/en/csr/>

## The cornerstone of all activities: legal compliance, fair corporate activities

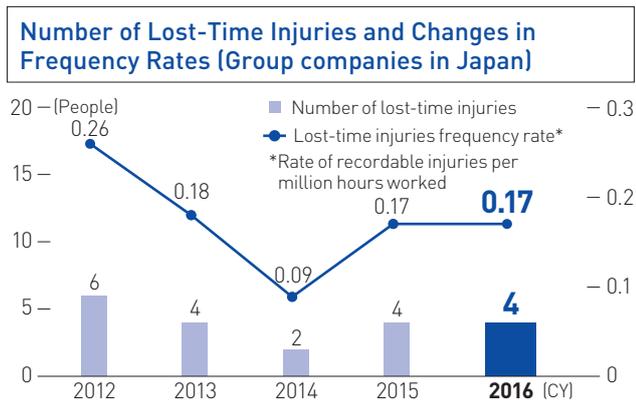
Corporate improprieties related to compliance are considered critical social issues. The opening lines of the Group's Corporate Mission Statement include the concepts "legal compliance" and "fair corporate activities." In recognition of issues related to all eight key issues comprising the cornerstone of all these activities, Group companies in Japan and overseas engage in legal compliance and fair corporate activities.

Specific Initiatives	
<b>Thorough legal compliance</b>	<ul style="list-style-type: none"> <li>Show on the corporate mission and management objectives each year.</li> <li>Notify via the Legal Department the thorough observance of legal revisions.</li> <li>Submit Compliance Pledges signed by all directors, audit and supervisory board members and employees.</li> <li>Facilitate consultation and reporting related to legal, ethical or regulatory infractions, and protect those who have made such consultations and reports from disadvantageous treatment with the Compliance Consultation and Notification Regulations.</li> </ul>
<b>Corruption prevention</b>	<ul style="list-style-type: none"> <li>Formulated the Anti-Bribery Regulations.</li> <li>Include overall work ethic and compliance status in employee evaluation.</li> <li>Conduct anti-bribery training and regular internal monitoring.</li> </ul>
<b>Export control</b>	<ul style="list-style-type: none"> <li>Established the Control Program on Security Export to comply with export-related laws and regulations.</li> </ul>
<b>Competition Laws initiatives</b>	<ul style="list-style-type: none"> <li>Formulated and strictly observe the Guidelines Regarding Compliance with Competition Laws, conduct monitoring.</li> <li>Conduct webinars to ensure compliance with the Competition Laws.</li> </ul>

## Key Issue 1 Employees and contractor health and safety

As a chemicals company, we recognize the importance of issues related to employee safety and health. To this end, we engage in environmental preservation at each plant, occupational safety and health and process safety and prevention plans. The Group is engaged in creating safe and comfortable workplaces that aim to prevent the occurrence of serious accidents and reduce lost time incidents to zero.

Specific Initiatives	
<b>Occupational safety and health</b>	<ul style="list-style-type: none"> <li>Identified and eliminated injury and illness risks, conducted thorough risk assessment and risk prediction activities, and implemented countermeasures for close calls and other incidents of concern.</li> </ul>
<b>Process safety and prevention</b>	<ul style="list-style-type: none"> <li>Conducted risk assessments and planned safety measures based on plant malfunction scenarios, utilized a system for evaluating safety capabilities.</li> </ul>
<b>Education and drills</b>	<ul style="list-style-type: none"> <li>Conducted safety education and emergency drills, transmitted manufacturing equipment operating skills, cultivated a culture that emphasizes safety.</li> </ul>
<b>Environmental control and safety audits</b>	<ul style="list-style-type: none"> <li>Conducted internal audits of plant environmental safety, occupational safety and health and process safety and prevention plans.</li> </ul>
<b>Attention to health</b>	<ul style="list-style-type: none"> <li>Established the Safety and Health Committees to engage in illness prevention and other health guidance.</li> </ul>
<b>Reporting of accidents and lost time incidents</b>	<ul style="list-style-type: none"> <li>In fiscal 2015, there were four lost time incidents reported group-wide, for which we analyzed the causes and formulated countermeasures.</li> </ul>



**Participants of Safety Education Programs**

Coverage	FY2014	FY2015	FY2016
Shin-Etsu Chemical	7,224	7,531	<b>7,970</b>
Consolidated companies*	—	—	<b>22,166</b>

(People)

\*Started to compile the consolidated data from FY2016.

## Promotion of Safety Education

It is important to heighten sensitivity with respect to safety through the acquisition and improvement of skills and knowledge by each individual employee for the safe and stable operation of plants.

To this end, in addition to safety education on handling materials, understanding dangers inherent in processes and simulating dangerous experiences, we conduct emergency drills to prepare for major earthquakes or fires. We also strive to pass on manufacturing equipment operational skills. Furthermore, we make an effort to inculcate a company culture that places an emphasis on safety through workplaces engaged in manufacturing that observes work procedures and rules.



Comprehensive disaster drill (Shin-Etsu Chemical Naoetsu Plant)

### Key Issue



### Energy-saving, resource-saving and the reduction of the environmental impact

Products provided by the Group have become indispensable aspects of global industries and people's lifestyles. For this reason, we are aware that it is critical to reduce environmental burdens not only during manufacturing but also during use, disposal and throughout all processes. The Group strives not

only to ensure thorough reduction of environmental burdens in manufacturing processes but also for product development and sales of eco-friendly products such as rare earth magnets and PVC. Rare earth magnets are used in eco-cars, and PVC has a low dependency on petroleum resources.

#### Specific Initiatives

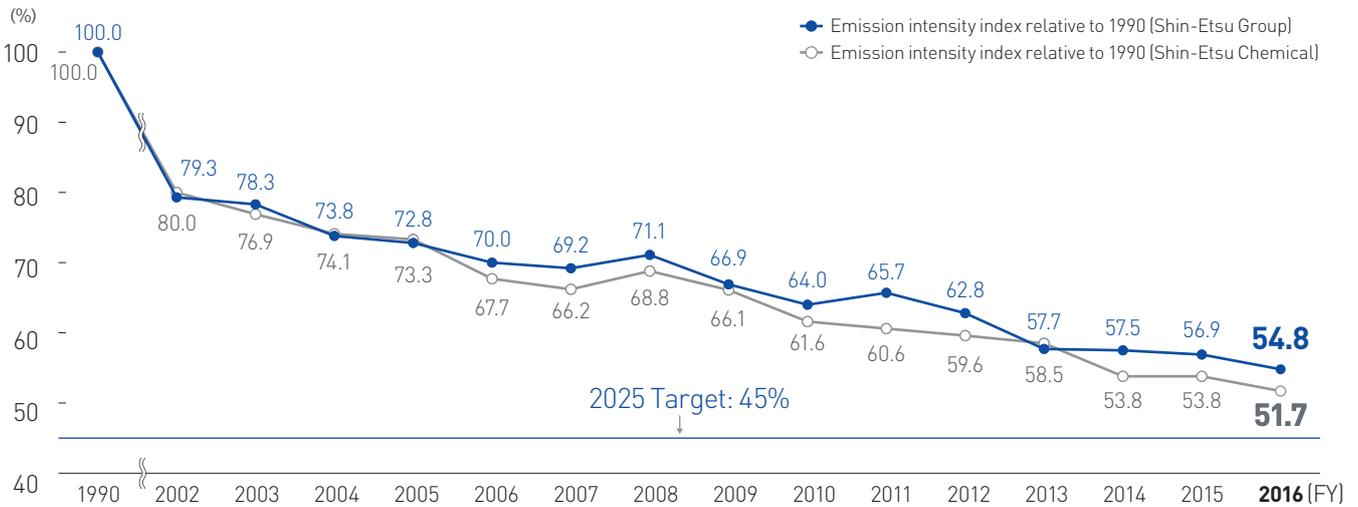
<b>Environmental management</b>	<ul style="list-style-type: none"> <li>Conducted management based on environmental and safety management plans created from Responsible Care codes. Conducted environment and safety audits.</li> <li>Promoted reduction of the environmental burden at the manufacturing stage. Developed products with a focus on reduction of the environmental burden at the usage stage.</li> </ul>
<b>Response to climate change</b>	<ul style="list-style-type: none"> <li>Improved manufacturing processes and yield rates, however, fell slightly short of the medium-term objective of reducing greenhouse gas emissions by 45% compared to 1990 levels by 2025.</li> <li>From FY2016, promoted a new medium-term objective of reducing greenhouse gas emissions to 45% compared to 1990 levels by 2025.</li> </ul>
<b>Water resource conservation, water pollutant elimination</b>	<ul style="list-style-type: none"> <li>Reduced water intake and promoted water recycling aimed at reducing water intake by 1% per production unit at an average annual rate and reducing water pollutant emissions by 1% per production unit at an average annual rate. Observed regulations related to water pollutants.</li> </ul>
<b>Waste elimination</b>	<ul style="list-style-type: none"> <li>Promoted initiatives aimed at achieving zero waste emissions.</li> <li>Due to certain production process conditions at some plants, we had difficulty in achieving significant reductions in the amount of waste for final disposal. We are currently studying this issue.</li> </ul>
<b>Resource recycling</b>	<ul style="list-style-type: none"> <li>Recycled rare earth metals recovered from manufacturing process scrap, disposed of energy-saving air conditioners and hybrid vehicles.</li> <li>Conducted material recycling of used PVC pipe and other PVC products.</li> </ul>
<b>Biodiversity protection initiatives, pollutant countermeasures</b>	<ul style="list-style-type: none"> <li>Conducted environmental beautification activities including cleanup of rivers near plants. Asked business partners to implement environmental conservation initiatives.</li> <li>Reported the amount of chemical substances used and moved in the environment in line with the PRTR system<sup>1</sup> under the Act on Confirmation, etc., of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof.<sup>2</sup></li> <li>Converted to low-sulfur fuels and established reduction targets for air pollutants at each Group company.</li> <li>Monitored groundwater and soil contamination in line with the Soil Contamination Countermeasures Act.</li> </ul>
<b>Environmental accounting</b>	<ul style="list-style-type: none"> <li>Calculated investments and expenses related to Shin-Etsu Chemical's environmental burden and energy-saving measures, waste elimination and recycling efforts. In FY2016, the total amount of environmental conservation investment was ¥4,547 million. Expenses were ¥9,236 million.</li> </ul>

1. A system for calculating and disclosing the amount of waste emitted and moved based on national data and statistics taken from reports by handlers submitted to the government pertaining to the emission of chemicals potentially harmful to human health and the ecosystem into the environment from offices (air, water, soil) and the amount of waste discharge moved offsite.

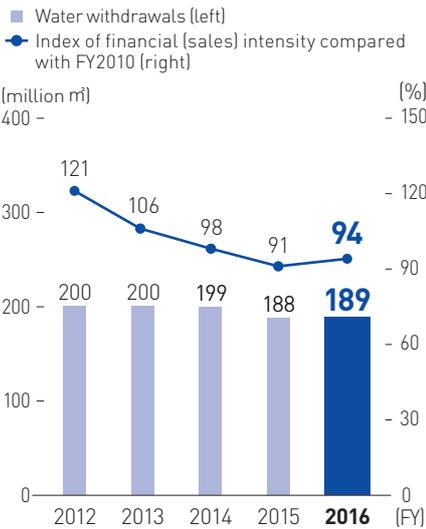
2. A law intended to promote improved self-directed control of chemical substances by business operators, in order to prevent the risk of damage to the environment.

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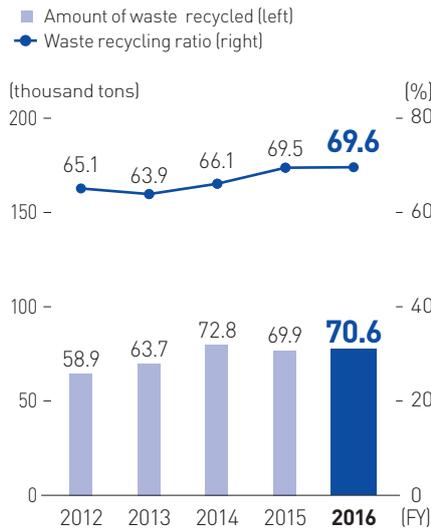
Changes in Greenhouse Gas Emission Intensity Relative to FY1990 Levels



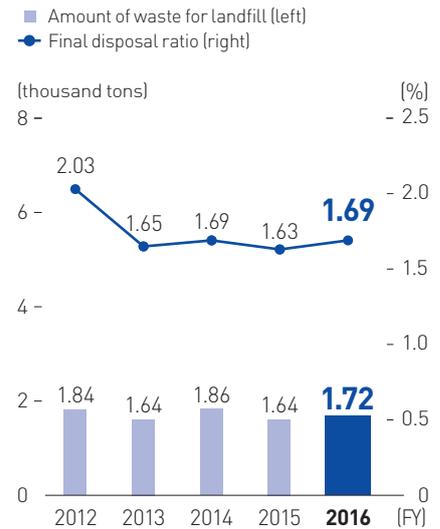
Water Withdrawals



Amount of Waste Recycled



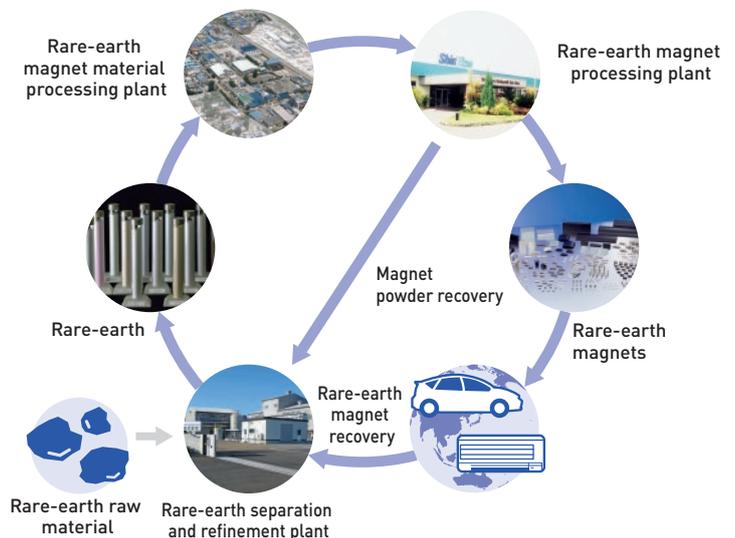
Amount of Waste for Landfill



Rare Earth Magnet Recycling Aimed at Resource Conservation

The Shin-Etsu Group utilizes separation and refinement techniques to extract rare earth metals from used materials. Since 2013, we have used the latest technologies to recover rare earth magnets used in energy-saving air conditioners and hybrid cars. This ensures a stable source of valuable rare earth metals and contributes to protecting the environment by reducing waste and reusing resources.

Rare-Earth Magnet Resource Recycling Process



## Key Issue

# 3

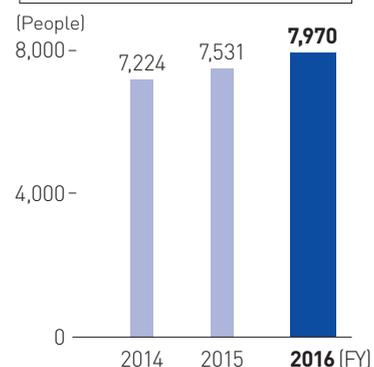
## Product quality improvements and product safety control

The Group's products are used in people's daily lives and to support society. At the same time, there is a critical focus on the safety of chemical substances as a global social issue. The Group strictly manages product safety and improves quality control in line with the laws and regulations of each country.

### Specific Initiatives

<b>Quality control</b>	<ul style="list-style-type: none"> <li>Cooperation among the Sales, Research &amp; Development, Manufacturing and Quality Assurance departments.</li> </ul>
<b>Response to claims and complaints</b>	<ul style="list-style-type: none"> <li>Claims and complaints are responded to in different manners, and a response team is formed in the event of major claims.</li> </ul>
<b>Quality audits and support</b>	<ul style="list-style-type: none"> <li>Quality audits and Six Sigma<sup>1</sup> activities are conducted regularly.</li> </ul>
<b>Product safety management</b>	<ul style="list-style-type: none"> <li>Product safety management is conducted based on internal regulations.</li> <li>Risks to the environment and health are assessed when new chemical substances are developed.</li> <li>Developing products and manufacturing technologies without the use of the hazardous substances specified in the Industrial Safety and Health Act, the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Chemical Substances Control Law),<sup>2</sup> and the EU RoHS Directive.<sup>3</sup></li> <li>The Safety Data Sheet (SDS) is used to convey information appropriately to the supply chain, while dangerous and hazardous substances are indicated pictorially in accordance with the GHS.<sup>4</sup></li> </ul>

### Participants of Product Safety Related Training Programs



- A quality management method involving the analysis of manufacturing processes using systematic methods including statistical analysis and quality management to reduce defect rates.
- Law aimed at preventing environmental pollution from chemical substances potentially affecting human health and biodiversity.
- EU directive on restricting the use of certain hazardous substances in electrical and electronic equipment.
- The Globally Harmonized System of Classification and Labeling of Chemicals

## Key Issue

# 4

## Promoting CSR procurement and the diversification of supply sources

There is a critical focus on appropriate procurement of raw materials throughout the global supply chain as a global social issue. The Group promotes fair procurement activities based on its Basic Procurement Policy in an effort to create supply chains that consider the environment.

### Specific Initiatives

<b>Basic Procurement Policy</b>	<ul style="list-style-type: none"> <li>Formulated the Basic Procurement Policy, published on our Web site and included in the base contracts with our business partners.</li> </ul>
<b>Compliance with the Act Against Delay in Payment of Subcontract Proceeds, etc., to Subcontractor</b>	<ul style="list-style-type: none"> <li>Regularly confirm whether suppliers fall under this Act and provide training for staff in charge of purchasing and procurement.</li> </ul>
<b>Elimination of conflict minerals</b>	<ul style="list-style-type: none"> <li>The Basic Procurement Policy calls for the elimination of all conflict minerals. All business partners are asked to adhere to this policy, and we regularly track production all the way back to the smelt factory phase.</li> </ul>
<b>Procurement audits</b>	<ul style="list-style-type: none"> <li>Business partners in Japan and overseas are asked to complete a procurement audit checklist and accept our conducting an onsite audit.</li> </ul>
<b>Procurement conferences</b>	<ul style="list-style-type: none"> <li>Twice each year, company-wide meetings are held for procurement staff focused on CSR procurement education and to confirm progress status.</li> </ul>
<b>Business continuity initiatives</b>	<ul style="list-style-type: none"> <li>Business continuity plans are formulated to prepare for unforeseen events; business partners are asked to understand our plans and formulate plans of their own.</li> </ul>
<b>Control of chemical substance used as raw materials</b>	<ul style="list-style-type: none"> <li>We confirm the ISO 14001 acquisition status of business partners and engage in preferential business transactions with certified suppliers to purchase materials with low environmental impact.</li> </ul>

### Creation of the CSR Procurement Guidelines

The Shin-Etsu Group formulated the CSR Procurement Guidelines. In accordance with these guidelines, we educate staff in the Purchasing Department and conduct briefings to inculcate an understanding of Group initiatives among business partners and companies upstream. Through these activities, the Group will contribute to the realization of a sustainable society.



Briefing of CSR Procurement Guidelines held in July 2017

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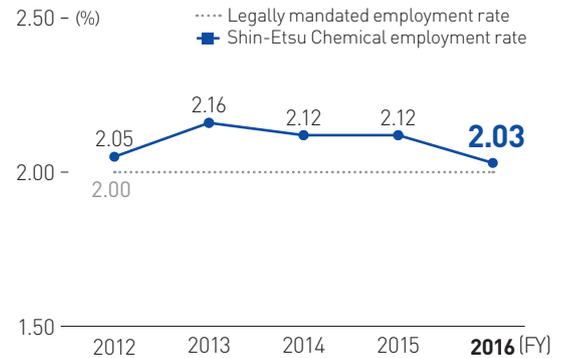
## Key Issue 5 Respect for human rights, the development of human resources and the promotion of diversity

The Group is engaged in realizing the creation of a comfortable work environment that respects basic human rights where each employee can achieve health, self-realization and follow a career path.

### Specific Initiatives

<b>Respect for human rights</b>	<ul style="list-style-type: none"> <li>Confirm compliance with labor standards of the International Labour Organization.</li> <li>Training is held by the Human Rights Enlightenment Promotion Committee.</li> </ul>
<b>Education/Training and personal development</b>	<ul style="list-style-type: none"> <li>Conduct international adaptation training.</li> <li>Provide one year of university study under the auditing student system.</li> </ul>
<b>Performance-based personnel evaluation systems and equal opportunities</b>	<ul style="list-style-type: none"> <li>Provide evaluation training, disclose evaluation standards and results, and conduct evaluation interviews.</li> </ul>
<b>Respect for diversity</b>	<ul style="list-style-type: none"> <li>Promote the hiring of local staff at overseas group companies and the hiring of non-Japanese staff in Japan.</li> <li>Enrich child-care leave and nursing care leave systems.</li> </ul>

### Employment Rate of Persons with Disabilities



### Number of Employees Who Have Taken Child-Care Leave

(People)	FY2014		FY2015		FY2016	
	Female	Male	Female	Male	Female	Male
Shin-Etsu Chemical	8	2	6	0	9	0
Consolidated companies in Japan	44	3	36	2	35	0
Consolidated companies total	86	56	73	44	72	68

### Number of People Obtaining Nursing Care Leave

(People)	FY2014	FY2015	FY2016
Consolidated companies in Japan	3	3	1

Note: Data of the Shin-Etsu Group includes employees and secondees.

## Key Issue 6 Respect for and protection of intellectual property

We maintain the confidentiality, integrity and availability of information assets possessed by the Group and engage in the acquisition and use of intellectual property and appropriately manage and protect information assets to strategically execute corporate management focused on intellectual assets.

### Specific Initiatives

<b>Intellectual property management</b>	<ul style="list-style-type: none"> <li>Formulated the Basic Regulations on Intellectual Property and offered a reward system for useful inventions and other work activities that enhance profitability.</li> </ul>
<b>Information asset management</b>	<ul style="list-style-type: none"> <li>Formulated the Basic Policy on Information Asset Management and Basic Regulations on Intellectual Property.</li> <li>Formulated Standards for Preventing Technology Leaks to prevent unintentional leaks of technologies due to business development into regions with weak protections for intellectual property rights.</li> </ul>
<b>Protection of personal information</b>	<ul style="list-style-type: none"> <li>Formulated the Personal Information Protection Policy and conduct related training.</li> </ul>

### Number of Patents Acquired and Held (Major group companies)

Breakdown	(Number of patents)			
	Patents acquired		Patents held	
	FY2015	FY2016	FY2015	FY2016
Japan	616	697	7,027	7,355
Overseas total	1,163	1,325	10,102	10,951
Asia/Oceania	602	642	4,190	4,707
North America	282	220	2,850	2,924
Europe	270	458	3,035	3,286
Other	9	5	27	34
Total	1,779	2,022	17,129	18,306

Group companies and employees proactively promote social contribution activities rooted in local communities throughout the world. For example, for the past nine years Shintech (U.S. Group company) has collaborated with several local business partners to conduct the "Safety Town" safety education program targeting local kindergarten and elementary school students.

## Social Contribution Activities by Overseas Group Companies

### The "Safety Town" Program Conducted by Shintech

Shintech's Addis plant in Louisiana supports a variety of local organizations and proactively participates in civic activities, including the "Safety Town" program organized by the local government, in which it has participated since 2007. This program provides guidance related to safety, including how to cross streets and report emergencies, targeting local kindergarten and elementary school students. Eleven employee volunteers from Shintech participated in the two-day program held in April of this year. They offered guidance on how to safely ride bicycles in "Mini Town," which provides a virtual experience of an actual roadway.



The Shin-Etsu Group believes the appropriate and timely disclosure of Company information promotes stakeholder understanding and also leads to appropriate market valuation. We engage in fair and transparent disclosure through information posted on our corporate website, announcements in the media and at stock exchanges and publications including the annual report and reports for shareholders. We also participate in a pilot project\* for a non-financial disclosure system focused on environmental information, the first of its kind in the world, created by the Ministry of the

Environment in 2013. This information is viewed by a wide range of stakeholders. As ESG investment is expected to increase going forward, we will make an effort to provide even more non-financial information.

\*Environmental Information Disclosure Platform Development Project: In light of the growing global trend of environmental, social and governance (ESG) investment, the Ministry of the Environment launched a project aimed at developing a non-financial information disclosure system focused on environmental information in 2013, the first of its kind in the world. In 2016, we launched a pilot program assuming full-year operations aiming to further invigorate dialogue with companies and investors. Reference: <http://www.env.go.jp/press/102683.html> (Japanese language only)

### Outside Assessments

#### Selected for the MSCI Global ESG Select Leaders Index

A leading global socially responsible investment (SRI) index created by Morgan Stanley Capital International (MSCI). This index is composed of companies having excellent ESG ratings within each industry from among the top 500 companies by market capitalization.



#### Selected for the Morningstar Socially Responsible Investment Index

Morningstar Japan K.K., created the first socially responsible investment stock index in Japan, which selects 150 companies assessed for their excellent social performance out of approximately 3,700 domestic listed companies.



(As of January 4, 2017)

#### Selected for the SNAM Sustainability Index

This index consists of companies with above-standard ESG scoring derived from corporate research related to environmental (E) factors conducted by Sampo Risk Management & Health Care, and corporate research related to social (S) and governance (G) factors conducted by IntegreX Inc.

