



Creating for Tomorrow

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# Editorial Policy

## Introduction

We issued our first *Environment Report* in 1991, and in 1997 this was replaced by our *Responsible Care Report*. In 2006 we began issuing a *CSR Report* with content further enriched for greater accountability and communication with our stakeholders. In line with a trend in Europe to combine financial and non-financial information in a single integrated report, in 2014 we issued an *Asahi Kasei Report* replacing our *Annual Report* and *CSR Report*.

In addition to the CSR information included in the *Asahi Kasei Report*, we publish a *CSR Report Internet Edition*. The Asahi Kasei Group continues to contribute to the sustainability of society through business activities in accordance with our Group Mission.

## Reporting period

The primary focus is fiscal 2017 (April 2017 – March 2018). Some information pertains to the period subsequent to this.

## Organizational boundary

Information herein pertains to Asahi Kasei Corp. and consolidated subsidiaries as of March 31, 2018, unless otherwise noted.

On April 1, 2016, Asahi Kasei Corp. became an operating holding company through the absorption of three of its core operating companies, Asahi Kasei Fibers Corp., Asahi Kasei Chemicals Corp., and Asahi Kasei E-materials Corp. The former company names may appear in this report.

With respect to Responsible Care, the scope is operations in Japan which implement the Asahi Kasei Group's Responsible Care program.

## Inquiry

Please click [here](#) if you have an inquiry.

## Guidelines consulted

The GRI Sustainability Reporting Standards (GRI Standards), ISO 26000, and other guidelines were consulted during the preparation of the reported information.

## Publication

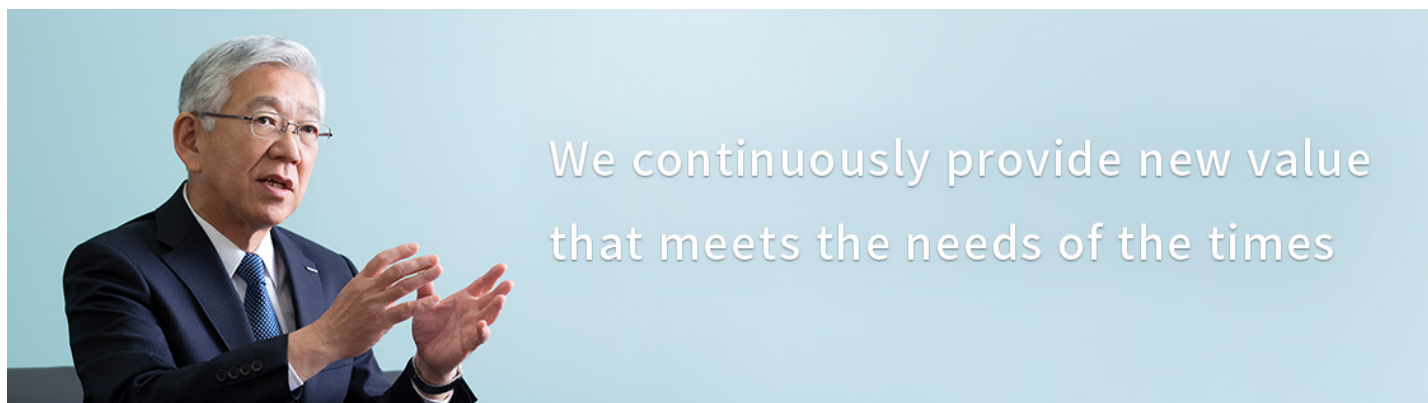
Published October 2018 in Japanese

Revised in January 2019

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(Previous publication November 2017)

## Management Message



Our business environment is changing at a very rapid pace. The so-called fourth industrial revolution is transforming our lives with digital technology such as IoT, AI, and Big Data. Meanwhile, sensitivity toward social and environmental issues continues to rise around the world, exemplified by the agenda for sustainable development goals (SDGs) adopted by the UN in 2015.

Asahi Kasei has continued to create new value in accordance with our Group Mission of contributing to life and living for people around the world by always adapting to the changing needs of the times through our diverse business operations. We believe the current period of rapid change presents great opportunities for us to provide innovative solutions which meet emerging needs.

With our Cs for Tomorrow 2018 (CT2018) management initiative for the three-year period from fiscal 2016 to 2018, we are building the foundation to create a portfolio of high profitability and high value-added businesses by fiscal 2025, ten years from the start of the initiative. We have made solid progress, and in fiscal 2017, the second year of CT2018, sales in each business were robust, especially in Chemicals where improved market prices for acrylonitrile bolstered performance. As a result, we marked record highs in net sales, operating income, ordinary income, and net income attributable to owners of the parent.

In fiscal 2018, the final year of CT2018, we are continuing to make proactive investments for growth while addressing environmental, social, and governance (ESG) issues in accordance with our Group Mission, Group Vision, and Group Values.

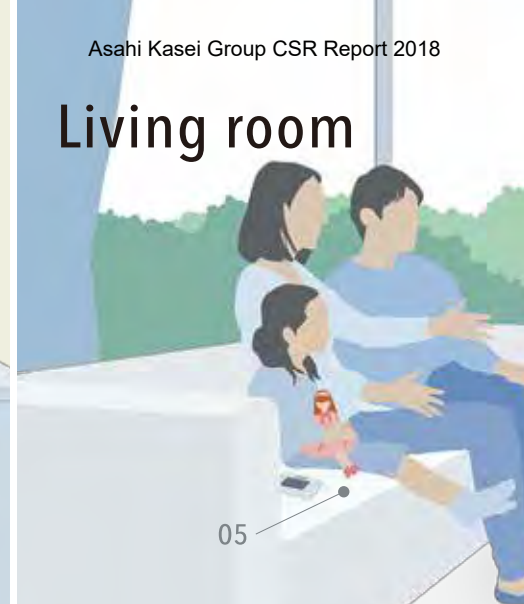
By drawing together our diverse businesses, human resources, and technologies, we will achieve growth as only Asahi Kasei can. We continue to value proactive communication with our stakeholders as part of a commitment to appropriate and highly transparent disclosure.

Hideki Kobori  
President

## Kitchen



## Living room



# Creating for Tomorrow

The commitment of the Asahi Kasei Group:

To do all that we can in every era to help the people of the world make the most of life and attain fulfillment in living.

Since our founding, we have always been deeply committed to contributing to the development of society, boldly anticipating the emergence of new needs. This is what we mean by "Creating for Tomorrow."

## Office



## Hospital

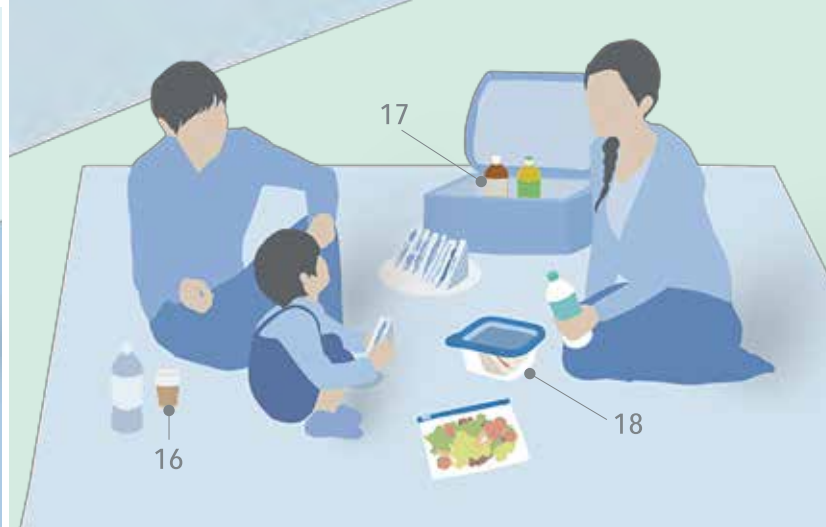
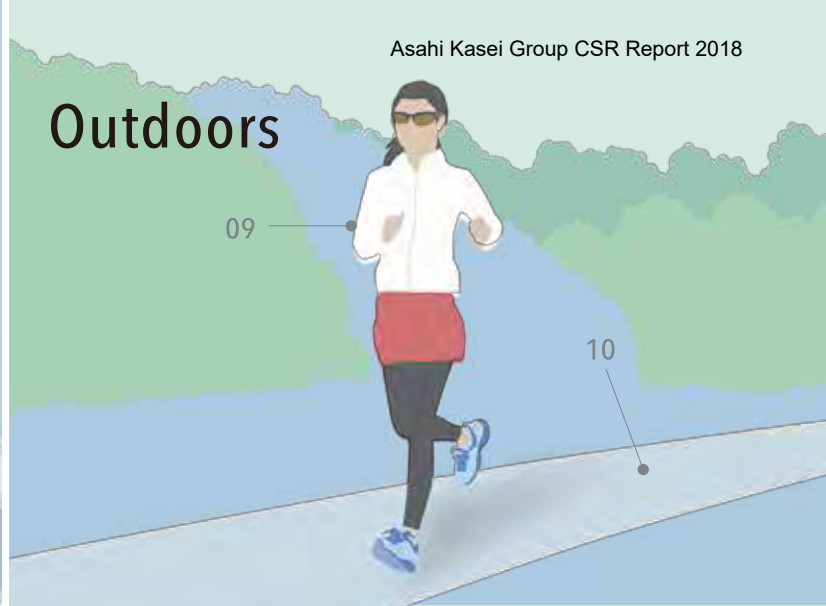
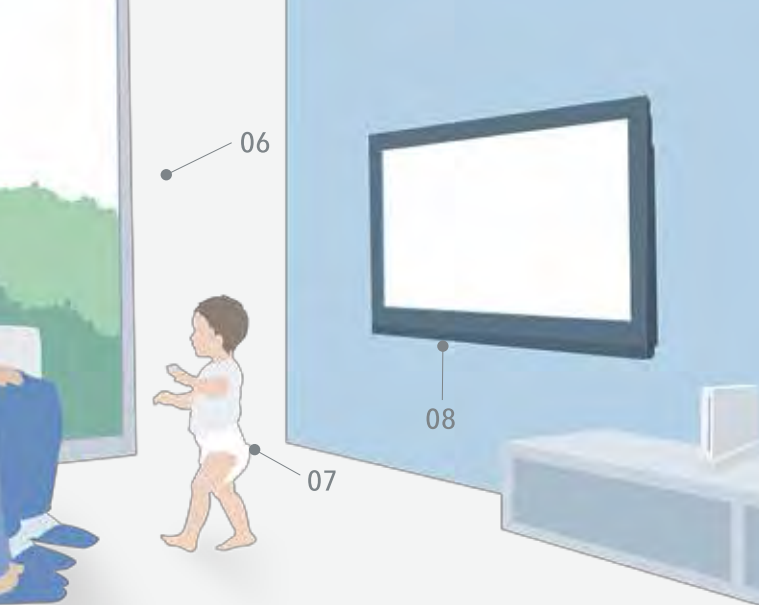


## Asahi Kasei Products and Technologies in Everyday Life

The Asahi Kasei Group's products and technologies, ranging from Hebel Haus™ unit homes and Saran Wrap™ cling film, and electronic parts used in computers and smartphones, to performance resins for automotive applications, and pharmaceuticals and AEDs that support people's lives, are used in various ways all around us.

- 01 Dishwashing detergent
- 02 Filtration at waterworks plant (hollow-fiber membranes)
- 03 Food preservation, cooking
- 04 Printing of packages (photosensitive resins)  
Plastic shopping bags (polyethylene)  
Foods and beverages (microcrystalline cellulose)
- 05 Covering fabric for sofas (microfiber suede)

- Video game console (ABS resin)  
Doll hair (Saran™ fiber)
- 06 Homes (unit homes, apartment buildings, condominiums)  
Construction materials (autoclaved aerated concrete, phenolic foam insulation panels)
- 07 Diapers (spunbond nonwovens, premium stretch fiber)



## Automobile

## Bathroom

## Bedroom

## Outdoors

**08 Home electronics**  
(polystyrene, ABS resin)

**Electronic parts**  
(LSIs, Hall elements)

**09 Sportswear**  
(premium stretch fiber, cupro fiber)

**Zippers**  
(polyacetal)

**10 Asphalt pavement**  
(thermoplastic elastomer)

**11 Automobile parts**  
(performance resins)

**12 Airbags**  
(nylon 66 filament)

**Car navigation & audio system**  
(audio/voice LSIs)

**13 Tires**  
(S-SBR for fuel-efficient tires)

**14 Batteries**  
(Li-ion battery separator, lead-acid battery separator)

**15 Paint**

**16 Disposable plastic cups**

**17 PET bottle shrink labels**  
(styrenic copolymer)

**18 Food storage bags and containers**

**19 Smartphone, Laptop computer**  
(Li-ion battery separator, electronic compass, Hall ICs)

**20 Suit linings**  
(cupro fiber)

**21 Defibrillators**

**22 Medical devices**  
(dialyzers, therapeutic apheresis devices)

**23 Prescription drugs**

**Diagnostic reagents**  
**Drug manufacture**  
(virus removal filters)

**24 Shampoo**  
(low-irritation surfactant)

**25 Innerwear**  
(cupro fiber)

**26 Facial mask**  
(cupro nonwoven fabric)

**27 Skin care products**  
(cosmetics raw materials)

# CSR at the Asahi Kasei Group

## Approach to CSR

We believe that CSR is achieved by raising corporate value for our various stakeholders through our business operations in accordance with our Group Mission of contributing to life and living for people around the world.

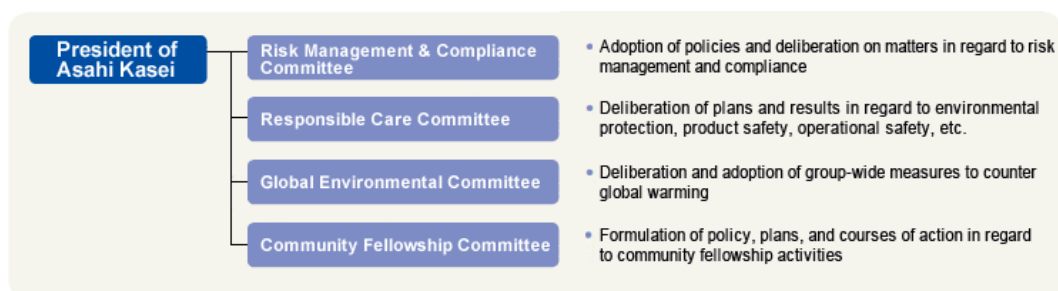
In addition, based on a clear understanding of the effects of our operations on the global environment and local communities, our efforts and actions related to CSR are focused on four CSR Fundamentals: Compliance, Responsible Care, Corporate Citizenship, and Respect for Employee Individuality.



## Structure and organization for CSR

In order to promote separate important activities regarding CSR more efficiently and decisively, we have four committees under the direct supervision of the Asahi Kasei President. The Risk Management & Compliance Committee and Responsible Care Committee are chaired by the Asahi Kasei President. The Community Fellowship Committee is chaired by an executive officer appointed by the president, and the Global Environment Committee is chaired by the executive officer for ESH.

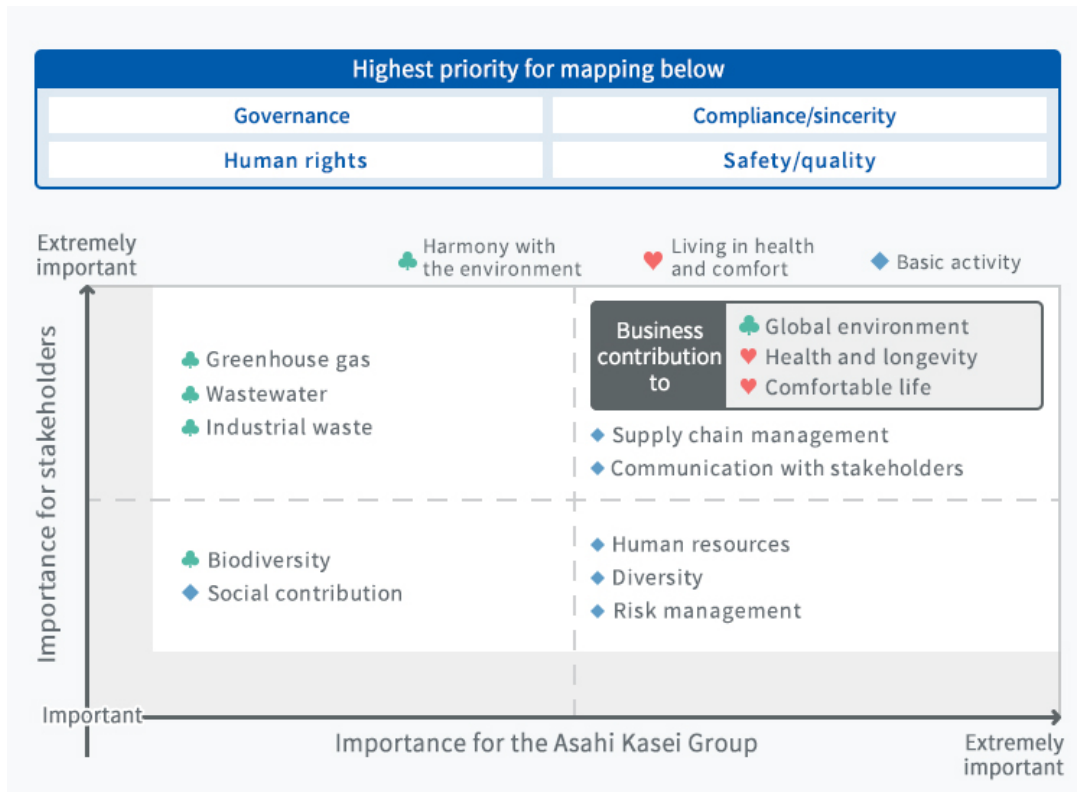
Framework for CSR advancement (as of September 1, 2018)






# Materiality

We are advancing our "Cs for Tomorrow 2018" medium-term management initiative with a focus on providing solutions to society's challenges for "clean environmental energy" and "healthy and comfortable longevity with peace of mind." Ever since our company was founded with the aim of "improving human culture," we have constantly striven to contribute to society through our businesses. To advance a growth strategy that embraces environmental, social, and governance (ESG) aspects of management, and to ensure that we continuously make proactive contributions to the betterment of society as we have done in the past, in fiscal 2017 we identified important issues to address and mapped them as "Materiality of the Asahi Kasei Group."

Degrees of importance were evaluated along two axes, importance for stakeholders and importance for the Asahi Kasei Group, considering ISO26000, GRI standards, and key elements of ESG. Moving forward, we will establish key performance indicators (KPIs) while incorporating the perspectives of various stakeholders.



## Participation in multilateral initiatives

 <p>THE GLOBAL COMPACT Network Japan WE SUPPORT</p>	<p>The Asahi Kasei Group supports the United Nations Global Compact.</p> <p><a href="#">UN Global Compact</a> &gt; □</p>
 <p>BUSINESS CALL TO ACTION</p>	<p>Business Call to Action (BCtA), a multilateral alliance led by the United Nations Development Programme (UNDP), challenges companies to advance core business activities that contribute to the achievement of the Sustainable Development Goals (SDGs). Asahi Kasei joined with an initiative to support the fiber industry in India throughout the supply chain for Bemberg™ cupro.</p> <p><a href="#">Business Call to Action</a> &gt; □</p>
 <p>SATOYAMA INITIATIVE</p>	<p>Initiated by Japan's Ministry of the Environment and the United Nations University Institute for the Advanced Study of Sustainability, the Satoyama Initiative advances global activities to promote harmony with the environment.</p> <p><a href="#">Satoyama Initiative</a> &gt; □</p>



## Membership in organizations

Name of organization	Asahi Kasei's role
Japan Business Federation (Keidanren)	Chair of Committee on Environment and Safety
Japan Chemical Industry Association (JCIA)	Vice Chairman
Japan Network for Promoting the Satoyama Initiative	Founding member

## Asahi Kasei Group effort for the SDGs

The 2030 Agenda for Sustainable Development was adopted by the UN Sustainable Development Summit in September 2015, including 17 Sustainable Development Goals (SDGs) and 169 targets such as ending poverty and inequality and taking action on climate change. The Asahi Kasei Group contributes to achievement of the SDGs through diverse businesses that provide new value to society by enabling "living in health and comfort" and "harmony with the natural environment."

### SUSTAINABLE DEVELOPMENT GOALS 17 GOALS TO TRANSFORM OUR WORLD



## External evaluation

### /// Inclusion in socially responsible investment indexes (fiscal 2017)

- FTSE4Good Index
- FTSE Blossom Japan Index
- MSCI Japan Empowering Women Index (WIN)
- Morningstar Socially Responsible Investment Index



2018 Constituent  
MSCI日本株  
女性活躍指数 (WIN)



### /// Climate-change effort ranked "A-" by CDP

Our effort with respect to climate change was given an evaluation of "A-" by CDP for three consecutive years from fiscal 2015 to fiscal 2017.

## Relationships with Stakeholders

Our business operations depend on relationships of trust with our stakeholders. We believe that corporate value is raised by understanding the requirements and meeting the expectations of various stakeholders such as customers, suppliers, shareholders, investors, the general public, local communities, and employees. We provide many opportunities for communication to enable our business operations to be improved through dialog with stakeholders.



## Communication with stakeholders

Main stakeholders	Basic premises	Main opportunities for communication
Customers	We believe that it is by maintaining customer satisfaction that our products and services contribute to society.	<ul style="list-style-type: none"> <li>■ Face-to-face discussion by marketing and sales personnel</li> <li>■ Taking inquiries via telephone, website, etc.</li> </ul>
Shareholders and investors	We strive to disclose information in a timely and fair manner to enable our domestic and international investors to gain an accurate understanding of the Asahi Kasei Group.	<ul style="list-style-type: none"> <li>■ Meeting with securities analysts and institutional investors</li> <li>■ Seminars for individual investors</li> <li>■ Website disclosure of information</li> <li>■ Taking inquiries via telephone, website, etc.</li> </ul>
Suppliers	A relationship of mutual trust with our suppliers is fostered through fair and principled purchasing practices based on regulatory compliance and respect for the environment and human rights.	<ul style="list-style-type: none"> <li>■ Safety discussion forums</li> <li>■ CSR surveys</li> </ul>
Local communities and the general public	We work to honor and respect the local culture of each community where our operations are based, and to maintain effective dialog and communication with community members.	<ul style="list-style-type: none"> <li>■ Periodic community dialog meetings</li> <li>■ Community outreach initiatives</li> </ul>
Employees	The Asahi Kasei Group considers fulfilling and satisfying working conditions and workplace culture, in which personnel feel motivated to achieve and take pride in their career, to be a key to business performance.	<ul style="list-style-type: none"> <li>■ Training and interviews</li> <li>■ Discussion and interaction with management</li> <li>■ Internal magazine and intranet</li> <li>■ Compliance hotline</li> </ul>

# Corporate Governance

The Asahi Kasei Group constantly endeavors to strengthen corporate governance for increased corporate value.

Translation of the Corporate Governance Report 

As of June 28, 2018

## Basic Views

The Group Vision of the Company is to provide new value to society and solve social issues by enabling “living in health and comfort” and “harmony with the natural environment” under the Group Mission of “contributing to life and living for people around the world.” With this as a base, the Company aims to contribute to society, achieve sustainable growth, and enhance corporate value over the medium to long term by promoting innovation and creating synergy through integration of various businesses. The Company continues to pursue optimal corporate governance as a framework to make transparent, fair, timely, and decisive decision-making in accordance with changes in the business environment.

## Basic Policies

### 1. Securing the Rights and Equal Treatment of Shareholders

While taking proper measures to secure shareholders' rights, the Company develops a proper environment for exercise of shareholders' rights including paying attention to foreign shareholders and minority shareholders and providing information necessary for the exercise of rights accurately and in a timely manner.

### 2. Proper Cooperation with Stakeholders other than Shareholders

The Group Vision of the Company is to provide new value to society and solve social issues by enabling “living in health and comfort” and “harmony with the natural environment” for people around the world, and the Company works to facilitate cooperation with its stakeholders.

### 3. Proper Information Disclosure and Securing of Transparency

The Company, in addition to disclosure required by laws and regulations, actively provides information to various stakeholders including financial information such as financial position and operating results, management strategy/issues, and non-financial information concerning risks and governance, etc.

### 4. Responsibilities of the Board of Directors

In order to achieve sustainable growth, enhance medium to long term corporate value, and increase earnings ability and capital efficiency, the Board of Directors of the Company presents the overall direction of its management strategy, develops an environment to support risk-taking by the management, and effectively oversees the business management of the Company from an independent and objective standpoint, based on the fiduciary responsibility and accountability to shareholders.

### 5. Dialog with Shareholders

The Company develops a system to have a constructive dialog with shareholders/investors and actively promotes such dialog.

# Overview of Current Corporate Governance System

## 1. Oversight and Audit

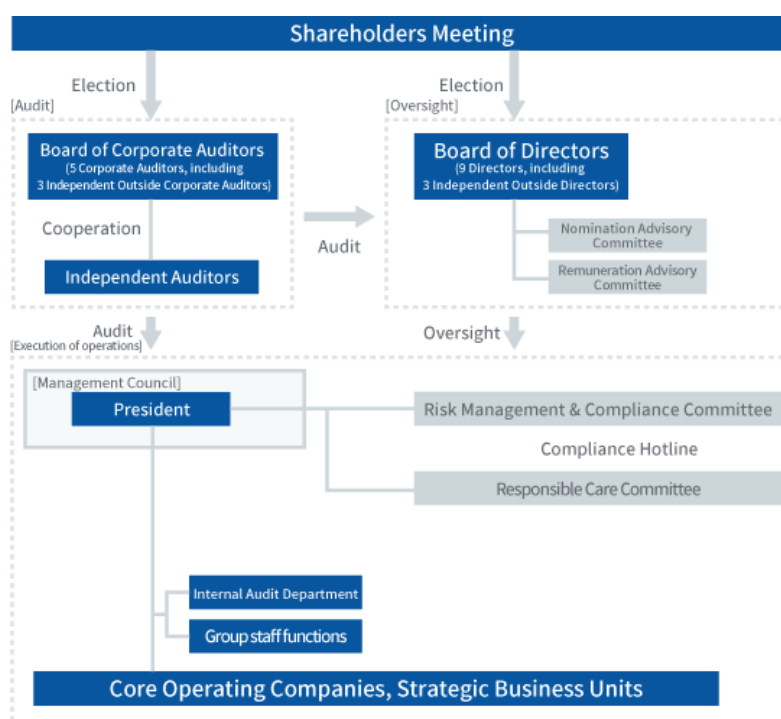
- 1)The Board of Directors, which consists of nine Directors including three Independent Outside Directors (one-third), makes decisions on matters that are stipulated by laws/regulations and the Articles of Incorporation as requiring a Board of Directors resolution, as well as on important matters for the Company and the Group, and oversees execution of operations by Directors and Executive Officers.
- 2)Under the Board of Directors, the Company has established a Nomination Advisory Committee and a Remuneration Advisory Committee, which mainly consist of Outside Directors, so that Outside Directors actively participate in consideration of the optimal makeup and size of the Board of Directors of the Company, policies to nominate candidates for Directors/Corporate Auditors, independence standards and qualification for Outside Directors/Corporate Auditors, Directors' remuneration policy/system, and evaluations of Directors for performance-based remuneration, and to provide relevant advice to the Board of Directors.
- 3)The Board of Corporate Auditors consists of five Corporate Auditors including three (majority) Independent Outside Corporate Auditors, and each Corporate Auditor, based on the audit policy stipulated by the Board of Corporate Auditors, oversees execution of duties by Directors by attending meetings of the Board of Directors and examining the status of execution of operations. In order to enhance the function of the Board of Corporate Auditors and to facilitate smooth cooperation and support with Outside Corporate Auditors, the Company has established a Corporate Auditors Office staffed with dedicated employees.
- 4)PricewaterhouseCoopers Aarata performs audits based on the Companies Act and the Financial Instruments and Exchange Act.
- 5)The Company has established Internal Audit Department which conducts internal audits based on an audit plan. Results of internal audits performed by each staff function are aggregated in the Internal Audit Department and reported to the Board of Directors.

## 2. Execution of Operation

- 1)The Company has adopted an Executive Officer system in order to expedite the execution of operations, as well as to clarify responsibilities and specify the roles of Directors in charge of decision-making and oversight, and of Executive Officers in charge of execution of operations.
- 2)The Company has established detailed standards for decision-making in its Decision-making and Approval Authority Regulations of the Group with regard to matters concerning the management plan, investment and loans, financing and fund management, the organization and rules, research and development, and production technology, and delegates authority to the Strategic Management Council and the core operating companies from the Board of Directors.

## 3. Risk Management and Compliance

- 1)The Company has established the Risk Management & Compliance Committee which adopts policies and deliberates on matters in regard to risk management and compliance.
- 2)The Company has established the Responsible Care (RC) Committee which discusses preventive measures and recurrence prevention measures for accidents related to environmental protection, quality assurance, operational safety, and workplace safety/health.



As of June 28, 2018

# Compliance

## Basic principles

The Asahi Kasei Group takes compliance seriously, and fully adheres to laws and regulations that are applicable to each business and function, as well as internal company rules. Each employee is also expected to uphold high ethical standards and respect social norms throughout the course of business activities, acting with sincerity in accordance with our Group Values based on our Group Mission.

## Internal framework

### (1) Asahi Kasei Group Basic Regulation for Risk Management & Compliance

The Asahi Kasei Group Basic Regulation for Risk Management & Compliance clearly specifies basic systems and organizations for the central aggregation and administration of all matters related to risk management and compliance.

#### Outline of Asahi Kasei Group Basic Regulation for Risk Management & Compliance

1. Purpose of the regulation
2. Definition of terms for risk management & compliance
3. Scope of application of the regulation
4. Framework for risk management & compliance
  - 1) Designation of Executive Officer for Risk Management & Compliance
  - 2) Establishment and composition of Risk Management & Compliance Committee
  - 3) Establishment of Risk Management & Compliance Oversight Department and Risk Management & Compliance Promotion Departments
  - 4) Role of Presidents of SBUs and core operating companies
  - 5) Designation and role of Risk Management & Compliance Supervisors and Risk Management & Compliance Managers
5. The Asahi Kasei Group Code of Conduct
6. Crisis response
7. Compliance hotline (internal reporting system)

### (2) Risk Management & Compliance Committee

Our Risk Management & Compliance Committee is chaired by the President of Asahi Kasei Corp. with the Presidents of each Strategic Business Unit and Core Operating Company serving as committee members. The committee determines policy and deliberates on matters related to risk management and compliance, and monitors the management of risks and the state of compliance throughout the Asahi Kasei Group. Results of the committee's deliberations, etc., are reported to the Board of Directors.

## Efforts for risk management and compliance

Please refer to the pages below.

[Risk management >](#)

[Compliance system >](#)

# Risk management

## Policy and approach

We provide clear guidelines for risk management and emergency response in accordance with the Asahi Kasei Group Basic Regulation for Risk Management & Compliance.

## Reviews to identify latent risks in each business unit

Managers responsible for Risk Management & Compliance are designated in each SBU, core operating company, and subsidiary. They work to thoroughly identify, assess, and analyze their related risks, and to plan and implement measures to mitigate serious risks. Through the Risk Management & Compliance Committee, we confirm and follow-up on the state of risk management in each business unit.

## Crisis response system

Due to accidents, incidents, or problems, if Asahi Kasei Group operations are significantly damaged or would cause serious adverse effects on the general public, we have a system to establish a group emergency response headquarters which works with the relevant divisions and departments to ensure that the proper response is taken.

In fiscal 2017, we established the Asahi Kasei Group Emergency Response Regulation which stipulates basic policy when an emergency occurs, standards to institute an Emergency Response Headquarters, and the functions thereof.

# Compliance system

## Asahi Kasei Group Code of Conduct

### /// Significance of the Asahi Kasei Group Code of Conduct

The Asahi Kasei Group Code of conduct, which was established in April 2017, is a practical guide and standard for ethical conduct throughout the day-to-day work of each and every member of the Asahi Kasei Group. Members of the Asahi Kasei Group are expected to act with sincerity and uphold high ethical standards throughout their work to fulfill our Group Mission in accordance with our Group Values.



Asahi Kasei Group  
Code of Conduct

### /// Outline of the Asahi Kasei Group Code of Conduct

1. Ensuring Safety, Environmental Protection, and High Quality Products and Services to Contribute to Life and Living
  - 1) Endeavor to Maintaining Absolute Safety in All Aspects of our Business
  - 2) Providing Safe and High-quality Products and Services That Customers Can Rely On
  - 3) Carefully Managing Workplace Safety to Ensure a Safe and Comfortable Work Environment
  - 4) Contributing to Environmental Protection and Harmony with Local Communities
2. Maintaining Sincere Relationships with Those around Us
  - 5) Disclosing Corporate Information Timely and Appropriately to Society
  - 6) Appropriate Descriptions to Customers, Provision of Safe and Reliable Products and Services
  - 7) Healthy Relationships with Customers and Government Officials
  - 8) Fair relationships with Competitors
  - 9) Optimized Procurement and Healthy and Appropriate Relationships with Suppliers
  - 10) Respect for Human Rights and Diversity
3. Utilizing management assets appropriately and effectively
  - 11) Performing Work with Integrity and Responsibility
  - 12) Compliance with Accounting and Tax Rules, Protecting Company Property
  - 13) Protecting and Managing Information
  - 14) Protecting and Respecting Intellectual Property Rights
  - 15) Compliance with Laws and Regulations, Practicing Corporate Ethics

The Asahi Kasei Group Code of Conduct can be downloaded from the link below:

Asahi Kasei Group Code of Conduct 



## Compliance Hotline

The Asahi Kasei Group began employing a Compliance Hotline in April 2005 to ensure that any possible ethical lapses which employees may encounter or observe are dealt with swiftly and appropriately. In fiscal 2015, the system was expanded to enable suppliers and their employees to report or consult.

### // Reports and responses

During fiscal 2017 there were 47 reports and consultations made through the hotline system. None of them regarded significant matters which would affect the performance of operations.

Some 70% of the reports and consultations concerned personal relationships among workplace colleagues. After fact-checking, cautions were issued to relevant personnel as necessary, and monitoring to confirm improvement was performed.

## Prevention of bribery

The Asahi Kasei Group considers bribery to be an important risk factor which could seriously jeopardize our corporate reputation. Applied throughout all operations, the Asahi Kasei Group Policies for Prevention of Bribery clarify basic policies to prohibit bribery and procedures to follow to avoid bribery-related risks (examination of counterparty prior to executing certain types of transaction, approval prior to providing entertainment, gifts, or donations). Education and training on the prevention of bribery is provided to personnel worldwide, including e-learning and workshops.

The Asahi Kasei Group Policies for Prevention of Bribery are available below.

Asahi Kasei Group Basic Policies for Prevention of Bribery 

## Information protection and management

### // Information Security Countermeasures

Recognizing the importance of countermeasures to protect against information security risks, we established the Asahi Kasei Group Information Security Policy and aim to ensure and further improve information security.

#### Asahi Kasei Group Information Security Policy

As ensuring information security is an important management responsibility, the Asahi Kasei Group declares that it faithfully applies its established information security policy.

##### 1. Legal Compliance

We comply with laws and internal regulations concerning information security.

##### 2. System Establishment

We have an established system to safeguard information security throughout the organization.

##### 3. Implementation of Countermeasures

We implement appropriate information security countermeasures corresponding to our information assets to prevent information security incidents. In the event that an incident occurs, we respond swiftly and appropriately, strive to minimize any damage, and endeavor to prevent any recurrence.

##### 4. Education of Employees

We provide information security training to all employees to ensure full awareness of the importance of information security and the proper use of information assets.

##### 5. Continuous Improvement

We continuously assess our efforts for information security, and apply improvements as necessary.

December 1, 2016

Hideki Kabori

President

Asahi Kasei Corporation

## /// Protection of personal information

Asahi Kasei is committed to the proper handling and use of personal information, in accordance with the Asahi Kasei Group Regulation for Management of Personal Information. An information security handbook which describes our rules for handling information is distributed to all employees, and education is performed via e-learning.

[Privacy Policy >](#)

## /// Protection of intellectual property

The Asahi Kasei Group implements strict measures to prevent unauthorized or unintentional outflow of technological information and know-how in accordance with its basic policy and management standards for prevention of technology outflow. The Asahi Kasei Group also applies internal guidelines summarizing related precautions to take when entering business overseas as well as procedures to ensure the preservation of prior-use rights in China.

The company's internal magazine is used to raise further awareness among personnel, and workshops are held for training and education regarding protection of intellectual property.

For more information about our intellectual property, please refer to the Asahi Kasei Group Intellectual Property Report.

[Asahi Kasei Group Intellectual Property Report >](#)

## Compliance with antimonopoly and competition laws

The Asahi Kasei Group Regulation for Management of Compliance with Antimonopoly Law prohibits acts which violate the competition laws of each country. To prevent acts which would constitute or arouse suspicion of participation in a cartel, standards are set for attendance at industry gatherings, and inappropriate contact and information exchange with competitors are prohibited. Furthermore, across-the-board price revisions for products sold in Japan require submission to our Market Compliance Committee which includes the Executive Officer for compliance among its members, confirmation of the reason for the price revision, and confirmation that there is no violation of antimonopoly law prior to implementation.

## Compliance with export-related laws

The Asahi Kasei Group thoroughly complies with export-related laws and regulations in accordance with our Export Control Regulation. All exported products are subject to screening for applicability of export restrictions and examination of customers. In the case that a permit is required, application to the Ministry of Economy, Trade, and Industry is made after obtaining internal company approval. To ensure awareness and understanding of the requirements of relevant laws, regulations, and internal company rules, periodic training sessions are held and the related departments are annually audited.

# Responsible Care

Safety is a fundamental prerequisite for the continuation of operations as a corporate member of society. To ensure that every aspect of safety is maintained, the Asahi Kasei Group implements a Responsible Care (RC) program comprising the six pillars of the global environment; operational safety; workplace safety, hygiene, and health; quality assurance (including product safety); managing chemical substances; and community outreach.



## Responsible Care at Asahi Kasei

The Asahi Kasei Group performs RC throughout all business sectors.



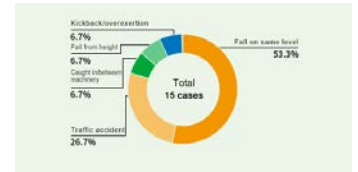
## The global environment

In accordance with our Global Environmental Policy, we perform measures for climate change, recycling, and biodiversity.



## Operational safety

We have an ongoing, autonomous program to ensure operational safety in accordance with a basic safety management policy.



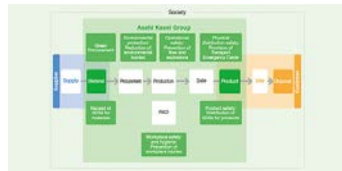
## Workplace safety, hygiene, and health

Through our OHSMS program we perform various measures to ensure the safety of workplaces and the health of personnel.



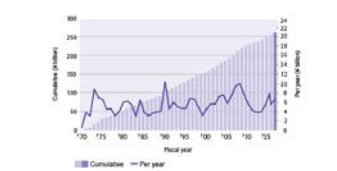
## Quality assurance

To deliver safe and reliable products and services to our customers, we perform quality assurance activities including product safety.



## Managing chemical substances

We manage chemical substances rigorously and responsibly throughout the product life cycle, from materials procurement and R&D to use and disposal.



## Environmental data

Environment-related expenditure and environmental performance data are shown here.

# Responsible Care at Asahi Kasei

## The Responsible Care Concept

RC represents the commitment and initiative to secure and improve safety and environmental protection at every step of the product life cycle through the individual determination and responsibility of each firm producing and handling chemical products, together with measures to gain greater public trust through disclosure and communication. RC was conceived in Canada in 1985, and was strengthened on a global scale with the establishment of the International Council of Chemical Associations (ICCA) in 1990. In 1995, the chemical industry in Japan began implementing RC with the establishment of the Japan Responsible Care Council (JRCC\*). Asahi Kasei was among the founding members of the JRCC, and played a leading role in the expansion and development of RC in Japan.

Responsible Care at the Asahi Kasei Group



\*JRCC: Operated as the Japan Chemical Industry Association's RC Committee since April 2011.

### Message from the Executive for RC



Masafumi Nakao  
Representative Director, Vice-  
Presidential Executive Officer  
Asahi Kasei Corp.

Asahi Kasei adopted an operating holding company configuration in fiscal 2016 and started the three-year medium-term management initiative "Cs for Tomorrow 2018" (CT2018). We are not only implementing various measures to achieve our business targets and build the base for the next phase towards fiscal 2025, but also contributing to society through our business operations. The operating climate is changing greatly with growing awareness for global environmental issues and corporate responsibility as a social entity. At the Asahi Kasei Group, in accordance with our Group Mission of *contributing to life and living for people around the world*, we will give due consideration to the environment, safety, and health throughout the full life cycle from R&D to manufacturing, product supply, and disposal, while focusing on the three fundamental "actuals" of the actual place, actual thing, and actual fact, as we ensure the stable provision of product quality that our customers can depend upon. While working to achieve our annual RC objectives, we will also advance RC activities from a broader perspective, reinforcing R&D to provide solutions to global warming and other environmental issues, in order to raise our corporate value for our various stakeholders.

## Policy

RC at the Asahi Kasei Group is guided by the following principles. In April 2016, a statement regarding quality assurance was added, and the six elements were condensed into four.

## Asahi Kasei Group RC Principles

We give the utmost consideration to environmental protection, quality assurance, operational safety, workplace safety and hygiene, and health maintenance, throughout the product life cycle from R&D to disposal, as preeminent management tasks in all operations.

- We give full consideration to the global environment, and make efforts to reduce the environmental burden of all operations.
- We continuously provide safe products and services with the quality that gives customers a sense of security and satisfaction.
- We strive for stable and safe operation while preventing workplace accidents and securing the safety of personnel and members of the community.
- We strive for a comfortable workplace environment, and support the maintenance and promotion of employee health.

In addition to maintaining legal compliance, we set self-imposed targets for continuous improvement, while performing proactive information disclosure and communication to gain public understanding and trust.

Revised on April 1, 2016

## Management framework

The management system of Asahi Kasei Group RC is maintained in accordance with our Group RC Management Guidelines and other internal standards. The RC Committee, a corporate organ under the direct authority of the president of Asahi Kasei, deliberates RC plans and results and ensures that continuous reevaluation and improvement are systematically pursued with “plan-do-check-act” (PDCA) cycles—for the Asahi Kasei Group as a whole, within each core operating company and Region\*, and within individual plants and facilities.

Certified compliance with internationally standardized management systems is obtained for the RC Management System of the Asahi Kasei Group. We have obtained ISO 14001 environmental management system certification for environmental protection and ISO 9001 quality management system certification for product safety. An Occupational Health & Safety Management System (OHSMS) is adopted for workplace safety, hygiene, and health.

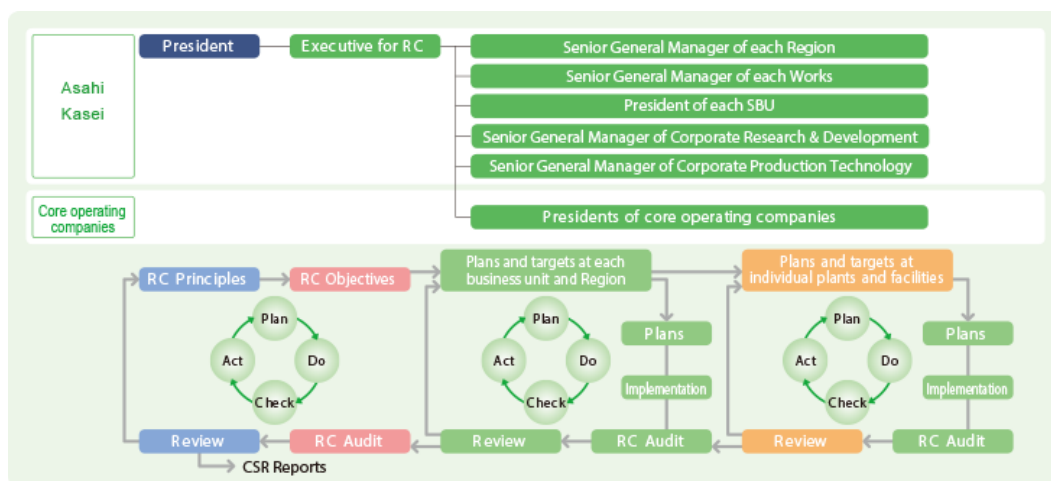


RC Committee meeting

There were no violations of environmental regulations in fiscal 2017.

\*A site or group of sites consisting of several plants and facilities of various core operating companies. The Senior General Manager of each Region is responsible for the unified implementation of RC in the respective Region.

PDCA flow for RC



## Fiscal 2017 RC objectives and results

★★★Complete   ★★Satisfactory   ★Unsatisfactory

### RC compliance

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
Review RC framework (including quality assurance)	Studied reorganization, studied reinforcement of human resources	★★★	Establish a culture of environmental, quality, and safety awareness:
Enhance RC compliance	Provided guidance and support through audits and site inspections		<ul style="list-style-type: none"> <li>■ Nurture customs for compliance</li> <li>■ Advance measures for handover to the next generation</li> </ul>
Further advance RC education and training (gaining fuller understanding)	RC training course continually reviewed	★★	Enhance foundations for safety
	Group discussions enhanced		
	Follow-up until all members pass test Strengthened communication and coordination with superiors		
Enhance RC at affiliates	RC at affiliates enhanced through instructions and support by core operating companies	★★★	Establish activities for compliance
Continue to enhance dialog with the public	RC reports of core operating companies and plant complex sites were utilized in community outreach	★★★	Promote global-oriented RC

### Global environment

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
Avoid all polluting accidents and minor incidents	No polluting accidents or serious incidents, 20 incidents (2 other than freon leaks)	★	Avoid all polluting accidents and minor incidents
Promote recycling-oriented society:		★★★	Promote recycling-oriented society:
<ul style="list-style-type: none"> <li>■ Maintain rate of final disposal at 0.3% or less of generated industrial waste</li> </ul>	Goal reached with final disposal rate of 0.2%		<ul style="list-style-type: none"> <li>■ Maintain rate of final disposal at 0.3% or less of generated industrial waste</li> </ul>
<ul style="list-style-type: none"> <li>■ Maintain recycling rate of at least 90%</li> </ul>	Goal reached with recycling rate of 99%		<ul style="list-style-type: none"> <li>■ Maintain recycling rate of at least 90%</li> </ul>
Prevention of global warming:		★★★	Prevention of global warming:
<ul style="list-style-type: none"> <li>■ Reduce GHG emissions in Japan by 34.8% from FY2005 level (Target excluding CO<sub>2</sub> emissions from generation of electricity and steam sold to other companies)</li> </ul>	50% reduction from FY2005 level		<ul style="list-style-type: none"> <li>■ Reduce FY2020 GHG emissions in Japan by 35% from FY2005 level</li> </ul>

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
<ul style="list-style-type: none"> <li>LCA/CO<sub>2</sub> contribution ratio<sup>1</sup> of 8.5</li> </ul>	LCA/CO <sub>2</sub> contribution ratio of 11.7		<ul style="list-style-type: none"> <li>Achieve LCA/CO<sub>2</sub> contribution ratio of 11.3</li> </ul>
Protect water resources:		★★★	Protect water resources:
<ul style="list-style-type: none"> <li>Water resource contribution ratio<sup>2</sup> of 8.8</li> </ul>	Water resource contribution ratio of 9.3		<ul style="list-style-type: none"> <li>Water resource contribution ratio of 9.3</li> </ul>
Control emissions of chemical substances:		★★★	Control emissions of chemical substances:
<ul style="list-style-type: none"> <li>Control emissions of PRTR-specified substances</li> </ul>	Release of PRTR-specified substances and emission of VOCs reduced by 92% and 87%, respectively, from FY2000 level		<ul style="list-style-type: none"> <li>Control emissions of PRTR-specified substances</li> </ul>
<ul style="list-style-type: none"> <li>Control emissions of air and water pollutants</li> </ul>			<ul style="list-style-type: none"> <li>Control emissions of air and water pollutants</li> </ul>
Promote preservation of biodiversity at each site	Moriyama Works won the JCIA RC Jury's Special Award; Kotou Area Biodiversity Network, including Shiga Plant of Asahi Kasei Jyuko Co., Ltd., and Moriyama Works, won the Shiga Biodiversity Award 2017	★★★	Promote "Town Woods" program and actions for biodiversity at each site
Advance CSR procurement	Implemented CSR procurement	★★★	Advance CSR procurement

## Operational safety

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
Continue to avoid all industrial accidents	No serious industrial accidents	★★★	Continue to avoid all industrial accidents
Enhance risk assessment:	Review performed at time of on-site confirmation for preventing abnormal reactions	★★★	Enhance risk assessment:
<ul style="list-style-type: none"> <li>Continuously monitor for hazards of fire, explosion, and leaks</li> </ul>			<ul style="list-style-type: none"> <li>Continuously monitor for hazards of fire, explosion, and leaks</li> </ul>
<ul style="list-style-type: none"> <li>Continue ongoing review to prevent abnormal reactions and confirm interlock functions</li> </ul>	Confirmed progress in preventing abnormal reactions and securing interlock functions	★★★	<ul style="list-style-type: none"> <li>Continue ongoing review to prevent abnormal reactions and confirm interlock functions</li> </ul>
<ul style="list-style-type: none"> <li>Enhance pre-investment safety assessment system</li> </ul>			<ul style="list-style-type: none"> <li>Enhance pre-investment safety assessment system</li> </ul>
Control changes to equipment and operating conditions	Ongoing confirmation of implementation at RC Audits, etc.	★★★	Control changes to equipment and operating conditions
Enhance earthquake response system:	Progressed on schedule	★★★	Enhance earthquake response system:
<ul style="list-style-type: none"> <li>Review earthquake preparedness (emergency facilities, disaster response supplies)</li> </ul>			<ul style="list-style-type: none"> <li>Review earthquake preparedness (emergency facilities, disaster response supplies)</li> </ul>
<ul style="list-style-type: none"> <li>Advance seismic retrofitting of specific and non-specific buildings</li> </ul>			<ul style="list-style-type: none"> <li>Advance seismic retrofitting of specific and non-specific buildings</li> </ul>

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
Monitor for items in need of replacement and uninspected items, implement remediation	Information shared with Corporate Production Technology; ongoing review with new perspectives	★★★	Monitor for items in need of replacement and uninspected items, implement remediation
—	—	—	Maintain zero serious logistic incidents

## Workplace safety and hygiene

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
No serious workplace injuries:	No serious workplace injuries:	★★	No serious workplace injuries:
<ul style="list-style-type: none"> <li>■ Achieve frequency rate<sup>3</sup> of 0.1 or less (1.0 or less overseas)</li> </ul>	0.28 (2.3 overseas)		<ul style="list-style-type: none"> <li>■ Achieve frequency rate of 0.1 or less (1.0 or less overseas)</li> </ul>
<ul style="list-style-type: none"> <li>■ Achieve severity rate<sup>4</sup> of 0.005 or less</li> </ul>	0.005		<ul style="list-style-type: none"> <li>■ Achieve severity rate of 0.005 or less</li> </ul>
Prevent all accidents in “caught in/between machinery” category:	Advanced risk assessment for mechanical equipment, but one lost-workday injury in “caught in machinery” category in May 2018	★★	Prevent all accidents in “caught in/between machinery” category:
<ul style="list-style-type: none"> <li>■ Perform sound risk assessment for mechanical equipment</li> </ul>			<ul style="list-style-type: none"> <li>■ Perform sound risk assessment for mechanical equipment</li> </ul>
<ul style="list-style-type: none"> <li>■ Through standards of behavior for safety</li> </ul>			<ul style="list-style-type: none"> <li>■ Through standards of behavior for safety</li> </ul>
Avoid workplace injuries related to chemical substances:	Advanced risk assessment for chemical substances and management of workplace environment No lost-workday injury	★★★	Avoid workplace injuries related to chemical substances:
<ul style="list-style-type: none"> <li>■ Perform sound risk assessment for chemical substances</li> </ul>			<ul style="list-style-type: none"> <li>■ Perform sound risk assessment for chemical substances</li> </ul>
<ul style="list-style-type: none"> <li>■ Perform sound management of workplace environment</li> </ul>			<ul style="list-style-type: none"> <li>■ Perform sound management of workplace environment</li> </ul>
Prevent injuries during working hours unrelated to operating procedures and during commuting:	<ul style="list-style-type: none"> <li>■ 7 lost-workday injuries due to falls related to stairways and walking</li> <li>■ 1 injury due to traffic accidents resulting in harm to self or others while commuting or traveling for sales</li> </ul>	★★	Prevent injuries during working hours unrelated to operating procedures and during commuting:
<ul style="list-style-type: none"> <li>■ Thorough standards of behavior for safety related to stairways and walking</li> </ul>			<ul style="list-style-type: none"> <li>■ Thorough standards of behavior for safety related to stairways and walking</li> </ul>
<ul style="list-style-type: none"> <li>■ Program to prevent traffic accidents resulting in harm to self or others while commuting or traveling for sales</li> </ul>			<ul style="list-style-type: none"> <li>■ Program to prevent traffic accidents resulting in harm to self or others while commuting or traveling for sales</li> </ul>
Prevent serious injuries related to on-site contractors and equipment work:	No serious injuries No injuries in “caught in machinery” category 9 lost-workday injuries	★★	Prevent serious injuries related to on-site contractors and equipment work:
<ul style="list-style-type: none"> <li>■ Improve the level of safety management guidance related to on-site contractors and equipment work</li> </ul>			<ul style="list-style-type: none"> <li>■ Improve the level of safety management guidance related to on-site contractors and equipment work</li> </ul>



## Health maintenance

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
Promote health maintenance and improvement among personnel:			Promote health maintenance and improvement among personnel:
<ul style="list-style-type: none"> <li>Promote the prevention of and countermeasures to lifestyle-related diseases</li> </ul>	Proportion of employees with health warning signs decreased slightly, obesity increased slightly, and ratio of employees who smoke unchanged	★★★	<ul style="list-style-type: none"> <li>Promote the prevention of and countermeasures to lifestyle-related diseases</li> <li>Reduce the rate of absence due to illness or injury</li> </ul>
<ul style="list-style-type: none"> <li>Company-wide measures for preventing falls</li> </ul>	Physical fitness tests performed as part of fall prevention program, follow-up implemented		<ul style="list-style-type: none"> <li>Reduce the rate of lifestyle-related diseases</li> </ul>
Promote countermeasures to mental health issues and enhance support system:			Enhance mental health support system:
<ul style="list-style-type: none"> <li>Implement company-wide stress survey, utilize its results, and perform follow-up</li> </ul>	Stress survey and follow-up implemented	★★★	<ul style="list-style-type: none"> <li>Reduce the rate of absence due to mental health</li> </ul>
Improve the health management system:			
<ul style="list-style-type: none"> <li>Resolve critical tasks at each site with lateral extension</li> </ul>	Held internal interviews and provided instructions on health management activities	★★★	
<ul style="list-style-type: none"> <li>Establish the health management system at affiliates and independent plants</li> </ul>	Expanded scope of affiliates and independent plants supported by specialist industrial physicians		

## Quality assurance

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
Enhance quality assurance:			
<ul style="list-style-type: none"> <li>Maintain zero serious product safety incidents</li> </ul>	No product safety incidents	★★★	Maintain zero serious product safety incidents

## Management of chemical substances

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
Enhance management of chemical substances:			Enhance management of chemical substances:
<ul style="list-style-type: none"> <li>Promote compliance with laws and regulations on management of chemical substances in Japan and overseas</li> </ul>	Compliance maintained and system enhanced	★★	<ul style="list-style-type: none"> <li>Promote compliance with laws and regulations on management of chemical substances in Japan and overseas</li> </ul>
<ul style="list-style-type: none"> <li>Encourage JIPS<sup>5</sup> activities</li> </ul>	Secretariat activities to promote JIPS; continued risk assessment and public disclosure of safety documents	★★	<ul style="list-style-type: none"> <li>Encourage JIPS activities</li> </ul>
<ul style="list-style-type: none"> <li>Promote JAMP<sup>6</sup> tools</li> </ul>	Provided and received information via MSDSplus and AIS, used new JAMP scheme chemSHERPA		<ul style="list-style-type: none"> <li>Promote JAMP (chemSHERPA)</li> </ul>

## Living in health and comfort

FY2017 RC Objectives	FY2017 Results	Attainment	FY2018 RC Objectives
Number of people our health care business contributed to:		★★	Number of people our health care business contributed to:
<ul style="list-style-type: none"> <li>Maintain FY2015 level</li> </ul>	7% decrease from FY2015 level		<ul style="list-style-type: none"> <li>Maintain FY2015 level</li> </ul>
Number of residents in Hebel Haus™ homes:		★★	Number of residents in Hebel Haus™ homes:
<ul style="list-style-type: none"> <li>10% increase from FY2015 level</li> </ul>	6.1% increase from FY2015 level		<ul style="list-style-type: none"> <li>10% increase from FY2015 level</li> </ul>

<sup>1</sup> LCA is used to determine the amount of reduction in CO<sub>2</sub> emissions enabled by Asahi Kasei products and technologies in comparison with conventional products and technologies. The ratio is calculated by dividing this amount by the global CO<sub>2</sub> emissions of the entire Asahi Kasei Group.

<sup>2</sup> The water resource contribution ratio is calculated by adding up the total quantity of water clarified and recycled using Asahi Kasei filtration technology and dividing this by the quantity of the Asahi Kasei Group's water intake.

<sup>3</sup> Number of accidental deaths and injuries resulting in the loss of one or more workdays, per million man-hours worked.

<sup>4</sup> Lost workdays, severity-weighted, per thousand man-hours worked.

<sup>5</sup> Japan Initiative of Product Stewardship: A chemical industry initiative promoted by the Japan Chemical Industry Association to minimize chemical risks through voluntary risk assessment and management.

<sup>6</sup> Joint Article Management Promotion-consortium.

## RC education and training

In order to further heighten the effectiveness of our RC initiatives, we perform education and training on basic knowledge and practical application of RC activities, environmental protection, employee health, operational safety, and workplace safety. The training program applies to all key personnel including production managers and Environment, Health & Safety (EHS) managers, as well as candidates for those positions, group leaders of research departments, and EHS personnel.

Each fiscal year, we hold RC training courses especially for newly appointed managers, and in fiscal 2017, 74 personnel took part. In addition, a training course for assistant chiefs was formally initiated in fiscal 2012, and continues including requested improvements with some 160 personnel participating each year.

In fiscal 2014, we created a basic course in order to gain fuller understanding. We will continue to adapt our RC training courses to meet requests from both inside and outside the company, enabling personnel with different duties in a wide range of fields to gain a firm grasp of RC.



RC training lecture

## RC Symposiums

Every year, RC Symposiums are held at Asahi Kasei Corp., core operating companies of the Asahi Kasei Group, and the Nobeoka region, with awards presented to plants which have outstanding safety performance records. To share information and maintain the vitality of the initiative, RC results are reported, seminars are held, and Safety Awards are presented at the symposiums. The fiscal 2017 Asahi Kasei RC Symposium was held in Moriama in December, with some 570 in attendance.



President Kobori gives the opening address at the Asahi Kasei RC Symposium



Pointing and calling for confirmation

# The global environment



## Global environmental measures of Asahi Kasei

### Policy

As in our [Group Vision](#) of “harmony with the natural environment,” the Asahi Kasei Group considers environmental protection as one of its most important tasks. We established the following policy regarding global environmental measures in June 2012.

#### The Asahi Kasei Group’s Global Environmental Policy

##### 1. Low-carbon society

- (1) Sharing the international goal of cutting worldwide greenhouse gas emissions in half by the year 2050, the Asahi Kasei Group will establish targets for reduction of emissions from its business activities by 2030.
- (2) The Asahi Kasei Group will contribute to the establishment of a low-carbon society by providing the world with products, technologies, and services that enable reduced greenhouse gas emissions through our proprietary technology.
- (3) The Asahi Kasei Group will monitor and clearly visualize the amount of CO<sub>2</sub> emissions from its supply chain.

##### 2. Preserving water resources

The Asahi Kasei Group will help preserve water resources around the world through its domestic and international water supply filtration membrane module business and water recycling service business. The Asahi Kasei Group will measure the quantity of its water intake while striving to maintain and improve the efficiency of its water usage.

##### 3. Recycling

The Asahi Kasei Group will promote the reduction of environmental impacts and the efficient utilization of resources and energy throughout the entire life cycle in its business activities in order to contribute to a circular economy. Specifically, we will promote the 3Rs of reduction, reuse, and recycling, and increase the usage of resources and energy with lower environmental impacts as well as renewable resources and energy.

##### 4. Achieving harmony with nature

The Asahi Kasei Group will give due consideration to the conservation of natural capital and biodiversity, and promote the reduction of environmental impacts of its business activities. We will also monitor and carefully manage our use of land and biological resources.

##### 5. Overseas locations (plants)

The Asahi Kasei Group will create systematic monitoring items that enable environmental management practices equivalent to those at its plants in Japan.

##### 6. Supply chain

The Asahi Kasei Group will proactively collaborate with members of its supply chain to undertake the abovementioned activities.

### Management framework

Global environmental measures of the Asahi Kasei Group are guided by our Global Environment Committee (secretariat: Global Environmental Measures Promotion Group, Corporate ESH) which was established in 2012. The committee is chaired by the operating holding company Executive for RC, and its members are the Presidents of the SBUs and Executives for RC of the core operating companies. Meeting twice per year, the committee determines group-wide policy and deliberates on global environmental measures including the quantification of progress and formulation and review of indexes and targets.

In 2014 we established a Global Environment Action Committee to further advance effective measures. Together with the LCA Committee, it provides the framework for deeper and swifter action.

#### Framework for global environmental measures

	Membership		Roles	Frequency of meetings
Global Environment Committee	Chair	Operating holding company Executive for RC	Deliberation and adoption of group-wide global environmental measures	Twice per year
	Members	Presidents of SBUs and Executives for RC of core operating companies		
Global Environment Action Committee	Chair	Senior General Manager of Corporate ESH	Development of concrete measures based on decisions of the Global Environment Committee	Twice per year
	Members	RC Promoters of SBUs, core operating companies, and Corporate Research & Development		
LCA Committee	Members	Chair from the operating holding company, members from SBUs, core operating companies, and Corporate Research & Development	Promotion of LCA throughout the Asahi Kasei Group, performing LCA for the Group's products and technologies including those under development, reporting results of its activities to the Global Environment Committee	Four times per year

## Targets

We are advancing measures based on the following indicators and targets in accordance with our Global Environmental Policy. These include longer-term targets, notably fiscal 2020 and 2030 targets for climate change measures. Actions each year are performed with annual targets in line with the longer-term targets.

### Quantitative indicators and targets of global environmental measures

#### 1. Low-carbon society

##### ■ GHG emissions

Reduce GHG emissions in Japan to 35% below the FY2005 level by FY2020

##### ■ Clean power generation

Maintain use of biomass fuel at 60% or more by energy content in mixed combustion at the biomass power plant in Nobeoka

##### ■ LCA/CO<sub>2</sub> contribution ratio\*

Achieve a ratio of 11.0 by FY2020

Achieve a ratio of 15.0 by FY2030

\*LCA is used to determine the amount of reduction in CO<sub>2</sub> emissions enabled by Asahi Kasei products and technologies in comparison with conventional products and technologies. The ratio is calculated by dividing this amount by the global CO<sub>2</sub> emissions of the entire Asahi Kasei Group.

#### 2. Preserving water resources

##### ■ Water resource contribution ratio\*

Achieve a ratio of 9.3 in FY2018

\*The water resource contribution ratio is calculated by adding up the total quantity of water clarified and recycled using Asahi Kasei filtration technology and dividing this by the quantity of the Asahi Kasei Group's water intake.

#### 3. Energy management policy and target

##### ■ Policy

Plan measures for preventing global warming and conserving limited resources, promote reduced energy use in all phases of business activity

##### ■ Target

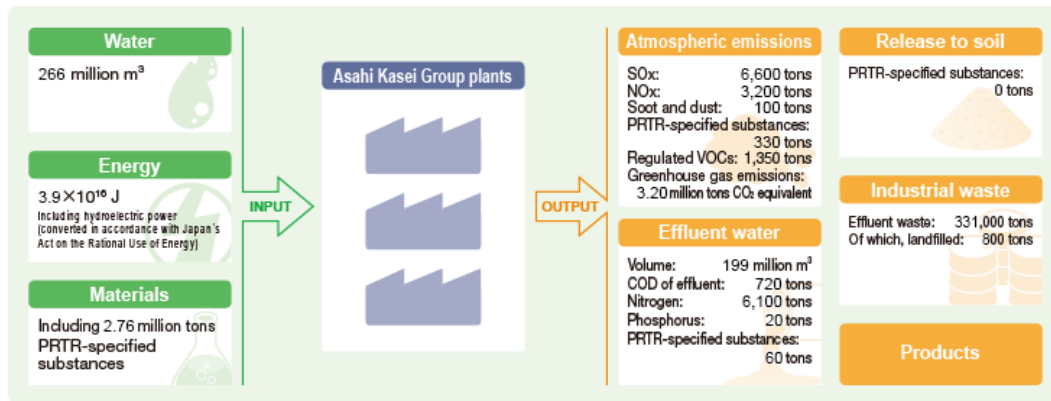
Improve unit energy consumption by an annual average of at least 1% over a 5-year period

RC objectives and results >

## Environmental impacts

The diagram below describes the environmental impacts of business activities at Asahi Kasei Group plants.

Asahi Kasei Group Main Environmental Impacts (FY2017)



# The global environment

Global environmental  
measures of Asahi Kasei

Climate change

Recycling

Biodiversity

## Climate change

### Policy

Considering climate change to be a significant issue which may affect our business operations in the future, the Asahi Kasei Group performs climate change measures including the reduction of greenhouse gas (GHG) emissions. As a participant in the Commitment to a Low Carbon Society launched in April 2013 by the Japan Chemical Industry Association and Nippon Keidanren, the Asahi Kasei Group is implementing activities in line with this commitment. We will also pursue activities under global indicators and targets set for our overseas manufacturing sites as well.

[Asahi Kasei Group RC Principles >](#)

[The Asahi Kasei Group's Global Environmental Policy >](#)

### The Asahi Kasei Group's activities for building a low-carbon society

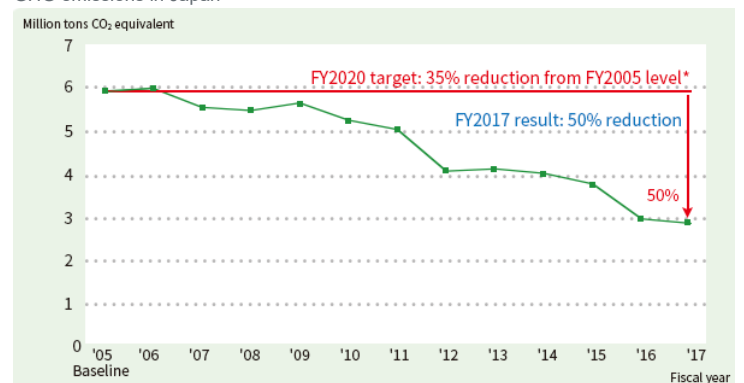
- 1.Reducing GHG emissions of the Asahi Kasei Group
  - (1) GHG emissions in Japan
  - (2) Scope 3 emissions
- 2.Helping reduce CO<sub>2</sub> emissions throughout the entire lifecycle of products
- 3.Making international contributions
- 4.Developing innovative new technologies

### Reducing GHG emissions

#### GHG emissions in Japan

The Asahi Kasei Group's GHG emissions in Japan from production processes in fiscal 2017 were 2.93 million tons of CO<sub>2</sub>-eq, which represents a reduction of 50% compared to the 5.92 million tons of CO<sub>2</sub>-eq from our baseline year of fiscal 2005. Significant factors that contributed to this reduction include the suspension of ammonia, benzene, and ethylene production, and the start of biomass power generation. Compared to the emissions level in 1990, the index year set under the Kyoto Protocol, we continue to maintain a reduction of GHG emissions by more than 70%, most notably through the development of technology for thermal decomposition nitrous oxide (N<sub>2</sub>O) byproduct.

GHG emissions in Japan



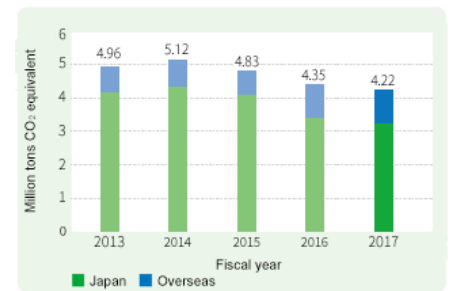
\*Target excluding CO<sub>2</sub> emissions from generation of electricity and steam sold to other companies

[Greenhouse gas emissions in Japan by company \(Environmental data\) >](#)

## Global GHG emissions

We redefined our GHG emissions in fiscal 2017 to include emissions of all affiliated companies under Asahi Kasei's management control and emissions from generation of electric power and steam sold to other companies. Data from fiscal 2013 to 2016 has been recalculated to reflect this change. The Asahi Kasei Group will employ a range of measures to further reduce total global GHG emissions toward a target to be achieved in 2030, in accordance with the Paris Agreement. In fiscal 2017, our Scope 1 GHG emissions were 3.10 million tons of CO<sub>2</sub>-eq and Scope 2 GHG emissions were 1.12 million tons of CO<sub>2</sub>-eq.

Global GHG emissions

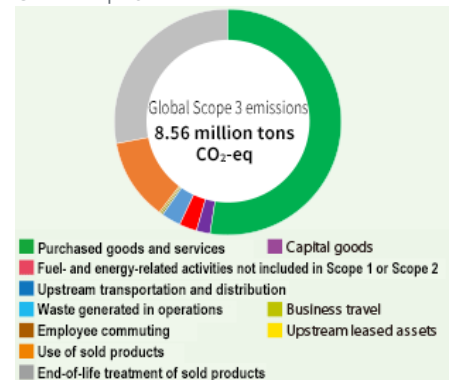


Overseas greenhouse gas emissions by fiscal year (Environmental data) >

## Scope 3\* emissions

The domestic Japanese portion of Scope 3 emissions has been calculated for all operations except Asahi Kasei Pharma, yielding data on 99% of such emissions for the entire Asahi Kasei Group. In fiscal 2017 we began including Scope 3 emissions of overseas operations in our calculation.

Global Scope 3 emissions



\*Scope 3 emissions: Greenhouse gases emitted indirectly by a company throughout its supply chain. The method for calculating Scope 3 emissions is described in Environmental data. The Asahi Kasei Group's Scope 3 emissions from Category 1 (purchased goods and services) in fiscal 2017 were 4.50 million tons of CO<sub>2</sub>-eq.

## Efforts to reduce CO<sub>2</sub> emissions in Japan

### Conserving energy in physical distribution

Product shipments for Asahi Kasei Group operations in Japan amounted to some 1.3 billion ton-kilometers in fiscal 2017—a 3% increase from fiscal 2015—generating approximately 100 thousand tons of CO<sub>2</sub> emissions—a 5% increase. In cooperation with the transport firms contracted for shipment, a wide range of measures are employed to reduce energy consumption and alleviate the environmental effects of physical distribution.

Asahi Kasei has received Eco-Rail Mark certification in recognition of our preferential shipment of products by rail, an ecological mode of transport which results in lower CO<sub>2</sub> emissions for a given weight and distance than many other means of transportation.



The Eco-Rail Mark

CO<sub>2</sub> emissions from product shipment (Environmental data) >

### Use of low-pollution vehicles

The Asahi Kasei Group is phasing in low-pollution vehicles for use in marketing and within plant grounds. In fiscal 2017, some 84% of company-owned vehicles were low-pollution vehicles

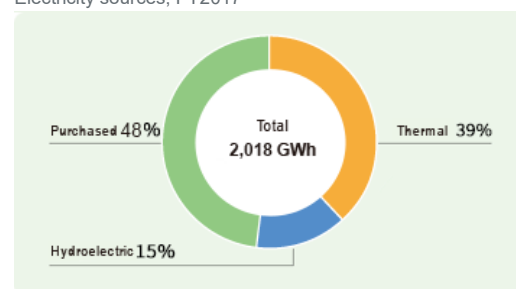
Low-pollution vehicles (Environmental data) >



## Renewable energy

The Asahi Kasei Group has 9 hydroelectric power generation plants in the Nobeoka Region, which provided 15% of the total electricity we used in Japan. Generation of the equivalent amount of power at thermoelectric plants would result in approximately 180 thousand tons\* of CO<sub>2</sub> emissions annually. Furthermore, our biomass power generation facility in Nobeoka started operation in August 2012.

Electricity sources, FY2017



\*Using Japan's Ministry of Economy, Trade and Industry and Ministry of the Environment standard of 587 g CO<sub>2</sub>/kWh.

## Reducing CO<sub>2</sub> emissions throughout the product life cycle

### Life cycle assessment of reduced CO<sub>2</sub> emissions

Although CO<sub>2</sub> is generated during the manufacture of materials and intermediate products in the Asahi Kasei Group, there are also many examples of products which contribute to reduced CO<sub>2</sub> emissions during use. LCA calculation takes such contribution into account and determines the amount of CO<sub>2</sub> reduction achieved over the product life cycle. By expanding sales of such products and commercializing new products and technologies that enable significant reduction of CO<sub>2</sub> emission based on LCA, we contribute to the overall reduction of greenhouse gas emission throughout the supply chain.

### Global warming conscious products

The products shown in the following chart are certified as global warming conscious products based on the guidelines we formulated on global warming conscious products in April 2013.

List of global warming conscious products

Rank	Product name
A	Hall ICs and Hall elements for DC motors used in air conditioners
A	Ion-exchange membrane production process for caustic soda
A	Synthetic rubber for fuel-efficient tires
A	Phosgene-free polycarbonate production process
A	Lithium-ion battery separators for electric and hybrid electric vehicles
A	Hebel Haus™ with power generating, efficiency, and conservation functions
A	Fusion™ 3D knitted fabric for energy-saving humidifier filters
A	Heat-absorbing stretch fiber for cool-feeling innerwear
B	Hebel Haus™ with next-generation insulation
B	Neoma™ phenolic foam insulation panels for homes
B	Sunfort™ photosensitive dry film
B	Hebel Haus™ two-generation homes
B	Asaclean™ plastic molding machine purging agent
C	Renovation to add solar panels
C	Polymer membrane for fuel cells
C	Renovation to improve window insulation

Rank A: LCA/CO<sub>2</sub> reduction of at least 500,000 t-CO<sub>2</sub>/y  
 Rank B: LCA/CO<sub>2</sub> reduction of at least 100,000 t-CO<sub>2</sub>/y  
 Rank C: LCA/CO<sub>2</sub> reduction of at least 10,000 t-CO<sub>2</sub>/y

## International contribution

Hall ICs and Hall elements for air conditioner DC motors, ion-exchange membrane process for the caustic soda production, and synthetic rubber for fuel-efficient tires are used in the US, the EU, and Asia. These products and technologies produce less CO<sub>2</sub> when used compared to the conventional alternatives. We continue R&D to create new eco-friendly products and technologies that will increase our contribution to reduced CO<sub>2</sub> emissions.

## Development of innovative technologies

We are working to develop innovative technologies such as a new highly energy-efficient production process for a raw material of polycarbonate using CO<sub>2</sub> as feedstock, and an alkaline water electrolysis system to produce hydrogen from renewable energy at low cost with high energy conversion efficiency.

# The global environment



## Recycling

### Policy

Recycling is a major plank of the Asahi Kasei Group's Global Environmental Policy, and we work to efficiently utilize resources and energy and to reduce the environmental burden throughout the entire life cycle in our business activities. In order to contribute to a circular economy, we reduce industrial waste, reduce the burden of chemical substances, and prevent air and water pollution.

### Reducing industrial waste

The Asahi Kasei Group is working to reduce the amount of industrial waste for final disposal through the "3-Rs" of reduction, reuse, and recycling.

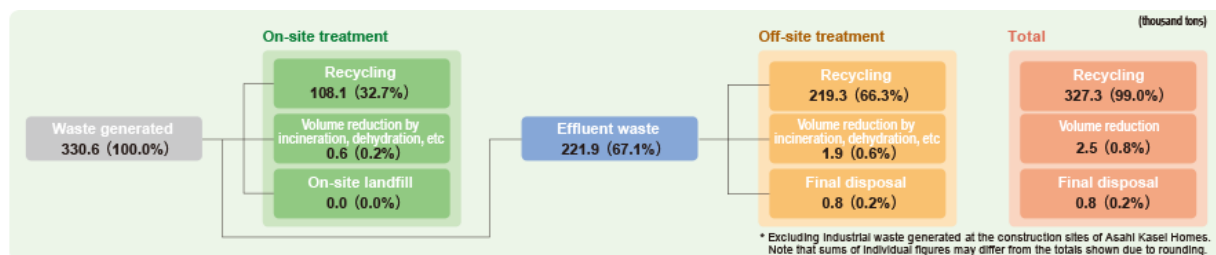
In fiscal 2017, we adopted targets of a final disposal rate of 0.3% or less and a recycling rate of 90% or more of the total amount of industrial waste generated. We achieved our targets, with a final disposal rate of 0.2% and a recycling rate of 98.9%. We are working to gain further improvements through increased separation and greater selectivity in disposal contractors.

Waste containing PCBs\* is stored under strict control in stainless steel vessels. Plans for disposal are advancing, including for waste with minimal amounts of PCBs. We are also systematically advancing plans to identify the electrical equipment currently in use that contains PCBs, and to implement early replacement.

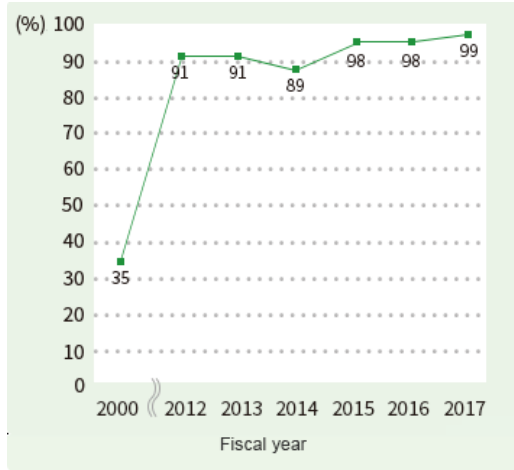
We enhanced our management of off-site treatment of industrial waste by expanding the use of electronic manifests. We also performed periodic on-site inspections of consigned firms to ensure that proper disposal is performed in accordance with sound systems of control.

\*PCBs (polychlorinated biphenyls) are persistent and pose a risk to the living environment and human health. Their manufacture and use is essentially prohibited in Japan.

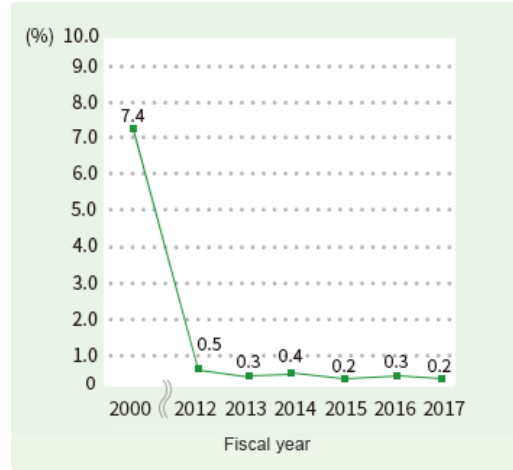
FY2017 flow of industrial waste\*



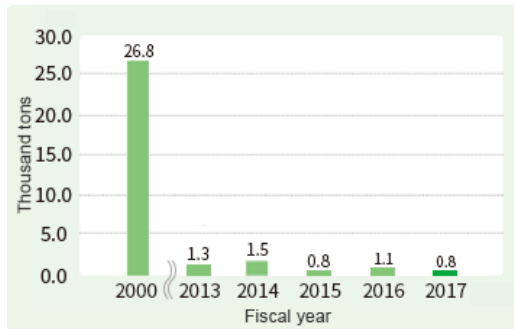
Recycling rate



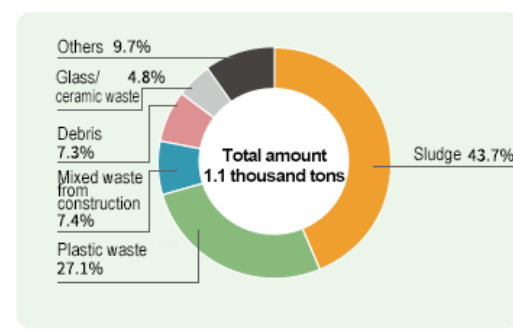
Final disposal rate



Off-site final disposal volume



FY2017 off-site final disposal by category of waste\*

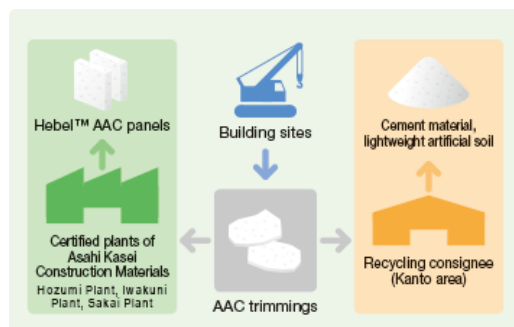


\*Excluding waste generated at the construction sites of Asahi Kasei Homes

## Reducing industrial waste from construction materials and housing businesses

Asahi Kasei Construction Materials recycles trimmings of Hebel™ autoclaved aerated concrete (AAC) panels in its own plants and others, utilizing its certification for “wide-area recycling”\* which permits the transport of waste from different construction sites. Asahi Kasei Homes is also reducing the volume of waste as well as implementing sorted waste collection at housing construction sites. With these measures, waste for final disposal has been reduced to zero at new construction sites.

Recycle flow for trimmings of Hebel™ AAC panels



Final disposal industrial waste generated at construction sites



\*Certificate for wide-area recycling: For certain parties, who perform recycling in a wide-area, Japan's Minister of the Environment eliminates the need to obtain separate waste transport permits for each local area. The system was established to promote further recycling of industrial waste.

Treatment and disposal of industrial waste by company (Environmental data) >

ALC trimmings recycled by Asahi Kasei Construction Materials (Environmental data) >

## Asahi Kasei Home Products becomes partner of “Re-Style” campaign

Asahi Kasei Home Products Corp. imports environmentally friendly Frosch™ house care products from Germany for sale in the Japanese market. The flagship dishwashing detergents marketed as “gentle to the environment and gentle to the skin” are sold in 100% recycled PET bottles, with refills actively promoted. The detergents also feature reduced environmental burden through biodegradability, nearly completely returning to water and carbon dioxide by bacterial activity. In fiscal 2017 Asahi Kasei Home Products became a partner of the Ministry of the Environment’s “Re-Style” campaign to promote the 3-Rs of reduce, reuse, and recycle, which accords with the characteristics of Frosch™ dishwashing detergents. The company earnestly participates with activities to encourage consumers to purchase recycled products and refills, including announcements on the product website, reciprocal links between the product website and the Re-Style website, sponsorship of Re-Style initiatives, display of the Re-Style logo on certain products, and provision of special refill products for Re-Style projects.



State Minister of the Environment Tadahiko Ito (right) presents the partnership agreement to Asahi Kasei Home Products

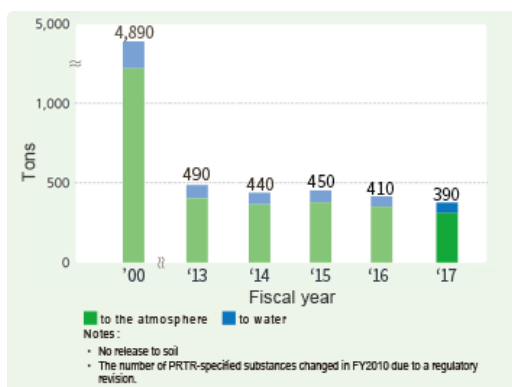


Frosch™ dishwashing detergents in the regular dispenser (foreground) and refills (background)

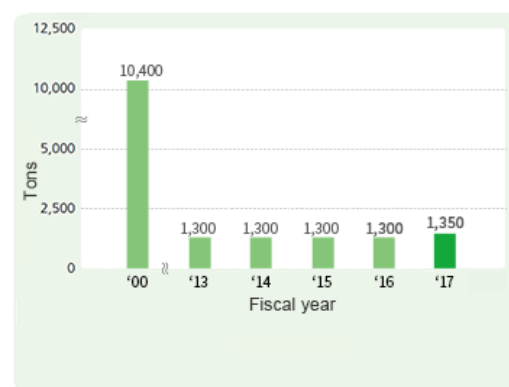
## Chemical substances

The Asahi Kasei Group works to reduce the release of chemicals substances specified in the PRTR<sup>1</sup> Law and other chemical substances which we have voluntarily designated for reduction with priority based on the degree of hazardousness and amount of release. As shown in the graphs below, releases of PRTR-specified substances and VOC<sup>2</sup> emissions were reduced by 92% and 87%, respectively from fiscal 2000. We will continue to enhance control of operation and equipment to prevent any accidental release.

Releases of PRTR-specified substances



Releases of VOCs



<sup>1</sup> PRTR: Pollutant release and transfer register. Under the PRTR Law, releases to the environment and off-site transfers of specific hazardous chemical substances must be monitored and recorded for each production facility and operating site. Results are reported to the government, which publishes aggregated results.

<sup>2</sup> VOC: Volatile organic compound. Although the term generally applies to any organic compound which is in gaseous state at the time of release, regulations for the control of their release exclude methane and some fluorocarbons which do not form oxidants.

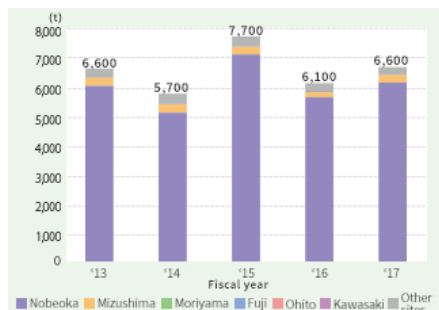
Release and transfer of PRTR-specified substances (Environmental data) >

## Air and water

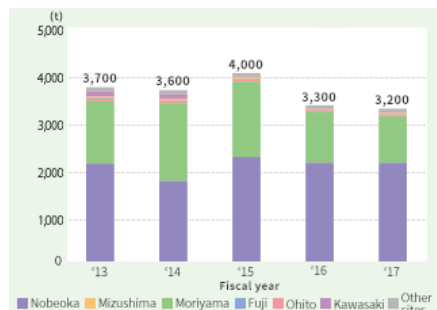
The Asahi Kasei Group works to control emissions and prevent spills in order to avoid the pollution of air, water, soil, or groundwater. Measures to prevent odors include the installation of exhaust gas absorption equipment and increasing the capacity of our wastewater treatment facilities. To prevent soil and groundwater pollution, we have performed investigation and taken appropriate measures in accordance with the Soil Contamination Countermeasures Act and related regulations.

We confirm the control of effluent water based on an internal guideline issued in 2012. Release of substances regulated by the Air Pollution Control Act and the Water Pollution Control Act are maintained below the permissible limits.

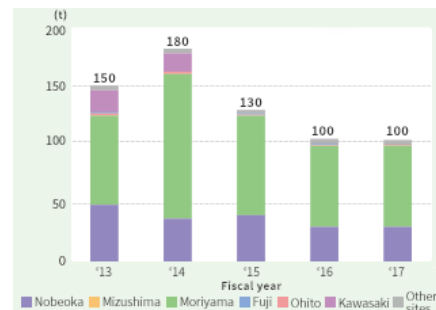
SOx emissions



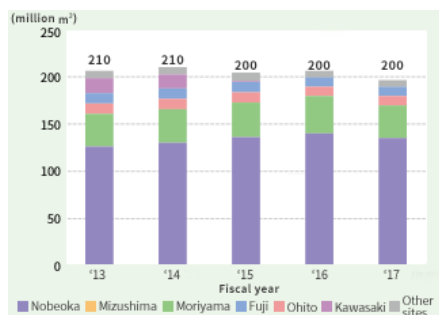
NOx emissions



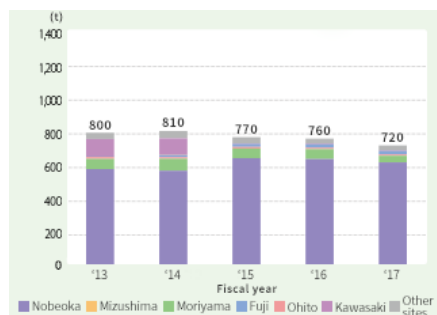
Soot and dust emissions



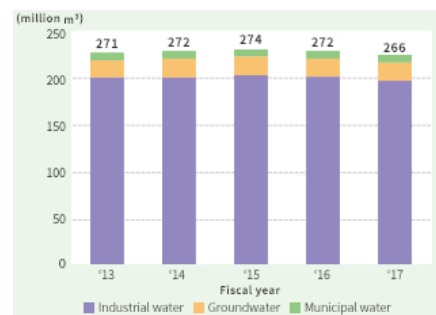
Effluent water volume



COD of effluent

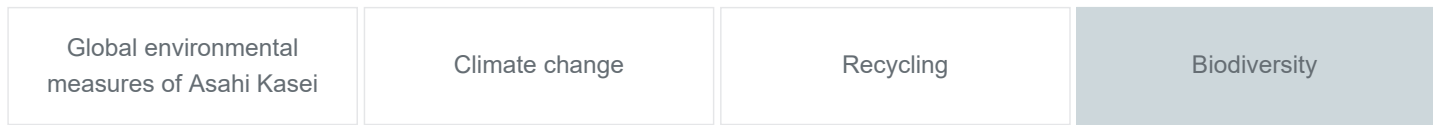


Water usage



Water usage and sources by fiscal year in Japan (Environmental data) >

# The global environment



## Biodiversity

### Policy

To ensure the sustainable utilization of living resources, we give due consideration to reducing the impact of our business activities on biodiversity, and we have established guidelines for the preservation of biodiversity. Based on these guidelines, in fiscal 2010 the Asahi Kasei Group began examining the impact of our business activities on biodiversity. In order to promote business activity mindful of biodiversity, we are working to raise awareness among personnel by various means including our RC education program.

### Examining impact of procurement on biodiversity

Regarding the impact of our business activities on biodiversity when there is a newly used or a change in use of raw materials, we use a survey sheet on the relationship between business operations and biodiversity to examine the country of origin of raw materials, processors and manufacturers, and primary vendors (trading companies, etc.), in order to confirm the absence of any problem.



Survey sheet on the relationship between business operations and biodiversity

### Group-wide activities for preservation of biodiversity

#### Launch of the “Town Woods” program

Planting modules having a layered structure called “Town Woods Pots” are being used to enhance green spaces at Asahi Kasei Group operating sites throughout Japan. This program promotes greening from the perspective of biodiversity, and contributes to biodiversity preservation through continual observation and dissemination of information, while heightening understanding and awareness of the value of biodiversity among personnel.

#### Characteristics of the program

- Using the phytosociological method to classify green spaces at operating sites throughout Japan for the selection of the most suitable Town Woods Pots according to each area's vegetation to heighten value from the perspective of biodiversity
- Educating employees on the functions, roles, and expected effects of the Town Woods Pots in order to raise awareness regarding the preservation of biodiversity
- Evaluating each phase of planting, observing, disseminating, and development by a scoring system which allows the activities to be quantified and visualized, together with longer-term objectives for ongoing activity
- Utilizing the program as a tool to deepen communication with the local communities



A Town Woods Pot planted at the Moriama Works



Illustration of a Town Woods Pot after three years of growth



A poster describing the Town Woods program

## National network to promote the Satoyama Initiative in Japan

The Japan Network for Promoting the Satoyama Initiative, established in September 2013, is comprised of 113 organizations (as of June 2018) including companies, research institutions, governmental bodies, NGOs, NPOs, etc. Various organizations in Japan join together under the keyword “Satoyama” to bridge differences and build a platform to enable interactions, cooperation, and information exchange among the participants in order to make efforts to conserve and use biodiversity into a nationwide effort. Asahi Kasei is a founding corporate member of the Satoyama Initiative, and in fiscal 2017 we took part in leadership meetings, general meetings, seminars, liaison meetings, and on-site observations.



## Notable actions in fiscal 2017

### Actions in Fuji

#### “Asahi Woods of Life” project

The Asahi Woods of Life was created in 2007 as an ecotope within the grounds of our plant and laboratory complex in Fuji to restore the former natural woodland and village landscape of the Tagonoura area and preserve the local ecosystem. By fostering the Asahi Woods of Life, we have allowed species native to the area to thrive while supporting environmental education and emotional fulfillment, and gained insight to apply in business operations.

#### Highlights of the project:

- To monitor and manage the growth of the Asahi Woods of Life, we perform a vegetation survey of the afforested area, examination of the trees, vegetation survey of the whole area, and survey of insect fauna. We also participate in monitoring the creation of an ecological network in conjunction with ecosystem surveys of nearby parks, residential areas, and elementary schools.
- In conjunction with government officials and museum personnel, we hold nature observation tours for children as an element of environmental education. We also hold a firefly watching event in early summer to deepen communication with the community.
- In fiscal 2017, we published a pamphlet commemorating the tenth anniversary of the Asahi Woods of Life.
- In 2017 the Asahi Woods of Life was certified as “Excellent Stage 2” in Nurturing Category of SEGES (Social and Environmental Green Evaluation System) administered by the Organization for Landscape and Urban Green Infrastructure.



The Asahi Woods of Life



Nature observation tour



Tenth anniversary pamphlet

## Actions in Moriyama

### Conservation of endangered smallhead stickleback, a freshwater fish

In Moriyama, we draw groundwater for use as industrial water to cool equipment. Its quality is strictly monitored and it is discharged to nearby rivers after use. Part of the discharged water from our Moriyama Works is also used for agriculture, which has become vital for the local farmers as well as wildlife inhabiting the waterfront areas. Against this backdrop, we started activities to protect biodiversity from fiscal 2010 focusing on water, which is intrinsically related to our business operations.

In fiscal 2015, we started to revive the population of wildlife inhabiting waterways and their surround areas, including ex-situ conservation of the freshwater fish called smallhead stickleback which is designated as an endangered species. In fiscal 2017 we held an event for members of the surrounding community who work to protect smallhead stickleback and the curator of Lake Biwa Museum to share information on management of our conservation pond and the current status of smallhead stickleback in Shiga Prefecture. Monitoring and examination by specialists confirmed the presence of over 70 smallhead sticklebacks, indicating the effectiveness of our conservation activities.

In recognition of these activities for the preservation of biodiversity with a focus on water including wastewater, we received the Jury's Special Award in the 12th JCIA Responsible Care Awards.



Examining smallhead stickleback



JCIA Responsible Care Award Ceremony

## Actions by Asahi Kasei Jyuko Co., Ltd.

### Project to rediscover living with the woods and water in Higashiomi

The Shiga Plant of Asahi Kasei Jyuko (AKJ) is located in the Yuya area of Higashiomi City where there had formerly been a natural lakeside ecosystem of ponds, rice paddies, and woods. There was a culture of life centered around ponds for irrigation and firefighting. By restoring some of the ponds, AKJ is preserving the habitat for local wildlife, conveying the importance of this to community residents through observation tours, etc., and holding events at the plant to provide a venue that will lead to the protection of woods and crops as local resources.

#### Main activities

- In June 2017, to protect wildlife inhabiting the lakeside ecosystem, AKJ created the Yuya Hebel Biotope by restoring a portion of the ponds within the plant grounds that existed prior to construction of the plant, at 1/5 of the original scale. With the cooperation of adjacently located Crefeel Koto Co., Ltd., AKJ transplanted soil and plants from a marsh rich in biodiversity within Crefeel's plant grounds, requested the local residents' association to preserve nearby marshes where a priceless environment has remained from long past, transplanted aquatic plants, and introduced fish from the waterways of nearby rice paddies in order to maintain the ecological environment.
- Under the guidance of experts, AKJ and Crefeel Koto jointly hold events in coordination with Higashiomi City and nearby elementary schools, including dragonfly observation events during summer vacation and at the plant's autumn festival, and nature observation tours.
- The project is proactively publicized both inside and outside AKJ with a PR bulletin, and in June 2018 the Yuya Hebel Biotope was recognized with the CSR Special Award at the 10th Biotope Award Ceremony held by the Japan Biotope Association.



The Yuya Hebel Biotope



Nature observation tour



The 10th Biotope Award Ceremony



## “Mission 79 Dragonfly” project of the Kotou Area Biodiversity Network

The four organizations of the Shiga Plant of Sekisui Jushi Corp., Shiga Works of Daifuku Co., Ltd., Shiga Plant of Asahi Kasei Jyuko Co., Ltd., and Moriyama Works of Asahi Kasei Corp. collaborated to form the Kotou Area Biodiversity Network. To preserve the biodiversity of the Kotou area of Shiga Prefecture, the network launched “Mission 79 Dragonfly” in fiscal 2016 as a project focused on dragonflies. Shiga Prefecture is one of the best habitats for dragonflies in Japan, and 79 species of dragonfly are confirmed to inhabit the Kotou area of Shiga. As the lifecycle of dragonflies is deeply related to water, the population of dragonflies is said to be a barometer of the quality of the local environment.

Mission 79 Dragonfly focuses on the three themes of finding, protecting, and showing. For finding, surveys were conducted in fiscal 2016 and 2017 which confirmed the habitation of 56 species of dragonfly in the vicinity of the plant grounds of each organization. For protecting, each company picks a preferred kind of dragonfly, and performs conservation activities accordingly. For showing, the activities are presented with a panel display at Lake Biwa Museum and through various seminars.

The results and future potential of the series of activities were recognized with the Fiscal 2017 Shiga Biodiversity Award from Shiga Prefecture. The project was also selected as a certified alliance project by the Japan Committee for the United Nations Decade on Biodiversity. This project will continue drawing together businesses, the people of the community, local government bodies, and experts to protect biodiversity in the Kotou area of Shiga.



Specialists and employees survey conditions of dragonfly habitat within the Moriyama Works



Panel display at the Lake Biwa Museum



Shiga Biodiversity Award Ceremony

## Actions in Nobeoka

### The 2nd tree-planting of the Asahi Forest

In the Nobeoka area, we held the 2nd tree-planting of the Asahi Forest in April 2018, at Hayahi Ridge. Since 2007 we have supported a reforestation program led by Miyazaki prefecture to create forests in cooperation with companies. Up to 2017 we planted more than 43 hectares of broad-leaf trees and other trees native to the area on mountain sites which were left bare after cedar and cypress had been harvested, including 20 hectares in Hinokage, 20 hectares in Takachiho, 1 hectare in Gokase, and 2 hectares in Kitakata.

At Hayahi Ridge we planted a total of 2,000 saplings of broadleaf trees on a 1 hectare site, including 800 wild cherry, 500 Japanese zelkova, 500 maple, 200 wild chestnut. Despite wintery weather with occasional gusts of snow, some 450 people participated in the tree-planting, including many of our employees and their families, retirees, employees of AJS Inc. and other companies in Nobeoka, and students and teachers from Asahi Junior High School.

Thanks to the cooperation of officials from Nobeoka City and from Kitakata-cho, members of the Nobeoka District Forestry Association, as well as staff and related parties, a series of events including the opening ceremony, tree planting in the wind and snow, enjoyable lunch, a market of local specialties, and a drawing for prizes left a memorable impression on the participants.



The start of planting



People participating in the tree-planting



A young boy wields a hoe to dig the hole to plant a tree

# Operational safety

## Policy

Measures for operational safety in the Asahi Kasei Group are performed in accordance with our Basic Policy for Safe Operation. An ongoing and autonomous program to ensure operational safety includes safety assessment and hazard identification, with specific plans implemented on both annual and multi-year cycles. As set forth in the Asahi Kasei Group RC Principles, we give the utmost consideration to environmental protection, quality assurance, operational safety, workplace safety and hygiene, and health maintenance, throughout the product life cycle from R&D to disposal, as preeminent management tasks in all operations. In addition to maintaining legal compliance, we set self-imposed targets for continuous improvement, while performing proactive information disclosure and communication to gain public understanding and trust.

### Basic Policy for Safe Operation

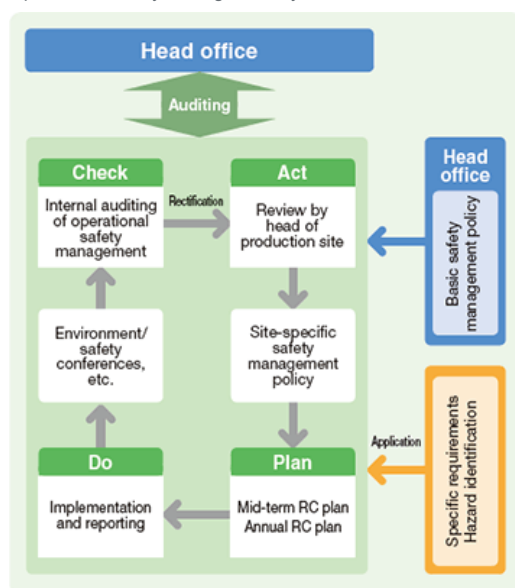
We maintain the safety of employees and local communities through stable and safe operation, while working to prevent workplace injuries

At the Mizushima Works and Kawasaki Works, we have received certification for self-inspection for high-pressure gas safety from Japan's Ministry of Economy, Trade and Industry. Accordingly, we perform our own "completion inspections" and "safety inspections" as part of the ongoing effort to maintain stable and safe operation. In fiscal 2017, the Kawasaki Works underwent examination for renewal of the certification. As with the Mizushima Works in fiscal 2016, we received an evaluation of "A," the highest level, indicating outstanding measures which are exemplary for other organizations.

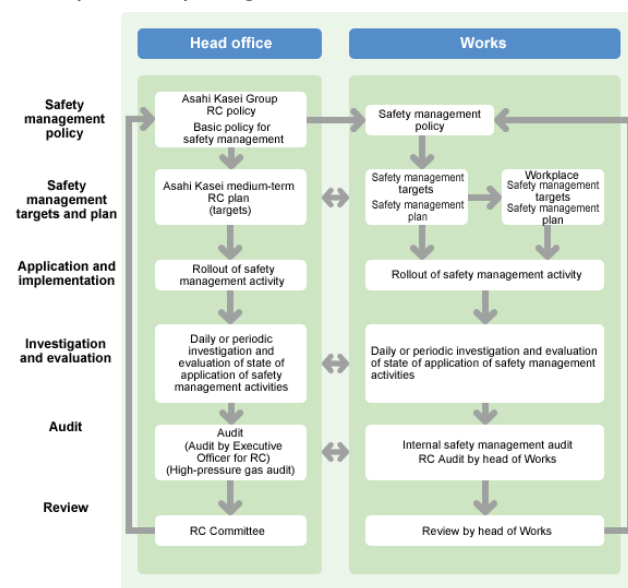
### Basic Policy for High-Pressure Gas Safety

- Safety is an important fundamental of management, and all of our business activities depend on safety.
- Each one of our employees is responsible for safety, and safety is ensured by all employees together.
- We apply a PDCA (plan-do-check-act) cycle to continuously improve the level of safety.
- Measures to assess risks, and to eliminate and mitigate them, are persistent and ongoing.

Operational safety management system



PDCA cycle for safety management



## Plant safety management

To achieve safe operations, it is essential to perform sound plant maintenance, and to operate facilities in a stable and safe manner. The Asahi Kasei Group avoids operational accidents through risk assessments prior to the construction of new plants, periodic inspections of existing plants performed by auditors specialized in fire and explosion prevention, process reviews from the perspective of preventing abnormal reactions and ensuring interlock functions, and process reviews corresponding to the age of facilities.

Beginning in fiscal 2013, we completed a program of on-site confirmation to identify hazards from the perspective of preventing abnormal reactions and ensuring interlock functions, and have been preparing technical documents on items with a high degree of hazard and on accidents and problems which occurred in the past. From fiscal 2015, we are implementing education and training for managers and operators to enable them to properly identify the cause and take appropriate action if problems occur, including problems that have not been previously encountered. To enable appropriate response to any irregularity, the training program incorporates the results of third-party verification performed by Corporate ESH and extensive discussions on safety at each production section. There were no serious operational accidents inside or outside Japan during fiscal 2017.

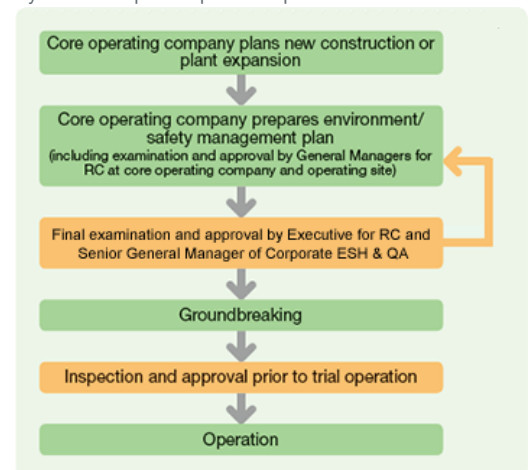
## Pre-investment inspection system

We perform process hazard assessment before plant construction to ensure a high level of safety. Internal regulations require a pre-investment inspection to verify plant safety when there are plans to invest in a new plant, plant expansion, or plant modification of a certain scale or larger. Inspection and approval prior to trial operation provides an additional confirmation of plant safety before commercial operation begins. The inspection system is applied not only in Japan, but also outside of Japan.

Safety assessment is performed as part of the pre-investment inspection. Ranks are assigned based on the degree of hazard, with methods such as HAZOP\* utilized in the risk assessment of high hazard facilities, and other risk assessment methods utilized for low-risk plants which are deemed to be vital.

\*Abbreviation of "hazard and operability study," a method of identifying and dealing with potential problems in industrial processes by assuming deviations from design intentions. This highly exhaustive method is widely utilized throughout the process industries.

System for inspection prior to capital investment



## Safe, stable plant operation

Given our diverse range of operations that include the Material, Homes, and Health Care business sectors, the Asahi Kasei Group has plants with a wide variety of different characteristics. No single approach to safety would be appropriate for all plants.

We employ a systematic process to tailor the safety effort to each plant's specific requirements, including the use of PDCA cycles. One characteristic of process is the formulation of separate maintenance standards for each individual unit of equipment to ensure the appropriateness of the method and period of maintenance.

In addition, safety information and know-how are shared across the Asahi Kasei Group through a group-wide plant engineering council with 4 specialist panels: Formulation of optimum systematic maintenance programs, establishment of standards and criteria, formulation of training systems for maintenance engineers, and sharing engineering information.

## Training for maintenance

We believe that maintenance means creating the condition of equipment necessary to accomplish production objectives. Although we use a PDCA cycle for the planned maintenance system, people are the most fundamental element. It is vital for each individual to gain the essential technology and contribute to the strength of the team.

The Asahi Kasei Group launched a training program in fiscal 2009 to nurture the skills of maintenance personnel. We clarified the training principles for maintenance technicians, formulated a training curriculum for each individual based on these principles, and applied the PDCA cycle. Currently some 530 personnel are using this system to develop their skills.

In fiscal 2014 we launched a new web-based system leveraging the experience gained. The new system tracks all training progress in a database that enables more efficient data entry and easier preparation of materials for training audits. Beginning in fiscal 2015, applications for classroom work are made via the website, and results of certifications acquired are managed online.



Maintenance training system

## Training for operational safety

At our petrochemical sites in Mizushima and Kawasaki, the Asahi Operation Academy (AOA) serves as the training center to cultivate the skills necessary to operate petrochemical plants. AOA teaches the principles and structures of equipment, heightening the ability to identify the cause of equipment failure and to respond appropriately. Miniature plants and simulators are used at AOA to provide hands-on experience with controls and instrumentation. Operators thereby gain the technical skills and practical understanding of chemical engineering necessary for safe and reliable plant operation, with the ability to respond appropriately in the event of any abnormality.

We carry out safety training exercises in which employees are given simulated experience of workplace dangers including being caught in/between machinery, contacting hazardous liquids, tripping and falling on the same level, suffering a burn, falling from height, etc. In conjunction, we provide education on human behavioral characteristics and accident case studies in order to instill greater sensitivity for safety among employees and obtain strict compliance to safety rules to avoid dangers.



AOA plant simulator training



AOA practical training for valve disassembly/assembly



AOA safety training (simulated experience of being sprayed with liquid)

## Preparation for emergency situations

A comprehensive set of internal regulations guides the proper response to any industrial accidents or natural disasters which may occur.

The smooth operation of the emergency response system ensures that personal safety is secured, that effects of the situation are prevented from spreading to surrounding areas, and that damage is held to a minimum, through close communication between the plants, regional management, and the head office. The plants prepare annual plans for periodic training drills, and perform drills in coordination with the head office.



Joint emergency response training drill in Nobeoka



Tsunami evacuation drill in Nobeoka

## Physical distribution safety

To prevent accidents in physical distribution, Asahi Kasei works closely with logistics providers contracted for storage, loading, unloading, and transportation to implement safety activities, which include physical distribution safety symposiums, safety liaison conferences, safety inspection, training, and many other safety measures. Furthermore, individual production sites hold joint training drills together with logistics providers to prepare for accidents that may occur and to ensure that damage from such accidents is minimized.

In January 2017, we signed an agreement with the Maritime Disaster Prevention Center and introduced HAZMATers (Hazardous Materials Emergency Response Service) to further strengthen the response capability in the case of an emergency. The engagement of HAZMATers makes a highly specialized emergency response available 24 hours a day, 365 days a year, ensuring swift action to prevent the spread of damage if an accident occurs.



Training drill for physical distribution safety (premised on a nitric acid leak)

# Workplace safety, hygiene, and health

## Policy

While business is operated globally, the structure of society is changing dramatically. The population continues to age, and the way of hiring people as well as working styles are changing. In this time of change, the Asahi Kasei Group recognizes the importance of ensuring comfortable and safe workplace environments for all employees to maintain good health in mind and body, enabling them to make the most of their capabilities and possibilities.

The Asahi Kasei Group regards all employees as precious assets. Our RC Principles state: “We give the utmost consideration to environmental protection, quality assurance, operational safety, workplace safety and hygiene, and health maintenance, throughout the product life cycle from R&D to disposal, as preeminent management tasks in all operations.” In cooperation with employees, we strive for a comfortable workplace environment throughout the company. We also implement various measures to support employees in maintaining and advancing their mental and physical well-being in accordance with our health management guidelines, including screening for lifestyle-related diseases and mental health checkups.

## Management framework

The Asahi Kasei Group has worker health and safety committees which monitor employees' health and safety at work. The committees meet monthly to improve the standard of occupational health. Each workplace has its own system to prioritize the safety of employees and other workers through a policy and targets. In fiscal 2013 we began full implementation of an internet-based electronic diagnosis system to survey the stress level of individual employees as part of our effort for health care.

## Preventing workplace accidents

The effort to prevent workplace accidents is integrated in our comprehensive OHSMS<sup>1</sup> program that combines conventional safety initiatives<sup>2</sup> with risk assessments and a prevention-oriented plan-do-check-act (PDCA) system.

In fiscal 2002, we began applying OHSMS in accordance with OHSAS 18001 standards. In fiscal 2009, OHSMS was implemented at 90% of all plants and laboratories.

Integration of workplace safety initiatives



<sup>1</sup> Occupational Health and Safety Management System: A standardized management system used to confirm that continuous improvement is being applied to measures to minimize the risks of workplace injuries and to prevent the emergence of future risks

<sup>2</sup> Tidiness/orderliness/cleanliness (3S), reporting of near-accidents and potential hazards, hazard prediction analysis, safety patrols, and case studies

## Approach to workplace safety

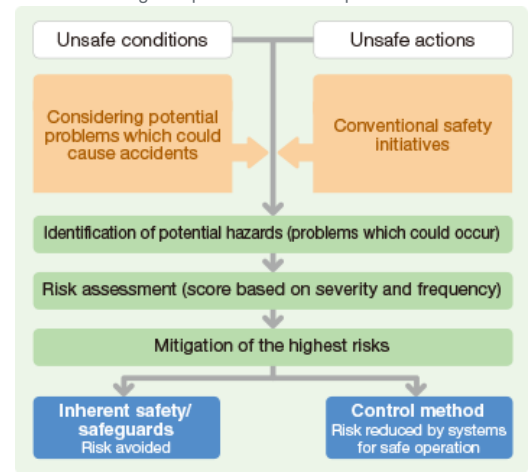
### Identification of potential hazards

Effective prevention of workplace accidents requires the identification of all potential hazards in a workplace. In addition to conventional safety initiatives, it is important to consider safety from the perspective of the problems which conceivably arise in a wide variety of situations—as a result of both potentially unsafe physical conditions (hazardous working environment due to equipment, materials, noise, etc.) and potentially unsafe actions of personnel.

## Risk assessment

Priority for mitigating the potential workplace hazards identified is assigned based on a scoring system that combines the severity of the impact of problems which could occur and the frequency with which such problems would be likely to occur.

Schematic image for prevention of workplace accidents



## Mitigation of the highest risks

Measures to achieve inherent safety by eliminating unsafe conditions (by eliminating dangerous procedures, automation, eliminating sources of problems, changeover to safe materials, etc.) and the application of safeguards are extremely effective in the effort to avoid risks. We focus on achieving inherent safety and applying safeguards (isolation and stoppage) to avoid risks associated with the use of machinery and equipment to prevent the “caught in/between machinery” category of accident, which can easily result in severe injury.

### Inherent safety and safeguards

Measures to achieve inherent safety and the application of safeguards to avoid risks are generally considered to provide the greatest level of safety, as shown in the following table. We incorporate such measures in the construction of new or replacement facilities, upon safety reviews of existing facilities, and to prevent the recurrence of accidents.

Formulation of safety measures

Safety measures		Degree of safety achieved	
1	Inherent safety	100%	
2	Safeguards	80%	
3	Control method	Indications, warnings, etc.	20%
4		Manuals, approved systems, etc.	20%

Source: Japan Industrial Safety and Health Association, “Shokuba no Risk Assessment no Jissai” (Realities of Workplace Risk Assessment), 1998, p.26

### Systems for safe operation

Operations for which the elimination of risks through equipment modification is impractical are classified as operations requiring special control. In such cases, risks are reduced through compliance with safe operating standards\*. In addition to double-checking that proper procedures are followed, a range of creative measures are employed to ensure that safe operating standards are observed from day to day.

\*Rather than individual rules for specific procedures, safe operating standards are a system of safety principles which define common safety practices that apply to categories of operation based on similarity of risk. For example, to prevent entanglement in machinery, our standard stipulates not to touch any exposed moving parts.

## Occurrence of workplace injuries

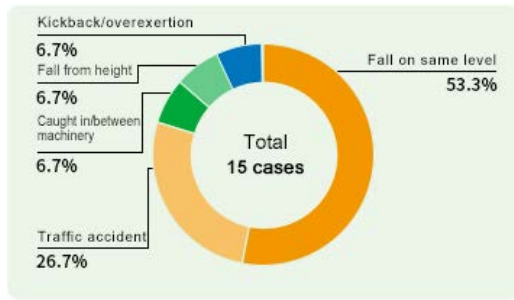
In fiscal 2017, 15 lost-workday injuries occurred and there were no fatal accidents. Although we have strived to eliminate injuries in the “caught in/between machinery” category, one of them was in that category. We are applying the lessons from that accident to further reduce the risk of accidents in the “caught in/between machinery” category by eliminating sources of danger and enhancing safeguards. Severe injuries are more likely to occur during irregular tasks which are only performed once every year or two. For the assessment of risks based on severity and frequency, we will prioritize measures to enhance the safety of tasks which, no matter how low their frequency scores, are likely to cause severe injury in the unlikely event that an accident does occur.

We also formulated a set of guidelines on machinery safety in accordance with ISO12100\* and in fiscal 2014 began machinery risk assessments by designers in the case of building new equipment or modifying existing equipment, with deliberation among related parties as part of the equipment inspection.

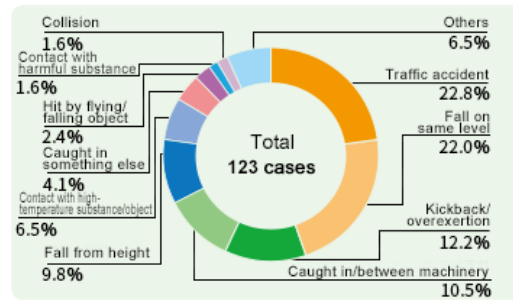
The two categories of fall and traffic accident accounted for 80% of all lost-workday injuries. To prevent these common accidents that could occur even in non-factory workplaces such as sales offices or headquarters, we are promoting safety activities in all workplaces such as basic safety compliance and renewing our emphasis on a culture of safety.

\*ISO12100 specifies principles for achieving safety in machinery design and principles of risk assessment and risk reduction

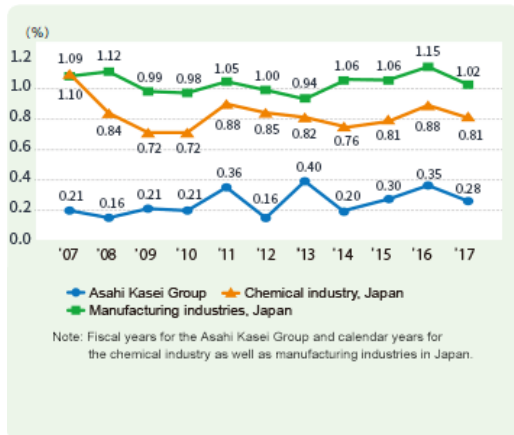
Incidence of workplace injury by event category (FY2017 in Japan)



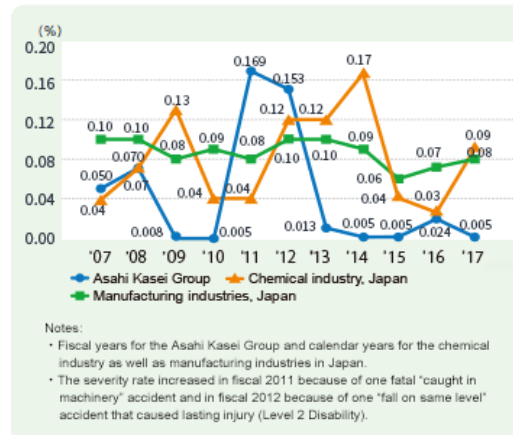
Incidence of workplace injury by event category (FY2007–2016 in Japan)



Frequency rate<sup>1</sup>



Severity rate<sup>2</sup>



<sup>1</sup> Number of accidental deaths and injuries resulting in the loss of one or more workdays, per million man-hours worked. Our goal of 0.1 or less is extremely ambitious. At a plant with 100 workers, it would mean only one worker in 50 years suffered from a workplace injury which resulted in a day off.

<sup>2</sup> Lost workdays, severity-weighted, per thousand man-hours worked.

## Maintaining workplace hygiene

Workplaces where potential health hazards are present are subject to regular monitoring under the Working Environment Measurement Law. Additionally, risk management of chemicals is implemented to reduce risks due to chemical substances.

Noise and heat exposure data are recorded and maintained for all relevant personnel to enable each individual's exposure to be managed and minimized. We are advancing plant modification and reviewing work procedures to reduce exposure to noise and heat.

## Safety management and initiatives at Oita Plant of Japan Elastomer Co., Ltd.

### Objectives and results

Japan Elastomer Co., Ltd. (JEC) was founded in 1972 as a joint venture between Asahi Kasei and Showa Denko K.K. The Oita Plant of JEC is an independent factory among Asahi Kasei's three sites producing synthetic rubber, which is widely used for fuel-efficient tires, as resin modifier, and an ingredient of adhesives. All employees and workers are striving to ensure safety under the concept of "sincerely heighten awareness and carefulness for ensuring safety to completely avoid accidents and injuries" and "solving fundamental problems by practicing the three actuals of the actual place, the actual thing, and the actual fact." In fiscal 2018, JEC's Oita Plant received the JICA Safety Special Award (the special award is for small and medium-sized establishments) in recognition of its outstanding safety activities.

### Overview of activities

JEC's safety program is characterized by enabling the participation of all members to perform safety activities by each unit of workers (shift teams or sections) coordinated by a Safety Leader (SL). The main activities include a "safety patrol" by the Plant Superintendent and "SL activities" by each working unit, both of which have been implemented for 45 years since the founding of JEC, as well as "hazard prediction" and "confirming safety by pointing" (for 39 years) and "reporting of near-accidents and potential hazards" (for 35 years). While these may seem to be fundamental activities that are widely implemented in many organizations, JEC's long continuation of them has brought deep understanding and firmly established a culture of safety with heightened awareness and sensitivity to safety issues.

JEC's plant is located in the Oita petrochemical complex, an industrial cluster which allows different companies to nurture their own safety culture while learning from one another through mutual inspections and safety forums with the participation of all companies.

The Oita Plant recently adopted a new program to pass on technological skills for operational safety, which began at the Kawasaki Works in 2013. By identifying occupational hazards and risks, and passing on understanding of how to apply measures to prevent injuries, the program is further improving the effort to maintain safety for a new generation of workers as well as people newly installed in managerial positions.



Kenichi Kudou, Manager of Environment & Safety (left), and Toshiyuki Furuno, Plant Superintendent (right), receive the JICA Safety Special Award

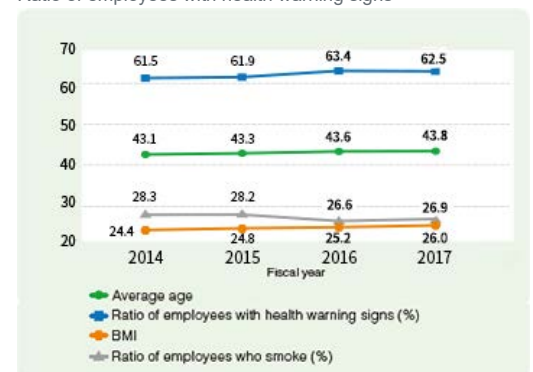
## Health maintenance and promotion for employees

Kasei Group has provided employees with healthcare guidance including preventive measures for lifestyle diseases and mental health enrichment by health maintenance staff in each site.

Additionally, we have promoted the use of our health improvement program, a tool for health management that was revised to enable easier use of specified health guidance. This program is especially useful for the maintenance and improvement of employees' health at independent plants where on-site health care staff is limited, and also as an outside resource for affiliated companies.

In fiscal 2017, the results of annual checkups indicated that the proportion of employees with health warning signs decreased and the ratio of employees with obesity and employees who smoke slightly increased.

Ratio of employees with health warning signs

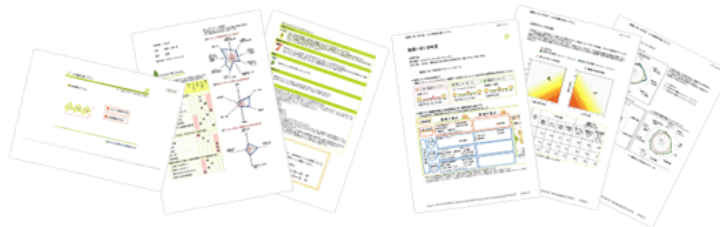




## /// Mental health and care

The Asahi Kasei Group is working to improve the workplace environment by enhancing its four complimentary approaches to care in accordance with its mental health care guidelines.

For self-care by individual employees and care by industrial medical staff, in fiscal 2013 we began full implementation of an intranet-based electronic diagnosis system developed by Fujitsu Software Technologies Ltd. In addition to surveying the stress level of individual employees, this system analyzes workplace stress to help improve the workplace environment as part of our effort for care by line of authority, including various programs tailored to each location such as health check sheets (in Nobeoka), ensuring a vibrant workplace environment with participation of all members (in Mizushima), improving the workplace safety by utilizing MIRROR (in Fuji).



Intranet-based electronic diagnosis system used to survey workplace stress

A provision for shortened working days is available for personnel returning from leave of absence for psychiatric convalescence as well as for any other injury or illness, enabling a gradual recovery of a full work load. At each plant site and office location, we provide care by specialists, including training sessions by external lecturers and referral of counseling services.

## /// Analysis of factors and circumstances resulting in leave of absence for mental health

There are multiple and complicated factors that cause employees to take leave of absence for mental health, including workplace-related issues, physical health problems, employees' approach to work, and issues in their private lives, as well as various circumstances such as changes in work duties, moves to different departments, or family problems. We designed an analytical tool to categorize the stress factors of employees taking leave of absence for mental health reasons in order to identify the causes of unhealthy mental states and find out the tendencies and characteristics which would enable effective measures to reduce the number of employees who take leave of absence.

Using the tool, occupational health staff analyze the categorized factors, both direct causes and related circumstances, and assign a degree of contribution to each one. The data is automatically collated and graphed by site. Results from each site are also aggregated, with company-wide data analyzed according to various aspects such as job category and position which are then shared throughout the company.

Categorization of factors resulting in leave of absence for mental health

## /// Measures for employees stationed overseas

The Asahi Kasei Group is enhancing health management support for employees stationed overseas, which are increasing with the globalization of business. In addition to providing such employees with annual medical check-ups, we perform a survey using a check-sheet regarding subjective symptoms, lifestyle issues, and stress factors, followed by interviews via internet videoconference as needed. Furthermore, interviews by industrial physicians are performed if the employees appear to be working excessive hours based on the time they are logged in to their computers.

Up to fiscal 2017, we had industrial physicians visit each of our sites in Asia on a two-year cycle for face-to-face interviews with stationed employees, as well as observation of their residential environments and available medical services. Beginning in fiscal 2018, we are providing interviews by industrial physicians via internet videoconference for employees stationed overseas in all regions including Europe and the Americas between six months and a year after their assignment. As needed, we also have industrial physicians perform observations of available medical services and onsite interviews.

## Measures to prevent lumbago

At the 90th Health Management Session held by the Japan Society for Occupational Health, the Oita Plant of Asahi Kasei Medical MT Corp. made a poster presentation entitled “Corporate Support Measures for Prevention of Lumbago.” The measures were identified as one of the Good Practice Samples (GPS) for promoting occupational health, and were awarded the GP Encouragement Prize at the society’s general meeting.

The plant’s measures to prevent lumbago include mat exercises after work to strengthen the trunk muscles, daily calisthenics at each workplace, fall prevention exercises, and “health rally” activities. In addition to preventing lumbago, these measures have enhanced communication and alleviated stress.



The award certificate

# Quality assurance

## Policy

Products and services provided by the Asahi Kasei Group include materials, products, installations, various services, and after-sale support. We believe that providing products and services that satisfy our customers is our ultimate mission.

In 2016, we established a new Asahi Kasei Group Quality Policy and Group Quality Assurance Bylaws.

**Asahi Kasei Group Quality Policy**

**The Asahi Kasei Group creates and provides products and services with the quality to meet the needs of customers and society and ensure safety and security.**

## Management framework

Upon our transition to an operating holding company configuration in April 2016, Corporate ESH & QA was reorganized, including the establishment of a new Quality Assurance Group. Further enhancing the configuration for quality assurance, in July 2018 we separated Corporate Quality Assurance into an independent division comprised of a Quality Assurance Group and Chemicals Management Group to reinforce the head-office function as the central hub for quality assurance and to coordinate the reinforcement of quality assurance activities throughout the Asahi Kasei Group, ensuring the provision of safe and reliable products to our customers.

Corporate Quality Assurance collates a Monthly Quality Assurance Report, based on which the Executive for RC holds monthly quality assurance meetings to discuss information related to quality assurance.

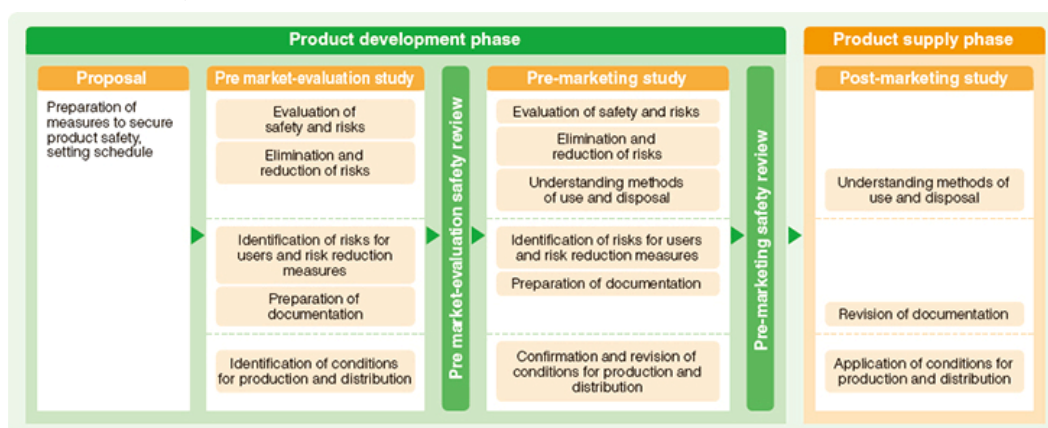
## Effort to maintain zero serious product safety incidents

As part of the effort to prevent serious product safety incidents, our quality assurance bylaws stipulate quality assurance activities for RC administrators to perform. The bylaws define the central role of quality assurance managers in activities to enhance quality assurance, and conferences are held three times a year to transmit and share information among the entire Asahi Kasei Group. This is applied in concert with our product safety guidelines to secure product safety and prevent the occurrence of serious product safety incidents.

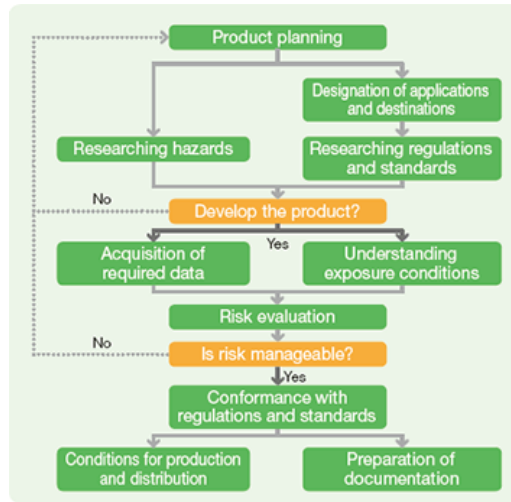
All business units of the Asahi Kasei Group apply these uniform bylaws and guidelines to assure the quality of products and services.

In fiscal 2017, we once again met our target of no serious product safety incidents.

Flow of product safety measures



Product safety procedure for chemicals



### /// In-house seminars on quality assurance

With our April 2016 reorganization, we enhanced in-house training to adapt to the transition to the 2015 version of ISO9001. The newly revised ISO9001 emphasizes integration of the quality management system (QMS) with business processes, and involvement by senior management. Seminars were held corresponding to each level of management.

To heighten awareness for quality assurance among younger and mid-level employees, we launched a new Quality Assurance Forum in fiscal 2017, with 30 employees selected from throughout the Asahi Kasei Group gathering at the head office for joint training. Held for half a day once per month from October to March, the forum is comprised of group discussion on given subjects together with lectures on the same subjects by outside experts (mainly eminent university professors in the field of quality control). At the final session, participants in each business sector discuss issues in their own organizations based on what they learned, and prepare proposals to present to management. We plan to continue this forum from fiscal 2018 onward as a core element of quality assurance training.



Group discussion at the Quality Assurance Forum



Presenting results of discussion at the Quality Assurance Forum

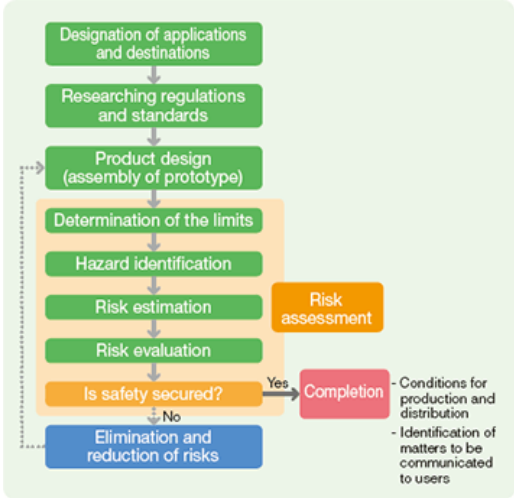


Participants receive a certificate of completion of the Quality Assurance Forum

# Outline of efforts for product safety

The Asahi Kasei Group routinely performs employee education on product liability (PL), chemical product safety, and equipment safety, along with risk assessment.

Product safety procedure for equipment



# Managing chemical substances

## Policy

To ensure the safety of products and production processes in the Asahi Kasei Group, we maintain awareness of the properties of the chemical substances we use, and manage them strictly and appropriately throughout each phase, from materials procurement to production, use, and disposal.

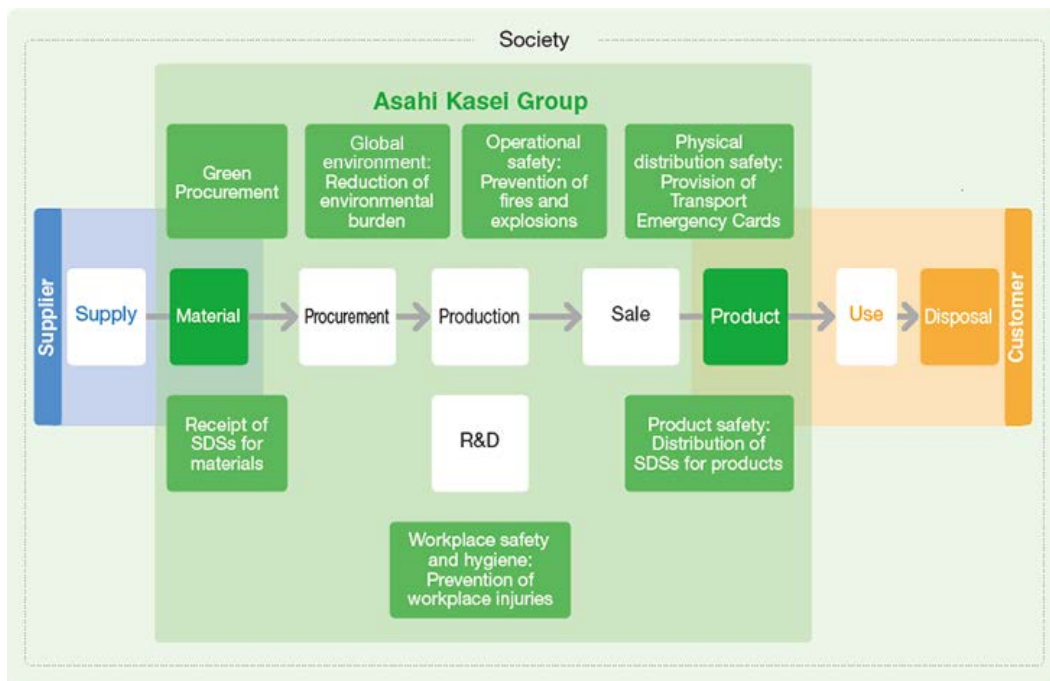
## Management framework

The Chemicals Management Group of Corporate Quality Assurance serves as the secretariat with each organization performing management of chemical substances centered on quality assurance managers.

## The Asahi Kasei Group's management of chemical substances

Strict management and control of chemical substances is a key element in the effort to ensure environmental protection, operational safety, workplace safety and hygiene, health maintenance, and product safety. Chemical substances are managed at each stage from development to use and disposal, as shown below.

Chemical substance management flow



### Materials purchase

When purchasing materials, information related to the safety of chemical substances is received from the supplier. This information serves as a guide to safe storage and handling.

## Production

The safety of the local community and the protection of the environment are secured by proper handling of chemical substances, including intermediates, to suppress environmental release (see [Global environment](#)) and to prevent fires, explosions, and leaks (see [Operational safety](#)). The health of employees is protected by performing sound risk assessment for chemical substances and preventing workplace exposure to hazardous substances.

## Research and development

The management of chemical substances begins with R&D, which is guided throughout every stage by a commitment to developing products and process characterized by safe, environmentally sound production, handling, and use.

## Sale, use, and disposal

Guidance for proper use and disposal of chemical substances and chemical products is provided in Safety Data Sheets (SDSs), technical bulletins, and product brochures. Transport Emergency Cards are issued to guide the proper environmental and safety response in the event of an accident during physical distribution.

## Education and training

We conduct extensive education and training for all personnel in research, manufacturing, and sales, to share information on the latest chemical regulations\* both in Japan and overseas and study how to respond to them, and to introduce the latest chemical management subjects.

\*Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture etc. (Chemical Substance Control Law), Industrial Safety and Health Act, Product Liability Act, etc.

## Global trends on management of chemical substances

The Asahi Kasei Group is enhancing the management of chemical substances in accordance with relevant global trends. Many international organizations and private-sector associations are promoting chemical management based on risk assessment and advancing product stewardship in supply chains.

Developments in management of chemical substances

Organization	Related items	Development
UN	Resolutions at international conferences concerning global environment	<ul style="list-style-type: none"> <li>Resolution to minimize adverse effects on human health and the environment due to production, handling, and use of chemical substance; implementation of Action Plans to achieve certain targets by 2020</li> <li>Implementation of Globally Harmonized System (GHS) for the classification and labeling of chemicals</li> </ul>
OECD	Safety checks on existing chemicals	<ul style="list-style-type: none"> <li>Collection of safety data under the High Production Volume (HPV) Chemicals initiative by each member country and its chemical industry</li> </ul>
EU	Implement new regulation on chemicals	<ul style="list-style-type: none"> <li>REACH Regulation for the registration, evaluation, authorization, and restriction of chemicals</li> <li>RoHS Directive for the restriction of the use of certain hazardous substances in electrical and electronic equipment</li> </ul>

## Committing to the RC Global Charter

On May 30, 2008, the President of Asahi Kasei Corp. signed a letter of commitment to the Responsible Care Global Charter (RCGC) on behalf of the Asahi Kasei Group, indicating our recognition of the importance of RC and especially chemical substance control. The RCGC was launched by the International Council of Chemical Associations (ICCA) with a UN resolution. When the RC Global Charter was amended in 2014, the President of Asahi Kasei Corp. again signed it on November 19, 2014.

## Industry-wide initiatives

### Japan Initiative of Product Stewardship

The Japan Initiative of Product Stewardship (JIPS)\* is a voluntary program by the JCIA to promote voluntary risk assessment and management of chemical substances, and to encourage enhanced product stewardship. In fiscal 2017, Asahi Kasei continued its active involvement in the JIPS Implementation Panel, supporting efforts to communicate information and taking part in activities in accordance with the panel's schedule.

Going forward, we will apply our guidance-based risk assessment work within the Asahi Kasei Group to promote further disclosures of risk assessments and safety summaries as we advance full-scale implementation. Through our involvement in JIPS activities, we will share information both internally and externally on the Asahi Kasei Group's chemical management activities, contributing to environmental protection.

\*JIPS (Japan Initiative of Product Stewardship) is a chemical industry initiative promoted by the Japan Chemical Industry Association to minimize chemical risks with the aim of achieving the 2020 targets set by the World Summit on Sustainable Development.

### Globally Harmonized System (GHS)\*

We are advancing a program to classify the hazards of all of our chemical products in accordance with GHS categories, and revise our SDSs and label our products with safety information accordingly.

\*Globally Harmonized System of Classification and Labeling of Chemicals (GHS): An international system of standardized hazard categories for chemical products, together with harmonized labeling.

### REACH compliance

We conduct internal education and training on REACH<sup>1</sup> requirements and periodically hold meetings among related parties. To fulfil our obligations related to SVHC<sup>2</sup> which include transmission of information, we gather information on chemical substances that are newly added as candidates for authorized regulation, and provide it to the users who request it. At the same time, we continue to move forward with preparations for CLP<sup>3</sup> regulations.

<sup>1</sup> Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) is a regulation in Europe on chemical substances. It obliges registration of the usage and safety of chemical substances imported to or produced in Europe. Substances judged to pose high risks are subject to authorization and restriction.

<sup>2</sup> Substances of Very High Concern. Substances added to a list of candidates for authorized regulation.

<sup>3</sup> CLP is a regulation in Europe on classification, labeling, and packaging of substances and mixtures in accordance with GHS.

### Joint Article Management Program (JAMP) and chemSHERPA

As an active member of JAMP, we participate in the development of systems to manage chemical substance information as well as revision of the list of applicable substances. We also convey relevant information throughout the supply chain to help establish JAMP as a widely used tool. In fiscal 2017, we started to use a tool of information transmission compatible with chemSHERPA, a new scheme by Ministry of Economy, Trade and Industry. We have worked to smoothly transition from JAMP to chemSHERPA during the two-year period starting in fiscal 2016.

As a major upstream company, we will continue to work with the JAMP Office toward the greater adoption of chemSHERPA as a means of information sharing.



## Organizations implementing Responsible Care

Prefecture	Location	Business category	Company	Plant, laboratory, or department	Main products/business line		
Gunma	Ota	Chemicals	Asahi Kasei Pax Corp.	Gunma Plant	Molded plastic containers		
Ibaraki	Kasama	Chemicals	Asahi Kasei Metals Ltd.	Tomobe Plant	Aluminum paste		
			Asahi SKB Co., Ltd.	–	Explosive devices		
	Sakai	Construction Materials	Asahi Kasei Construction Materials Corp.	Sakai Plant	Autoclaved aerated concrete panels		
			Sakai Kako Co., Ltd.	–	Phenolic foam insulation panels		
			Neoma Foam Plant	Improvement of construction materials and development of new products			
			Materials Tech. Dept.	–	Construction materials processing		
Tochigi	Mibu	Chemicals	Asahi Kasei Color Tech Co., Ltd.	Mibu Plant	Plastic coloring & compounding		
Saitama	Kamisato	Chemicals	Asahi Kasei Techno Plus Co., Ltd.	Saitama Plant	Molded plastic products		
	Ageo	Chemicals	Asahi Kasei Pax Corp.	Ageo Plant	Film lamination		
	Kawagoe	Health Care	Med-Tech Inc.	–	Manufacture and sale of medical devices		
Yamanashi	Fujiyoshida	Fibers	Fuji Seisen Co., Ltd.	–	Dyeing and finishing of yarns and fabrics		
Chiba	Chiba	Chemicals	Asahi Kasei Corp.	Chiba Plant	Acrylic resin and polystyrene resin		
				Compound Prod. Control Dept.	Development of compound production technology, support for processing facilities		
				Xyron Dev. Dept., Leona Plastics Dev. Dept.	Applied research for performance plastics and plastic processing		
				Asahi Kasei Color Tech Co., Ltd.	Sodegaura Plant	R&D for plastic compounding technology	
				PS Japan Corp.	Chiba Plant	Product management and production technology development for polystyrene	
			Asahi Kasei Energy Service Corp.	–	Operation of power plant of Nakasode Clean Power Corp. and Shin Nakasode Power Corp.		
			Electronics	Asahi Kasei Corp.	Electronics & Functional Products Div.	R&D for plastic optical fiber	
				Asahi Kasei EMS Co., Ltd.	Chiba Plant	Plastic optical fiber	
			Others	Asahi Kasei Advance Corp.	Kashiwa PDC	Processing of construction materials	
				Asahi Kasei Home Products Corp.	–	Development and sale of cling film and other household products	
Tokyo	Tokyo	Chemicals	Asahi Kasei Home Products Corp.	–	Development and sale of cling film and other household products		
		Electronics	Sun Delta Corp.	–	Sale of synthetic resin products		
		Construction Materials	Asahi Kasei Foundation Systems Co., Ltd.	–	Installation of piles		
			Asahi Kasei Extech Corp.	–	Installation of exterior wall panels		
		Others	Sun Associates Co., Ltd.	–	Technical information searching, patent and trademark application and management		
			Asahi Kasei Advance Corp.	–	Trading company handling fibers, resins, chemicals, construction materials, etc. of Asahi Kasei		
			Asahi Kasei Create Co., Ltd.	–	Management and sales of real estate, insurance agency, subcontracted office work		
			Asahi Kasei Amidas Co., Ltd.	–	Personnel placement, agency and training; ISO consulting		
			Asahi Kasei Ability Corp.	–	Printing, bookbinding, and office work		
			Asahi Research Center Co., Ltd.	–	Information and analysis		
			Asahi Kasei Benefits Management Corp.	–	Company housing, recreational facilities		
		Kanagawa	Kawasaki	Chemicals	Asahi Kasei Corp.	Monomers Prod. Dept.	Methyl methacrylate, cyclohexyl methacrylate, acetonitrile
						ABS & SB Latex Prod. Dept.	Styrene-acrylonitrile resin, styrene-butadiene latex
	Synthetic Rubber Prod. Dept.				Synthetic rubber, elastomer, utilities (electricity, steam, water)		
	Acrylic Plastics Prod. Dept.				Acrylic resin, acrylic sheet		
	Ion Exchange Membranes Prod. Dept.				Ion-exchange membranes		
	R&D units			Creation of new high performance materials, R&D for performance products and systems, applied research for plastics and plastic processing			
	PS Japan Corp.			R&D Dept.	Polystyrene R&D		
R&D	Asahi Kasei Corp.			Clean Energy Project	Development of water electrolysis system		
				Performance Polymers Tech. Ctr.	Development of performance polymer, resin processing technology, application development		
	Electronics			Asahi Kasei Corp.	Dev. Project	Development of energy-related materials	
	Others	Asahi Kasei Engineering Corp.	–	Development, design, installation, inspection, and maintenance of equipment and systems			
	Kawasaki	Others	Asahi Kasei Engineering Corp.	–	Plant, equipment, process engineering, and related work/development		
	Atsugi	R&D	Asahi Kasei Corp.	Synergistic Solutions Initiative	Establishment of new solution-oriented businesses		
Shizuoka	Fuji	Homes	Asahi Kasei Jyuko Corp.	Atsugi Prod. Dept.	Assembly of steel frames and processing of insulation for homes		
		Chemicals	Asahi Kasei Corp.	Microza Plant	Filtration membranes and modules		
				Fuji Power Supply Dept.	Utilities (electricity, steam, water)		
		Homes	Asahi Kasei Homes Corp.	Housing Tech. R&D Labs.	R&D to actualize and advance the Long Life Home		
		Health Care	Asahi Kasei Pharma Corp.	Fuji Pharmaceuticals Plant	Bulk pharmaceuticals		
			Asahi Kasei Medical Co., Ltd.	Bioprocess Div./Product Dev. Dept.	Development of filters and absorbents for separation and purification in manufacture of biopharmaceuticals		
		Electronics	Asahi Kasei Corp.	Photoproducts Plant	Liquid photosensitive resin, photosensitive printing plates		
				Electronics Materials Plant	Photosensitive polyimide production and development		
				Fuji 2nd Plant	Photosensitive dry film, fuel cell materials		
				WGF Project	Optical materials and components		
			R&D Planning and Business Dev.	Development of products in the Material sector			
			UVC Project	Development of UVC LEDs			
			Corporate Production Tech.	Design/construction/development of facilities, inspection/maintenance, development of information systems			
		R&D units	Development of products in the Material sector				
		Asahi Kasei Microdevices Corp.	R&D Ctr.	R&D for compound semiconductors			
			Fab 3	Wafers of Hall elements and infrared sensors			
		Asahi Kasei Epoxy Co., Ltd.	Fuji Plant	Epoxy curing agent			
	Others	Asahi Kasei Engineering Corp.	–	Design, construction, and development of facilities and development of information systems			
		Asahi Kasei Create Co., Ltd.	–	Insurance agency			
		Asahi Kasei Amidas Co., Ltd.	–	Training, consulting, personnel placement			
Asahi Kasei Ability Corp.		–	Delivery of mail, guidance for obtaining qualifications and training				
Asahi Kasei Benefits Management Corp.		–	Management of benefits				
R&D		Asahi Kasei Corp.	R&D Ctr.	Medium to long term R&D, advancement of synergy and creation of new business			
			Healthcare R&D Ctr.	Health Care sector R&D (diagnostic reagents, regenerative medicine, etc.)			
		Performance Materials Tech. Ctr.	R&D for technologies and products related to Performance Materials				
		Analysis & Simulation Ctr.	Analysis and computer simulation				
Ohito	Health Care	Asahi Kasei Pharma Corp.	Ohito Pharmaceuticals Plant	Pharmaceutical intermediates			
			Ohito Diagnostics Plant	Diagnostic enzymes, diagnostic reagent kits			
			Pharmaceuticals Research Ctr.	New pharmaceuticals R&D			
	Others	Asahi Kasei Benefits Management Corp.	–	Management of benefits			
		Toyo Kensa Center Co., Ltd.	–	Measurement, evaluation, analysis, clinical testing			
	Asahi Kasei Create Co., Ltd.	–	Insurance agency				
Aichi	Miyoshi	Health Care	Asahi Kasei Pharma Corp.	Nagoya Pharmaceuticals Plant	Pharmaceuticals		
Gifu	Hozumi	Construction Materials	Asahi Kasei Construction Materials Corp.	Hozumi Plant	Autoclaved aerated concrete panels		
			Hozumi Kako Co., Ltd.	–	Construction materials processing		
Ishikawa	Hakui	Others	Daiwa Sizing Co., Ltd.	–	Processing and sale of synthetic fibers		
Fukui	Echizen	Fibers	Kyokujitsu Textile Mills Co., Ltd.	–	Woven fabrics		
				–	Trading company handling fibers, resins, chemicals, construction materials, etc. of Asahi Kasei		
	Fukui	Others	Asahi Kasei Advance Corp.	–	Processing of industrial materials and nonwovens		
			Asahi Kasei Advance Fukui Corp.	–	Storage of fiber products		
	Awara	Others	Asahi Kasei Advance Corp.	Kanazu Logistics Center	Storage of fiber products		

Prefecture	Location	Business category	Company	Plant, laboratory, or department	Main products/business line		
Shiga	Moriyama	Chemicals	Asahi Kasei Corp.	Moriyama Power Supply Dept.	Utilities (electricity, steam, water)		
		Fibers	Asahi Kasei Corp.	Spunbond Plant	Spunbond		
				Roica Plant	Elastic polyurethane filament		
		R&D Lab. for Applied Product	Apparel and industrial functional textiles R&D				
	Electronics	Asahi Kasei Corp.	Hipore Plant	Microporous membrane			
			Electronics Materials Prod. Dept.	Photosensitive polyimide			
			Hipore R&D Dept.	Development of electronic and energy-related materials			
	Others	Asahi-Schwebel Co., Ltd.	Moriyama Plant	Glass fabric			
			Moriyama Office	Contract work			
	Takashima	Material	Asahi Kasei Corp.	Aibano Branch	Development, design, installation, inspection, and maintenance of equipment and systems		
Higashiomi	Homes	Asahi Kasei Juuko Co., Ltd.	Shiga Plant	Steel frames, roofing, insulation, opening panels			
Mie	Suzuka	Chemicals	Asahi Kasei Corp.	Suzuka Plant	Cling film, plastic foam and film		
			Suzuka Sun Business Co., Ltd.	-	Plastic processing		
		Sundic Inc.	Mie Plant	-	Polystyrene sheet		
				-	-		
Wakayama	Osaka	Chemicals	Asahi Kasei Corp.	Wakayama Plant	Acrylic latex		
		Chemicals	Asahi Kasei Finechem Co., Ltd.	Osaka Plant	Specialty chemicals		
		Others	Asahi Kasei Advance Corp.	-	Trading company handling fibers, resins, chemicals, construction materials, etc. of Asahi Kasei		
Hyogo	Ono	Chemicals	Asahi Kasei Pax Corp.	Ono Plant	Molded plastic containers		
Okayama	Mizushima	Chemicals	Asahi Kasei Corp.	Monomers Prod. Dept. 1	Cyclohexanol, cyclohexane, cyclohexene, pyrolysis gasoline		
				Monomers Prod. Dept. 2	Acrylonitrile, methacrylonitrile, acetonitrile, styrene, polycarbonatediol		
				Polymers Prod. Dept. 2	High density polyethylene, low density polyethylene, polyacetal		
				Polyolefins Development Dept.	R&D on polyolefins		
				Tenac Dev. Dept.	R&D on polyacetal		
		Power Supply Dept.	Utilities (electricity, steam, water)				
		R&D	Asahi Kasei Corp.	Chemistry & Chemical Process Lab.	Research on chemical processes and functional products		
Others	Asahi Kasei Engineering Corp.	-	Development, design, installation, inspection, and maintenance of equipment and systems				
Yamaguchi	Iwakuni	Construction Materials	Asahi Kasei AS Tech Co., Ltd.	-	Processing of polyethylene pipe		
			Asahi Kasei Construction Materials Corp.	Iwakuni Plant	Autoclaved aerated concrete panels		
			Iwakuni Sun Products Co., Ltd.	-	Construction materials processing		
Fukuoka	Chikushino	Chemicals	Asahi Kasei Corp.	Chikushino Plant	Metal cladding		
Oita	Oita	Chemicals	Asahi Kasei Corp.	Oita Plant	Defense explosives		
			Japan Elastomer Co., Ltd.	Oita Plant	Synthetic rubber, elastomer		
		Health Care	Asahi Kasei Medical MT Corp.	Sepacell Plant	Leukocyte reduction filters		
				Planova Oita Plant	Virus removal filters		
				Dialysis Products Plant	Artificial kidneys and other medical devices		
Therapeutic Apheresis Plant	Therapeutic apheresis devices						
Kumamoto	Amakusa	Fibers	Kyuasa Co., Ltd.	-	Stockings and innerwear		
	Yatsushiro	Others	Asahi Kasei Advance Corp.	Yatsushiro Chemical Center	Storage of caustic soda		
Miyazaki	Nobeoka/Hyuga	Chemicals	Asahi Kasei Corp.	Atago Plant	Nitric acid, caustic soda, chlorine, hydrochloric acid, vinylidene chloride resin and latex		
				Electrolysis Systems Tech. Dept.	Electrolyzers for chlor-alkali		
				Ceolus Plant	Microcrystalline cellulose		
				Leona Plastics & Materials Plant	AH salt, adipic acid, hexamethylenediamine, polyamide 66		
				Fastening Prod. Planning & Tech. Dept.	Resin anchors		
				Hyuga Chemicals Plant	Coating materials		
				Nobeoka Power Supply Dept.	Utilities (electricity, steam, water)		
				Asahi Kasei New Port Terminal Co., Ltd.	-	Receiving and storage of fuel and feedstocks	
				Nobeoka Plastic Processing Co., Ltd.	-	Polyamide 66 compounding	
				Asahi Chemitech Co., Ltd.	-	Resin anchors, detonator housings/leads	
				Asahi Kasei NS Energy Corp.	-	Electricity and steam	
				Asahi Kasei Hydropower Technoservice Co., Ltd.	-	Operation and facilities management of hydropower plants	
				Asahi Kasei Finechem Co., Ltd.	Nobeoka Plant	Specialty chemicals	
				Nobeoka Pharmaceuticals Plant	Bulk pharmaceuticals		
				Kayaku Japan Co., Ltd.	Tohmi Plant	Industrial explosives	
				Detonator Plant	Detonators		
				Health Care	Asahi Kasei Medical Co., Ltd.	Medical Tech. and Materials Lab.	R&D for medical materials
					Asahi Kasei Medical MT Corp.	Tsunetomi Plant	Artificial kidneys and other medical devices
						Okatomi Plant	Artificial kidneys and other medical devices
						Planova Plant	Virus removal filters
		Fibers	Asahi Kasei Corp.	Leona Filament Plant	Nylon 66 filament		
				Bemberg Plant	Cuprammonium rayon, nonwoven cellulose filament		
				Nonwovens Plant	Artificial suede, melt-blown and spunlace nonwovens		
				R&D Lab. for Fibers & Textiles Tech.	R&D for new fibers		
				Eltas Plant	Spunbond		
				Asahi Kasei Fibers Nobeoka Co., Ltd.	-	Cellulosic filament, synthetic nonwovens	
				Asahi Kasei Leona Filament Co., Ltd.	-	Nylon 66 filament	
				Asahi Cord Co., Ltd.	-	Processing of nylon 66 filament	
		Asahiozu Corp.	-	Processing of nonwoven cellulosic filament			
		Electronics	Asahi Kasei Corp.	Asahi Kasei Microdevices Corp.	Hipore Hyuga Plant	Microporous membrane	
					Fab 1	Hall elements	
					Fab 2	LSIs	
				Fab FP	Fine pattern coils		
				Asahi Kasei Electronics Co., Ltd	Nobeoka Manufacturing	Magnetic sensors	
				Asahi Kasei Microsystems Co., Ltd	Nobeoka Manufacturing	LSIs	
				Asahi Kasei FP Corp.	-	Fine pattern coils	
				Asahi Kasei Technosystem Co., Ltd.	Nobeoka Plant	Plant diagnostic and environmental surveillance devices	
				Asahi Kasei EMS Co., Ltd.	Nobeoka Plant	Pellicles	
				Others	Asahi Kasei Kankyoujigyou Co., Ltd.	-	-
		Asahi Kasei Office One Co., Ltd.	-			Utilization of Asahi Kasei Group assets, subcontracting	
		New Asahi Services Co., Ltd.	-			Insurance agency, cellular phone sales, bowling alley	
		Asahi Kasei Engineering Corp.	-			Development, design, installation, inspection, and maintenance of equipment and systems	
		Toyo Kensa Center Co., Ltd.	Nobeoka Office			Measurement, evaluation, analysis	
		Asahi Kasei Benefits Management Corp.	-			Company housing, recreational facilities	
		Asahi Kasei Ability Corp.	-			Printing, bookbinding, and office work	
		Asahi Kasei Networks Corp.	-			IT-related business	
		Cable Media Waiwai Co., Ltd.	-			Cable TV	
		Asahi Kasei Advance Corp.	South Kyushu Office			Sale of pharmaceuticals (reagents)	
		R&D	Asahi Kasei Corp.			Fibers & Textiles Tech. Ctr.	R&D for fibers & textiles
		Miyazaki	Others			Asahi Kasei Advance Corp.	Miyazaki Chemical Center

# Corporate Citizenship

We are committed to advancing in harmony with society from a global perspective through fair information disclosure and the proactive employment of management resources for corporate responsibility and citizenship.



## Customer relations

We strive for sincere communication with the customer as vital to the provision of valuable products, technologies, and services.



## Investor relations

We strive to disclose information in a timely and fair manner to enable our investors to gain an accurate understanding of the Asahi Kasei Group.



## Supplier relationships

A relationship of mutual trust with our suppliers is fostered through fair and principled purchasing practices based on respect for the environment and human rights.



## Public outreach

We work to maintain effective dialog and communication with community members.



## Community fellowship

We are involved in a wide range of community-focused activities inside and outside Japan, under our Community Fellowship Policy.

# Customer relations

## Policy and management framework

We believe that it is by maintaining customer satisfaction that our products and services contribute to society.

### Material

Through a combination of advanced chemical technology and bold creativity, we develop materials and products that are environmentally friendly with high added value to open new possibilities for the future.

Material sector products >

### Homes

Centered on Hebel Haus™ unit homes and Hebel™ AAC panels, we enable a safe, healthy, and comfortable life with technologies and services that are friendly to people and the environment.

Homes sector products >

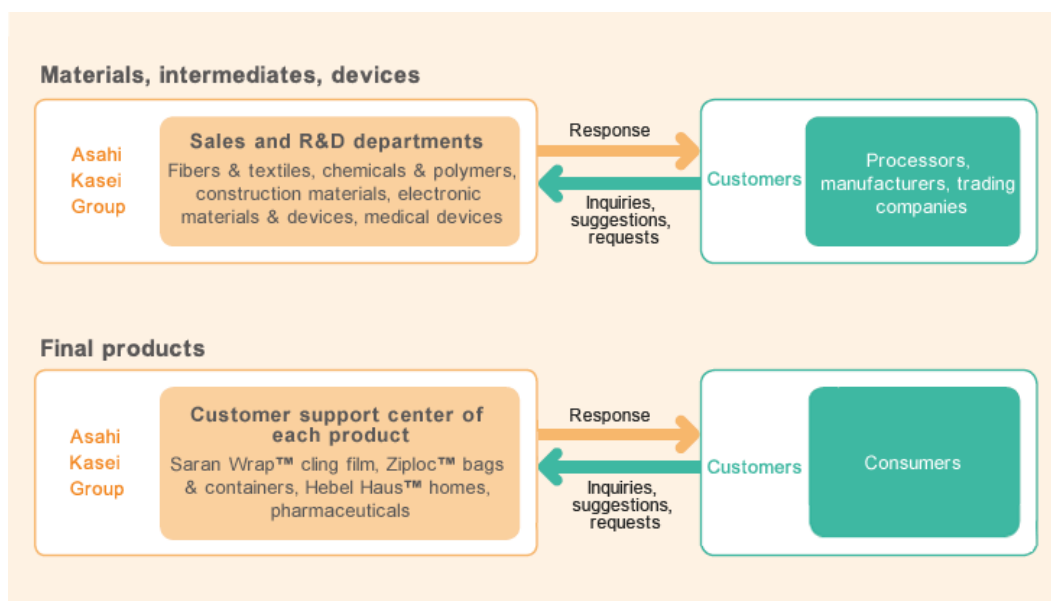
### Health Care

We contribute to progress in medical therapy by advancing specialized leading-edge technology in new combinations and addressing unmet medical needs, enabling patients to enjoy a better quality of life.

Health Care sector products >

We highly appreciate frank and honest feedback from the customer, considering it vital to our effort to enhance the quality and value of our products and services.

Communication with customers



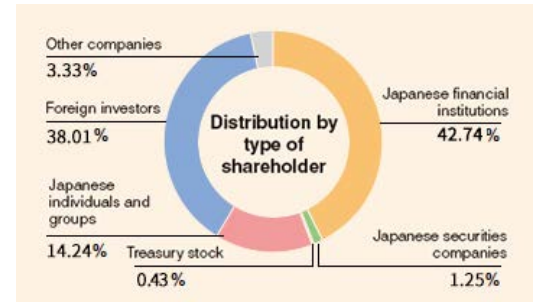
Product and business inquiries >

# Investor relations

## Shareholder distribution

Asahi Kasei Corp. has some 85 thousand shareholders. At the end of March 2018, approximately 43% of our shares were held by Japanese financial institutions, 14% by Japanese individuals and groups, and 38% by foreign investors. The total dividend for fiscal 2017 was 34 yen per share.

Distribution by type of shareholder (as of March 31, 2018)



## IR Meetings with institutional investors and securities analysts

In fiscal 2017, Investor Relations (IR) held 191 meetings with institutional investors and securities analysts in Japan, including quarterly results briefings and an annual management briefing with the President. To deepen understanding of Asahi Kasei among investors, we held a briefing on the Material sector as well as individual meetings. In addition, 70 meetings were held overseas.

We directly provided information to institutional investors and securities analysts through such meetings, with cumulative attendance of 1,308 during fiscal 2017. We also provide a wide variety of information for investors on our website.

## Seminars for individual investors

To provide individual investors with a better understanding of the operations of the Asahi Kasei Group, 2 seminars were held in fiscal 2017, with cumulative attendance of 256 individual investors\*. We will continue to provide accurate and timely information to individual investors through direct communications, the corporate website, and articles published in magazines for individual investors.

\*Excluding participants of the 126th Ordinary General Meeting of Shareholders.



President Hideki Kobori speaks at a seminar held in Osaka for individual investors

# Supplier relationships

## Policy

Purchasing departments throughout the Asahi Kasei Group regard suppliers as important partners and work to build relationships with them based on sincerity in accordance with our Group Philosophy. To this end, we are placing greater emphasis on CSR in accordance with our Procurement Policy.

Accordingly, we consider suppliers from environmental aspects including energy use, climate change, biodiversity, pollution, waste, and resource use, and social aspects including discrimination, equal opportunity, freedom of association, and compliance with local laws concerning working hours and wages.

A relationship of mutual trust with our suppliers is fostered through fair and transparent purchasing practices based on regulatory compliance and respect for the environment and human rights.

The Asahi Kasei Group Purchasing and Procurement Policy

### Basic Policy

#### 1 Compliance

We uphold all laws relevant to purchasing transactions as well as the Asahi Kasei Group's internal regulations.

#### 2 Fairness and impartiality

Selection of bids and conclusion of contracts are performed in a fair and impartial manner.

#### 3 Open door principle

We provide fair opportunities to any potential supplier, both domestic and overseas.

#### 4 CSR-focused procurement

We perform purchasing in close coordination with our group-wide activities for CSR.

#### 5 Partnership

We strive to deepen mutual understanding and build relationships of trust with our suppliers.

## Management framework

Corporate Procurement & Logistics is responsible for the Asahi Kasei Group Purchasing and Procurement Policy.

## CSR survey

Our purchasing departments conduct a CSR survey every year in order to better understand our suppliers' efforts to promote CSR, and identify any areas where improvement may be requested.

In fiscal 2017, we asked 81 major suppliers of raw materials (including distributors and agents) to participate in a CSR survey, and all of them responded. Survey results were scored on a scale, and feedback was given to the surveyed suppliers including requests for improvement.

Survey items covered:

- CSR promotion systems
- Ethics and compliance
- Operational safety and environmental safety
- Risk management
- Stakeholder dialog
- Product safety and quality assurance
- Human rights and labor
- Information security management
- Intellectual property management

## Supplier relations at production sites

Safety seminars are periodically held at our principal production sites to discuss accident prevention and exchange information with suppliers.



A safety seminar in Nobeoka, Miyazaki Prefecture

# Public outreach

## Policy

The Asahi Kasei Group works to honor and respect the local culture of each community where our operations are based, and to maintain effective dialog and communication with community members. Through networking events, plant tours, and fellowship activities, we enhance understanding of our company among the communities where we are located and receive valuable opinions regarding the management of our operations.

## Management framework

Administrative departments at manufacturing sites lead public outreach activities in each location, holding periodic networking events, plant tours, and fellowship activities.

## Plant tours

We offer plant tours to provide better understanding of our operations and the measures we implement for the environment and safety. (Tours are not available at all plants.)



Plant tour for community members in Fuji, Shizuoka



Plant tour for students in Kawasaki, Kanagawa

## Dialog and interaction

Measures for community dialog and interaction include regularly held forums and meetings with representatives of local governments and members of local residents associations. We also open our gymnasiums, sports fields, parking lots, and other facilities for public use and enjoyment, and host a variety of events.



Community dialog meeting (Kawasaki, Kanagawa)



Local residents at a community fellowship event (Suzuka, Mie)



Local residents enjoying the plant grounds (Fuji, Shizuoka)

## Neighborhood clean-up and greenery planting

Employees at our main production sites periodically clear the plant vicinities and nearby areas of litter, rubbish, and weeds as part of our interaction with the surrounding communities. We also actively participate in a variety of projects for planting trees and greenery both within plant grounds and in the surrounding area. Volunteer employees working at the Tokyo head office located in Chiyoda ward joined the ward-wide cleaning activities.



Clean-up around the factory (Izunokuni, Shizuoka)



Clean-up in the neighborhood (Moriyama, Shiga)



Clean-up at the head office (Chiyoda, Tokyo)



Tree planting in the community (Kawasaki, Kanagawa)

## Local emergency response initiatives

### Construction of evacuation towers

In fiscal 2013 we constructed two evacuation towers within our plant grounds in Nobeoka and Hyuga, Miyazaki Prefecture, to enable people to quickly reach a safe height in the event of a tsunami. The evacuation towers are available for use not only by our personnel, but also by nearby community members.



Evacuation tower in Nobeoka, Miyazaki Prefecture



## Installation of independent drinking water supply systems

We have installed independent drinking water supply systems at Asahi Kasei Group plant sites in Moriyama, Suzuka, and Nobeoka. The systems utilize our microfiltration membranes to purify deep well water. While serving to supply drinking water to personnel working at these sites on a daily basis, these systems also provide a vital independent backup as a secure source of safe drinking water for local communities in the event of a disaster.



Independent drinking water supply system in Moriyama, Shiga Prefecture

## Disaster volunteer organization

In Nobeoka, we have a disaster volunteer organization consisting of our personnel and retirees to perform disaster drills and emergency response support for the local community.



Training to use an automated external defibrillator (AED)

# Community fellowship

## Policy

The Asahi Kasei Group is involved in a wide range of community-focused activities under the following Community Fellowship Policy to fulfill our responsibilities as a corporate citizen. We strive for mutual prosperity with the local communities and stakeholders in accordance with a Basic Framework focused on the three themes of Nurturing the Next Generation, Coexistence with the Environment, and Promotion of Culture, Art, and Sports.

1. Effective utilization of our human resources and technologies to advance community fellowship based on the unique characteristics of the Asahi Kasei Group.
2. Striving for meaningful community fellowship actions with a constant awareness of our objectives and effectiveness.
3. Supporting and nurturing participation in community fellowship by employees, encouraging volunteerism and individual initiative.



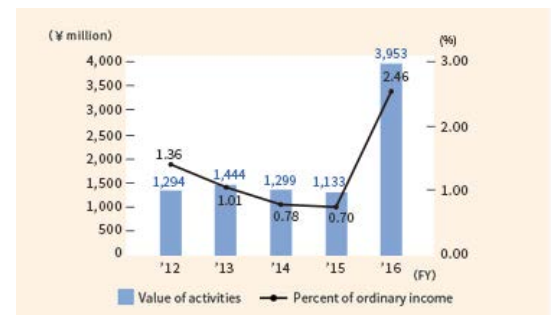
## Management framework

The Asahi Kasei Group has a Community Fellowship Committee chaired by a member of the Board of Directors. The Committee is convened several times a year as necessary to review and enhance our community fellowship activities.

## Value of community fellowship activities

Under the guidance of our Community Fellowship Committee, the Asahi Kasei Group supports the active participation of employees in community fellowship activities. In addition, we participate in the One-Percent Club of the Keidanren (Japan Business Federation), and convert our social contribution activities into monetary value by a method set forth in its annual Survey of Expenditure for Corporate Philanthropic Activities. The total value of our donations in fiscal 2016 (including community investments) was ¥3,953 million.

Value of community fellowship activities



## Nurturing the Next Generation

### School visits and science lab for students

To promote understanding and heighten interest in science and technology among elementary, junior high, and high school students, we visit schools and host visits by students at our plants to give explanations and demonstrations of science and technology and on environmental issues. We also support career development with occupational lectures and problem-solving training, and host visits by students to our offices. In fiscal 2017, a total of 2,058 students from 61 schools participated.



Kawasaki, Kanagawa Prefecture



Fuji, Shizuoka Prefecture



Izu, Shizuoka Prefecture



Moriyama, Shiga Prefecture



Kurashiki, Okayama Prefecture



Kurashiki, Okayama Prefecture



Nobeoka, Miyazaki Prefecture



Nobeoka, Miyazaki Prefecture



Nobeoka, Miyazaki Prefecture

## /// Holding exhibits and sponsoring science-related events

The Asahi Kasei Group provides sponsorship for science-related events that give children and their parents an opportunity to learn about science and chemistry in a fun way.

We also continued to sponsor the Japan Science and Technology Agency's high-school chemistry tournament, which began in fiscal 2011. In fiscal 2017, 361 representative high school students from each of Japan's 47 prefectures competed in chemistry knowledge and skills. We presented the Asahi Kasei Award, recognizing the school that had the best teamwork, to Asaka High School from Fukushima Prefecture.



The award ceremony at the high-school chemistry tournament in Saitama

## /// Miraikan corporate partnership

Since fiscal 2008, the Asahi Kasei Group has been a corporate partner of the National Museum of Emerging Science and Innovation (Miraikan) led by scientist and former astronaut Dr. Mamoru Mohri. As a corporate partner, we work together with Miraikan to help cultivate interest in science and technology among children and other visitors.

Under this partnership, we have exhibited at exhibitions held by the Miraikan, donated products for use in demonstrations, and participated in various events.



The National Museum of Emerging Science and Innovation (Miraikan)

## ／ Sponsoring educational programs on science and the environment by newspaper companies

The Asahi Kasei Group sponsors educational events organized by newspaper companies that provide children with an opportunity to learn about science and the environment.

### Supporting the Japan Student Science Awards

The Asahi Kasei Group was again the sole sponsor of The Yomiuri Shimbun newspaper's Japan Student Science Awards for fiscal 2017, including the Asahi Kasei Award, which are given in recognition of outstanding study of science at junior high schools and high schools.



Asahi Kasei President Hideki Kobori presenting the Asahi Kasei Award at the Japan Student Science Awards in Tokyo

### Planet Earth Classroom

We again provided sponsorship in fiscal 2017 for "Planet Earth Classroom," a series of environmentally themed events for elementary school students planned and managed by the Asahi Shimbun newspaper. We supported the events by editing an environmental study textbook for distribution to some 2,400 elementary schools and other educational institutions nationwide (215 thousand copies distributed), giving lectures focused on energy conservation at elementary schools, and dispatching personnel as instructors for environmental study events for families.



Lecture at "Planet Earth Classroom"



Environmental study event for elementary school students in Tokyo

## ／ Supporting young women in science and technology careers

In support of a national campaign to encourage young women to pursue careers in science and technology, we held an event for female high school students who are interested in such careers. The campaign led by Japanese government agencies and supported by the Keidanren aims to inform young women of career options in science and technology and support them in pursuing careers in these fields. Asahi Kasei endorses the objectives of this campaign, and participated from the beginning.

In August 2017, we held a laboratory tour for female high school students at our research complex in Fuji, Shizuoka, together with informal discussion with our female researchers, as part of this campaign. The event was attended by 42 students and 20 of their guardians from the Tokyo metropolitan area and the region around Fuji.

The same month, we also held a seminar at our head office in Tokyo attended by 19 female high school students interested in science and technology. Young female personnel working in pharmaceuticals gave presentations on the content of their work, which were followed by informal discussions in two groups.



Operating laboratory equipment

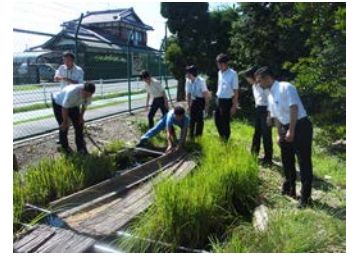


Discussion with female researchers

## Training programs and factory tours for school teachers

The Asahi Kasei Group participates in a program by the Japan Institute for Social and Economic Affairs to provide school teachers with training at private-sector firms.

In July 2017, seven teachers from the board of education of Kyoto, came to our Moriyama Works (Shiga Prefecture) for a two-day visit. On the first day the teachers were given an overall description of the Asahi Kasei Group and our CSR activities, and on the second day they were given a tour of plants and laboratories at the site followed by a presentation on local CSR activities. The teachers were also shown the conservation pond where we perform habitat perseverance activities for smallhead stickleback, an endangered freshwater fish, as part of our effort for biodiversity.



Touring the conservation pond



Explanation of products

## Scholarship program

The Asahi Kasei Group established a scholarship program to help foster talent that will contribute to the advancement of science and technology in new fields. Applications are taken from students in masters courses, doctoral courses, and 6-year university courses specializing in chemistry, chemical engineering, mechanical engineering, civil engineering, architecture, control engineering, electrical engineering, electronics, high-current electricity, physics, IT, biology, pharmacology, agricultural science, medical science, and veterinary science.



## Coexistence with the Environment

### Tree-planting at Asahi Forest in Miyazaki

In April 2018, Asahi Kasei planted trees at the Asahi Forest of Hayahi Ridge in Nobeoka as part of a reforestation program organized by Miyazaki Prefecture. This was the 7th year of the project which aims to regenerate a broad-leaf forest where cedar and cypress had been cultivated previously. Around 430 people including Asahi Kasei Group employees, retirees, and local residents participated in the program, planting some 2,000 trees such as wild cherry, Japanese zelkova, maple, and wild chestnut over a 1 hectare area.



### Exhibiting at Biwako Business Messe 2017

In October 2017, the Asahi Kasei Group exhibited at "Biwako Business Messe 2017," an environmental business exhibition in Nagahama, Shiga Prefecture. Our exhibit was themed on environmental solutions of the Asahi Kasei Group, showcasing products and technologies such as oil leak detectors, a system using speech recognition to raise the efficiency of inspection work, and filters to remove foreign substances. We also exhibited the activities of our Moriyama Works in the "Mission 79 Dragonfly" project to preserve biodiversity.



The Asahi Kasei Group exhibit at Biwako Business Messe 2017

## Asahi Woods of Life certified as “Excellent Stage 2” in Nurturing Category of SEGES

The Asahi Woods of Life, a biotope zone at our plant grounds in Fuji City, obtained certification as “Excellent Stage 2” in the Nurturing Category of the Social and Environmental Green Evaluation System (SEGES) administered by the Organization for Landscape and Urban Green Infrastructure.

Asahi Kasei Corp. and Asahi Kasei Homes Corp. began the Asahi Woods of Life in 2007 to restore the original landscape of the local coastal area in an area previously occupied by a factory. After extensive preliminary investigation, the ground was prepared and over 2,000 employees and community volunteers planted 20,000 trees. Since then, the green tract has been painstakingly managed and maintained in cooperation with outside experts. As a result, many native plants, including rare species, were successfully established. Since then, neighborhood children have periodically been given tours of the woods, and annual firefly watching events have been held for members of the local community.



## Promotion of Culture, Art, and Sports

### Corporate sports activities

Asahi Kasei has long supported athletic activity and maintains top-tier distance running and judo teams, with employees having competed in the Olympics nearly 50 times over the years. Our support for sports and athletics also includes sponsorship of the Golden Games in Nobeoka, a notable long-distance track competition in Japan, and provision of running and judo lessons for local students by members of our corporate distance running and judo teams. Also, we held community fellowship activities for children in the city of Nobeoka, where the Asahi Kasei’s distance running and judo teams are based.

In February 2018 we held a judo workshop in Dusseldorf, Germany. Four members of our judo team served as instructors for the 140 attendees, mainly elementary school students.



The Golden Games in Nobeoka



The judo workshop in Germany



### Asahi Kasei Himuka Cultural Foundation

The Asahi Kasei Himuka Cultural Foundation was established in 1985 to enrich the environment of day-to-day life and culture in Miyazaki Prefecture, the cradle of Asahi Kasei. A wide range of cultural activities include musical and dramatic events, support for local cultural promotion, and fostering familiarity with and understanding of folk culture.

In fiscal 2017, the foundation was the main sponsor of a piano recital by Michie Koyama in March 2018, and a cosponsor of a bus tour for a special program at the Miyazaki International Music Festival for Pops Orchestra in Miyazaki (sponsored by the foundation and Asahi Kasei) and Tchaikovsky Symphony Orchestra (conducted by Vladimir Fedoseyev with violinist Fumiaki Miura). For a performance by the Shiki Theatre Company in February 2018, 1,613 tickets were given free of charge to 5th year elementary school students in the northern part of Miyazaki Prefecture, together with their supervisors. The foundation also cosponsored an event for special-needs children in northern Miyazaki to enjoy music and picture books, including a piano recital by Mayumi Matsuura and story-telling by voice actor Tomoaki Ikeda.



Michie Koyama at the piano recital  
(photo by Yukun Daily)



Akira Miyagawa, conductor of Pops  
Orchestra in Miyazaki

©Mikako Ishiguro



Performance by the Shiki Theatre  
Company

(photo by Masanobu Yamanoue)

## Helping those in Urgent Need

### Disaster relief

To support the relief effort in areas affected by the flooding from heavy rains in July 2018, we made donations of ¥10 million through Japanese Red Cross Society, ¥10 million to Okayama Prefecture, and ¥10 million to Kurashiki City, for a total of ¥30 million, as well as donations of Saran Wrap™ cling film.

### Blood donation

In fiscal 2017 we cooperated with the Japanese Red Cross Society by hosting 30 blood donation drives at 16 of our office and plant locations around Japan. Each year, we aim to hold the blood donation drive at our Tokyo head office between February and March, when donated blood tends to be in short supply.



Blood donation at the Tokyo head office

## Community Fellowship Around the World

Many offices and production sites of the Asahi Kasei Group in the United States, Europe, China, Korea, Taiwan, and Southeast Asia, engage in a variety of community fellowship activities as suited to their individual circumstances and locations. These include neighborhood clean-up, support for welfare and education, and donation to local organizations and schools. In addition, we proactively advance industrial-academic alliances (with Aachen University of Germany, etc.) where we have strategic business sites in Europe, pursuing mutual prosperity with the local communities of our operations. We also employ many talented personnel at Asahi Kasei Europe which was established in 2016 and our Europe R&D Center which was established in 2017.

# Respect for Employee Individuality

The Asahi Kasei Group considers fulfilling and satisfying working conditions and workplace culture, in which personnel feel motivated to achieve and take pride in their career, to be a key to business performance.



## Human resources development

We provide various forms of support and opportunities for personnel to enhance their skill and ability to perform their duties.



## Valuing human rights

We strive to enable all people related to the operations of the Asahi Kasei Group to energetically exert their abilities without discrimination.



## Advancing diversity

We advance efforts to provide workplace environments that enable the active engagement of diverse human resources.



## Balancing work and family life

We encourage personnel to reevaluate their working habits from the perspective of balancing work and family life, to raise productivity.



## Communication between management and labor

Discussions between management and labor are held on a regular basis to ensure that a constructive partnership is maintained.



# Human resources development

## Policy

Our human resources policies are focused on the maintenance and reinforcement of a corporate culture emphasizing Asahi Kasei characteristics, the personal growth of each employee, and the creation and expansion of business through superior people and organizations, based on the understanding that the source of our competitive strength is the exceptional power of our people and organizations.

Established in March 2006, the Human Resources Principles of the Asahi Kasei Group are a distillation of the values and beliefs that are held in common by all employees, which is a key aspect of a corporate culture where personal growth and corporate development are mutually reinforcing.

## Human Resources Principles

### Corporate Commitment

The basic commitment to human resources is to provide the venue for a dynamic and fulfilling career as a part of a lively and growing corporate group.

### Basic Expectations

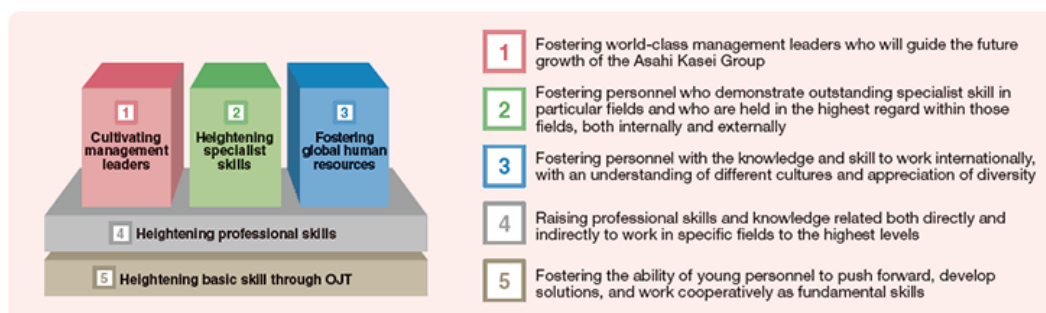
- Enterprise and growth through challenge and change
- Integrity and responsibility in action
- Respect for diversity

### Expectations of Leaders

- Building the team, heightening performance and achievement
- Going beyond conventional boundaries, in thought and action
- Contributing to mutual development and growth

In accordance with these principles, our human resources development is focused on the mutual growth of individuals and organizations. From fiscal 2016 we are placing greater emphasis on management by objectives and self-control (MBO-S) in training to enhance the management skills of section managers and general managers.

Two-foundation, three-pillar structure



## Human resource development

### /// A wide range of training programs

The human resources development program at the Asahi Kasei Group is structured with enhancing basic skills through OJT and heightening professional skills as a 2-layer foundation, with 3 pillars of cultivating management leaders, heightening specialist skills, and fostering global human resources. Employees are given a wide range of training to develop the skills needed to successfully advance their careers. A regular program of training is applied at key career stages beginning with hiring and extending through promotion to managerial positions. Other individual training programs, such as for global management, are implemented according to business need. Each core operating company also implements training programs to support the development of employee skills required for its specific field of business.

## **/ Group Masters**

The Asahi Kasei Group employs a "Group Masters" program to recognize employees who have developed and exercised extraordinary expertise and skills that hold universal value, and to facilitate their application throughout the Group. As of April 2018, 122 Group Masters are designated, those whose rank and remuneration are commensurate with Senior General Manager, General Manager, and Section Manager, respectively number 10, 46, and 66.

To accelerate the creation of new businesses as a basic strategy of the "Cs for Tomorrow 2018" management initiative, we revised the system in fiscal 2017 for greater emphasis on the development and growth of engineers and technical personnel. The program is focused on reinforcing the specialized technical abilities of such personnel who will drive the creation of new businesses and the enhancement of established businesses.

## **/ Development of global human resources**

To support the acceleration of globalization under our "Cs for Tomorrow 2018" medium-term management initiative from the perspective of human resources, we are implementing measures such as internship programs for young personnel, and holding training sessions for personnel at overseas subsidiaries on subjects such as dissemination of corporate philosophy, intercultural communication, and management skills.

## **/ Supporting independent study**

In October 2003, the Asahi Kasei Group instituted a program to support independent study by employees. To encourage employees to acquire higher level specialized or technological ability, the company will pay part of the cost of attending courses or lectures.

# Valuing human rights

## Policy

The Asahi Kasei Group respects the basic human rights of individuals and diversity, and supports the essence of the International Bill of Human Rights, the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights, as well as the Guiding Principles on Business and Human Rights and the UN Global Compact. We also support the essence of the Children's Rights and Business Principles.

The Asahi Kasei Group Code of Conduct clearly stipulates that "we must respect individuals' basic human rights and diversity, not discriminate on the basis of nationality, ancestry, race, ethnicity, religion, gender, ideology, age, physical characteristics, sexual orientation, employment status, form of contract, etc., nor condone such discrimination."

Human Resources leads the effort to ensure that there will be no discrimination, to maintain a lively workplace culture which enables personnel to perform at their best, to advance employment of persons with disabilities, and to rehire personnel after mandatory retirement.

## Results

In fiscal 2017, we received zero complaints regarding violations of human rights.

## Preventing harassment

Sexual harassment, discriminatory words and deeds, and other forms of harassment are clearly prohibited in the Asahi Kasei Group Code of Conduct and by our corporate employment regulations. Prevention is reinforced through training at each level of promotion in rank such as assistant manager, manager, etc., and through periodic company-wide training within each core operating company for conformance with corporate ethics. A central point of contact is established for consultation about related issues and concerns in the Asahi Kasei Group.

Training and consultation are also provided for staff from placement agencies and employees of affiliated companies, as part of our comprehensive effort to prevent the occurrence of harassment.

# Advancing diversity

## Policy

The Asahi Kasei Group Code of Conduct clearly stipulates that “we must respect individuals’ basic human rights and diversity, not discriminate on the basis of nationality, ancestry, race, ethnicity, religion, gender, ideology, age, physical characteristics, sexual orientation, employment status, form of contract, etc., nor condone such discrimination.” Human Resources leads the effort to ensure that there will be no discrimination, to ensure equal opportunity, to maintain a lively workplace culture which enables personnel to perform at their best, to advance employment of persons with disabilities, and to rehire personnel after mandatory retirement.

To prevent any harassment or discrimination, we implement training on corporate ethics to employees at each level—new hires, assistant managers, and managers. Ethics training is also implemented by business unit and by geographical area.

## Management framework

To promote diversity including the engagement of female employees, we have a Diversity Promotion Group which advances diversity management throughout the Asahi Kasei Group.

## Hiring

The Asahi Kasei Group is working to create new value for society by enabling *living in health and comfort* and *harmony with the natural environment*. We strive to hire motivated and capable personnel who will successfully execute our strategy on a global scale.

We continue to hire graduates from overseas universities every year, and the overall makeup of our personnel is becoming more global. We are also strengthening our ties to universities both in Japan and overseas, through career briefing sessions and student internships, as part of an ongoing effort to recruit talented people.

In April 2017, 379 new graduates were hired: 296 men and 83 women. In addition, 108 persons joined the Asahi Kasei Group as mid-career hires between April 2016 and March 2017.

### Asahi Kasei Group total employees

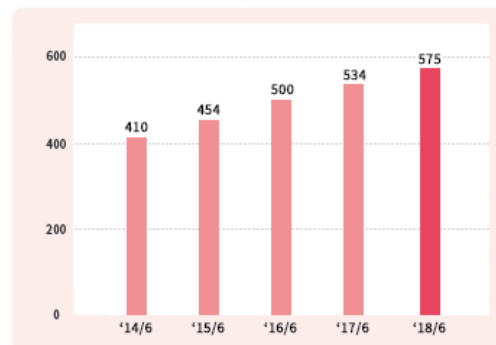
March 31, 2014	March 31, 2015	March 31, 2016	March 31, 2017
29,127	30,313	32,821	33,720

## Expansion of opportunities for women

In 1993, we established a dedicated corporate organ (now Diversity Promotion Group) to promote equal opportunity, and have proactively increased the proportion of women hired and expanded the distribution of job assignments for women. While only five employees at the rank of manager or above were women in 1993, this has risen to 575 in June 2018. The variety of posts where women are assigned also continues to expand. To support female personnel in their careers, we provide a mentoring program, hold seminars on returning to work after maternity leave, and publish diversity-related articles in our internal magazine.

In fiscal 2016, we also formulated an action plan and targets in accordance with the Act to Advance Women's Success in Their Working Life.

Number of women as managers\*



\*Results as of June 30 each year for personnel employed by Asahi Kasei Corp., Asahi Kasei Microdevices Corp., Asahi Kasei Homes Corp., Asahi Kasei Construction Materials Corp., Asahi Kasei Pharma Corp., and Asahi Kasei Medical Co., Ltd. (Asahi Kasei Chemicals Corp., Asahi Kasei Fibers Corp., Asahi Kasei E-materials Corp. are included up to June 30, 2015).

### ■ Asahi Kasei Group Action Plan\*

We will nurture employees and provide an employment environment to enable women to perform in managerial positions equivalently to men in accordance with the following Action Plan.

### ■ Term

April 1, 2016 – March 31, 2021

### ■ Content

Objective 1: Aim to have women performing in managerial positions equivalently to men; double the number of women in managerial positions from March 31, 2015, to March 31, 2021

Objective 2: Provide a workplace environment that enables both men and women to maintain their careers while raising children

As of June 2018, regarding Objective 1, the number of women in managerial positions has increased by a factor of 1.6 times compared to the end of March 2015. Regarding Objective 2, we began a variety of measures in fiscal 2016 to raise awareness among both male and female employees with respect to maintaining careers while raising children. These include seminars for employees prior to maternity leave and parental leave, training for managers who have subordinates working limited hours, and a contest for ironical haiku poems on the theme of men performing child-rearing duties.

\*Action Plan for Asahi Kasei Corp., Asahi Kasei Microdevices Corp., Asahi Kasei Pharma Corp., Asahi Kasei Medical Co., Ltd., Asahi Kasei Homes Corp., and Asahi Kasei Construction Materials Corp.

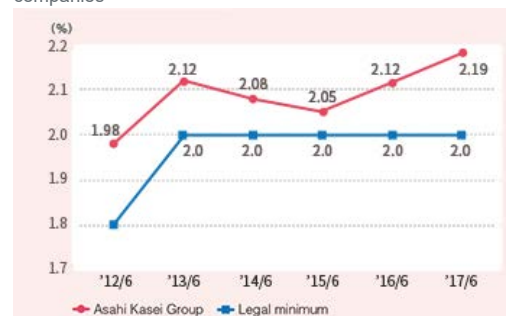
## Employment of persons with disabilities

Asahi Kasei Ability Corp. was established in 1985 for the employment of persons with disabilities, performing a wide range of services for the Asahi Kasei Group, including data entry, digitizing documents, website design, printing of business cards, document printing and binding, dispatch of sample products, cleaning, copying, and planter box gardening.

On April 1, 2013, the legal minimum proportion for employment of persons with disabilities was revised upward from 1.8% to 2.0%. As of June 1, 2017, the proportion for applicable companies of the Asahi Kasei Group stood at 2.19% (550 persons), exceeding the legal requirement.

This calculation is based on 21 applicable companies of the Asahi Kasei Group, including Asahi Kasei Corp., core operating companies, and other subsidiaries. We continue recruitment activities to further increase the employment of persons with disabilities at group companies other than Asahi Kasei Ability.

Rate of employment of disabled persons at applicable Group companies\*



\*Results as of June 1 each year at applicable Group companies. Calculation based on total employment of 25,073 persons in the 21 applicable companies. As of June 1, 2017, the number of persons with disabilities employed by Asahi Kasei Ability Corp. stood at 333 of the total 550 employees with disabilities. Calculated in accordance with the Act on Employment Promotion etc. of Persons with Disabilities.

## Competing in the Abilympics

Employees of Asahi Kasei Ability compete in several prefectural Abilympics each year, often winning medals. Gold medal winners from each prefecture qualify to compete in the National Abilympics in Japan. Of the 11 employees of Asahi Kasei Ability who competed in the fiscal 2017 National Abilympics held in Tochigi prefecture, one won the gold medal in the word processor category and one won the silver medal in the building cleaning competition.

A total 44 employees competed in the fiscal 2018 Prefectural Abilympics in Miyazaki, Okayama, Shizuoka, and Tokyo, winning 10 gold medals, 12 silver medals, and 8 bronze medals. The gold medalists qualified to compete in the National Abilympics in Okinawa in November 2018.



Winning the silver medal



Asahi Kasei Ability employees competing as prefectural representatives

# Balancing work and family life

## Policy

We strive to eliminate excessive working hours in compliance with relevant laws and regulations, and provide various forms of support for personnel to work with security and vitality in accordance with their individual circumstances and values from the perspective of balancing work and family life. Many of the provisions we offer are also available to non-regular employees, and actually utilized by them.

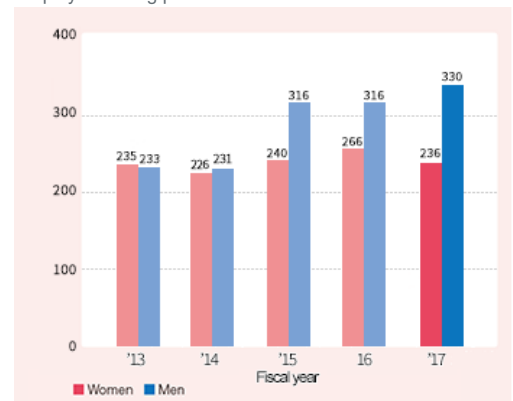
## Helping employees balance work and family life

We encourage personnel to take advantage of a full complement of provisions and benefits to enable the flexibility to maintain a career while raising a family. The corporate intranet is used to raise awareness of the available provisions and benefits, and to support managers whose personnel utilize them.

### Parental leave

Our parental leave is available through the fiscal year in which the child turns 3 years old. In fiscal 2017, parental leave was utilized by 566 personnel. This is included 330 men, 42% of those who were qualified, and 236 women. Among the employees on parental leave scheduled to return to work in fiscal 2017, 100% of men and 98% of women returned to work on schedule.

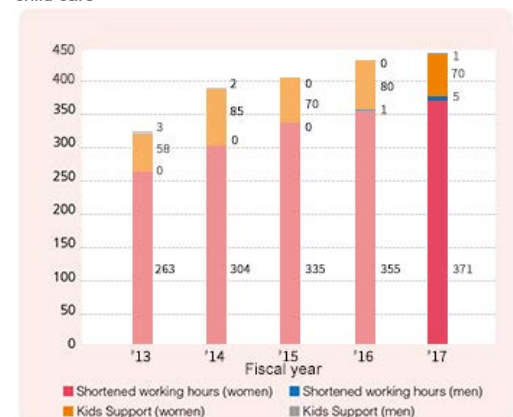
Employees using parental leave



### Shortened working hours for child care

Personnel are able to utilize shortened working hours to care for preschoolers, with the working day shortened by up to 2 hours until the child enters elementary school. In September 2007, a provision called "Kids Support" was added to enable personnel with children in the first and second grades to work shortened hours as well. These provisions may be used concurrently with a "flex-time" system for flexible working hours. In fiscal 2017, 17 non-regular employees utilized these provisions.

Utilization of shortened working hours and Kids Support for child care



### Platinum Kurumin certification mark

In 2016, we received the Platinum Kurumin certification mark from the Ministry of Health, Labor and Welfare.\* Platinum Kurumin certification is awarded in recognition of proactive support for the development of the next generation which is superior to the previously received Kurumin certification.

\*Certification received for Asahi Kasei Corp., Asahi Kasei Microdevices Corp., Asahi Kasei Pharma Corp., Asahi Kasei Medical Co., Ltd., and Asahi Kasei Ability Corp. Asahi Kasei Ability Corp. is the first company in Miyazaki prefecture to receive Platinum Kurumin certification.



## Support for family care

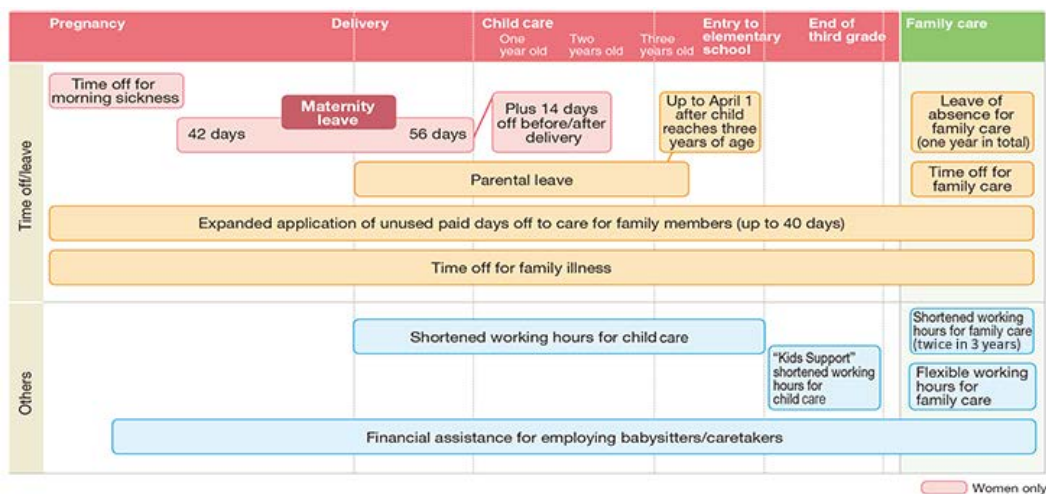
In fiscal 2017, leave of absence for family care was utilized by 4 personnel. This provision is available for employees to care for family members for a total of up to 1 year for each disease of each family member who requires care. Personnel are also allowed to utilize shortened working hours for family care twice in a three-year period for each family member requiring care. Enhanced provisions for days off and flexible working hours are also available to help personnel continue working while providing care for family members. Information about these provisions and how to balance work and family care is provided through our enhanced corporate intranet as well.

In January 2013, we distributed a booklet on balancing work with care for family members. We have also brought in an outside expert for seminars on family care each year since fiscal 2011.



Booklet on balancing work with care for family members

Main provisions to support balance in work and family life



## Leave of absence to accompany spouse on overseas assignment

As globalization continues to advance, an increasing number of personnel have a spouse who is transferred to an overseas assignment. In fiscal 2013 we adopted a provision for such personnel to take a leave of absence to accompany their spouses living overseas. In fiscal 2017, this provision was utilized by 20 personnel.

## Employee survey

Management and labor work in concert to resolve people-related issues based on mutual understanding and awareness. We regularly perform a survey of employees to gauge improvements to previously identified problems and track changes in employee perceptions over time. Survey results are also utilized in the evaluation of various measures and the consideration of new measures. In fiscal 2017, a survey of employees was held regarding balance between work and family life. Results of the survey, including issues revealed with respect to care for family members, child care, and other aspects, will be utilized in future measures.



# Communication between management and labor

## Policy and management framework

The Asahi Kasei Group strives to maintain a constructive partnership between management and labor. Discussions on the overall management of the Asahi Kasei Group are held on a regular basis between the management of Asahi Kasei Corp. and the labor union representing some 9,000 members, and separate discussions are periodically held at each business unit and operating site. In addition, regular meetings with the federation of labor unions are held to provide the venue to enhance open communication between management and labor.

We comply with minimum wage laws of each region, and support international frameworks on labor issues such as the UN Global Compact.

## Results

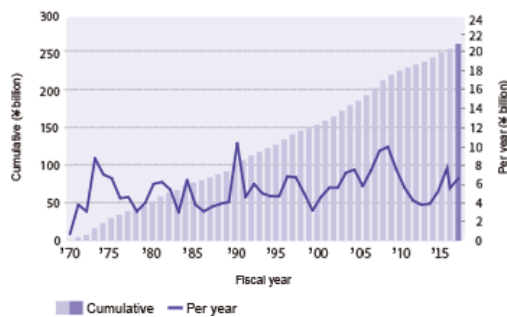
In fiscal 2017, the Asahi Kasei Group had zero violations of labor standards.

# Environmental data

## Expenditure for environment and safety

Investments in modification for environmental protection and safety in fiscal 2017 were as shown below.

### Investment in environmental and safety modification

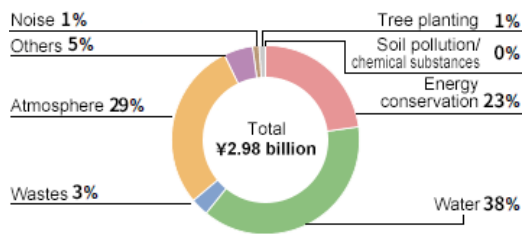


### Breakdown of investment

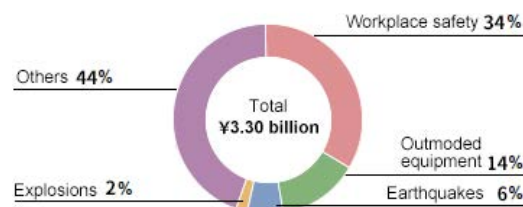
Fiscal year	2013	2014	2015	2016	2017
Environmental	2.16	2.42	2.63	2.03	2.98
Safety	1.75	2.78	5.25	3.35	3.30
<b>Total</b>	<b>3.90</b>	<b>5.20</b>	<b>7.88</b>	<b>5.38</b>	<b>6.28</b>

Note: Sums may not equal totals due to rounding, also with other tables hereinafter.

### FY 2017 environmental investment



### FY 2017 safety investment



## Environmental accounting

We classify the cost of our measures for environmental protection in accordance with cost classification standards promulgated by the Ministry of the Environment.

### Environmental accounting by fiscal year

Cost	2013		2014		2015		2016		2017	
	Investment (¥ million)	Expense (¥ million)	Investment (¥ million)	Expense (¥ million)	Investment (¥ million)	Expense (¥ million)	Investment (¥ million)	Expense (¥ million)	Investment (¥ million)	Expense (¥ million)
Combined operating area	1,920	8,030	2,324	10,345	2,041	7,339	1,943	7,320	3,780	9,303
Pollution prevention	982	5,645	1,058	5,290	1,408	4,466	1,080	4,340	1,881	6,187
Global environmental protection	355	569	513	2,586	421	689	502	808	929	841
Resource circulation	583	1,816	753	2,470	212	2,184	360	2,173	970	2,276
Upstream and downstream	1	135	0	131	0	131	0	115	0	117
Management	47	3,053	49	3,374	11	1,078	54	1,266	39	1,124
Research and development	169	2,755	471	5,661	329	5,781	158	2,591	114	1,274
Community outreach	7	82	5	48	11	38	0	36	2	29
Environmental damage	0	883	0	190	44	195	49	192	1	203
<b>Total</b>	<b>2,145</b>	<b>14,938</b>	<b>2,850</b>	<b>19,749</b>	<b>2,435</b>	<b>14,560</b>	<b>2,203</b>	<b>11,520</b>	<b>3,936</b>	<b>12,050</b>

# Environmental performance data

## Climate change

### JEPIX performance\*



\* Japan Environmental Policy Index, developed by teams under the leadership of Professor Nobuyuki Miyazaki at the Japan Science and Technology Agency and Sustainable Management Forum Japan. Environmental performance data are converted to an environmental impact point (EIP) scale and aggregated to determine total environmental impact. Eco-efficiency is determined by dividing an economic indicator, in our case consolidated net sales, by total EIP. Eight aspects of environmental impact (including chemical releases, greenhouse gas emissions, landfill wastes, and COD load) are evaluated. A new accounting policy is applied to net sales from fiscal 2011.

### JEPIX-method eco-efficiency

Fiscal year	2001	2013	2014	2015	2016	2017
Environmental impact (million EIP)	50,723	14,130	14,340	13,219	11,271	11,524
Sales (¥ million)	1,195,393	1,897,766	1,986,405	1,940,914	1,882,991	2,042,216
Eco-efficiency (¥/EIP)	23.6	134.3	138.5	146.8	167.1	177.2

### Greenhouse gas emissions in Japan by fiscal year

	Index set at Kyoto Protocol (1990)	Baseline (2005)	(million tons CO <sub>2</sub> equivalent)				
			2013	2014	2015	2016	2017
Carbon dioxide*	5.06	4.96	3.77	3.98	3.76	3.03	2.93
Nitrous oxide	6.82	0.76	0.22	0.15	0.12	0.13	0.07
Methane	0.00	0.01	0.00	0.00	0.00	0.00	0.00
HFCs	0.16	0.02	0.03	0.03	0.03	0.03	0.04
PFCs	0.01	0.14	0.12	0.10	0.12	0.14	0.13
Sulfur hexafluoride	0.00	0.04	0.02	0.01	0.01	0.02	0.01
Nitrogen trifluoride	-	-	-	0.00	0.00	0.00	0.00
Total	12.06	5.92	4.16	4.28	4.04	3.35	3.18

Calculation standards for greenhouse gas emissions:

For greenhouse gases covered by the Act on

Rationalizing Energy Use and the Act on Promotion of Global Warming Countermeasures, calculations are in accordance with the methods stipulated by these laws.

For gases not covered by either law, calculation methods are based on considerations such as chemical reactions.

\* CO<sub>2</sub> emissions from generation of electricity and steam sold to other companies are excluded from data for the baseline year but included in annual data from FY2013

### Overseas greenhouse gas emissions by fiscal year\*

	(million tons CO <sub>2</sub> equivalent)				
	2013	2014	2015	2016	2017
GHG emissions	0.80	0.84	0.79	1.00	1.03

Calculation standards for overseas GHG emissions: Overseas GHG emissions are calculated, in principle, based on the provisions given by the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures. CO<sub>2</sub> emissions from the burning of by-product gases are mainly calculated by material balance. CO<sub>2</sub> emissions associated with purchased electricity are calculated with the latest available coefficients given in International Energy Agency's CO<sub>2</sub> Emissions from Fuel Combustion.

\* Including emissions of special core operating companies

### FY2017 greenhouse gas emissions in Japan by company

	(million tons CO <sub>2</sub> equivalent)						
	Asahi Kasei Corp.	Asahi Kasei Microdevices	Asahi Kasei Homes	Asahi Kasei Construction Materials	Asahi Kasei Pharma	Asahi Kasei Medical	Total
GHG emissions	2.67	0.22	0.01	0.11	0.03	0.14	3.18

## Scope 3 emissions by fiscal year\*

(million tons CO<sub>2</sub> equivalent)

年度	2013	2014	2015	2016	2017
Purchased goods and services	1.75	1.43	1.39	2.26	4.50
Capital goods	0.17	0.22	0.22	0.16	0.19
Fuel- and energy-related activities not included in Scope 1 or Scope 2	0.11	0.13	0.11	0.14	0.21
Upstream transportation and distribution	0.38	0.35	0.46	0.21	0.24
Waste generated in operations	0.00	0.00	0.00	0.00	0.00
Business travel	0.02	0.02	0.02	0.03	0.03
Employee commuting	0.01	0.01	0.11	0.01	0.02
Upstream leased assets	0.00	0.00	0.00	0.00	0.00
Use of sold products	1.43	1.22	1.13	1.07	1.00
End of life treatment of sold products	2.45	2.44	2.24	1.04	2.35
<b>Total</b>	<b>6.34</b>	<b>5.83</b>	<b>5.70</b>	<b>4.91</b>	<b>8.56</b>

Referenced guidelines:

Our Scope 3 GHG emissions are calculated in accordance with the *Corporate Value Chain (Scope 3) Accounting and Reporting Standard* and its technical guidance issued by the Greenhouse Gas Protocol. For the greenhouse gas emission factors, we use data available in the *Carbon Footprint Communication Program* database prepared by the Japan Environmental Management Association for Industry and the *Embodied Energy and Emission Intensity Data for Japan Using Input-Output Tables (3EID): Inventory Data for LCA* prepared by the National Institute for Environmental Studies, Japan.

Calculation method for Category 1 (purchased goods and services):

For fiscal years from 2013 to 2015, Category 1 emissions were calculated by multiplying the amounts, either in physical or monetary units, of the largest 20 raw materials and services (30 in the case of Asahi Kasei Chemicals), in terms of GHG emissions or purchase amount, purchased from outside the Asahi Kasei Group by Asahi Kasei Chemicals, Asahi Kasei Fibers, Asahi Kasei Homes, Asahi Kasei Construction Materials, Asahi Kasei Microdevices, Asahi Kasei E-materials, and Asahi Kasei Medical, by the respective emission factor for each type of raw material or service. For fiscal year 2016 onward, items with emissions equal to or greater than 4,000 tons of CO<sub>2</sub>-eq were included. The emissions were calculated by multiplying the amounts, either in physical or monetary units, of raw materials and services purchased from outside the Asahi Kasei Group by Asahi Kasei Corp., Asahi Kasei Homes, Asahi Kasei Construction Materials, Asahi Kasei Microdevices, and Asahi Kasei Medical, by the respective emission factor for each type of raw material or service.

\*Including overseas subsidiaries from fiscal 2017

CO<sub>2</sub> emissions from product shipment

Company	FY 2013		FY 2014		FY 2015		FY 2016		FY 2017	
	Shipment volume (million ton-km)	CO <sub>2</sub> emissions (tons)	Shipment volume (million ton-km)	CO <sub>2</sub> emissions (tons)	Shipment volume (million ton-km)	CO <sub>2</sub> emissions (tons)	Shipment volume (million ton-km)	CO <sub>2</sub> emissions (tons)	Shipment volume (million ton-km)	CO <sub>2</sub> emissions (tons)
Asahi Kasei Corp.	838.5	49,400	751.4	49,500	891.8	56,300	855.6	54,100	906.3	59,830
Asahi Kasei Microdevices	1.2	690	0.7	650	1.0	630	1.1	700	1.3	720
Asahi Kasei Homes	229.0	28,300	258.0	29,000	276.0	30,100	260.4	28,300	244.1	26,760
Asahi Kasei Construction Materials	120.0	10,800	121.0	11,400	116.0	11,100	124.4	12,400	128.7	12,220
Asahi Kasei Pharma	6.8	650	5.9	710	4.8	600	2.6	300	2.4	720
Asahi Kasei Medical	24.0	1,200	28.0	1,500	2.0	250	1.9	200	1.5	340
<b>Total</b>	<b>1,219.0</b>	<b>88,800</b>	<b>1,165.0</b>	<b>92,700</b>	<b>1,291.0</b>	<b>99,000</b>	<b>1,246.0</b>	<b>95,900</b>	<b>1,282.2</b>	<b>100,600</b>

## Low-pollution vehicles\*

Fiscal year	2013	2014	2015	2016	2017
	Used on public roads				
Low-pollution vehicles	1,046	1,035	1,170	1,238	1,270
Other vehicles	88	89	93	85	93
Subtotal	1,134	1,124	1,263	1,323	1,363
Used within plant grounds					
Low-pollution vehicles	317	373	398	456	534
Other vehicles	316	322	297	280	250
Subtotal	633	695	695	736	784
<b>Total</b>					
Low-pollution vehicles	1,383	1,408	1,568	1,694	1,804
Other vehicles	404	411	390	365	343
Total vehicles	1,787	1,819	1,958	2,059	2,147
Proportion of low-pollution vehicles (%)					
Used on public roads	92	80	83	84	83
Used within plant grounds	50	54	57	62	68
<b>Total</b>	<b>77</b>	<b>77</b>	<b>80</b>	<b>82</b>	<b>84</b>

\*Hybrid-electric vehicles, low-emission vehicles, fuel-efficient vehicles, and all-electric vehicles.

## Recycling

### Treatment and disposal of industrial waste\* by company

(thousand tons)

	On-site				Effluent	Off-site		
	Waste generated	Recycling	Volume reduction	Landfill		Recycling	Volume reduction	Final disposal
Asahi Kasei Corp.	251.5	63.8	0.6	0.0	187.1	184.6	1.8	0.7
Asahi Kasei Microdevices	2.8	0.0	0.0	0.0	2.8	2.8	0.1	0.0
Asahi Kasei Homes	6.3	0.0	0.0	0.0	6.3	6.3	0.0	0.0
Construction Materials	63.7	44.3	0.0	0.0	19.4	19.4	0.0	0.0
Asahi Kasei Pharma	0.9	0.0	0.0	0.0	0.9	0.9	0.0	0.0
Asahi Kasei Medical	5.3	0.0	0.0	0.0	5.3	5.3	0.0	0.0
FY2017	330.6	108.1	0.6	0.0	221.9	219.3	1.9	0.8
FY2016	339.2	104.4	0.7	0.0	233.5	229.2	3.7	1.1
FY2015	356.5	123.7	3.3	0.0	229.6	225.3	3.4	0.8
FY2014	388.5	114.6	36.4	0.0	237.3	231.7	4.1	1.5
FY2013	386.3	112.4	29.0	0.0	244.7	240.3	3.1	1.3
FY2012	387.9	99.0	27.2	0.0	261.6	255.4	4.4	1.8
FY2011	441.8	105.1	73.5	0.0	263.1	254.1	7.8	1.3

\*Not including waste generated from non-recurring events such as dismantling closed plants or waste generated from dismantling old homes when constructing new homes.

### FY2017 off-site final disposal by category of waste\*

	Sludge	Plastic waste	Mixed waste from construction	Debris	Glass/ceramic waste	Others	Total
Volume (thousand tons)	0.329	0.204	0.056	0.055	0.036	0.073	0.752
Percent of total	43.7	27.1	7.4	7.3	4.8	9.7	100.0

\*Excluding waste generated at the construction sites of Asahi Kasei Homes.

### Final disposal of industrial waste generated at construction sites of Asahi Kasei Homes

(thousand tons)

Fiscal year	2000	2013	2014	2015	2016	2017
New construction	16.6	0	0	0	0	0
Dismantling	39.1	12.3	12.3	10.2	11.8	11.7
Total	55.7	12.3	12.3	10.2	11.8	11.7

### ALC trimmings recycled by Asahi Kasei Construction Materials

(tons)

Fiscal year	2013	2014	2015	2016	2017
Hebel™ panels	310	370	450	300	260
Cement material	3,900	3,400	2,300	1,800	1,400
Lightweight artificial soil	0	0	0	0	0
Total	4,210	3,700	2,800	2,100	1,700

### Release and transfer of PRTR-specified substances by fiscal year

(tons)

Fiscal year	2000	2013	2014	2015	2016	2017
Release to	Air	4,720	400	360	390	330
	Water	170	86	80	70	60
	Soil	0	0	0	0	0
	Total	4,890	490	440	450	410
Transfer	2,100	3,300	3,100	2,300	2,900	2,800

### FY2017 release and transfer of PRTR-specified substances

(thousand tons)

Company	Sites	Substance	Air	Water	Soil	Total	Transfer	
Asahi Kasei Corp.	Nobeoka	Others	Toluene	20	0	0	20	0
		Toluene	7	0	0	7	2	
		n-Hexane	5	0	0	5	5	
		1,1-Dichloroethylene (vinylidene chloride)	32	0	0	32	227	
		Chloroethylene (vinyl chloride)	9	0	0	9	38	
		Chlorodifluoromethane (HCFC-22)	5	0	0	5	0	
		Boron compounds	0	7	0	7	0	
		Water-soluble copper salts (except complex salts)	0	8	0	8	0	
		Moriyama	Dichloromethane (methylene chloride)	10	0	0	10	0
			N,N-dimethylacetamide	6	0	0	6	234
	Mizushima	n-Hexane	65	0	0	65	8	
		Molybdenum and its compounds	0	17	0	17	0	
	Kawasaki	n-Hexane	88	0	0	88	14	
		Methyl methacrylate	16	0	0	16	0	
Asahi Kasei Microdevices	Nobeoka	Hydrogen fluoride and its water-soluble salts	0	6	0	6	0	
Asahi Kasei Homes	Others	Toluene	5	0	0	5	5	
Asahi Kasei Medical	Nobeoka	N,N-dimethylacetamide	2	14	0	16	176	

Note: Substances listed are those of which total release was 5 tons or more. Amounts are rounded to the nearest thousand tons.

### VOC\* emissions

Fiscal year	2000 baseline year	2013	2014	2015	2016	2017
Volume (tons)	10,400	1,300	1,300	1,300	1,300	1,350
Reduction rate (%)	—	87	87	87	87	87

\*Volatile organic compound. Although the term generally applies to any organic compound which is in gaseous state at the time of release, regulations for the control of their release exclude methane and some fluorocarbons which do not form oxidants.

## Release of air and water pollutants by fiscal year

	Unit	2013	2014	2015	2016	2017
SOx <sup>1</sup>	tons	6,600	5,700	7,700	6,100	6,600
NOx <sup>2</sup>	tons	3,700	3,600	4,000	3,300	3,200
Soot and dust <sup>3</sup>	tons	150	180	130	100	100
Waste water effluence	million m <sup>3</sup>	210	210	200	200	199
COD <sup>4</sup>	tons	800	810	770	760	720
Nitrogen	tons	6,000	5,900	6,300	6,500	6,100
Phosphorus	tons	26	32	27	20	20

## FY2017 release of air and water pollutants by site

	Unit	Nobeoka	Mizushima	Moriyama	Fuji	Ohito	Kawasaki	Others	Total
SOx	tons	6,100	260	0	6	1	0	260	6,600
NOx	tons	2,100	1,000	40	9	20	7	80	3,200
Soot and dust	tons	30	70	1	0	0	0	4	100
Waste water effluence	million m <sup>3</sup>	135	35	10	10	0	0	7	199
COD	tons	620	40	8	20	0	5	30	720
Nitrogen	tons	5,800	180	9	90	1	1	5	6,100
Phosphorus	tons	9	3	2	9	0	0	0	20

<sup>1</sup> Sulfur oxides are formed when crude oil, fuel oil, or coal containing sulfur are used as fuel, or when industrial wastes containing sulfur are incinerated. Sulfur dioxide (SO<sub>2</sub>) is most common, but some sulfur trioxide (SO<sub>3</sub>) also forms. The term SOx is inclusive of both of these.

<sup>2</sup> Nitrogen oxides are formed in nature and during combustion at thermal power plants, factory boilers, internal combustion engines, and incinerators. The term NOx is inclusive of both nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>).

<sup>3</sup> Soot and dust are fine particles formed in the combustion of fuel and other materials.

<sup>4</sup> Chemical oxygen demand. An indicator of water pollution by organic substances, COD is expressed in terms of the amount of oxygen required by an oxidizer to chemically oxidize the organic substances contained in the water.

## Water usage and effluence

		(million m <sup>3</sup> )				
		2013	2014	2015	2016	2017
Domestic	Usage	271	272	274	272	266
	Effluence	210	210	200	199	199
Overseas	Usage	6	6	6	23	16
	Effluence	6	6	6	17	11

## Water usage and sources by fiscal year in Japan

		(million m <sup>3</sup> )				
		2013	2014	2015	2016	2017
Total		271	272	274	272	266
Municipal water		10	10	9	10	10
Ground water		22	24	24	23	23
Industrial water		238	238	241	239	234

# Policy Statements

CSR-orientated management	<a href="#">Group Philosophy &gt;</a>
	<a href="#">Guiding Principles &gt;</a>
Compliance	<a href="#">Asahi Kasei Group Code of Conduct &gt;</a>
	<a href="#">Asahi Kasei Group Basic Policies for Prevention of Bribery &gt;</a>
	<a href="#">Asahi Kasei Group Information Security Policy &gt;</a>
	<a href="#">Privacy Policy &gt;</a>
Corporate Governance	<a href="#">Principles of Corporate Governance &gt;</a>
Responsible Care	<a href="#">Asahi Kasei Group Code of Conduct &gt;</a>
	<a href="#">Asahi Kasei Group RC Principles &gt;</a>
	<a href="#">The Asahi Kasei Group's Global Environmental Policy &gt;</a>
	<a href="#">Basic Policy for Safe Operation &gt;</a>
	<a href="#">Basic Policy for High-Pressure Gas Safety &gt;</a>
	<a href="#">Asahi Kasei Group Quality Policy &gt;</a>
Corporate Citizenship	<a href="#">Asahi Kasei Group Code of Conduct &gt;</a>
	<a href="#">The Asahi Kasei Group Purchasing and Procurement Policy &gt;</a>
	<a href="#">Community Fellowship Policy &gt;</a>
Respect for Employee Individuality	<a href="#">Asahi Kasei Group Code of Conduct &gt;</a>
	<a href="#">Human Resources Principles &gt;</a>
	<a href="#">Expansion of opportunities for women: Asahi Kasei Group Action Plan &gt;</a>

# GRI Standards Content Index

Correspondence between the CSR activities of the Asahi Kasei Group and GRI Sustainability Reporting Standards 2016

## Universal Standards

Disclosure Number	Disclosure	Corresponding Content
Organizational profile		
102-1	Name of the organization	Corporate Profile > Group Companies >
102-2	Activities, brands, products, and services	Product categories > Products >
102-3	Location of headquarters	Corporate Profile >
102-4	Location of operations	Asahi Kasei Worldwide >
102-5	Ownership and legal form	Group Companies > Corporate Governance >
102-6	Markets served	Asahi Kasei Worldwide > Products >
102-7	Scale of the organization	Corporate Profile > Financial Information >
102-8	Information on employees and other workers	Corporate Profile > Corporate Governance Report >
102-9	Supply chain	
102-10	Significant changes to the organization and its supply chain	Editorial policy >
102-11	Precautionary Principle or approach	CSR at the Asahi Kasei Group > Compliance > Responsible Care at Asahi Kasei >
102-12	External initiatives	CSR at the Asahi Kasei Group > Managing chemical substances > Biodiversity >
102-13	Membership of associations	CSR at the Asahi Kasei Group > Responsible Care at Asahi Kasei > Managing chemical substances > Biodiversity >



Disclosure Number	Disclosure	Corresponding Content
Strategy		
102-14	Statement from senior decision-maker	Management Message > Asahi Kasei Report >
102-15	Key impacts, risks, and opportunities	Corporate Governance Report >
Ethics and integrity		
102-16	Values, principles, standards, and norms of behavior	Group Philosophy > CSR at the Asahi Kasei Group > Compliance system > Responsible Care at Asahi Kasei > Supplier relationships > Human resources development > Community fellowship > Policy Statements >
102-17	Mechanisms for advice and concerns about ethics	Compliance system >
Governance		
102-18	Governance structure	Corporate Governance >
102-19	Delegating authority	Corporate Governance > CSR at the Asahi Kasei Group >
102-20	Executive-level responsibility for economic, environmental, and social topics	CSR at the Asahi Kasei Group >
102-21	Consulting stakeholders on economic, environmental, and social topics	Corporate Governance >
102-22	Composition of the highest governance body and its committees	Corporate Officers > Asahi Kasei Report >
102-23	Chair of the highest governance body	Corporate Governance >
102-24	Nominating and selecting the highest governance body	Corporate Governance >
102-25	Conflicts of interest	Corporate Governance >
102-26	Role of highest governance body in setting purpose, values, and strategy	Corporate Governance >
102-27	Collective knowledge of highest governance body	CSR at the Asahi Kasei Group >
102-28	Evaluating the highest governance body's performance	
102-29	Identifying and managing economic, environmental, and social impacts	Corporate Governance >
102-30	Effectiveness of risk management processes	Corporate Governance > Risk management >
102-31	Review of economic, environmental, and social topics	CSR at the Asahi Kasei Group >

Disclosure Number	Disclosure	Corresponding Content
102-32	Highest governance body's role in sustainability reporting	Risk management >
102-33	Communicating critical concerns	CSR at the Asahi Kasei Group >
102-34	Nature and total number of critical concerns	Compliance system >
102-35	Remuneration policies	
102-36	Process for determining remuneration	Corporate Governance Report >
102-37	Stakeholders' involvement in remuneration	Corporate Governance Report >
102-38	Annual total compensation ratio	
102-39	Percentage increase in annual total compensation ratio	
Stakeholder engagement		
102-40	List of stakeholder groups	CSR at the Asahi Kasei Group >
102-41	Collective bargaining agreements	Communication between management and labor >
102-42	Identifying and selecting stakeholders	
102-43	Approach to stakeholder engagement	CSR at the Asahi Kasei Group >
102-44	Key topics and concerns raised	Corporate Citizenship >
Reporting practice		
102-45	Entities included in the consolidated financial statements	Group Companies > Asahi Kasei Worldwide > Corporate Governance Report >
102-46	Defining report content and topic Boundaries	Editorial policy > CSR at the Asahi Kasei Group >
102-47	List of material topics	CSR at the Asahi Kasei Group >
102-48	Restatements of information	Editorial policy >
102-49	Changes in reporting	As noted on the relevant pages
102-50	Reporting period	Editorial policy >
102-51	Date of most recent report	Editorial policy >
102-52	Reporting cycle	Editorial policy >
102-53	Contact point for questions regarding the report	Inquiries >

Disclosure Number	Disclosure	Corresponding Content
102-54	Claims of reporting in accordance with the GRI Standards	
102-55	GRI content index	GRI Standards Content Index (this page)
102-56	External assurance	Third-Party Assessment <a href="#">▶</a>
103 : Management Approach		
103-1	Explanation of the material topic and its Boundary	CSR at the Asahi Kasei Group <a href="#">▶</a>
103-2	The management approach and its components	CSR at the Asahi Kasei Group <a href="#">▶</a> and the policy and management framework shown on relevant pages
103-3	Evaluation of the management approach	

## Topic-specific Standards

Disclosure Number	Disclosure	Page number(s) and/or URL(s)
Economic topics		
201 : Economic Performance		
201-1	Direct economic value generated and distributed	
201-2	Financial implications and other risks and opportunities due to climate change	The global environment <a href="#">▶</a>
201-3	Defined benefit plan obligations and other retirement plans	
201-4	Financial assistance received from government	Not applicable
202 : Market Presence		
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	
202-2	Proportion of senior management hired from the local community	
203 : Indirect Economic Impacts		
203-1	Infrastructure investments and services supported	Public outreach <a href="#">▶</a> Community fellowship <a href="#">▶</a>
203-2	Significant indirect economic impacts	

204 : Procurement Practices		
204-1	Proportion of spending on local suppliers	Supplier relationships >
205 : Anti-corruption		
205-1	Operations assessed for risks related to corruption	
205-2	Communication and training about anti-corruption policies and procedures	Compliance system >
205-3	Confirmed incidents of corruption and actions taken	Compliance system >
206 : Anti-competitive Behavior		
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Compliance system >
Environmental topics		
301 : Materials		
301-1	Materials used by weight or volume	Global environmental measures of Asahi Kasei >
301-2	Recycled input materials used	
301-3	Reclaimed products and their packaging materials	Recycling >
302 : Energy		
302-1	Energy consumption within the organization	The global environment >
302-2	Energy consumption outside of the organization	
302-3	Energy intensity	
302-4	Reduction of energy consumption	
302-5	Reductions in energy requirements of products and services	Climate change >
303 : Water		
303-1	Water withdrawal by source	Recycling >
303-2	Water sources significantly affected by withdrawal of water	Not applicable
303-3	Water recycled and reused	
304 : Biodiversity		
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Not applicable
304-2	Significant impacts of activities, products, and services on biodiversity	Biodiversity >

304-3	Habitats protected or restored	Biodiversity <a href="#">▶</a>
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Not applicable
305 : Emissions		
305-1	Direct (Scope 1) GHG emissions	Climate change <a href="#">▶</a> Environmental data <a href="#">▶</a>
305-2	Energy indirect (Scope 2) GHG emissions	Climate change <a href="#">▶</a> Environmental data <a href="#">▶</a>
305-3	Other indirect (Scope 3) GHG emissions	Climate change <a href="#">▶</a>
305-4	GHG emissions intensity	
305-5	Reduction of GHG emissions	Climate change <a href="#">▶</a> Environmental data <a href="#">▶</a>
305-6	Emissions of ozone-depleting substances (ODS)	Not applicable
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Recycling <a href="#">▶</a> Environmental data <a href="#">▶</a>
306 : Effluents and Waste		
306-1	Water discharge by quality and destination	Recycling <a href="#">▶</a> Environmental data <a href="#">▶</a>
306-2	Waste by type and disposal method	Recycling <a href="#">▶</a> Environmental data <a href="#">▶</a>
306-3	Significant spills	Not applicable
306-4	Transport of hazardous waste	Environmental data <a href="#">▶</a>
306-5	Water bodies affected by water discharges and/or runoff	Not applicable
307 : Environmental Compliance		
307-1	Non-compliance with environmental laws and regulations	Not applicable
308 : Supplier Environmental Assessment		
308-1	New suppliers that were screened using environmental criteria	Supplier relationships <a href="#">▶</a>
308-2	Negative environmental impacts in the supply chain and actions taken	
Social topics		
401 : Employment		
401-1	New employee hires and employee turnover	Advancing diversity <a href="#">▶</a>

401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Human resources development > Balancing work and family life >
401-3	Parental leave	Balancing work and family life >
402 : Labor/Management Relations		
402-1	Minimum notice periods regarding operational changes	
403 : Occupational Health and Safety		
403-1	Workers representation in formal joint management-worker health and safety committees	Workplace safety, hygiene, and health >
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Workplace safety, hygiene, and health >
403-3	Workers with high incidence or high risk of diseases related to their occupation	Workplace safety, hygiene, and health >
403-4	Health and safety topics covered in formal agreements with trade unions	Workplace safety, hygiene, and health >
404 : Training and Education		
404-1	Average hours of training per year per employee	Human resources development >
404-2	Programs for upgrading employee skills and transition assistance programs	Human resources development >
404-3	Percentage of employees receiving regular performance and career development reviews	
405 : Diversity and Equal Opportunity		
405-1	Diversity of governance bodies and employees	Advancing diversity > Corporate Officers >
405-2	Ratio of basic salary and remuneration of women to men	
406 : Non-discrimination		
406-1	Incidents of discrimination and corrective actions taken	
407 : Freedom of Association and Collective Bargaining		
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Not applicable
408 : Child Labor		
408-1	Operations and suppliers at significant risk for incidents of child labor	Not applicable

409 : Forced or Compulsory Labor		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Not applicable
410 : Security Practices		
410-1	Security personnel trained in human rights policies or procedures	
411 : Rights of Indigenous Peoples		
411-1	Incidents of violations involving rights of indigenous peoples	Not applicable
412 : Human Rights Assessment		
412-1	Operations that have been subject to human rights reviews or impact assessments	
412-2	Employee training on human rights policies or procedures	
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	
413 : Local Communities		
413-1	Operations with local community engagement, impact assessments, and development programs	Public outreach > Community fellowship >
413-2	Operations with significant actual and potential negative impacts on local communities	Not applicable
414 : Supplier Social Assessment		
414-1	New suppliers that were screened using social criteria	Supplier relationships >
414-2	Negative social impacts in the supply chain and actions taken	
415 : Public Policy		
415-1	Political contributions	
416 : Customer Health and Safety		
416-1	Assessment of the health and safety impacts of product and service categories	Quality assurance >
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	
417 : Marketing and Labeling		
417-1	Requirements for product and service information and labeling	Managing chemical substances >
417-2	Incidents of non-compliance concerning product and service information and labeling	

417-3	Incidents of non-compliance concerning marketing communications	
418 : Customer Privacy		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	
419 : Socioeconomic Compliance		
419-1	Non-compliance with laws and regulations in the social and economic area	



# Third-Party Assessment

We undertake third-party assessment of the *Asahi Kasei Group CSR Report* as shown below.

## Independent Review (Japan Chemical Industry Association)

### Independent review

[translation from Japanese]

Asahi Kasei Group CSR Report 2018 Internet Edition  
Independent Review

September 14, 2018

Hideki Kobori  
President  
Asahi Kasei Corporation

Shigeki Nagamatsu  
Chief Director  
Responsible Care Verification Center  
Japan Chemical Industry Association

### Objectives of Verification

Responsible Care Report Verification was performed by the Responsible Care Verification Center with respect to the *Asahi Kasei Group CSR Report 2018 Internet Edition* (the "Report") prepared by Asahi Kasei Corporation, with the objective of expressing an opinion as a chemical industry specialist on the matters as stated below.

- 1) Reasonableness of methods of calculation and aggregation of performance metrics (numerical values), and the accuracy of numerical values.
- 2) Accuracy of reported information other than numerical values.
- 3) Evaluation of Responsible Care (RC) and Corporate Social Responsibility (CSR) activities.
- 4) Characteristics of the Report.

### Verification Procedure

- At the head office: Examination of the reasonableness and accuracy of methods to aggregate numerical values reported from each site (office, plant) and examination of the accuracy of reported information other than numerical values were performed through interviews of responsible parties and compilers of the Report as well as receipt of internal documents and explanations thereof from each of the responsible parties and compilers.
- At the Ohito Region: Reasonableness of methods to calculate numerical values, and accuracy of the numerical values and information other than numerical values, reported to the head office, were examined. Examination was performed through interviews of responsible parties and compilers of the Report, receipt of internal documents and explanations thereof from each of the responsible parties and compilers, cross-check of reported information with supporting materials, and on-site visits for confirmation.
- Numerical values and reported information were verified by sampling.

### Opinion

- 1) Reasonableness of methods of calculation and aggregation of performance metrics (numerical values); accuracy of numerical values
  - Calculation and aggregation of numerical values at the head office and the Ohito Region are performed using a reasonable method, and an RC Performance Data Collection System is used throughout the company for accurate and efficient aggregation of data. It is noteworthy that continuous improvement is applied to this system, such as introducing a function to confirm differences between collected data and the previous year's data, and displaying a list of frequently asked questions on the main screen.
  - Numerical values within the scope of our examination have been calculated and aggregated accurately.

- 2) Accuracy of reported information other than numerical values
  - Information contained in the Report was confirmed to be accurate. Some minor issues related to appropriateness of expression and ease of understanding were identified in the draft stages. These have been revised in the present Report.
- 3) Evaluation of RC and CSR activities
  - It is noteworthy that the company has a substantial framework for CSR advancement under the leadership of the President.
  - It is noteworthy that the company's effort regarding respect for employee individuality includes human resources development, balancing work and family life, and especially enriched measures for balancing work and childrearing or family care.
  - The company makes systematic and concrete efforts to prevent workplace accidents, operational accidents, and environmental accidents as part of its RC program with a PDCA cycle. These efforts are expected to bring further improvements.
  - The Ohito Region has maintained zero lost-workday injuries for over 11 years, and further continuation is expected. It is noteworthy that the company's effort for public outreach includes various events for interaction with the local residents, as well as support for area activities.
  - The company is beginning to clarify the relationships between its corporate activities and the SDGs. It is expected that the Report will present the company's contribution to society in a more easily understandable manner.
- 4) Characteristics of the Report
  - The Report features rich content regarding community fellowship activities as an important focus of CSR. It is particularly notable that the Report describes the company's ongoing support of a national campaign to encourage young women to pursue careers in science and technology.

# Independent Assurance Report (KPMG AZSA Sustainability Co., Ltd.)



## Independent Assurance Report

To the President and Representative Director of Asahi Kasei Corp.

We were engaged by Asahi Kasei Corp. (the "Company") to undertake a limited assurance engagement of the Asahi Kasei Group's global greenhouse gas emissions in Scopes 1 and 2 and global Scope 3 greenhouse gas emissions from Category 1 (the "GHG emissions") for the period from April 1, 2017 to March 31, 2018 included in its CSR Report 2018 (Internet Edition) (the "Report")

### The Company's Responsibility

The Company is responsible for the preparation of the GHG emissions in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report.

### Our Responsibility

Our responsibility is to express a limited assurance conclusion on the GHG emissions based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the GHG emissions.
- Performing analytical procedures on the GHG emissions.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the GHG emissions in conformity with the Company's reporting criteria, and recalculating the GHG emissions.
- Visiting the Company's Mizushima Plant and Asahi Kasei Synthetic Rubber Singapore Pte. Ltd. selected on the basis of a risk analysis.
- Evaluating the overall presentation of the GHG emissions.

### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the GHG emissions in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

### Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

*KPMG AZSA Sustainability Co., Ltd.*

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Tokyo, Japan

February 1, 2019