

Sustainability Report 2019

Asahi Kasei Group

Care for People, Care for Earth



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Editorial Policy

Introduction

The Asahi Kasei Group issued our first Environment Report in 1991, and we began issuing a CSR Report in 2006 with content expanded to include social responsibilities. Through these reports, we have further enriched communication with our stakeholders and continually fulfilled our accountability. In line with a trend mainly 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. At the same time, since then we disclose information on the details of our CSR activities using this website. Beginning in fiscal 2019, we present the Group's approach to sustainability and contributions to the realization of a sustainable society, following the keywords "Care for People, Care for Earth" presented in our medium-term management initiative called "Cs+ for Tomorrow 2021." At the same time, we report information on our policies, frameworks, activities and numerical data in a more holistic manner by organizing activities in fiscal 2018 according to the three areas of environmental (E), social (S) and governance (G).

Reporting period

The primary focus is fiscal 2018 (April 2018 – March 2019). 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, 2019, 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.

Data with differing scopes or coverage is presented in footnotes.

With respect to Responsible Care reporting, the scope is operations inside and outside of Japan which implement the Asahi Kasei Group's Responsible Care program. A list of the business sites implementing the program is presented below.

Asahi Kasei Group's Responsible Care [▶](#)

Inquiry

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

https://www.asahi-kasei.co.jp/asahi/en/contact_us/

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 September 2019 in Japanese (Revised in January 2020)

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Previous publication: October 2018

Management Message



We will face common issues for all humanity to contribute to sustainable society through our business activities.

There has been rising global awareness of social issues, particularly environmental problems, as symbolized by the sustainable development goals (SDGs) adopted by the UN. While humanity has made great steps forward with the progress of technology, some regions and people in the world have been left behind. Meanwhile, the fact that conventional development is approaching the limits of the Earth must be clearly recognized as a common issue for all humanity. Moreover, falling birthrates and aging populations, primarily in developed nations, are presenting new challenges that are different from those presented by the globally rising population. As a company, we need to face these realities squarely.

The Asahi Kasei Group has set "contributing to life and living for people around the world" as our Group Mission, and we have developed businesses that meet global challenges. This means that ever since our company was founded nearly 100 years ago with the aim of "improving human culture," we have taken strides to meet changing social needs, which have included establishment of livelihood base, abundance of goods, comfort and convenience, and demand in emerging countries. Now the Asahi Kasei Group is committed to sustainable society and pursuing sustainability.

To this end, we launched "Cs+ for Tomorrow 2021," the new three-year medium-term management initiative, in April 2019. This management initiative will achieve sustainability, which is positioned at the center, through the two mutually reinforcing aspects, "contributing to sustainable society" and "sustainable growth of corporate value."

Asahi Kasei has identified five priority fields for provision of value to contributing to sustainable society and will implement growth strategies in these fields. Specifically, the five priority fields are "Environment & Energy" to reduce environmental impact, "Mobility" to realize safe and comfortable travel, "Life Material" to bring about comfortable lifestyles, "Home & Living" to underpin secure and affluent living, and "Health Care" to contribute to a society with healthy longevity. Through these fields, we will provide new value aimed at contributing to sustainable society while enhancing sustainable growth of corporate value.

Leveraging our strengths of diversity and ability to change, we will achieve growth as only Asahi Kasei can while striving for communication with our stakeholders and appropriate disclosure of information.

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

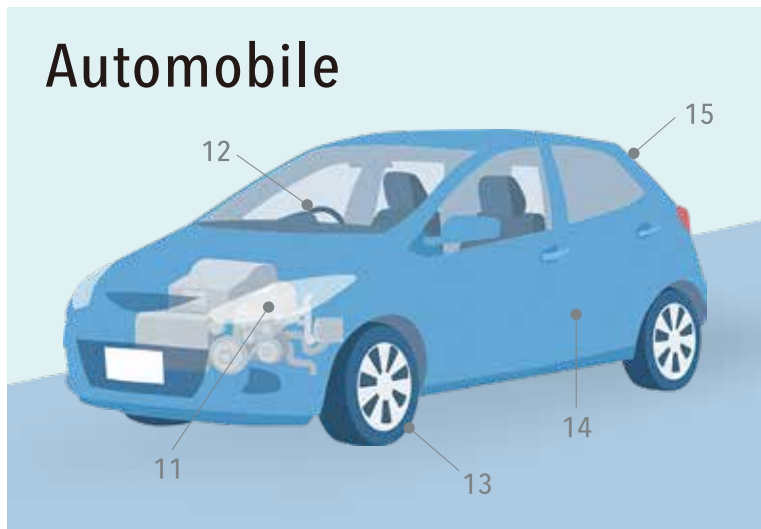
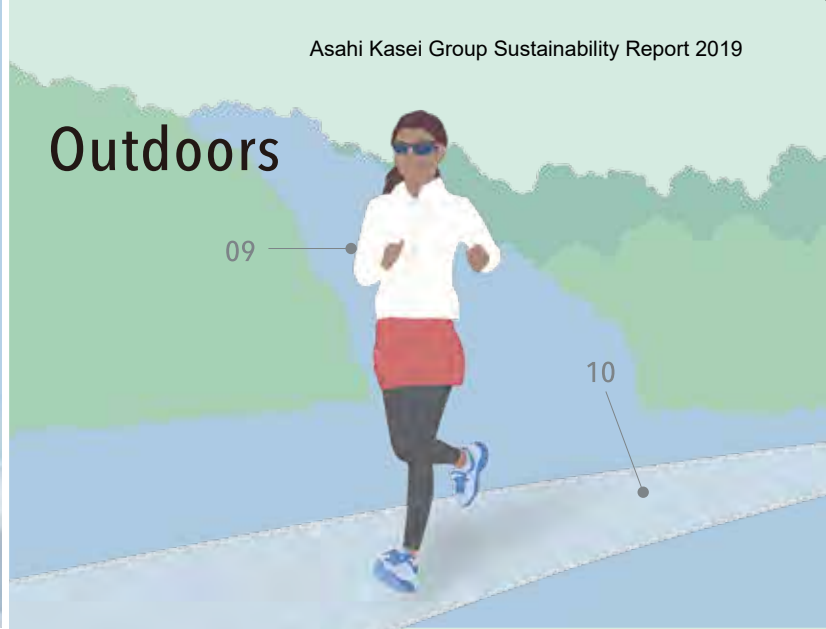
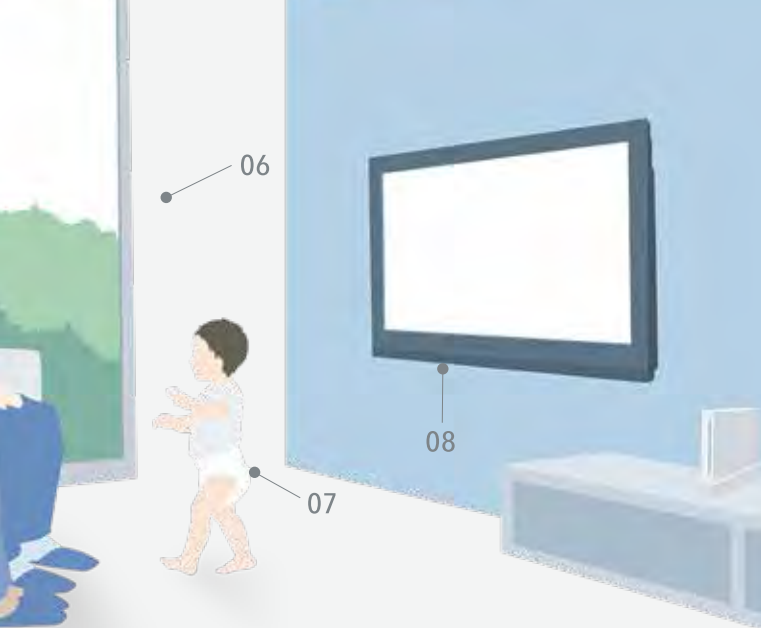


Asahi Kasei Products and Technologies in Everyday Life

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 (artificial suede)

- 06 Homes (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, spandex fiber)



Automobile

Outdoors

Bathroom

Bedroom

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)

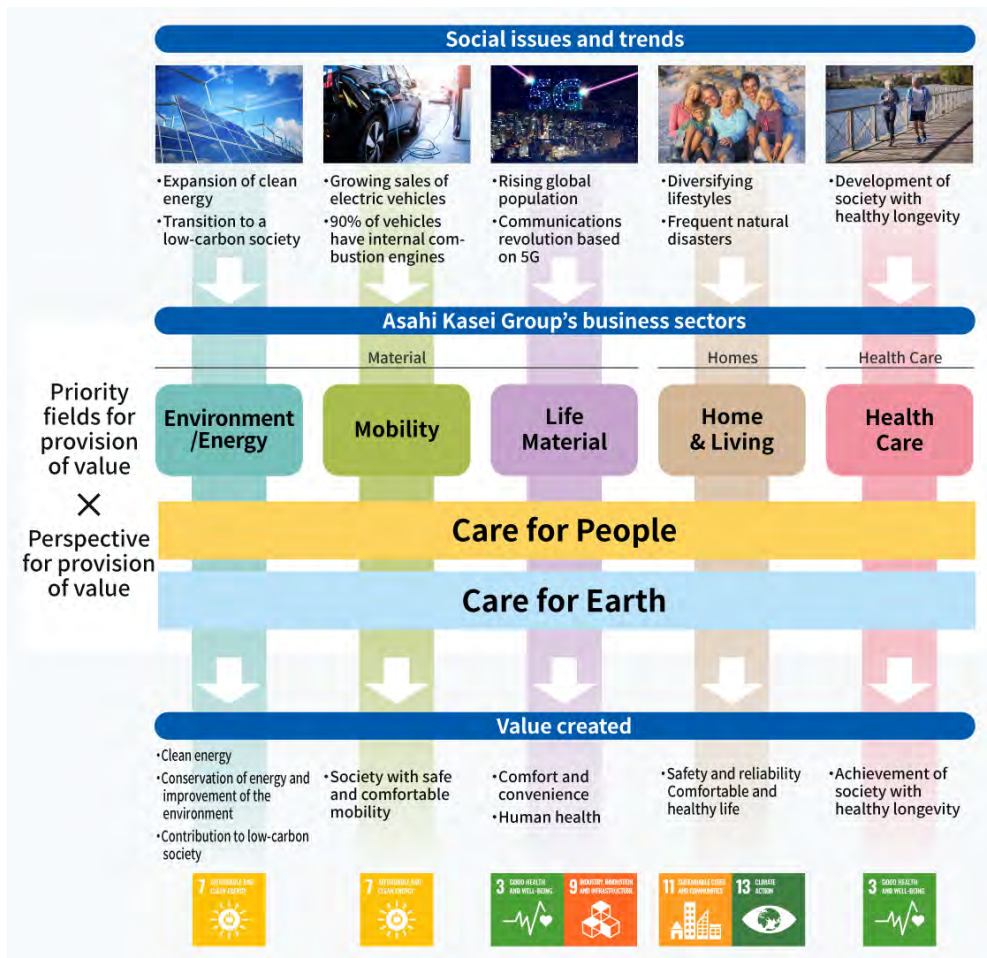
27 Skin care products
(cosmetics raw materials)



Care for People, Care for Earth Contribution through Business Activities

The Asahi Kasei Group launched "Cs+ for Tomorrow 2021," our new three-year medium-term management initiative centered on sustainability, in fiscal 2019. In order to contribute to building a sustainable society, Asahi Kasei will continue contributing to the solutions of diverse social issues through our business activities.

In our medium-term management initiative, we expressed the stance of the Asahi Kasei Group, which will continue contributing to sustainable development for people and the Earth going forward, in the phrase "Care for People, Care for Earth." With this as a perspective on the provision of value that is shared throughout our business activities, we will create new value that leads to a sustainable future in diverse locations and fields.



Areas of Contribution and Business Examples

* Under development

Priority fields for provision of value		Care for People	Care for Earth
Material	Environment & Energy		<p>Clean energy</p> <ul style="list-style-type: none"> Battery separators <ul style="list-style-type: none"> Hipore™ > Celgard™ > □ Daramic™ > □ Alkaline water electrolysis system (green hydrogen)* > <p>Conservation of energy and improvement of the environment</p> <ul style="list-style-type: none"> CO₂ sensors > □ Water filtration modules > Ion-exchange membranes > <p>Contribution to low-carbon society</p> <ul style="list-style-type: none"> Next-generation CO₂ chemistry* New CO₂ separation and recovery system*
	Mobility	<p>Safety and reliability</p> <ul style="list-style-type: none"> Airbag material > Alcohol sensor > □ Contactless pulse sensing* <p>Comfortable space</p> <ul style="list-style-type: none"> Lamous™ artificial suede > Low VOC material Air conditioning CO₂ sensors > □ 	<p>Fuel efficiency</p> <ul style="list-style-type: none"> S-SBR for tires > □ Weight-saving materials Daramic™ lead-acid battery separator > □ <p>EV/HEV</p> <ul style="list-style-type: none"> Lithium-ion battery (LIB) separators <ul style="list-style-type: none"> Hipore™ > Celgard™ > □ LIB-related materials
	Life Material	<p>Comfort and convenience</p> <ul style="list-style-type: none"> Disposable diaper material > 5G-related (glass fabric, etc.) Regenerated cellulose fiber > <p>Health</p> <ul style="list-style-type: none"> Pharmaceutical and food additives UVC LEDs for disinfection > □ 	<p>Food loss reduction and low environmental impact</p> <ul style="list-style-type: none"> Saran Wrap™ Ziploc™ Water-washable printing plates > □
Homes	Home & Living	<p>Safety and reliability/Comfort and health</p> <ul style="list-style-type: none"> Hebel Haus™ unit homes Hebel Maison™ apartment buildings High-quality pre-owned Hebel Haus™ homes 	<p>Contribution to the environment</p> <ul style="list-style-type: none"> Net zero energy houses/solar power generation systems, etc. High-performance insulation > □

Priority fields for provision of value		Care for People	Care for Earth
Health Care	Health Care	<p>Acute conditions (critical care and circulatory)</p> <ul style="list-style-type: none"> • Reomodulin™ anticoagulant > <input type="checkbox"/> • Thermogard System™ > <input type="checkbox"/> • Therapeutic apheresis > • LifeVest™ wearable defibrillator > <input type="checkbox"/> • Myocardial infarction and cerebral infarction* <p>Chronic conditions (orthopedics and dialysis)</p> <ul style="list-style-type: none"> • Teribone™ osteoporosis therapy > <input type="checkbox"/> • Reclast™ osteoporosis therapy > <input type="checkbox"/> • Kevzara™ rheumatoid arthritis therapy > <input type="checkbox"/> • Dialysis products > • Autoimmune disease, pain relief* <p>Provision of safe biopharmaceuticals</p> <ul style="list-style-type: none"> • Planova™ virus removal filters > • Bioprocess equipment > 	

The Asahi Kasei Group's Environmental Contribution Products

What are Environmental Contribution Products?

List of Environmental Contribution Products (certified in fiscal 2019)

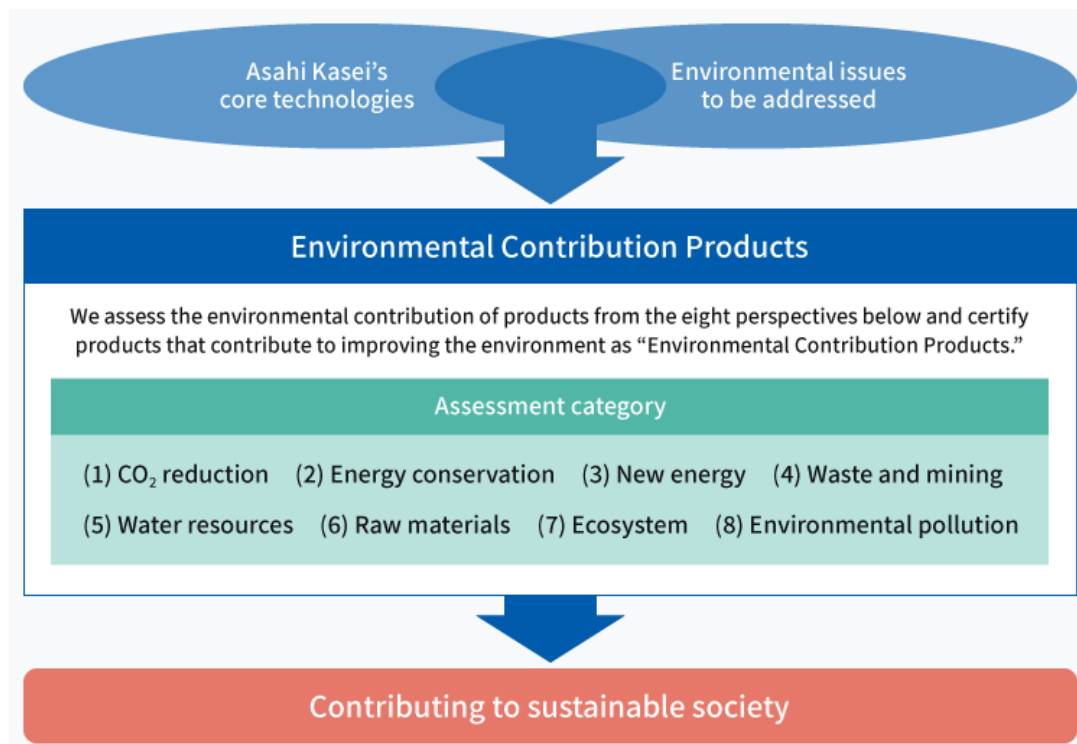
What are Environmental Contribution Products?

Under "Cs+ for Tomorrow 2021," our medium-term management initiative, the Asahi Kasei Group is striving for sustainable society based on the concept "Care for People, Care for Earth."

For sustainable society, we believe it is important to develop products and businesses that contribute to reducing the impact of society on the environment in addition to reducing emissions, such as greenhouse gases, at the Group's production sites. The Asahi Kasei Group defines products that contribute to the improvement of the environment over the entire life cycle when compared with products considered to be the standard in the current market and products that contribute to the improvement of the environment when compared with our existing products as Environmental Contribution Products.

The Asahi Kasei Group assesses its products for environmental impact over the entire life cycle (Life Cycle Assessment: LCA). In the past, we have defined and certified products that can contribute to CO₂ reduction at the product use stage as global warming conscious products. In view of recent demand for contribution to reducing greenhouse gas emissions from an LCA perspective and the growing importance of reducing environmental impacts in areas other than greenhouse gases, such as risks to water, the Asahi Kasei Group formulated Guidelines for Environmental Contribution Products* in January 2019 in a revision of the contribution of products to reducing environmental impact including CO₂.

*In preparing the guidelines, we referred to Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions, The Institute of Life Cycle Assessment, Japan, Guideline for Calculating the Reduction in CO₂ Emissions, Japan Chemical Industry Association, Guideline for Quantifying GHG Emission Reduction Contribution, Ministry of Economy, Trade and Industry, and other reference materials.

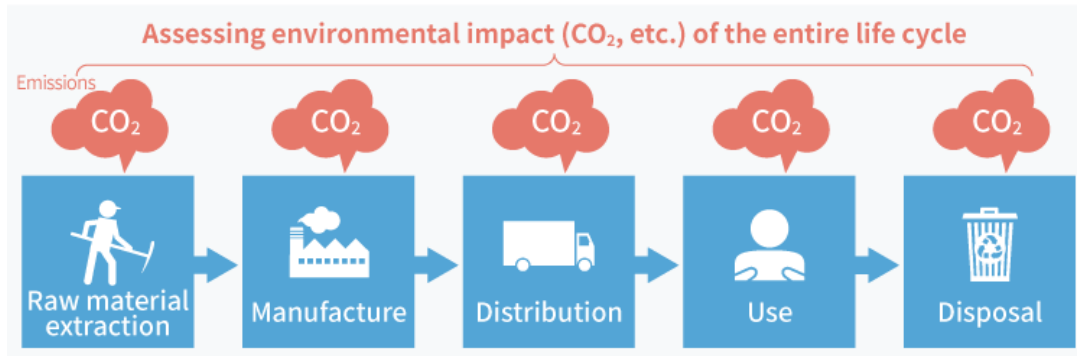


In making the abovementioned calculations, we use MilCA, an LCA tool provided by the Japan Environmental Management Association for Industry.

What is Life Cycle Assessment (LCA)?

Although CO₂ 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 improving the environment by reducing environmental impact, including CO₂, during use considering the entire product life cycle, such as contributions to energy conservation.

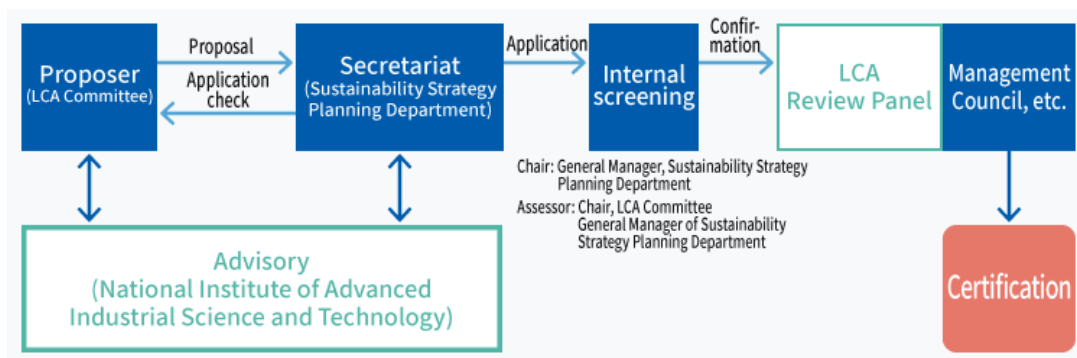
The evaluation of the environmental impact of products over their entire life cycle is Life Cycle Assessment (LCA).



Internal Certification Process

Strategic business units and core operating companies propose products for internal certification. The Asahi Kasei Group receives advice from a third-party organization on the suitability of the environmental contribution calculation methodology and approach from an LCA perspective for the proposed products, and defines products that have been internally certified as Environmental Contribution Products.

We also receive advice on the appropriateness of the calculations of contributions to reductions from outside experts when reviewing certifications.



[LCA Review Panel] (held July 19, 2019)



- Chair :Atsushi Inaba (Professor, Kogakuin University)
- Members :Kensuke Kobayashi (Associate Professor, Prefectural University of Hiroshima)
- :Keigo Matsuda (Associate Professor, Yamagata University)
- :Hiroyuki Uchida (Senior Consultant, Mizuho Information & Research Institute, Inc.)

At the LCA Review Panel, Asahi Kasei Group personnel explain the details of calculations and receive comments and advice from the outside experts on the suitability of the establishment of baselines and the approach to contribution to reductions.












List of Environmental Contribution Products >

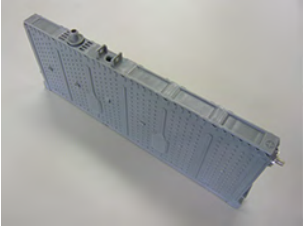






The Asahi Kasei Group's Environmental Contribution Products

What are Environmental Contribution Products?

List of Environmental Contribution Products (certified in fiscal 2019)

List of Environmental Contribution Products (certified in fiscal 2019)

Product name	Reason for certification	SDGs contributed to
<p>Lithium-ion battery (LIB) separators Hipore™ ></p>  <p>Celgard™ ></p> 	<p>The separator is one of the four main components (cathode, anode, electrolyte, and separator) that make up the batteries (LIBs) for electric vehicles (EV/HEV/PHEV). As a result of their growing popularity, electric vehicles are contributing to a reduction in CO₂ during driving, compared with gasoline vehicles. Improving the battery performance (extending range and ensuring safety) is essential to the popularization of electric vehicles, and our development of separator technology is playing a part in this.</p>	 
<p>S-SBR synthetic rubber for fuel-efficient tires ></p> 	<p>S-SBR is used for the tread (the part in contact with the road) on passenger vehicle tires. Based on the development of original technology, it balances low fuel consumption and braking performance of tires at a high level, contributing to dramatically increasing the fuel efficiency of automobiles.</p>	 
<p>Ion-exchange membrane process for salt electrolysis ></p> 	<p>Caustic soda and chlorine are manufactured through the electrolysis of brine. The methods of electrolysis are the mercury process, the diaphragm process and the ion-exchange membrane process. The ion-exchange process is an environmentally-friendly method that does not use mercury or asbestos. Asahi Kasei is the only manufacturer in the world that manufactures and sells ion-exchange membranes, electrolytic cells, and electrodes, and boasts the top share of the global market. We have engaged in continual development to enable electrolysis using even less electricity, and our latest ion-exchange membrane grade has the lowest power consumption (compared with Asahi Kasei products: approximately 2% less than the current grade).</p>	  

Product name	Reason for certification	SDGs contributed to
<p>Xyron™ lightweight resin > □ (Electric vehicle battery module materials)</p> 	<p>Xyron™, a type of engineering plastic, is an environmentally-friendly material with non-halogen flame retardance and reduction of resin usage due to its low specific gravity. Its properties also include dimensional precision, mechanical strength, and resistance to electrolyte solution. Widely used for electric vehicle battery packs and modules, it has played a major role in the spread of electric vehicles.</p>	
<p>Hebel Haus™</p>  <p>Hebel Maison™</p> 	<p>Long Life Homes and Net Zero Energy Houses: Compared with regular housing, our homes contribute to reduction of CO₂ during manufacture of all components and construction by meeting the standards for Net Zero Energy Houses, which balance household energy usage at zero or lower through power generation, advanced insulation, and energy conservation, and providing Long Life Home products with a basic structural life of at least 60 years.</p>	
<p>Manufacturing process for acrylonitrile</p> 	<p>Acrylonitrile, which is the raw material for ABS resin and acrylic fiber, is manufactured by making propylene (or propane) react with ammonia using a catalyst.</p> <p>Asahi Kasei has continually developed catalysts that enable the efficient manufacture of acrylonitrile from less raw materials. Asahi Kasei's catalysts can not only reduce raw material consumption compared with manufacturing acrylonitrile using other, ordinary catalysts (in the model case) but can also reduce emissions of by-products, particularly CO₂, and the CO₂ emissions associated with waste processing. These catalysts, therefore, make a significant contribution to the manufacture of acrylonitrile with a low environmental impact.</p>	

Other products and businesses that contribute to the environment:

- Lamous™ (organic solvent-free)
- Polycarbonate production process (non-phosgene process using CO₂ as raw material)
- Microza™ (water filtration membrane)
- Tenac™ (low VOC performance)
- Asaclean™ (reduces plastic waste)
- UVC LED (mercury-free with low power consumption)
- Neoma Foam™ (high performance insulation), etc.

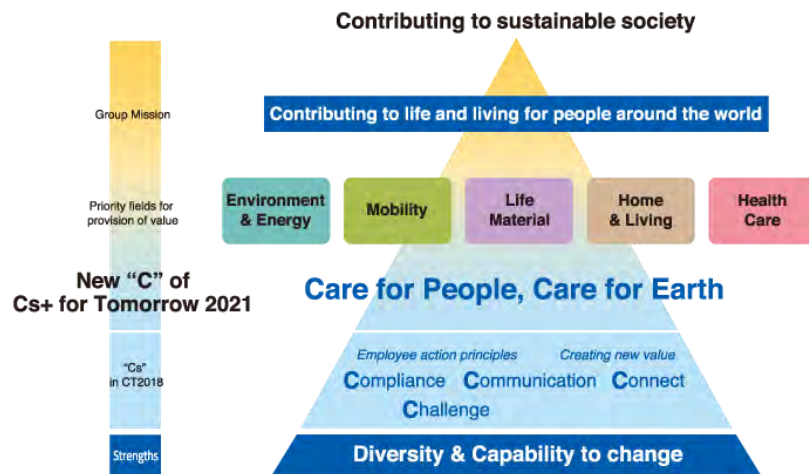
Sustainability at the Asahi Kasei Group

Basic Approach

The Asahi Kasei Group has set "contributing to life and living for people around the world" as our Group Mission, and we have grown through repeated contribution to solving social issues. Our commitment to solving social issues has been a constant ever since our company was founded with the aim of "improving human culture."

Today, discussions aimed at achieving "sustainable society" are taking place around the world. Since the challenge of a "sustainable society" is a challenge that concerns people and the global environment, the Asahi Kasei Group believes that the pursuit of "living in health and comfort" and "harmony with the natural environment" set out in our Group Vision will lead to "sustainable society."

In "Cs+ for Tomorrow 2021," our new three-year medium-term management initiative, launched in fiscal 2019, we expressed the stance of the Asahi Kasei Group, which will continue contributing to sustainable development for people and the Earth going forward, in the phrase "Care for People, Care for Earth." This expresses the approach to sustainability that the Asahi Kasei Group aims for. The mission of the Asahi Kasei Group is to continue proactively contributing to the world as a leader in solving social issues, carrying on the commitment we have had since the founding of our company.



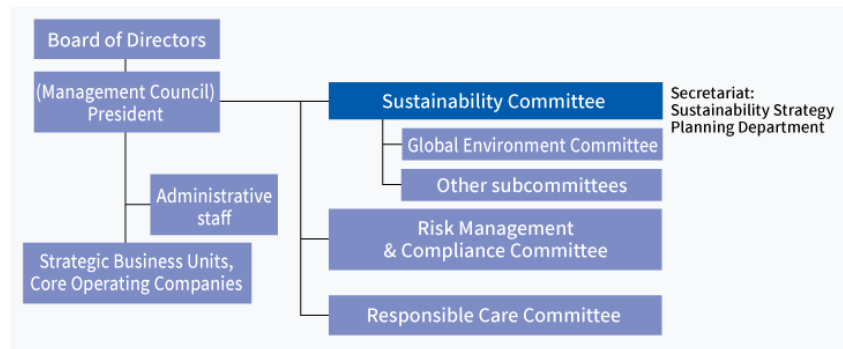
"Enhancing sustainable growth of corporate value" in conjunction with "contributing to sustainable society" is also important. "Contributing to sustainable society" produces business profit, which enhances the corporate value of the Asahi Kasei Group. Enhancing corporate value will lead in turn to further "contribution to sustainable society" through business development.

Sustainability for Asahi Kasei means achieving the two mutually reinforcing aspects of sustainability, "contributing to sustainable society" and "enhancing sustainable growth of corporate value."



Management Configuration

Actions for sustainability throughout the Asahi Kasei Group are guided by our Sustainability Committee in coordination with the more specialized Risk Management & Compliance Committee and Responsible Care Committee which implement individual projects. All three of these committees are chaired by the President of Asahi Kasei. Our Global Environment Committee, chaired by the Executive Officer for Technology Functions, holds specialized discussions on global environmental measures as a subcommittee of the Sustainability Committee.



Framework for Sustainability Strategy (as of December 1, 2019)

Message from the General Manager, Sustainability Strategy Planning Department

The Sustainability Strategy Planning Department, a dedicated unit to promote sustainability across the Group, was inaugurated together with the launch of the new medium-term management initiative in fiscal 2019.

Medium-term management plans tend to focus on financial aspects, particularly sales and profit, in terms of increasing corporate value, but we believe that true corporate value is only manifested when non-financial aspects are also in place, including what to do and how to do it. Asahi Kasei has always been proactive about CSR activities, including Responsible Care activities such as reducing environmental impacts in manufacturing, safety and disaster prevention, and employee health, as well as responsible actions and engagement with customers, investors, local communities and other stakeholders, and social contribution activities. In addition, we have been committed to providing social value through our business activities since the founding of our company. However, now that sustainability is recognized as a global challenge, we consider it important to supervise the Group on sustainability, promote management based on a sustainability perspective, and to communicate our activities in an easy-to-understand manner.

We will strive to listen to the opinions of stakeholders while continuing to enhance the value of Asahi Kasei.

Tatsuhiko Tokunaga
 General Manager, Sustainability Strategy Planning Department
 Asahi Kasei Corp.

Asahi Kasei Group effort for the SDGs

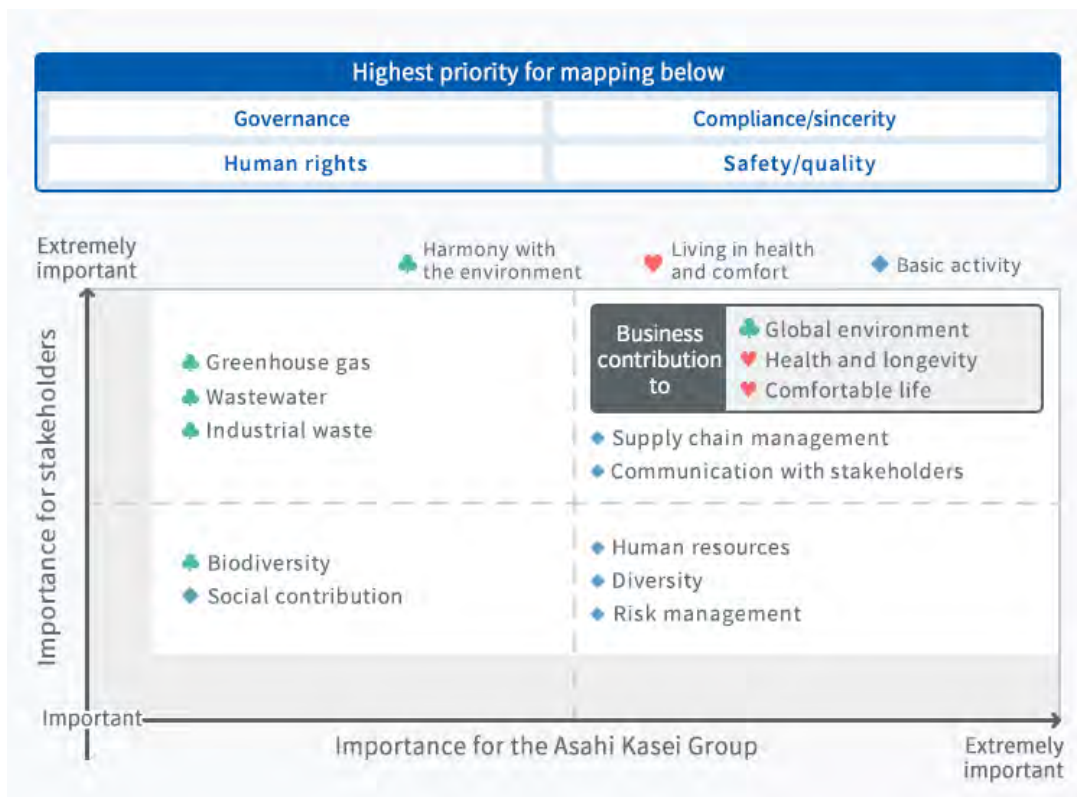
The 2030 Agenda for Sustainable Development was adopted by the UN Sustainable Development Summit in September 2015, including 17 Sustainable Development Goals (SDGs) and 169 targets such as ending poverty and inequality and taking action on climate change.

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."



Materiality



In fiscal 2017 we organized priority issues and themes to address and identified them as the 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. We organized the relationships between this materiality and the sustainable development goals (SDGs) as follows. Moving forward, we will establish key performance indicators (KPIs) while incorporating the perspectives of various stakeholders.






Materiality List

* Contribution through business

Theme	Materiality	Related SDGs	Supervising organization (Joint supervision: Sustainability Strategy Planning Department)
Harmony with the environment We position initiatives for the global environment as important issues, and we are working on measures regarding climate change, preservation of biodiversity, development of a recycling-oriented society, and other initiatives. Using our diverse technologies, we will also develop materials and products that contribute to conserving energy and reducing CO ₂ emissions.	Global environment*		Each business division and operating company Corporate Research & Development
	Greenhouse gas		Corporate ESH
	Wastewater		Corporate ESH
	Industrial waste		Corporate ESH
	Biodiversity		Corporate ESH

Theme	Materiality	Related SDGs	Supervising organization (Joint supervision: Sustainability Strategy Planning Department)
<p>Living in health and comfort</p> <p>We will contribute to healthy and comfortable lifestyles and affluent living with our distinctive products and technical capabilities.</p>	Health and longevity*		Each business division and operating company Corporate Research & Development
	Comfortable life*		Each business division and operating company Corporate Research & Development
<p>Basic activity</p> <p>We will strengthen the base for business development, leading to the creation of new value.</p>	Governance		General Affairs
	Compliance /sincerity		General Affairs
	Risk management		General Affairs
	Safety/quality		Corporate ESH/Corporate Quality Assurance
	Human rights		Human Resources /Corporate Procurement & Logistics
	Human resources		Human Resources
	Diversity		Human Resources
	Supply chain management		Corporate Procurement & Logistics
	Communication with stakeholders		Investor Relations /Human Resources /General Affairs and others
Social contribution	General Affairs		

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>UN Global Compact > □</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>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>Business Call to Action > □</p>
<p>Clean Ocean Material Alliance (CLOMA)</p> 	<p>The Clean Ocean Material Alliance (CLOMA) is a platform established to accelerate innovation by strengthening collaboration among a wide range of stakeholders across industry sectors amid a need to implement worldwide initiatives to overcome the marine plastic litter problem, a global-scale challenge.</p> <p>Clean Ocean Material Alliance > □</p>
<p>White Logistics Movement</p>	<p>The White Logistics Movement is aimed at ensuring stability in logistics needed for people's daily lives and industrial activity and contributing to economic growth in response to the truck driver shortage, which continues to intensify. The Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Economy, Trade and Industry, and the Ministry of Agriculture, Forestry and Fisheries are the advocates of the movement.</p> <p>Asahi Kasei has made a statement of voluntary action endorsing the movement and is working to improve logistics.</p> <p>White Logistics Movement portal site (in Japanese) > □</p>

Membership in organizations

Name of organization	Asahi Kasei's role
Japan Business Federation (Keidanren)	Vice Chair of Board of Councillors Chair of Committee on Environment and Safety, Chair of Committee on Social Security
Japan Chemical Industry Association (JCIA)	Vice Chairman

External evaluation

// Inclusion in socially responsible investment indexes (fiscal 2018)

- FTSE4Good Index
- FTSE Blossom Japan Index
- MSCI Japan Empowering Women Index (WIN)



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

Our effort with respect to climate change was given an evaluation of "A-" by CDP for 4 consecutive years from fiscal 2015 to fiscal 2018.

// 5-Star Certification Obtained in 3rd Nikkei Smart Work Management Survey

Asahi Kasei obtained 5-Star Certification, the highest ranking, in the 3rd Nikkei Smart Work Management Survey, which identifies leading companies in efforts to achieve a productivity revolution through workstyle reforms.



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"> ■ Face-to-face discussion by marketing and sales personnel ■ Taking inquiries via telephone, website, etc.
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"> ■ Meeting with securities analysts and institutional investors ■ Seminars for individual investors ■ Website disclosure of information ■ Taking inquiries via telephone, website, etc.
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"> ■ Safety discussion forums ■ CSR surveys
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"> ■ Periodic community dialog meetings ■ Community outreach initiatives
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"> ■ Training and interviews ■ Discussion and interaction with management ■ Internal magazine and intranet ■ Compliance hotline

Asahi Kasei Group's Responsible Care Program

Responsible Care

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 1989. 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.

The Asahi Kasei Group implements RC initiatives in all business sectors, including the chemical and electronics fields of the Material business sector, the construction materials field of the Homes business sector, and the medical devices and pharmaceuticals fields of the Health Care business sector. This is one of our unique features.



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



Shigeki Takayama
Representative Director,
Vice-Presidential Executive Officer
Asahi Kasei Corp.

Asahi Kasei started the three-year medium-term management initiative "Cs+ for Tomorrow 2021" emphasizing sustainability in FY2019. We aim to raise our corporate value by implementing various measures to achieve our business targets as well as by contributing to a sustainable society as indicated by the SDGs. The current 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 ensure the stable provision of solutions that our customers can rely on while focusing on the three fundamental "actuals" of the actual place, actual thing, and actual fact, with active connections inside and outside the company to further heighten RC. We regard RC as a most crucial management issue, and to raise our corporate value for our various stakeholders we work to achieve our annual RC objectives while advancing RC activities from a broader perspective, reinforcing R&D to provide solutions to global warming and other environmental issues.

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.

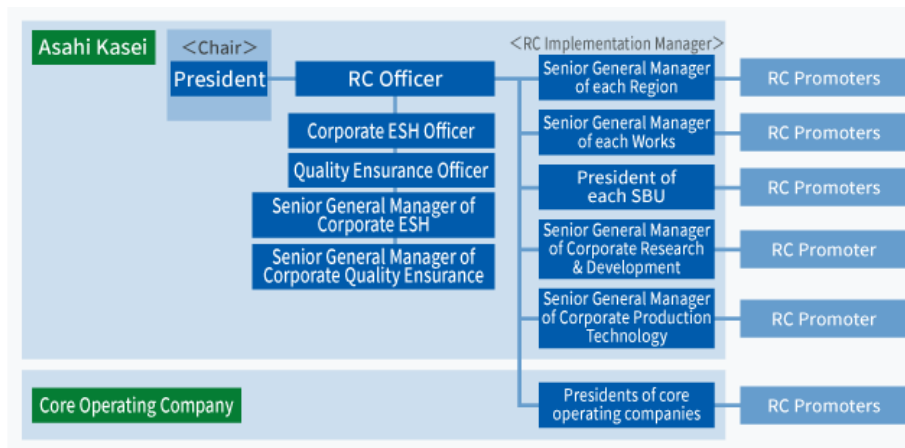
Revised on April 1, 2016

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 Committee¹, a corporate organ under the direct authority of the president of Asahi Kasei, deliberates RC plans and results. In addition, the RC Promotion Council² sub-committee gathers regularly, and RC initiatives are continuously improved with the repetition of Plan-Do-Check-Act (PDCA) cycles at the Regions and Works³, business units, and Group-wide.

Concerning RC management systems, 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) has been adopted for workplace safety, hygiene, and health.

¹ RC Committee Management Organization



¹RC Committee

Chair: Asahi Kasei President

Committee members: Asahi Kasei RC Officer, Asahi Kasei Corporate ESH Officer, Asahi Kasei Corporate Quality Assurance Officer, Asahi Kasei RC Implementation Manager, Asahi Kasei Senior General Manager of Corporate ESH, Asahi Kasei Senior General Manager of Corporate Quality Assurance, Core Operating Company RC Implementation Manager

Observers: Asahi Kasei Corporate Auditors, persons designated by the Committee Chair

Secretariat: Corporate ESH (Corporate Quality Assurance)

Frequency of Meetings: Once per year

² RC Promotion Council

Chair: Asahi Kasei RC Officer

Committee members: Asahi Kasei Corporate ESH Officer, Asahi Kasei Corporate Quality Assurance Officer, Asahi Kasei Senior General Manager of Corporate ESH, Asahi Kasei Senior General Manager of Corporate Quality Assurance, Asahi Kasei RC Promoter, Core Operating Company RC Promoters

Secretariat: Corporate ESH (Corporate Quality Assurance)

Frequency of Meetings: 4 times per year

³ Regions and Works

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

[Japan]

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		
				Neoma Foam Plant Construction Materials R&D Dept.	Phenolic foam insulation panels Improvement of construction materials and development of new products		
		Sakai Kako Co., Ltd.	-	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 Compound Prod. Control Dept.	Acrylic resin and polystyrene resin 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. PS Japan Corp.	Sodegaura Plant Chiba Plant	R&D for plastic compounding technology 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		
		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. ABS & SB Latex Prod. Dept. Synthetic Rubber Prod. Dept. Acrylic Plastics Prod. Dept. Ion Exchange Membranes Prod. Dept.	Methyl methacrylate, cyclohexyl methacrylate, acetonitrile Styrene-acrylonitrile resin, styrene-butadiene latex Synthetic rubber, elastomer, utilities (electricity, steam, water) Acrylic resin, acrylic sheet 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 Performance Polymers Tech. Ctr.	Development of water electrolysis system Development of performance polymer, resin processing technology, application development	
			Others	Asahi Kasei Engineering Corp.	-	Development, design, installation, inspection, and maintenance of equipment and systems	
			Others	Asahi Kasei Engineering Corp.	-	Plant, equipment, process engineering, and related work/development	
	Atsugi	R&D	Asahi Kasei Corp.	Informatics Initiative	Business support by informatics, promotion of digital transformation		
	Shizuoka	Fuji	Chemicals	Asahi Kasei Corp.	Atsugi Prod. Dept. Microza Plant Fuji Power Supply Dept.	Assembly of steel frames and processing of insulation for homes Filtration membranes and modules Utilities (electricity, steam, water)	
					Housing Tech. R&D Labs.	R&D to actualize and advance the Long Life Home	
			Homes	Asahi Kasei Homes Corp.	Fuji Pharmaceuticals Plant	Bulk pharmaceuticals	
Asahi Kasei Pharma Corp.				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 Electronics Materials Plant Fuji 2nd Plant WGF Project R&D Planning and Business Dev. UVC Project Corporate Production Tech.	Liquid photosensitive resin, photosensitive printing plates Photosensitive polyimide production and development Photosensitive dry film, fuel cell materials Optical materials and components Development of products in the Material sector Development of UVC LEDs 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. Fab 3 Fuji Plant	R&D for compound semiconductors Wafers of Hall elements and infrared sensors Epoxy curing agent	
				Others	Asahi Kasei Engineering Corp. Asahi Kasei Create Co., Ltd. Asahi Kasei Amidas Co., Ltd. Asahi Kasei Ability Corp. Asahi Kasei Benefits Management Corp.	Design, construction, and development of facilities and development of information systems Insurance agency Training, consulting, personnel placement Delivery of mail, guidance for obtaining qualifications and training Management of benefits	
			R&D	Asahi Kasei Corp.	R&D Ctr. Healthcare R&D Ctr. Performance Materials Tech. Ctr. Analysis & Simulation Ctr.	Medium to long term R&D, advancement of synergy and creation of new business Health Care sector R&D (diagnostic reagents, regenerative medicine, etc.) R&D for technologies and products related to Performance Materials Analysis and computer simulation	
			Ohito	Health Care	Asahi Kasei Pharma Corp.	Ohito Pharmaceuticals Plant Ohito Diagnostics Plant Pharmaceuticals Research Ctr.	Pharmaceutical intermediates Diagnostic enzymes, diagnostic reagent kits New pharmaceuticals R&D
		Asahi Kasei Benefits Management Corp. Toyo Kensa Center Co., Ltd. Asahi Kasei Create Co., Ltd.			Management of benefits Measurement, evaluation, analysis, clinical testing Insurance agency		
		Asahi Kasei Pharma Corp.			Nagoya Pharmaceuticals Plant	Pharmaceuticals	
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		
Ishikawa	Hakui	Others	Daiwa Sizing Co., Ltd.	-	Construction materials processing Processing and sale of synthetic fibers		
	Echizen	Fibers	Kyokujitsu Textile Mills Co., Ltd.	-	Woven fabrics		
Fukui	Fukui	Others	Asahi Kasei Advance Corp.	-	Trading company handling fibers, resins, chemicals, construction materials, etc. of Asahi Kasei		
			Asahi Kasei Advance Fukui Corp.	-	Processing of industrial materials and nonwovens		
	Awara	Others	Asahi Kasei Advance Corp.	Kanazu Logistics Center	Storage of fiber products		
Shiga	Moriyama	Chemicals	Asahi Kasei Corp.	Moriyama Power Supply Dept.	Utilities (electricity, steam, water)		
				Asahi Kasei Corp.	Spunbond Plant Roica Plant R&D Lab. for Applied Product	Spunbond Elastic polyurethane filament Apparel and industrial functional textiles R&D	
		Electronics	Asahi Kasei Corp.	Hipore Plant Electronics Materials Prod. Dept. Hipore R&D Dept.	Microporous membrane Photosensitive polyimide Development of electronic and energy-related materials		
				Asahi-Schwebel Co., Ltd.	Moriyama Plant	Glass fabric	
		Others	Asahi Kasei Amidas Co., Ltd.	Moriyama Office	Contract work		
			Asahi Kasei Engineering Co., Ltd.	-	Development, design, installation, inspection, and maintenance of equipment and systems		
	Takashima	Material	Asahi Kasei Corp.	Aibano Branch	Metal cladding		
	Higashiomi	Homes	Asahi Kasei Jyuko Co., Ltd.	Shiga Plant	Steel frames, roofing, insulation, opening panels		

Prefecture	Location	Business category	Company	Plant, laboratory, or department	Main products/business line		
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	Gobo	Chemicals	Asahi Kasei Corp.	Wakayama Plant	Acrylic latex		
Osaka	Osaka	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		
R&D	Asahi Kasei Corp.	PS Japan Corp.	Chemistry & Chemical Process Lab.	Research on chemical processes and functional products			
			Mizushima Plant	Polystyrene			
			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		
Fukuoka	Chikushino	Chemicals	Asahi Kasei Corp.	Chikushino Plant	Metal cladding		
			Asahi Kasei Corp.	Oita Plant	Defense explosives		
Oita	Oita	Chemicals	Japan Elastomer Co., Ltd.	Oita Plant	Synthetic rubber, elastomer		
			Asahi Kasei Medical MT Corp.	Sepacell Plant	Leukocyte reduction filters		
		Health Care	Asahi Kasei Medical MT Corp.	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	
				Kayaku Japan Co., Ltd.	Nobeoka Pharmaceuticals Plant	Bulk pharmaceuticals	
					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		
		Fibers	Asahi Kasei Corp.	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.
		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					
Asahi Kasei Office One Co., Ltd.	-	Utilization of Asahi Kasei Group assets, subcontracting					
Others	New Asahi Services Co., Ltd.	Asahi Kasei Engineering Corp.	-	Insurance agency, cellular phone sales, bowling alley			
			-	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)		
			Asahi Kasei Corp.	Fibers & Textiles Tech. Ctr.	R&D for fibers & textiles		
			Miyazaki	Others	Asahi Kasei Advance Corp.	Miyazaki Chemical Center	Repackaging sodium hypochlorite and PAC

Regions	Countries/Cities	Business category	Company	Main products/business line
Americas	USA	-	Asahi Kasei America, Inc.	Business support services
			Asahi Kasei Holdings US, Inc.	Holding company of ZOLL Medical Corporation
		Chemicals	Asahi Kasei Plastics North America, Inc.	Coloring and compounding of performance resin
			Asahi Kasei Plastics America, Inc.	Compounded performance resin operations
			Sun Plastech, Inc.	Sale of purging compound
			Crystal IS, Inc.	Development of aluminum nitride substrates and UVC LEDs
		Electronics	AKM Semiconductor, Inc.	Sale of LSIs
			Asahi Kasei Homes North America, Inc.	Holding company of housing business
		Health Care	Asahi Kasei Pharma America Corp.	Clinical trials for new drugs
			Asahi Kasei Bioprocess America, Inc.	Bioprocess equipment and systems
	Mexico	Chemicals	Asahi Kasei Medical America Inc.	Sale of medical devices, medical systems
			Asahi Kasei Plastics Mexico S.A. de C.V.	Sale of performance plastic compounds
Asia/Oceania	Korea	Chemicals	Tongsuh Petrochemical Corp., Ltd.	Acrylonitrile, sodium cyanide, acrylamide, EDTA
			Asahi Kasei Chemicals Korea Co., Ltd.	Sale of adipic acid
		Electronics	Asahi Kasei E-materials Korea Inc.	Lithium-ion battery separator
			Celgard Korea, Ltd.	Lithium-ion battery separator
	Health Care	Asahi Kasei Microdevices Korea Corp.	Electronic devices marketing and technical support	
		Asahi Kasei Medical Trading (Korea) Co. Ltd.	Sale of medical devices, medical systems	
	Taiwan	Fibers	Formosa Asahi Spandex Co., Ltd.	Spandex
			Asahi Kasei Wah Lee Hi-Tech Corp.	Photosensitive dry film
		Electronics	Asahi-Schwebel (Taiwan) Co., Ltd.	Glass cloth
			Asahi Kasei EMD Taiwan Corp.	Sale of electronic materials
	Homes	Asahi Kasei Urban Development Taiwan Corp.	Sale and development of housing	
		Shin Juang Construction Co., Ltd.	Real estate and construction business	
	Hangzhou	Chemicals	Asahi Kasei Microza (Hangzhou) Co., Ltd.	Industrial filtration membranes and systems
			Hangzhou Asahikasei Spandex Co., Ltd.	Spandex
		Health Care	Hangzhou Asahikasei Textiles Co., Ltd.	Warp-knit spandex textiles
	Guangzhou	Chemicals	Asahi Kasei Medical (Hangzhou) Co., Ltd.	Hemodialyzers; sale of medical devices
			Asahi Kasei Plastics (Guangzhou) Co., Ltd.	Sale of performance resin
	Shanghai	-	Asahi Kasei (China) Co., Ltd.	Investment and business support services
			Asahikasei Plastics (Shanghai) Co., Ltd.	Sale of performance resin
		Chemicals	Asahi Kasei Performance Chemicals Corp.	HDI-based polyisocyanate, polycarbonatediol
			Asahi Kasei Advance (Shanghai) Co., Ltd.	Processing and sale of fibers and textiles
	Electronics	Asahi Kasei Microdevices (Shanghai) Co., Ltd.	Electronic devices marketing and technical support	
		Asahi Kasei Electronics Materials (Changshu) Co., Ltd.	Photosensitive dry film	
	Changshu	Electronics	Asahikasei (Suzhou) Plastics Compound Co., Ltd.	Coloring and compounding of performance resin
	Suzhou	Chemicals	Asahi Kasei Electronics Materials (Suzhou) Co., Ltd.	Photosensitive dry film
			Asahi Kasei POM (Zhangjiagang) Co., Ltd.	Polyacetal
	Zhangjiagang	Health Care	GLT Medical Co., Ltd.	Medical devices
	Beijing	Health Care	Asahi Kasei Pharma (Beijing) Co., Ltd.	Regulatory affairs and business support in China
	Hong Kong	Chemicals	Asahi Kasei Plastics (Hong Kong) Co., Ltd.	Sale of performance resin
			Asahi Kasei Fibers (H.K.) Ltd.	Promotion and marketing of fibers and textiles
	Vietnam	Chemicals	Asahi Kasei Plastics Vietnam Co., Ltd.	Analysis and development of performance plastic parts using CAE technology
			Asahikasei Jyuko Vietnam Corp.	Steel-frame members
	Thailand	Chemicals	PTT Asahi Chemical Co. Ltd.	Acrylonitrile, methyl methacrylate, etc.
			Asahi Kasei Plastics (Thailand) Co., Ltd.	Coloring and compounding of performance resin
		Fibers	Asahi Kasei Spunbond (Thailand) Co., Ltd.	Spunbond nonwovens
			Asahi Kasei Advance Thailand Co., Ltd.	Processed yarn
			Thai Asahi Kasei Spandex Co., Ltd.	Spandex
	Singapore	Chemicals	Asahi Kasei Synthetic Rubber Singapore Pte. Ltd.	Synthetic rubber
			Asahi Kasei Plastics Singapore Pte. Ltd.	Performance resin
			Polyxylenol Singapore Pte. Ltd.	PPE powder
Health Care		Asahi Kasei Bioprocess Singapore Pte. Ltd.	Technical support of bioprocess equipment	
India	-	Asahi Kasei India Pvt. Ltd.	Business support services	
Australia	Homes	Asahi Kasei Homes Australia Pty. Ltd.	Holding company of McDonald Jones Homes Group	
Sweden	Electronics	Senseair AB	Provision of sensing solutions; development, manufacture, and sale of gas sensor modules	
Europe	Germany	-	Asahi Kasei Europe GmbH	Business support services, sale of performance resin
		Fibers	Asahi Kasei Spandex Europe GmbH	Spandex
		Electronics	Asahi Kasei Microdevices Europe GmbH	Electronic devices marketing and technical support
		Health Care	Asahi Kasei Medical Europe GmbH	Sale of medical devices, medical systems
	Asahi Kasei Bioprocess Deutschland GmbH		Technical and sales support of bioprocess equipment	
	Belgium	Electronics	Asahi Photoproducts (Europe) SA/NV	Sale of photopolymer, printing-plate making systems
		Health Care	Asahi Kasei Bioprocess Europe SA/NV	Sale of virus removal filters
	Italy	Fibers	Asahi Kasei Fibers Italia S.r.l.	Sale of cupro cellulosic fiber and nonwovens
	United Kingdom	Electronics	Asahi Photoproducts (UK) Ltd.	Sale of photopolymer, printing-plate making systems

Fiscal 2018 RC Targets and Results

★★★Complete ★★Satisfactory ★Unsatisfactory

Overall RC

FY2018 RC Targets	FY2018 Results	Attainmen	FY2019 RC Targets
Establish a culture of environmental, quality, and safety awareness: • Nurture customs for compliance • Advance measures for handover to the next generation	Safety diagnoses were performed. Diagnosed sites initiated action. Activities focused on bilateral communication at each level were invigorated.	★★★	Develop human resources specializing in environmental safety and quality assurance
Enhance foundations for safety	Promoted maintenance activities by reinforcing human resources focused on safe and stable production, by reducing malfunctions, and by ongoing activity for time savings through work style reform. Currently promoting development of human resources for RC support systems at the head office.	★★	Cultivate values of safety and quality
Establish activities for compliance	Education for compliance and RC was continued at each site. Information sharing was promoted.	★★	Enrich RC education
Promote global-oriented RC	Scope of support activities in China was expanded. Support from mother factories to overseas factories was enhanced.	★★	Support on-site improvements (especially at independent factories in Japan and overseas)

Environmental Preservation

FY2018 RC Targets	FY2018 Results	Attainmen	FY2019 RC Targets
Maintain zero environmental accidents and serious environmental incidents	No environmental polluting accidents or serious incidents occurred. 17 environmental incidents occurred 3 less than in FY2017). (4 incidents other than freon leaks)	★★	Maintain zero environmental accidents and serious environmental incidents
Reduce industrial waste: • Final disposal rate: 0.3% or less • Recycling rate: at least 90%	Goal reached with final disposal rate of 0.2%. Goal reached with recycling rate of 99%.	★★★	Reduce industrial waste: • Final disposal rate: 0.3% or less • Final disposal rate excluding the home construction business: 0.1% or less • Waste plastics consigned to landfill: zero
Promote preservation of biodiversity Promote "Town Woods" program and actions for biodiversity at each site	• "Town Woods" trials performed at 5 sites. • "Asahi Woods of Life" project was promoted at the Fuji site.	★★★	Promote preservation of biodiversity • Expand the "Town Woods" program to all sites in Japan (by FY2021) • Accumulate 400 "Town Woods Points"

Global Environmental Countermeasures

FY2018 RC Targets	FY2018 Results	Attainmen	FY2019 RC Targets
Improve GHG emission intensity by 35% in 2030 compared to 2013	Improved GHG emission intensity by 28% in 2018 compared to 2013	★★★	Improve GHG emission intensity by 35% in 2030 compared to 2013
5-year average reduction in unit energy consumption of 1%	4.3% reduction	★★★	5-year average reduction in unit energy consumption of 1%

Operational Safety

FY2018 RC Targets	FY2018 Results	Attainmen	FY2019 RC Targets
Maintain zero serious industrial accidents	No serious industrial accidents occurred.	★★★	Maintain zero serious industrial accidents
2 or less industrial accidents or minor incidents	1 industrial accident and 13 minor incidents occurred.	★	Zero industrial accidents
			Industrial accident intensity of 0.5 or less (average)

Workplace Safety and Hygiene

FY2018 RC Targets	FY2018 Results	Attainmen	FY2019 RC Targets
No serious workplace injuries*	1 serious workplace injury occurred (1 case of heat stroke occurred with an on-site contractor).	★	No serious workplace injuries
In Japan: • Lost-worktime injuries frequency rate of 0.1 or less • Lost-worktime injuries severity rate of 0.005 or less	In Japan: • Lost-worktime injuries frequency rate of 0.41 • Lost-worktime injuries severity rate of 0.008	★	Global lost-worktime injuries frequency rate of 0.25 or less In Japan: • Lost-worktime injuries frequency rate of 0.1 or less • Lost-worktime injuries severity rate of 0.005 or less
Overseas: • Lost-worktime injuries frequency rate of 1.0 or less	Overseas: • Lost-worktime injuries frequency rate of 1.81	★	Overseas: • Lost-worktime injuries frequency rate of 1.2 or less

Health Maintenance

FY2018 RC Targets	FY2018 Results	Attainmen	FY2019 RC Targets
Promote health maintenance and improvement among personnel			Promote activities to improve mental and physical health among personnel
Promote the prevention of and countermeasures to lifestyle-related diseases: • Reduce the rate of absence due to illness or injury • Reduce the rate of lifestyle-related diseases	The rate of absence due to illness or injury improved. The rate of lifestyle-related diseases slightly	★★	Promote maintaining good health and the preventing and countering lifestyle-related diseases: • Reduce the rate of absence due to illness or injury • Reduce the rate of lifestyle-related diseases • Improve the rate of consultation
Enhance mental health support system: • Reduce the rate of absence due to mental health	The rate of absence due to mental health was on the same level as the previous year.	★	Promote mental health support system: • Reduce the rate of absence due to mental health
			Promote countermeasures to secondhand smoke • Promote completely separate indoor smoking areas

Quality Assurance

FY2018 RC Targets	FY2018 Results	Attainmen	FY2019 RC Targets
Maintain zero serious product safety incidents	No serious product safety incidents occurred.	★★★	Maintain zero serious product safety incidents

Management of Chemical Substances

FY2018 RC Targets	FY2018 Results	Attainmen	FY2019 RC Targets
Maintain zero serious violations of laws and regulations	No serious violations of laws and regulations occurred.	★★★	Maintain zero serious violations of domestic and overseas laws and regulations

* Accidents resulting in death or lasting injury

RC education and training

In order to ensure the advancement of RC activities, the Asahi Kasei Group conducts practical RC education and training concerning basic knowledge of and theories about RC. The training program applies to all key personnel who implement RC, 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 staff covering general RC activities, employee health, operational safety, environmental protection, and workplace safety. These take place over 4 days, and 73 personnel took part in fiscal 2018.

In addition, aiming to improve the Group's RC level, a training course for assistant chiefs was formally initiated in fiscal 2012 and continues including requested improvements. In fiscal 2018, 154 personnel participated in the 3-day course. We will continue to promote education and training to meet various needs both inside and outside the company.

RC Conference

Our Group holds annual RC Conference, at Asahi Kasei Corp., group companies, and in various regions where we are active. At these symposiums we share information and revitalize RC initiatives by reporting on their status, holding presentations on activities, listening to lectures by experts invited from outside the company, and presenting Safety Awards.

The fiscal 2018 Asahi Kasei RC Conference held in December in the Suzuka area drew approximately 530 participants.



Suzuka Works General Manager Yasumasa Yamakoshi on stage at the Suzuka RC Symposium



President Hideki Kobori gives the opening address at the RC Symposium

Environment



Environmental Management

As part of our Responsible Care program, we have developed an environmental management system based on ISO 14001 requirements.



Climate Change

We implement measures that confront climate change by reducing greenhouse gas emissions and developing innovative technologies.



Pollution and Natural Resources

We aim to reduce our environmental impact and use natural resources and energy efficiently throughout the entire life cycle.



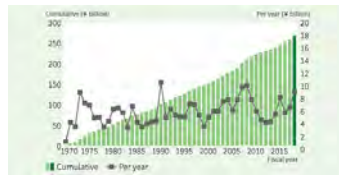
Water Resource Preservation

We strive to enhance water use efficiency in our business activities while contributing to the conservation of water resources worldwide.



Biodiversity

We work towards the sustainable use of biological resources in our business activities while taking biodiversity into account.



Environmental Data

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

Environmental Management

Policy

As expressed in [our Group Vision](#) that includes "harmony with the natural environment," the Asahi Kasei Group considers environmental initiatives an important task. The Group Policy regarding global environmental measures is as stated below.

The Asahi Kasei Group's Global Environmental Policy

1. Building a low-carbon society

- (1) Taking into account Japan's Plan for Global Warming Countermeasures and Nippon Keidanren's "Proposal on Japan's long-term growth strategy under the Paris Agreement," the Asahi Kasei Group aims for greenhouse gas emissions related to its business activities to meet reduction targets by 2030.
- (2) The Asahi Kasei Group will promote energy conservation across the full range of our business activities with the aim of preventing global warming and conserving limited resources.
- (3) The Asahi Kasei Group will develop a plan to reduce CO₂ (Scope 3) emissions from its supply chain.
- (4) The Asahi Kasei Group will help create a low-carbon society incorporating our proprietary technologies, contributing to the reduction of global greenhouse gas emissions by providing products, technologies, and services to the global market.

2. Preserving water resources

The Asahi Kasei Group will contribute to preserving global water resources through our water purification membrane module business, water recycling service business, and the sale of water quality monitoring equipment and wastewater treatment products. It 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, it 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 plants

The Asahi Kasei Group will create 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

The Group's global environmental measures are part of our Responsible Care program, and we have established a management system based on ISO 14001 requirements.

See below for the Responsible Care promotion framework.

[Asahi Kasei Group's Responsible Care Program >](#)

Targets and results

Based on the Asahi Kasei Group Policy on the Global Environment, we promote activities with the following indicators and targets. Regarding climate change measures, we have set greenhouse gas reduction targets to be met by FY2030.

Quantitative indicators and targets of global environmental measures

1. Low-carbon society

- GHG emissions
Reduce GHG emissions (domestic + overseas) per basic unit of sales by 35% in FY2030 compared to FY2013.
- 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

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 target

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

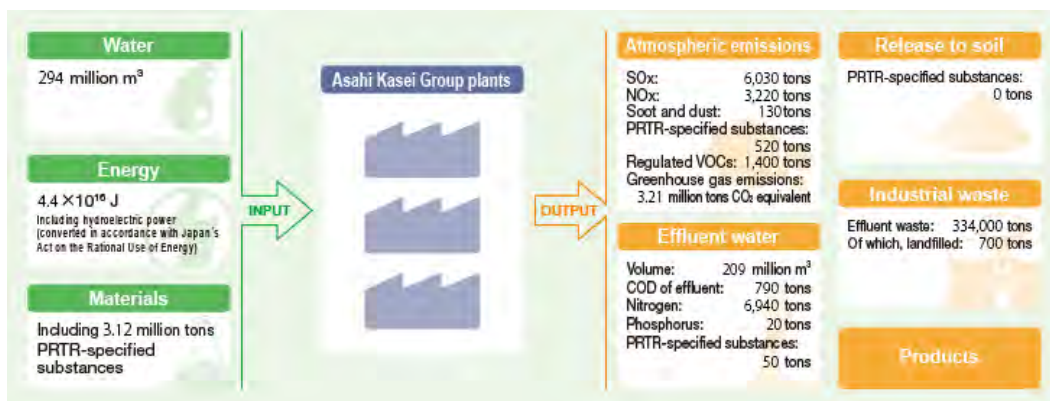
Concerning water resources, the Asahi Kasei Group's previous target was achieved in FY2017, and we are considering setting a new target.

Details of activities and achievements are posted here.

[Asahi Kasei Group's Responsible Care Program >](#)

Environmental impacts

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



Asahi Kasei Group (domestic) Main Environmental Impacts (FY2018)

Violations of Environmental Laws and Regulations, Fines, etc.

There were no violations or fines related to environmental laws and regulations in FY2018.

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 member of the Japan Chemical Industry Association, we participate in Nippon Keidanren's Commitment to a Low Carbon Society launched in April 2013, and continue to implement activities in line with this commitment. In addition, taking into account the expansion of production at overseas plants, we have set global reduction indicators and targets.

[Asahi Kasei Group RC Principles >](#)

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

The Asahi Kasei Group's efforts for a low-carbon society

1. Reducing GHG emissions of the Asahi Kasei Group
 - (1) New medium-term management plan emission reduction target
 - (2) Scope 1 + 2 emissions (domestic + overseas)
 - (3) Scope 3 emissions
2. Helping reduce CO₂ emissions throughout the entire lifecycle of products
3. Making international contributions
4. Developing innovative new technologies

// Greenhouse Gas (GHG) Emission Reduction Targets in the New Medium-Term Management Plan

According to the policy of the new medium-term management plan "Cs+ for Tomorrow 2021" (FY2019-2021), the Asahi Kasei Group will work to reduce GHG emissions from manufacturing processes and contribute to the reduction of GHGs through technologies and products that help realize a sustainable society. Our numerical target seeks to reduce Scope 1 + 2 (domestic + overseas) GHG emissions relative to sales for fiscal 2030 by 35% compared to fiscal 2013.

[Reducing our own GHG emissions]

- Further reduction in GHG emissions (Installing lower-emission equipment, optimizing plant operation)
- Greater use of low-carbon energy (Increasing renewables and LNG)
- R&D for further GHG reduction

Toward a sustainable society

[Contributing to reduce the world's GHG emissions]

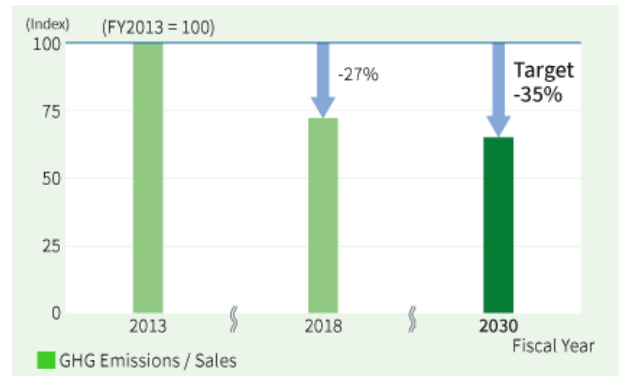
- Businesses that contribute to energy conservation and reduced GHG emissions (Battery separators, lightweighting resins, Net zero energy houses, CO₂ sensors, etc.)
- Technology development/commercialization for clean environmental energy (Green hydrogen production, CO₂ chemistry, etc.)

Reducing GHG Emissions

Asahi Kasei Group GHG emission intensity

In fiscal 2018, the Asahi Kasei Group's greenhouse gas emissions per unit of production improved by 27% compared to fiscal 2013.

The main factors in this reduction were improvements in the structure of our commodities business and improved operating rates of N₂O decomposition facilities.



GHG Emissions / Sales

Scope 1 and 2 GHG emissions

All subsidiaries and affiliates under management control are subject to calculation of Scope 1 and Scope 2 GHG emissions of the Asahi Kasei Group, and GHG emissions from generation of electricity and steam sold outside the Asahi Kasei Group are included. In fiscal 2018, our Scope 1 GHG emissions were 3.18 million tons of CO₂-eq and Scope 2 GHG emissions were 1.07 million tons of CO₂-eq, bringing the total of Scope 1 and 2 to 4.24 million tons of CO₂-eq. This is a reduction in GHG emissions of approximately 15% compared to the 4.96 million tons of CO₂-eq released in the base year of 2013. The main factors in this reduction was the discontinuation of production of ammonia, benzene, and ethylene, and the operation of a biomass power generation plant.

*Figures with have received independent assurance by KPMG AZSA Sustainability Co., Ltd.



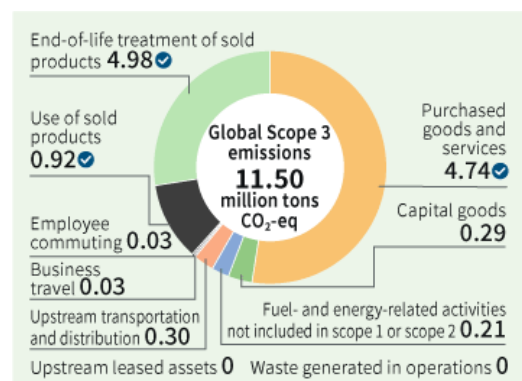
Global GHG emissions

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

[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 methods for calculating Scope 3 emissions from Category 1, 11 and 12 are described in Environmental data.

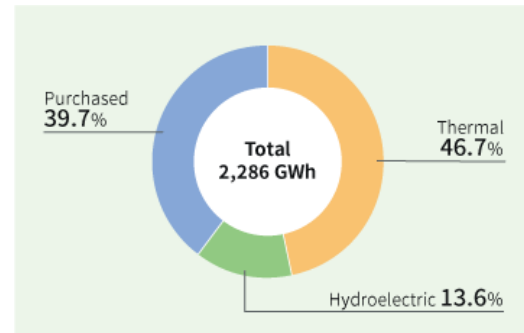
*From fiscal 2018, emissions in Category 11 and 12 of Scope 3 are subject to independent assurance by KPMG AZSA Sustainability Co., Ltd.

[Scope 3 emissions by fiscal year \(Environmental data\) >](#)

Efforts to Reduce CO₂ Emissions in Japan

Renewable energy

The Asahi Kasei Group has 9 hydroelectric power generation plants in the Nobeoka Region, which provided approximately 14% of the total electricity we used in Japan in FY2018. Generation of the equivalent amount of power at thermoelectric plants would result in approximately 180 thousand tons* of CO₂ emissions annually. Furthermore, our biomass power generation facility in Nobeoka started operation in August 2012.



Electricity sources, FY2018

*Using Japan's Ministry of Economy, Trade and Industry and Ministry of the Environment standard of 587g CO₂/kWh.

Energy saving in logistics

Our company promotes environmentally friendly railway shipment.

Product shipments for Asahi Kasei Group operations in Japan amounted to some 1.3 billion ton-kilometers in fiscal 2018—a 3% increase from fiscal 2017—generating approximately 100 thousand tons of CO₂ emissions—a 1% 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 CO₂ emissions for a given weight and distance than many other means of transportation.

CO₂ emissions from product shipment (Environmental data) >



The Eco-Rail Mark

Promotion of low emission vehicles

The Asahi Kasei Group is phasing in low-pollution vehicles for use in marketing and within plant grounds. In fiscal 2018, some 85% of company-owned vehicles were low-pollution vehicles.

Low-pollution vehicles (Environmental data) >

Pollution and Natural Resources

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

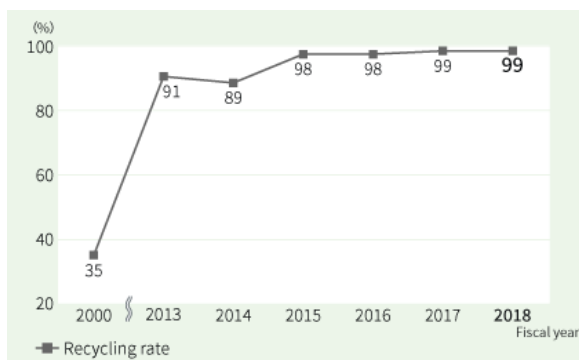
The Asahi Kasei Group is working to reduce the amount of industrial waste for final disposal through the "3-Rs" of reduction, reuse, and recycling. In fiscal 2018, we adopted targets of a final disposal rate of 0.3% or less and a recycling rate of 90% or more of the total amount of industrial waste generated. We achieved our targets, with a final disposal rate of 0.2% and a recycling rate of 99.0%. We are working to gain further improvements through increased waste 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.

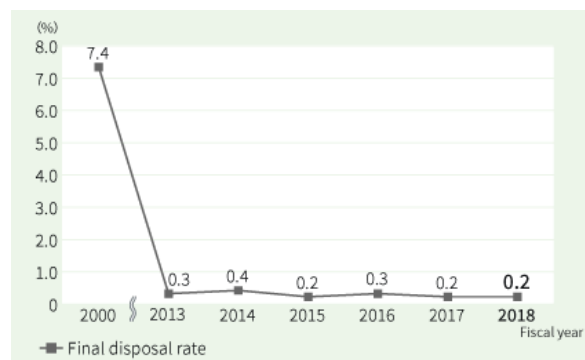
*PCBs (polychlorinated biphenyls) are persistent and pose a risk to the living environment and human health. Their manufacture and use is essentially prohibited in Japan.



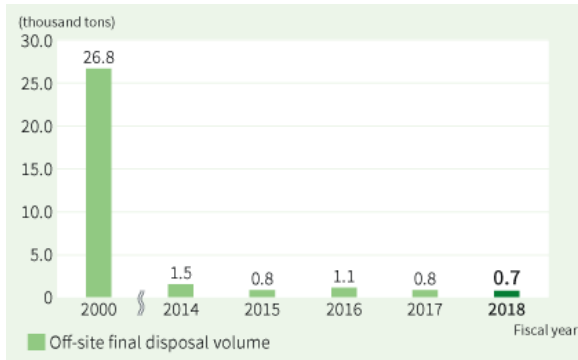
FY2018 flow of industrial waste*



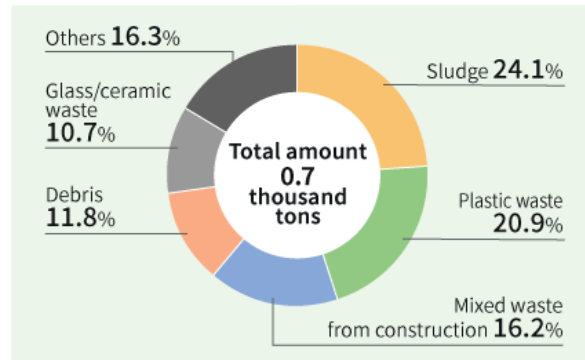
Recycling rate



Final disposal rate



Off-site final disposal volume

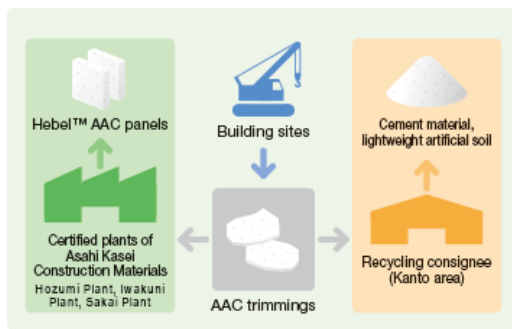


FY2018 off-site final disposal by category of waste*

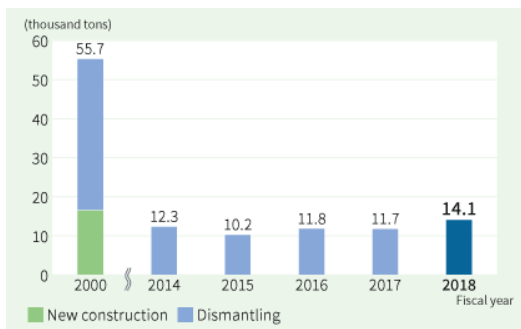
* Excluding waste generated at the construction sites of Asahi Kasei Homes

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

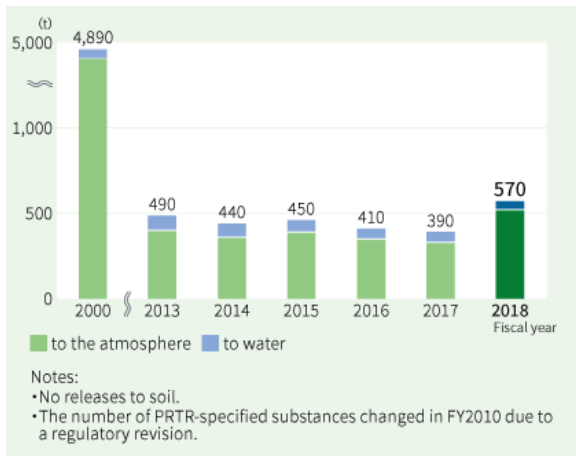


Final disposal industrial waste generated at construction sites

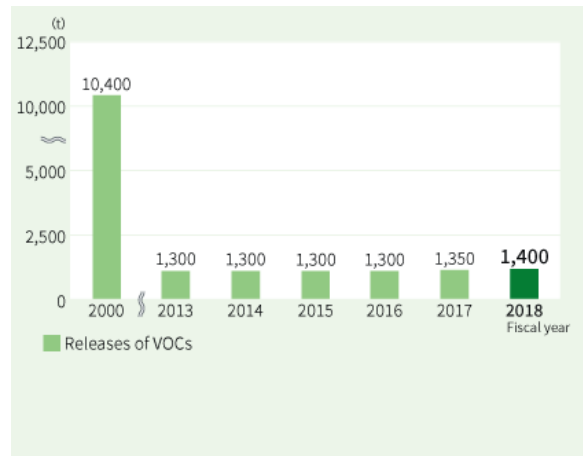
*Certificate for wide-area recycling For certain parties, who perform recycling in a wide-area, Japan's Minister of the Environment eliminates the need to obtain separate waste transport permits for each local area. The system was established to promote further recycling of industrial waste.

Reducing emissions of chemical substances

The Asahi Kasei Group works to reduce the release of chemicals substances specified in the PRTR¹ 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 VOC² emissions were reduced by 88% 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

*1 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.

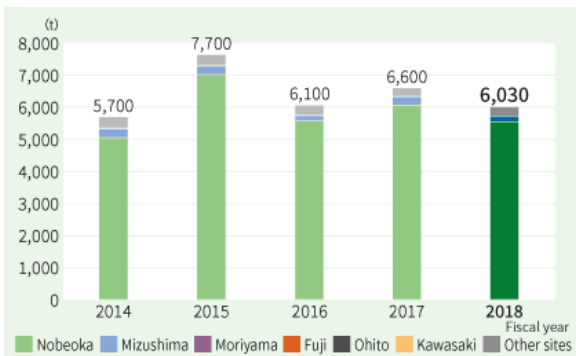
*2 VOC: Volatile organic compound. Although the term generally applies to any organic compound which is in gaseous state at the time of release, regulations for the control of their release exclude methane and some fluorocarbons which do not form oxidants.

Air pollution

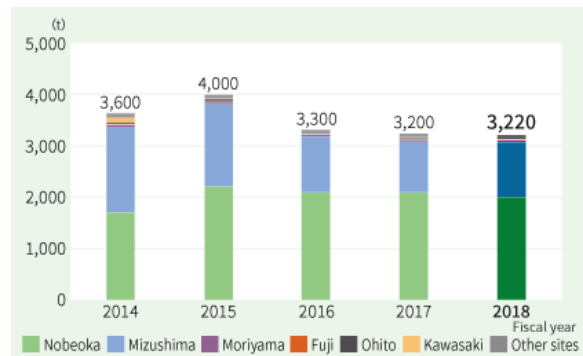
The Asahi Kasei Group works to control emissions and prevent spills in order to avoid the pollution of air, water, soil, and groundwater. Measures to prevent noxious odors include the installation of exhaust gas absorption equipment and increasing the capacity of our wastewater treatment facilities. To prevent soil pollution, we perform tests and take appropriate measures in accordance with the Soil Contamination Countermeasures Act and related regulations. Substances covered by the Air Pollution Control Act are managed within regulatory standards.

A report on the prevention of groundwater contamination follows.

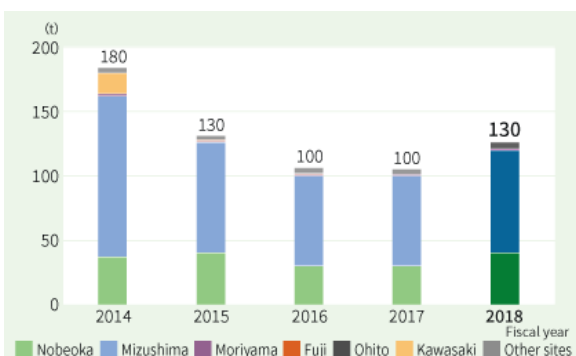
Water Resource Preservation >



SOx emissions



NOx emissions



Soot and dust emissions

Water Resource Preservation

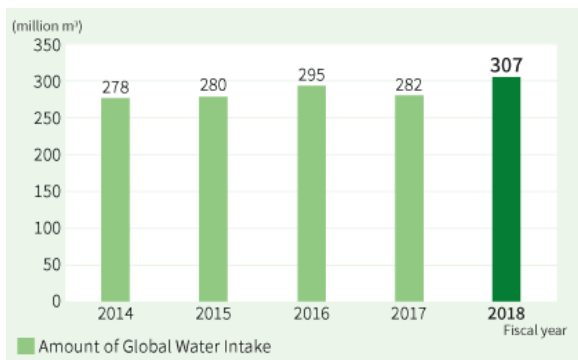
Policy

Asahi Kasei Group's business is intrinsically related to water resources. Ensuring their future viability is one of our missions and a prerequisite for the continuity of our business. We will contribute to the conservation of water resources around the world through our domestic and overseas water purification membrane module business, water recycling service business, seawater desalination business, the development of sludge reduction products for wastewater treatment, and the expansion of our surface oil detector series. We also have a policy of ascertaining the quantity of our water intake while striving to maintain and improve the efficiency of our water usage.

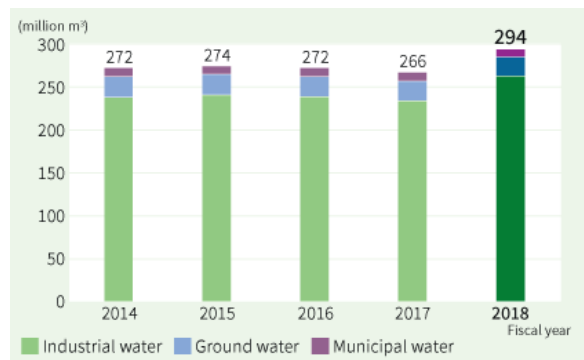
Reducing water use

The Asahi Kasei Group endeavors to reduce the amount of water used in our plants and to make efficient use of water by recycling it. In addition, as a unique indicator of our water resource preservation activities, we have set a target for water resource contribution* of 9.3 or higher. We achieved this target in fiscal 2017, and the possibility of setting a new target is under discussion.

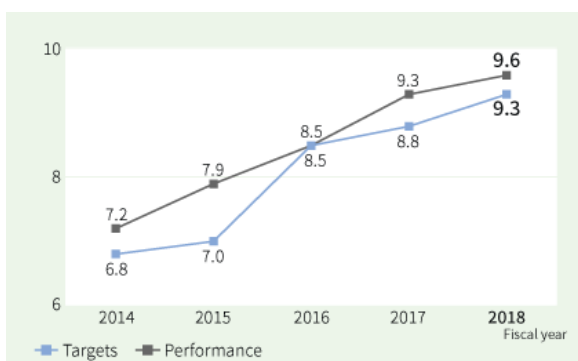
*Water resource contribution = Total amount of water treated via our water filtration membrane business, water recycling business, and seawater desalination business / the Group's domestic water intake



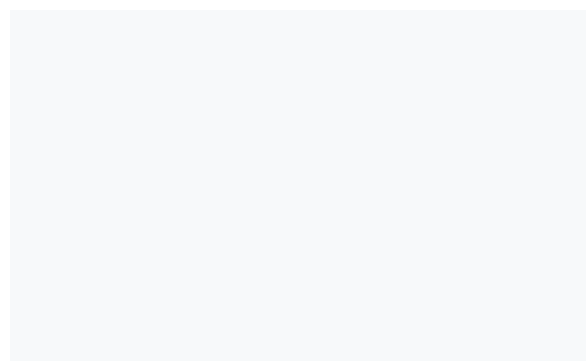
Amount of Global Water Intake



Amount of Water Intake by Source (domestic)



Water Resource Contribution

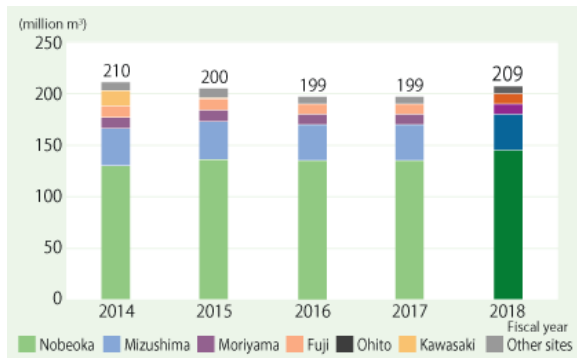


Prevention of water pollution

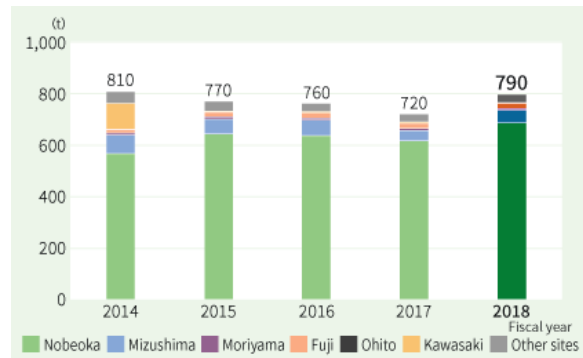
The Asahi Kasei Group thoroughly manages emissions and prevents leakage so as not to contaminate bodies of water or groundwater.

In 2012, we issued our Guidelines on Wastewater Management. In addition to affirming our commitment to wastewater management based on this, we are also working on enhancing the capacity of wastewater treatment facilities and other equipment. Items regulated by the Water Pollution Prevention Act are managed within those standards.

In fiscal 2018, there were no instances of leakage as related to the Water Pollution Prevention Act.



Amount of Wastewater (domestic)



Chemical Oxygen Demand (COD) Load

Asahi Kasei products and technologies for water conservation

Microza™ hollow fiber membrane filtration module

We are a top-tier supplier of water treatment membranes and filtration systems. Microza™ is a hollow fiber membrane we have developed for water treatment. It is used in more than 1,600 water purification plants and wastewater plants worldwide, including in the United States, China, Korea, Singapore, Thailand, Indonesia, and Middle Eastern countries. In fiscal 2017, Microza™ was adopted at a seawater desalination plant in Kuwait, helping to alleviate chronic water shortages.

Going forward, we will continue to work on global water and environmental issues with the aim of resolving various problems related to water resources.

Microza™ hollow fiber membrane filtration module [>](#)

Saran™ Polyvinylidene Chloride Fiber

One important issue in wastewater treatment is reducing the amount of sludge generated, which is directly tied to decreasing its environmental impact. The Asahi Kasei Group conducts research and development into new commercial products that feature a unique technology using microorganism immobilized carrier that flows, making use of the characteristics of Saran™ fiber, which microorganisms inhabit easily.

Existing facilities can adopt these products by making simple improvements like installing screens, without requiring major modifications. This improves processing capabilities and reduces the amount of sludge generated.

Saran™ on the Asahi Kasei Home Products website [>](#)

Apolarm™ series environmental monitoring products

Asahi Kasei Technosystem's Apolarm™ Series detects a wide range of oil leaks, including floating oil (oil film and oil layers), sediment oil, and water-soluble oil. We will continue to expand our product line and protect the aquatic environment with oil detection devices for specific applications.

- Apolarm C: Oil layers of 3 mm or more trigger a capacitance shift and sound an alarm.
- Apolarm M: A non-contact laser detector that can sense minuscule amounts of oil film on the water surface.
- Apolarm B: Detects oil and organic solvents that have a greater specific gravity than water, causing them to sink.
- Apolarm F: Detects leakage of fluorescent water-soluble oils.

Apolarm™ Series on the Asahi Kasei Technosystem website [>](#)

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.

Investigation of impact on biodiversity by procurement

Regarding the impact of our business activities on biodiversity when there is a newly used raw material 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.

Group-wide activities for biodiversity

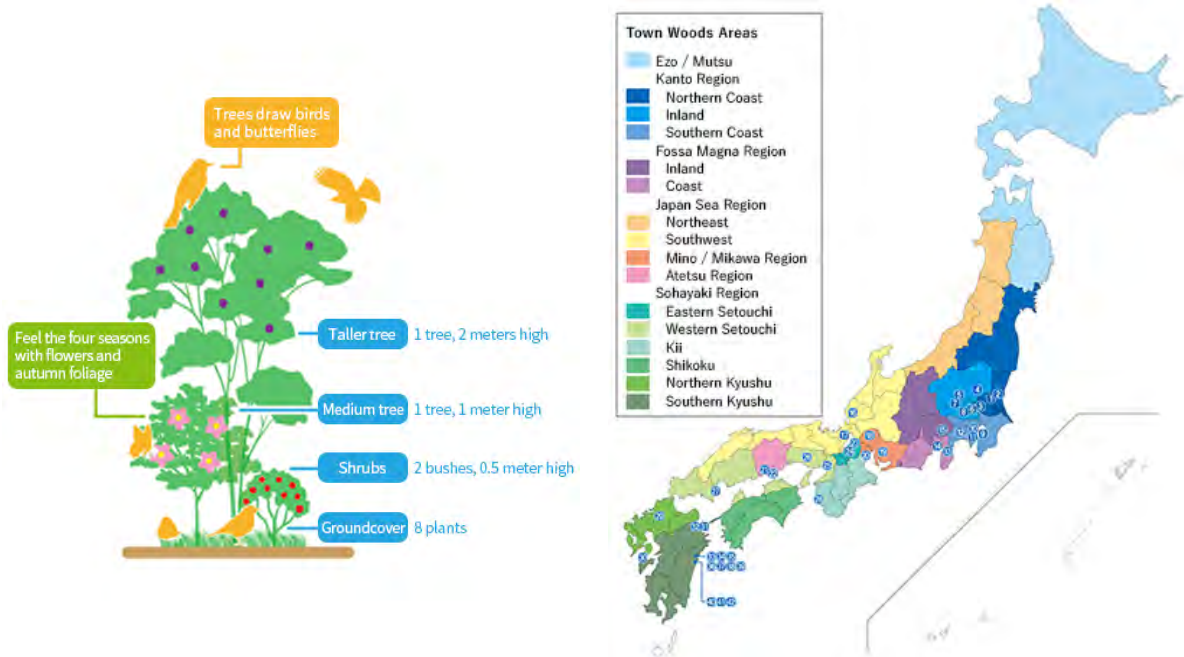


What is the "Town Woods" Program?

We aim to increase value from the perspective of biodiversity while enhancing green spaces at Asahi Kasei Group operating sites. We will use Town Woods Pots as a tool to heighten understanding and awareness of the value of biodiversity among personnel.

What are Town Woods Pots?

This new way of landscaping by Asahi Kasei Homes combines four layers of vegetation of varying heights: Tall, medium, short, and groundcover. While compact enough to integrate with urban residential areas, they increase the space for other plants and wildlife in artificial environments that otherwise have little greenery. Our Town Woods Program uses the phytosociological method to classify green spaces at operating sites throughout Japan, selecting the most suitable regional vegetation when creating the Town Woods plantings.



Town Woods Project: (FY2019-2021) Phase 1 Targets

- Target I: Install Town Woods Pots at all 42 Asahi Kasei Group operating sites
- Target II: Accumulate a total of 1,200 "Town Woods Points" during the period.

* Town Woods Points (Machi-Mori Point: MMP): Initiatives at all Asahi Kasei Group sites are divided into four stages. Each initiative earns Town Woods Points and the points are aggregated across the group.



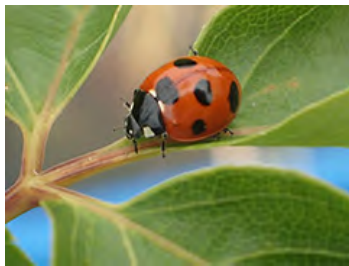
Stage	Example Initiatives
Stage 1 Installation	<ul style="list-style-type: none"> ■ Installing the Town Woods Pots ■ Posting information about the Town Woods Pots ■ Maintaining them properly so they thrive
Stage 2 Observation	<ul style="list-style-type: none"> ■ Recording trunk thickness and tree height ■ Photographing and recording information on features like flowering, fruiting, and foliage ■ Photographing and recording information on the wildlife that visits the Town Woods Pots ■ Photographing and recording information on naturally occurring vegetation

Stage	Example Initiatives
Stage 3 Dissemination	<ul style="list-style-type: none"> ■ Actively disseminating information including photographs and records of observed plant and animal life both within and outside the site. The dissemination will take place online, through bulletin boards, directly communicating with the local community, etc.
Stage 4 Development	<ul style="list-style-type: none"> ■ Expanding the initiative to other locations ■ Collaborating with other programs both within and outside the site

■ Stage 1: Installation



■ Stage 2: Observation



■ Stage 3: Dissemination



■ Stage 4: Development



／ Publishing News on the Town Woods Program

Staff in charge at our various sites will be provided with news about the Town Woods Program and the seasonal highlights of plants showing their changes. Content that can be incorporated includes photographs from the sites showing implementation of the Town Woods Program, columns on wildlife, and topics on the plant and animal life in green spaces around the sites.

Town Woods Project News # 1 (Summer 2019) 



／ Interviews with local plant growers

We favor local saplings and seedlings for the Town Woods Pots, we have interviewed a grower who provides them for this initiative.

"I want to make vibrant plantings that incorporate the kind of vegetation that grows wild in the mountains."

Isogai Hiroshi, Biotope Advisor
Environmental Technology Research Group
Environmental Solutions Department
Lago Co., Ltd.



Lago protects the natural environment through surveys of wild animals and plants, design and construction of green spaces that take them into account, and environmental education with a focus on nature that's close at hand.

In our work with local plants, we obtain permission from the landowners to collect seeds and stock. We then grow them into seedlings and saplings. We handle 30 - 50 types of plants that grow in waterside and land environments, all of which originate in Shiga Prefecture.

We insist on plants native to Shiga Prefecture because focusing on local varieties is an important means of preserving the natural environment. Non-native varieties can disrupt the balance created over the eons between the local ecosystem and its creatures in a manner similar to invasive species. Even if a plant originated in the region, if it's brought in from a distant area, it can lead to genetic crossing and damage the region's unique genetic diversity. As such, our production areas in Shiga Prefecture are precisely demarcated, and growing takes the genetic diversity of the region into account. We are also very careful not to introduce weed seeds or tiny creatures that may be in soil and water brought in from other regions.

There are numerous difficulties with growing native plants. For example, even if some wild trees or shrubs appear similar, depending on the variety their sunlight and soil requirements may differ greatly. We also often handle plants with special requirements that usually are not grown commercially. Through repeated trial and error, we constantly seek methods of raising seedlings that fit the local ecology. It's not easy, but it keeps things interesting.

In the future, we would like to grow a variety of plants like those growing naturally in the mountains so that we can help improve greening.



Notable activities in fiscal 2018

Actions in the Moriyama Area

Ex-situ conservation of endangered smallhead stickleback, a freshwater fish

In Moriyama, we draw groundwater for industrial use in cooling equipment. Its quality is strictly monitored, and it is discharged to nearby rivers after use. A portion of the discharged water from our Moriyama Works is also used for agriculture, which has become vital for local farmers as well as wildlife inhabiting the waterfront areas.

Against this backdrop, and since water is intrinsically related to our business operations, we started initiatives to protect biodiversity with a focus on water resources starting in fiscal 2010.

In fiscal 2015, we began ex-situ conservation activities focused on the smallhead stickleback, a freshwater fish which is designated as an endangered species. In fiscal 2018, we held an event for employees and their families that involved observing the smallhead stickleback in the conservation pond they inhabit. We confirmed the presence of over 50 smallhead sticklebacks, indicating the effectiveness of our conservation activities.



Actions by Asahi Kasei Juko Co., Ltd.

Project to rediscover living with the woods and water in Higashiomi

The Shiga Plant of Asahi Kasei Juko (AKJ) is located in the Yuya area of Higashiomi City where there had formerly been a diverse 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 activities like observation tours. We also hold events at the plant, creating a venue that will lead to the protection of forests and crops as local resources.

In fiscal 2018, in cooperation with Higashiomi City and the neighborhood elementary school, we held wildlife observation tours lead by specialists on holidays and during the plant's fall festival. These took place at the Yuya Hebel Biotope that was created on the grounds in 2017 to protect wildlife inhabiting the lakeside ecosystem.

We report on these activities both inside and outside the company through public relations magazines and other outlets. In March 2019, the Shiga Plant earned a 3-star ranking from the Shiga Biodiversity Initiative. It is the highest rank available in the initiative launched by Shiga Prefecture in FY2018.



Actions in Fuji Area

"Asahi Woods of Life" project

The Asahi Woods of Life was created in 2007 as an ecotope on the grounds of our plant in Fuji City to restore the natural environment and village landscape of the Tagonoura area and preserve the local ecosystem. By developing the Asahi Woods of Life, we nurture local plant and animal life via an ecological network that incorporates forests and the area's green spaces as a whole. We use this to support human development through environmental education and emotional training, applying the insight gained through these activities to business operations.

Principal Activities

- To monitor and manage the growth of the Asahi Woods of Life, we perform surveys of the afforested area, including a fixed vegetation survey, a survey of each tree, a comprehensive vegetation survey, and a survey of birds and insect fauna. We also conduct a monitored survey of the creation of ecological networks in conjunction with ecosystem surveys of nearby parks, residential areas, and elementary schools.
- In fiscal 2018, the results of our studies were presented with a paper and posters in collaboration with external researchers at the Botanical Convention of Japan's 23rd National Convention and at the Ecological Society of Japan's 66th Annual Convention. In addition, we hold lectures and training both within and outside the company, including at the Civic Environment Forum by the Institute for Global Environmental Strategies' (IGES) International Center for Ecology.
- In conjunction with government officials and museum personnel, we hold nature observation tours as part of our environmental education activities in connection with children's environmental clubs and other organizations.
- We also hold a firefly watching event in early summer to deepen communication with the community.
- In recognition of these activities, in July 2019, the project was certified as "Excellent Stage 3" in the Nurturing Category of SEGES (Social and Environmental Green Evaluation System) administered by the Organization for Landscape and Urban Green Infrastructure.



Actions in Nobeoka and the Hyuga Area

The third tree-planting of the Asahi Forest at Hayahi Ridge

On May 11, 2019, our Nobeoka branch planted the third Asahi Forest at Hayahi Ridge in Hayahi, Kitakatacho, Nobeoka City, Miyazaki Prefecture. Since 2007 we have participated in a reforestation program led by Miyazaki prefecture to create forests in cooperation with companies. We planted more than 43 hectares of broad-leaf trees and other trees native to the area, replacing plantations of cedar and cypress. This included 20 hectares in Hinokagecho, 20 hectares in Takachiho, 1 hectare in Gokase, and 2 hectares in Kitakatacho.

This time at the tree planting ceremony we planted a total of 1,500 broadleaf saplings on a 1-hectare site in Kitakatacho's town forest at Hayahi Ridge. The planting included 500 wild cherries, 500 maples, 500 wild chestnuts. The weather was wonderful, and some 450 people participated, including many of our employees and their families, Asahi Kasei retirees, employees of AJS Inc., and other companies in Nobeoka.

A series of events were held including the opening ceremony, tree planting, lunch, a market of local specialties, and a drawing for prizes. Thanks to the cooperation of officials from Nobeoka City and Kitakatacho, members of the Nobeoka District Forestry Association, as well as staff and related parties, it was a tree planting ceremony to remember.



Environmental Data

Investment for environmental protection and safety ▼

Environmental Accounting ▼

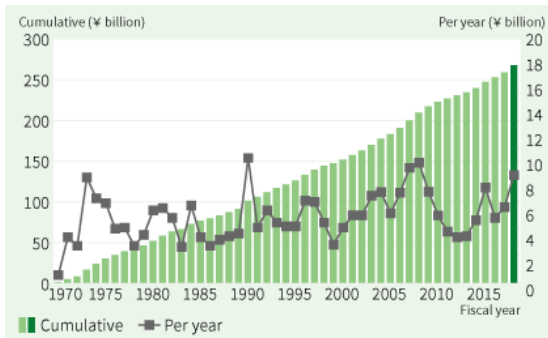
Climate Change ▼

Pollution and Natural Resources / Water Resource Preservation ▼

Investment for environmental protection and safety

Investments in modification for environmental protection and safety in fiscal 2018 were as shown below.

Investment in environmental preservation and safety modification

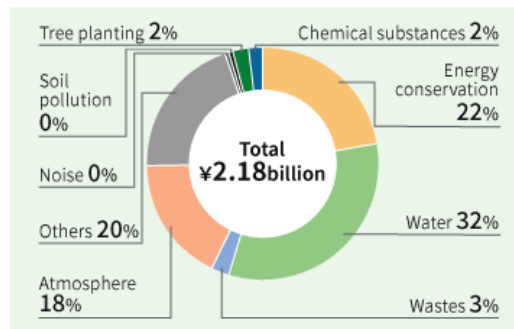


Breakdown of investment

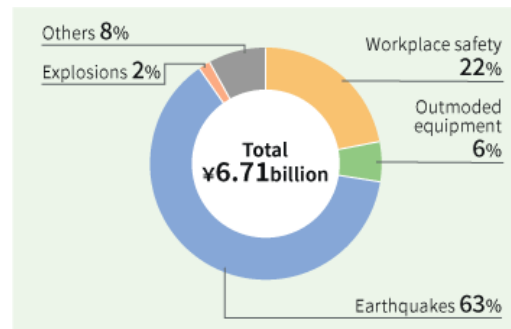
Fiscal year	2014	2015	2016	2017	2018
Environmental	2.42	2.63	2.03	2.98	2.18
Safety	2.78	5.25	3.35	3.30	6.71
Total	5.20	7.88	5.38	6.28	8.89

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

FY 2018 environmental investment



FY 2018 safety investment



Environmental Accounting

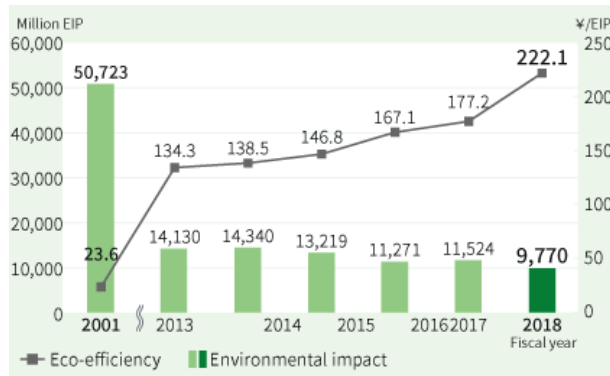
We classify the cost of our measures for environmental protection in accordance with cost classification standards promulgated by the Ministry of the Environment.

Environmental accounting by fiscal year

Cost categories	2014		2015		2016		2017		2018	
	Investment	Expense	Investment	Expense	Investment	Expense	Investment	Expense	Investment	Expense
1 Combined operation area	2,324	10,345	2,041	7,339	1,943	7,320	3,780	9,303	1,942	11,183
1 Pollution prevention	1,058	5,290	1,408	4,466	1,080	4,340	1,881	6,187	944	7,705
1 Global environmental protection	513	2,586	421	689	502	808	929	841	807	1,230
1 Resource circulation	753	2,470	212	2,184	360	2,173	970	2,276	190	2,248
2 Upstream and downstream	0	131	0	131	0	115	0	117	0	140
3 Management	49	3,374	11	1,078	54	1,266	39	1,124	62	636
4 Research and development	471	5,661	329	5,781	158	2,591	114	1,274	119	2,787
5 Community outreach	5	48	11	38	0	36	2	29	0	27
6 Environmental damage	0	190	44	195	49	192	1	203	45	1,128
Total	2,850	19,749	2,435	14,560	2,203	11,520	3,936	12,050	2,169	15,901

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	2018
Environmental impact (million EIP)	50,723	14,130	14,340	13,219	11,271	11,524	9,770
Sales (¥ million)	1,195,393	1,897,766	1,986,405	1,940,914	1,882,991	2,042,216	2,170,403
Eco-efficiency (¥/EIP)	23.6	134.3	138.5	146.8	167.1	177.2	222.1

Greenhouse gas emissions in Japan by fiscal year

	Index set at Kyoto Protocol (1990)	Baseline (2005)	2014	2015	2016	2017	2018
Carbon dioxide*	5.06	4.96	3.98	3.76	3.03	2.93	2.97
Nitrous oxide	6.82	0.76	0.15	0.12	0.13	0.07	0.09
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	0.04	0.04
PFCs	0.01	0.14	0.10	0.12	0.14	0.13	0.11
Sulfur hexafluoride	0.00	0.04	0.01	0.01	0.02	0.01	0.01
Nitrogen trifluoride	-	-	0.00	0.00	0.00	0.00	0.00
Total	12.06	5.92	4.28	4.04	3.35	3.18	3.21

*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.

*CO₂ 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*

	2014	2015	2016	2017	2018
GHG emissions	0.84	0.79	1.00	1.03	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. CO₂ emissions from the burning of by-product gases are mainly calculated by material balance. CO₂ emissions associated with purchased electricity are calculated with the latest available coefficients given in International Energy Agency's CO₂ Emissions from Fuel Combustion.

*Including emissions of special core operating companies

FY2018 greenhouse gas emissions in Japan by company

(million tons CO₂ equivalent)

Asahi Kasei Corp.	Asahi Kasei Microdevices	Asahi Kasei Homes	Asahi Kasei Construction Materials	Asahi Kasei Pharma	Asahi Kasei Medical	Total
2.82	0.18	0.01	0.09	0.02	0.09	3.21

Scope 3 emissions by fiscal year*

(million tons CO₂ equivalent)

	2014	2015	2016	2017	2018
Purchased goods and services	1.43	1.39	2.26	4.54	4.74
Capital goods	0.22	0.22	0.16	0.19	0.29
Fuel- and energy-related activities not included in scope 1 or scope 2	0.13	0.11	0.14	0.21	0.21
Upstream transportation and distribution	0.35	0.46	0.27	0.28	0.30
Waste generated in operations	0.00	0.00	0.00	0.00	0.00
Business travel	0.02	0.02	0.03	0.03	0.03
Employee commuting	0.01	0.01	0.01	0.02	0.03
Upstream leased assets	0.00	0.00	0.00	0.00	0.00
Use of sold products	1.22	1.13	1.07	1.00	0.92
End-of-life treatment of sold products	2.44	2.24	1.93	4.84	4.98
Total	5.83	5.58	5.87	11.11	11.50

*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.

*Including overseas subsidiaries from fiscal 2017

*Calculation method for purchased goods and services:

For fiscal years from 2014 to 2015, 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 CO₂-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.

*Calculation method for use of sold products:

Emissions were calculated for Hebel Haus homes (unit homes and multi-dwelling homes) delivered each fiscal year based on a formula set by Asahi Kasei Homes, with a service life of 60 years as the period subject to calculation, and the effect of emissions reduction calculated based on the different energy conservation equipment actually installed in each case.

*Calculation method for end-of-life treatment of sold products:

Emissions for Asahi Kasei Corp., Asahi Kasei Construction Materials, and Asahi Kasei Medical were calculated by multiplying the weight of products shipped each fiscal year by the respective emission factor for end-of-life treatment of each product. For Asahi Kasei Homes, emissions were calculated by multiplying the number of Hebel Haus buildings delivered each fiscal year by the emission factor.

*From fiscal 2018, the calculation methods for upstream transportation and distribution and for end-of-life treatment of sold products were partially revised to conform to the actual situation. Previous results were recalculated to the extent possible, and figures were revised retroactively to fiscal 2016.

CO₂ emissions from product shipment

	2014		2015		2016		2017		2018	
	Shipment volume (million ton-km)	CO ₂ emissions (tons)	Shipment volume (million ton-km)	CO ₂ emissions (tons)	Shipment volume (million ton-km)	CO ₂ emissions (tons)	Shipment volume (million ton-km)	CO ₂ emissions (tons)	Shipment volume (million ton-km)	CO ₂ emissions (tons)
Asahi Kasei Corp.	751.4	49,500	891.8	56,300	855.6	54,100	906.3	59,830	945.5	62,394
Asahi Kasei Microdevices	0.7	650	1.0	630	1.1	700	1.3	720	1.2	665
Asahi Kasei Homes	258.0	29,000	276.0	30,100	260.4	28,300	244.1	26,760	240.4	25,423
Asahi Kasei Construction Materials	121.0	11,400	116.0	11,100	124.4	12,400	126.7	12,220	128.9	12,669
Asahi Kasei Pharma	5.9	710	4.8	600	2.6	300	2.4	720	4.1	410
Asahi Kasei Medical	28.0	1,500	2.0	250	1.9	200	1.5	340	1.3	177
Total	1,165.0	92,700	1,291.0	99,000	1,246.0	95,900	1,282.2	100,600	1,321.4	101,738

Low-pollution vehicles*

		2014	2015	2016	2017	2018
Used on public roads	Low-pollution vehicles	1,035	1,170	1,238	1,270	1,252
	Other vehicles	89	93	85	93	74
	Subtotal	1,124	1,263	1,323	1,363	1,326
Used within plant grounds	Low-pollution vehicles	373	398	456	534	492
	Other vehicles	322	297	280	250	227
	Subtotal	695	695	736	784	719
Total	Low-pollution vehicles	1,408	1,568	1,694	1,804	1,744
	Other vehicles	411	390	365	343	301
	Total vehicles	1,819	1,958	2,059	2,147	2,045
Proportion of low-pollution vehicles (%)	Used on public roads	90	93	94	93	94
	Used within plant grounds	54	57	62	68	68
	Total	77	80	82	84	85

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

Pollution and Natural Resources / Water Resource Preservation

Treatment and disposal of industrial waste* by company

	(thousand tons)							
	Waste generated	On-site			Effluent	Off-site		
	Recycling	Volume reduction	Landfill	Recycling		Volume reduction	Final disposal	
Asahi Kasei Corp.	254.9	32.7	0.6	0.0	221.5	219.0	1.8	0.7
Asahi Kasei Microdevices	2.0	0.0	0.0	0.0	2.0	1.9	0.1	0.0
Asahi Kasei Homes	6.3	0.0	0.0	0.0	6.3	6.3	0.0	0.0
Asahi Kasei Construction Materials	56.3	34.7	0.0	0.0	21.6	21.5	0.0	0.0
Asahi Kasei Pharma	0.8	0.0	0.0	0.0	0.8	0.8	0.0	0.0
Asahi Kasei Medical	13.9	0.0	0.0	0.0	13.9	13.9	0.0	0.0
FY2018	334.2	67.4	0.6	0.0	266.1	263.5	1.9	0.7
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
FY2010	316.9	3.5	187.5	0.1	170.8	122.0	21.9	26.8

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

FY2018 off-site final disposal by category of waste*

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

	Volume (thousand tons)	Percent of total
Sludge	0.168	24.1
Plastic waste	0.146	20.9
Mixed waste from construction	0.113	16.2
Debris	0.082	11.8
Glass/ceramic waste	0.075	10.7
Others	0.114	16.3
Total	0.696	100.0

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

(thousand tons)

Fiscal year	2000	2014	2015	2016	2017	2018
New construction	16.6	0	0	0	0	0
Dismantling	39.1	12.3	10.2	11.8	11.7	14.1
Total	55.7	12.3	10.2	11.8	11.7	14.1

ALC trimmings recycled by Asahi Kasei Construction Materials

(tons)

Fiscal year	2014	2015	2016	2017	2018
Hebel™ panels	370	450	300	260	360
Cement material	3,400	2,300	1,800	1,400	970
Lightweight artificial soil	0	0	0	0	0
Total	3,700	2,800	2,100	1,700	1,330

Release and transfer of PRTR-specified substances by fiscal year

(tons)

Fiscal year	2000	2014	2015	2016	2017	2018	
Release to:	Air	4,720	360	390	350	330	520
	Water	170	80	70	60	60	50
	Soil	0	0	0	0	0	0
Total	4,890	440	450	410	390	570	
Reduction rate (%)	—	91	91	92	92	88	
Transfer	2,100	3,100	2,300	2,900	2,800	2,500	

VOC* emissions

Fiscal year	2000 Baseline year	2014	2015	2016	2017	2018
Volume (tons)	10,400	1,300	1,300	1,300	1,350	1,400
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.

FY2018 release and transfer of PRTR-specified substances

(tons)

Company	Sites	Substance	Air	Water	Soil	Total	Transfer
Asahi Kasei Corp.	Others	Toluene	20	0	0	20	0
	Nobeoka	Toluene	6	0	0	6	4
		n-Hexane	6	0	0	6	0
		1,1-Dichloroethylene (vinylidene chloride)	32	0	0	32	227
		Dichloromethane (methylene chloride)	12	0	0	12	0
		Chloroethylene (vinyl chloride)	9	0	0	9	38
		Chlorodifluoromethane (HCFC-22)	6	0	0	6	0
		Boron compound	0	6	0	6	0
	Copper water-soluble salt	0	8	0	8	0	
	Moriyama	Dichloromethane (methylene chloride)	14	0	0	14	0
		N,N-dimethylacetamide	5	0	0	5	250
	Mizushima	n-Hexane	261	0	0	261	8
		Molybdenum and its compounds	0	22	0	22	0
	Kawasaki	n-Hexane	67	0	0	67	14
Methyl methacrylate		15	0	0	15	0	
Asahi Kasei Medical Corp.	Nobeoka	N,N-dimethylacetamide	2	6	0	8	167

*Substances listed are those of which total release was 5 tons or more.

*Amounts are rounded to the nearest ton.

Release of air and water pollutants by fiscal year

	Unit	2014	2015	2016	2017	2018
SOx* ¹	Tons	5,700	7,700	6,100	6,600	6,030
NOx* ²	Tons	3,600	4,000	3,300	3,200	3,220
Soot and dust* ³	Tons	180	130	100	100	130
Waste water effluence	million m ³	210	200	200	199	209
COD* ⁴	Tons	810	770	760	720	790
Nitrogen	Tons	5,900	6,300	6,500	6,100	6,940
Phosphorus	Tons	32	27	20	20	20

FY2018 release of air and water pollutants by site

	Unit	Nobeoka	Mizushima	Moriyama	Fuji	Ohito	Kawasaki	Others	Total
SOx	Tons	5,580	180	0	0	1	0	270	6,030
NOx	Tons	2,010	1,080	30	3	15	8	80	3,220
Soot and dust	Tons	40	80	1	0	0	0	5	130
Waste water effluence	million m ³	145	35	10	10	0	0	7	209
COD	Tons	690	50	6	20	0	3	30	790
Nitrogen	Tons	6,660	210	8	60	1	1	5	6,940
Phosphorus	Tons	8	3	1	7	0	0	0	20

*¹ 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 (SO₂) is most common, but some sulfur trioxide (SO₃) also forms. The term SOx is inclusive of both of these.*² 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 (NO₂).*³ Soot and dust are fine particles formed in the combustion of fuel and other materials.*⁴ COD (chemical oxygen demand) is an indicator of water pollution by organic substances, 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 m³)

		2014	2015	2016	2017	2018
Domestic	Usage	272	274	272	266	294
	Effluence	210	200	199	199	209
Overseas	Usage	6	6	23	16	13
	Effluence	6	6	17	11	8

Water usage and sources by fiscal year in Japan

(million m³)

	2014	2015	2016	2017	2018
Total	272	274	272	266	294
Municipal water	10	9	10	10	9
Ground water	24	24	23	23	22
Industrial water	238	241	239	234	263

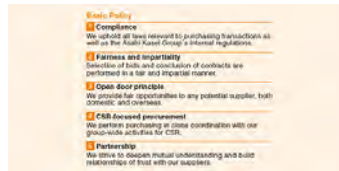
Society

The Asahi Kasei Group aims to be a corporate entity that contributes to sustainable society in harmony with the community by taking social issues into consideration and striving for fair information disclosure.



Quality Assurance

We deliver safe and reliable products and services to our customers and strive for genuine communication with our customers.



CSR Procurement

We work to promote CSR in partnership with our suppliers through fair and transparent business activities that take account of environmental issues and human rights.



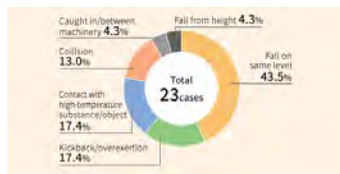
Human Resources

We respect each and every employee and aim to create a rewarding and vibrant workplace. We will feature our approach to employment, and human resources, human resources development, active engagement, and diversity.



Human Rights

We provide support so that all people involved in the business activities of the Asahi Kasei Group can reach their full potential without any discrimination.



Occupational Health and Safety

We engage in diverse activities based on an occupational safety and health management system (OSHMS) to achieve employee health and safety in the workplace.



Process Safety

We continually make voluntary efforts to ensure operational safety in accordance with our Basic Policy on Safe Operation.



Social Activities

We aim to contribute to community development through proactive communication with everyone in the local community and a diverse community fellowship program all around Japan.

Quality Assurance

Policy

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

In 2016, we established the Asahi Kasei Group Quality Policy and Group Quality Assurance Bylaws. Based on these, we promote quality assurance to provide products and services that satisfy our customers.

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

In April 2019, we appointed a dedicated Executive for Quality Assurance to further reinforce the management framework.

Corporate Quality Assurance of Asahi Kasei Corporation oversees and coordinates Group-wide quality assurance activities. In addition to the Quality Assurance Group, Corporate Quality Assurance is composed of the Chemicals Management Group, which functions to ensure quality assurance as a comprehensive chemical manufacturer, and the Pharmaceutical Affairs and Reliability Assurance Group, which functions to ensure quality assurance in the provision of products and services in the health care area. Corporate Quality Assurance serves a head-office function as a hub for the Group's quality assurance framework and strives to reinforce quality assurance activities throughout the Asahi Kasei Group to deliver safe and reliable products and services to our customers.

Each core operating company and strategic business unit within the Group performs quality assurance in accordance with the products and services provided in each business area in conformity with uniform Group guidelines and bylaws.

The Group Quality Assurance Bylaws stipulate quality assurance activities for RC administrators to lead. The bylaws also define the central role of quality assurance managers in activities to enhance quality assurance. The quality assurance managers' conference is held four times a year to transmit and share information among the entire Asahi Kasei Group.

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

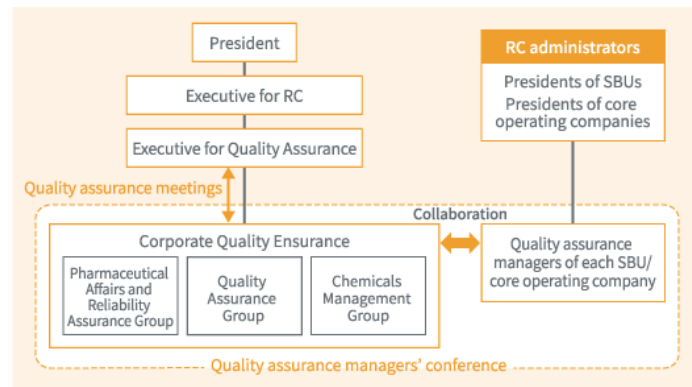


Diagram of quality assurance framework

Quality assurance meeting (held each month):

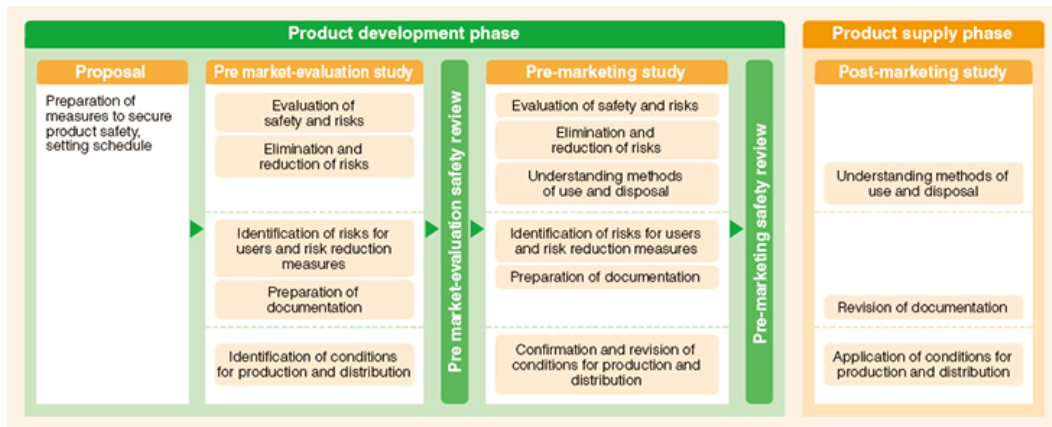
Based on the Monthly Quality Assurance Report prepared by Corporate Quality Assurance, the Executive for RC holds the quality assurance meeting to discuss information related to quality assurance.

Quality assurance managers' conference (held four times a year):

Quality assurance managers, who play a central role in strengthening quality assurance, meet to transmit and share information among the entire Asahi Kasei Group.

Product safety and product liability

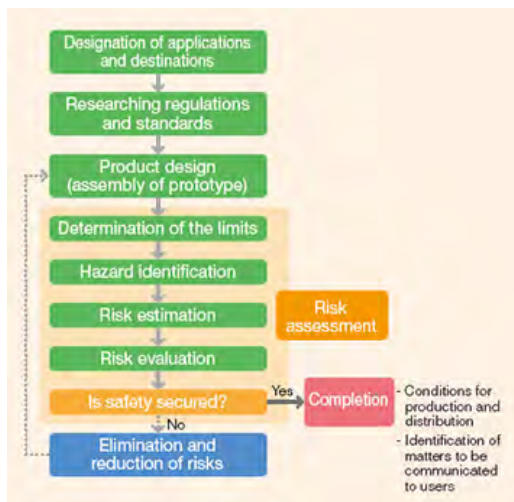
The Asahi Kasei Group has also formulated the Group Guidelines for Product Safety Measures in order to make the approach to product safety and product liability in the Group Quality Assurance Bylaws even more specific.



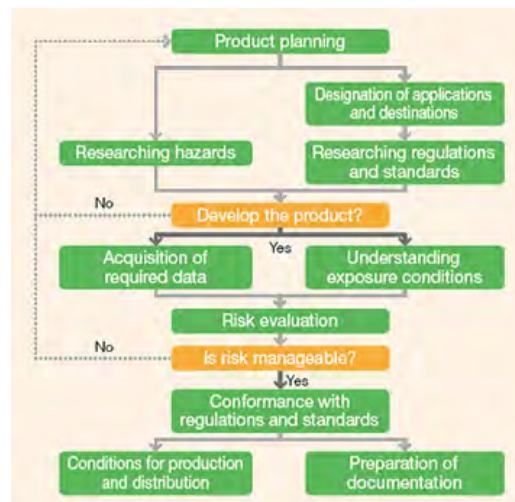
Flow of product safety measures

Product safety

The procedures for realizing safe products and services are specified by the Guidelines for Ensuring Safety of Equipment and the Guidelines for Ensuring Safety of Chemicals.



Product safety procedure for equipment

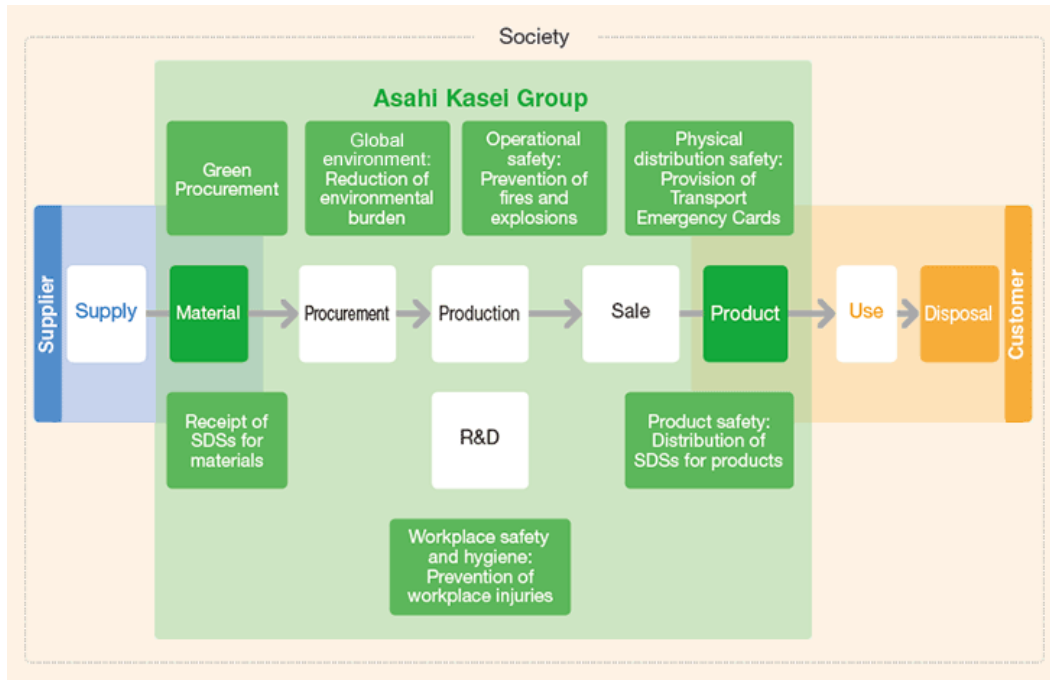


Product safety procedure for chemicals

Chemical substance management

The Asahi Kasei Group identifies the properties of chemical substances and appropriately manages each process from product development, raw material procurement, and production (including intermediates) through to use and disposal in order to ensure the safety of products and production processes. We implement the chemical substance management shown in the diagram below at each stage from the perspectives of the global environment, operational safety, workplace safety, hygiene, and health, and quality assurance (product safety).

Corporate Quality Assurance (Chemicals Management Group) serves as the secretariat for the implementation of chemical substance management in each business unit led by the Group's quality assurance managers.



Chemical substance management flow

Research and development

The management of chemical substances begins in the R&D stage when the applications for chemical substances are determined, and is guided throughout every stage by a commitment to developing products and process characterized by safe, environmentally sound production, handling, and use.

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 and to prevent fires, explosions, and leaks. The health of employees is protected by performing sound risk assessment for chemical substances and preventing workplace exposure to hazardous substances.

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.

Quality assurance training for employees

Development of core human resources for quality assurance

We held the Quality Assurance Forum, which was launched as a new initiative in fiscal 2017, again in fiscal 2018 to continue heightening awareness of quality assurance among younger and mid-level employees across the Group. Approximately 30 employees selected from throughout the Asahi Kasei Group gathered at the head office for half a day once per month from October to March. The forum consisted of group discussion on the given subject together with lectures on the same subjects from 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 2019 onward and increase the number of participants as a core element of in-house quality assurance training.

We also held quality management seminars for department managers who we had not received the Group's uniform quality assurance training, with instructors invited from other companies.

Chemical substance management training

We provide regular training to research, production, and sales staff in each area of the Asahi Kasei Group. Such training includes sharing the most up-to-date information on chemical substance-related laws and regulations (Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., Industrial Safety and Health Act, Poisonous and Deleterious Substances Control Act, etc.) in Japan and overseas for the management of chemical substances and consideration of responses, and presentations of the latest themes in chemical substance management.

Appropriate labeling and information provision

Providing appropriate information to our customers

The Asahi Kasei Group, which provides customers with products and services that are end products for domestic and household-use products, provides information that includes product performance, precautions, and suggested usage to ensure safe use of our products and services.

We endeavor to provide descriptions of products and services to customers, including product labeling and advertisements, that are easy to understand and not misleading. In addition, we confirm the content of descriptions and advertisements of products and services at each stage from product development and introduction to sale, and continuously check that there is no infringement of related laws, regulations, or voluntary industry standards, and confirm that customers are able to properly use products and services safely and reliably.

Responding to Globally Harmonized System (GHS)

Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is a system for classifying and labelling chemicals in accordance with globally unified rules in order to help with accident prevention and health and environmental protection. The Asahi Kasei Group is 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.

Participating in Japan Initiative of Product Stewardship (JCIA)

The Japan Initiative of Product Stewardship (JIPS)* is a voluntary program by the JCIA which has promoted voluntary risk assessment and management of chemical substances, and encouraged enhanced product stewardship in Japan. Going forward, the Asahi Kasei Group will continue to promote voluntary activities in step with activities by the JCIA to promote the initiative.

* 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.

REACH compliance

We conduct internal education and training on REACH*¹ requirements and periodically hold meetings among related parties. To fulfil our obligations related to SVHC*² 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*³ regulations.

*¹ 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.

*² Substances of Very High Concern. Substances added to a list of candidates for authorized regulation.

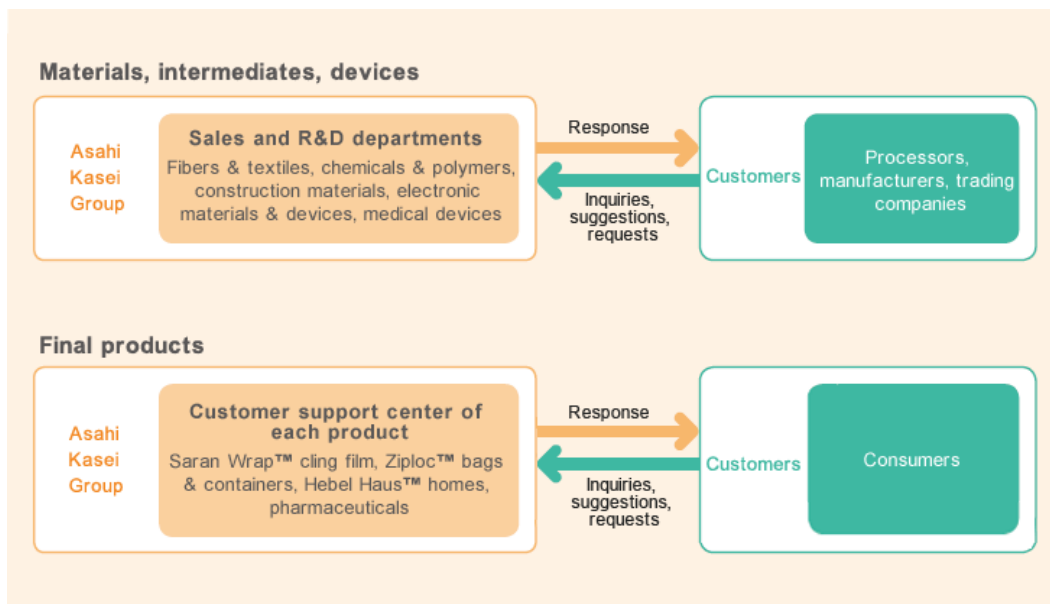
*³ CLP is a regulation in Europe on classification, labeling, and packaging of substances and mixtures in accordance with GHS.

Joint Article Management Program (JAMP) and chemSHERPA

As a major upstream company, we participate in the activities of the steering committee and individual committees of JAMP relating to the transmission of information on chemical substances contained in products throughout the supply chain and work actively on building tools and systems as well as revision of the list of applicable substances. In fiscal 2018, we engaged in activities to encourage greater adoption of chemSHERPA (a scheme for transmission of information on chemical substances contained in products) while making active efforts to provide and obtain information throughout the supply chain. Going forward, as a major upstream company, we will continue to work with the JAMP Office toward the greater adoption of chemSHERPA.

Mechanisms to utilize customer feedback

We believe satisfying customers and providing products and services that are a delight to use translates into contribution to society. In order to achieve this, we believe that it is most important to identify true needs by listening carefully to customer feedback to establish two-way communication. The Asahi Kasei Group has built frameworks for such communication with customers in each of our businesses and strives to listen to frank and honest feedback.



Communication with customers

Product and business inquiries >

CSR Procurement

Policy

The Asahi Kasei Group considers suppliers to be important partners in the pursuit of our Group Philosophy, and works to treat them with sincerity. Our Mission and Vision for procurement are an expression of our ideals to apply in daily activities as we work to uphold our Procurement Policy and promote procurement practices with an emphasis on CSR.

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.

Procurement Principles

Mission

Achieve trustworthy procurement that contributes to the sustainability of society and the sustainable growth of corporate value

Vision

Building a sustainable supply chain for the Asahi Kasei Group

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.

The Asahi Kasei Group Procurement Principles

Management framework

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

Evaluation of CSR at suppliers

We conduct supplier surveys as part of our CSR procurement from two perspectives, which are evaluation at the commencement of new transactions and ongoing evaluation of suppliers.

Before commencing transactions with a new company, we conduct an evaluation which includes CSR through preliminary screening based on our Purchasing and Procurement Policy.

We also conduct a CSR survey of continuing suppliers every year so that they engage in business activities with an awareness of CSR and strive to foster awareness of CSR in transactions.

In 2018, we further enhanced the content of the survey questions and asked 185 major suppliers (including distributors and agents) to participate in the CSR survey, all of whom responded. We provided suppliers with feedback on their scores for each category of questions and requests for improvements.

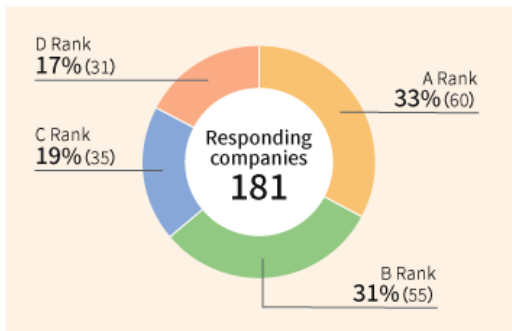
Question categories

1. Corporate governance related to CSR
2. Ethics and compliance
3. Information security
4. Intellectual property rights
5. Human rights and labor
6. Workplace safety and hygiene
7. Product safety and quality assurance
8. Security (export control)
9. Environmental conservation
10. Timely and appropriate provision of information and communication to stakeholders
11. Harmony with the local community
12. Supply chain

Fiscal 2019 CSR procurement survey 

FY 2018 CSR Procurement Questionnaire Results

In FY 2018, we asked 181 of our major equipment material and construction customers to take a questionnaire and received responses from all of them. We added and expanded the number of existing questions (8⇒12 items, 52⇒85 questions), and particularly increased social questions in order to monitor the ESG management status at each company in the future. By item, "Security (export control)" and "Human rights and labor" scores were high, while scores for "Information disclosure to stakeholders" and "Coexistence with the local community" were relatively low.



FY 2018 CSR Procurement Questionnaire (Comprehensive Evaluation)



Average scores by item

We will meet directly with customers ranked C and D before the next questionnaire is conducted, and deepen their understanding of improvement activities as necessary.

Communication with stakeholders

Safety seminars are periodically held at our principal production sites to discuss accident prevention and exchange information with suppliers. The Asahi Kasei Group compliance hotline also accepts reports and inquiries from suppliers.

Response to conflict minerals

It is a global trend that more and more countries are banning the procurement of minerals from inhumane armed groups, particularly in the Democratic Republic of the Congo and neighboring countries. In the US, this is required by the Dodd-Frank Act of 2010.

Asahi Kasei considers conflict minerals to be a serious issue, and our policy is to ensure transparency in our supply chains and to procure minerals responsibly. We do not obtain, procure, or utilize minerals from armed groups, and avoid supporting conflict and inhumane activities.

Human Resources

Approach to human resources and employment

Human resources development and active engagement

Diversity

Policy

The Asahi Kasei Group believes that all of the human resources working at the Group are the source of new value creation based on their diversity and capability to change.

The Asahi Kasei Group endorses international frameworks related to labor such as the principles of the UN Global Compact, which the Group has signed. In the Asahi Kasei Group Code of Conduct, we stipulate that we do not tolerate inhumane practices such as child labor and compulsory labor, we prohibit discrimination for any reason, including employment status, and we practice business honestly and with a sense of responsibility. We not only comply with labor-related laws and regulations in Japan and overseas, including working hours and minimum wages, but also strive to create a working environment in which our employees can reach their full potential and work safely and with peace of mind.

Asahi Kasei Group employee data

		(FY)				
		2014	2015	2016	2017	2018
Number of Group employees		30,313	32,821	33,720	34,670	39,283 ^{*1}
Number of new recruits	New graduates	353	397	435	514	565 ^{*2}
	Mid-career recruits	61	74	128	232	487 ^{*3}

*1 March 2019 *2 April 2018 *3 April 2018 – March 2019

Management framework

General Affairs and the Human Resources and Organizational Development Group at Human Resources oversee initiatives related to personnel and labor management and human resource development. Each Group company operates its own personnel system and strives for human resource development. The Group-wide status is confirmed through regular audits to ensure there are no violations of laws and regulations or improprieties.

Initiatives for compliance with labor standards and work style reform

We strive to ensure legal compliance through such means as holding training sessions for general affairs and personnel staff at Group companies to promote their understanding in order to ensure Group-wide legal compliance.

In fiscal 2017, Asahi Kasei Corp. also established an expert committee for the labor union and company to examine work style reform, and measures examined by the committee have been implemented. In fiscal 2019, we introduced a work from home program as an environment that will enable diverse human resources to be actively engaged. Moreover, we have increased the number of annual leave days by one day to reduce working hours. In addition to this, we monitor workplaces that have comparatively long working hours with the aim of preventing excessive working hours at the level of each organization.

Specific work style reform initiatives (adopted in fiscal 2019)

- Work from home program
- Availability of paid annual leave in one-hour units
- Increase in number of annual leave days by one day, etc.

Preventing harassment

The Asahi Kasei Group Code of Conduct clearly stipulates a policy of zero tolerance for any kind of discrimination or harassment. To this end, we explicitly prohibit sexual harassment and other forms of harassment in our employment regulations. We also seek to instill our company policy of zero tolerance for any kind of discrimination or harassment through training on corporate ethics for employees at each level – new hires, and newly appointed assistant managers and managers. In addition, we implement corporate ethics training by business unit and geographical area. During fiscal 2018 and fiscal 2019, we have been holding seminars through the Asahi Kasei Group focused on the theme of fostering a corporate culture where there is no power harassment.

We have established a central point of contact for consultation about harassment and a compliance hotline (internal reporting system) that ensure anonymity for responding to various inquiries and concerns on related issues 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 Group-wide effort to prevent the occurrence of harassment.

Employee survey

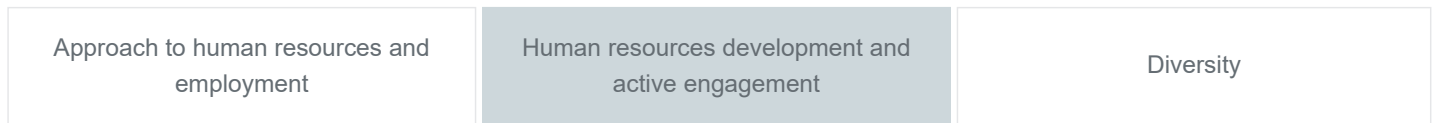
Management and labor work in concert to resolve people-related issues based on mutual understanding and awareness. As part of this, we regularly perform a survey of employees every three years to provide information to line managers that will guide organizational invigoration and management, gauge improvements to previously identified problems and track changes in employee perceptions over time. Survey results are also utilized in the evaluation of initiatives in each department and the consideration of new Group-wide measures.

Communication between management and labor

The Asahi Kasei Group supports employees' freedom of association and right to collective bargaining and 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.

Human Resources



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.

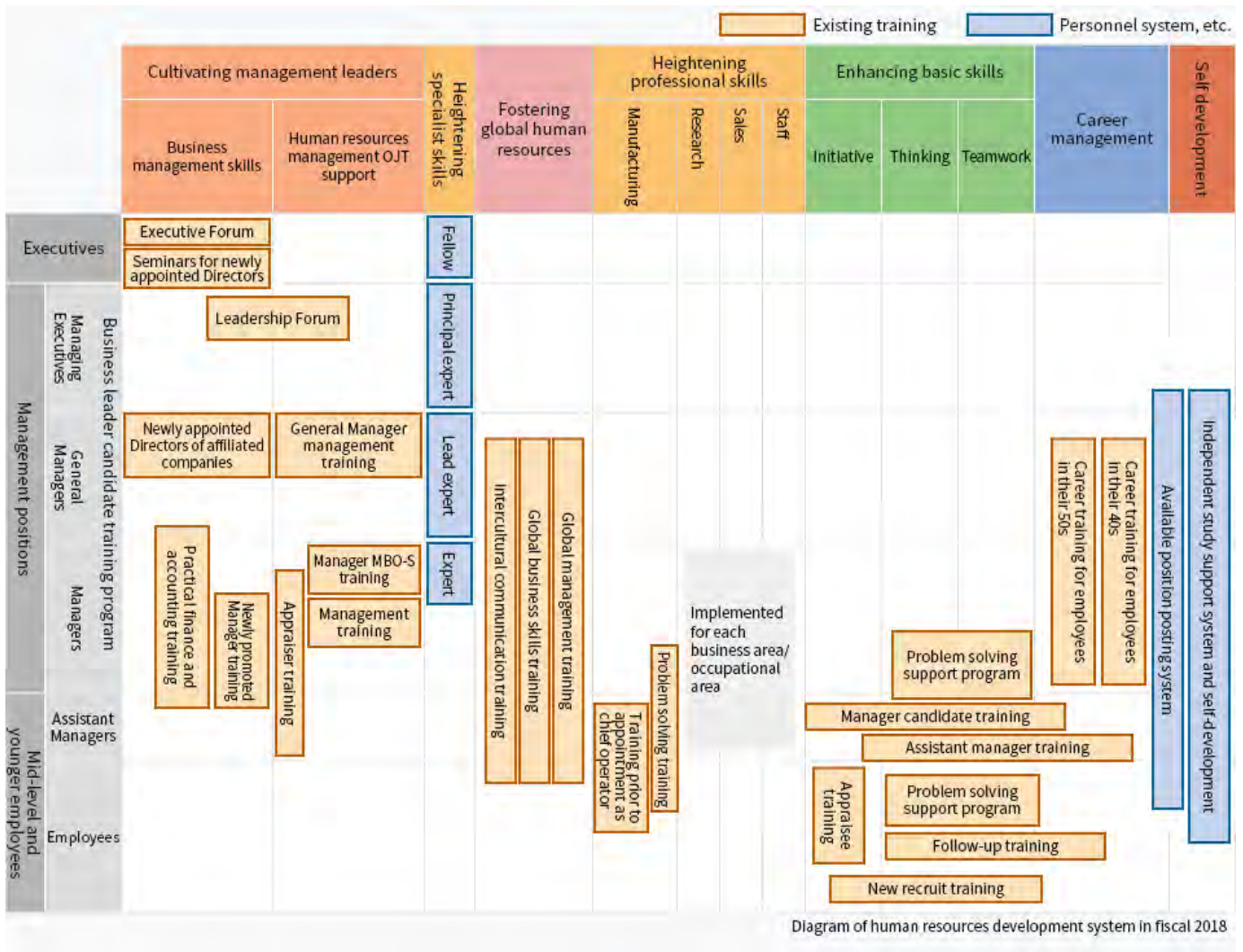
Basic Expectations

- 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. As part of the medium-term plan beginning in fiscal 2019, efforts for human resources are focused on the growth of management and leaders, growth of professional groups and line managers who manage them, and growth of global personnel.



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 to support employee skill development and business execution.

In addition, since fiscal 2018 when the number of career-track recruits increased, we have held a career-track recruit conference in Nobeoka, Miyazaki Prefecture, where our company was founded, as an opportunity for recruits to be aware of our history and culture.

/// Group Masters

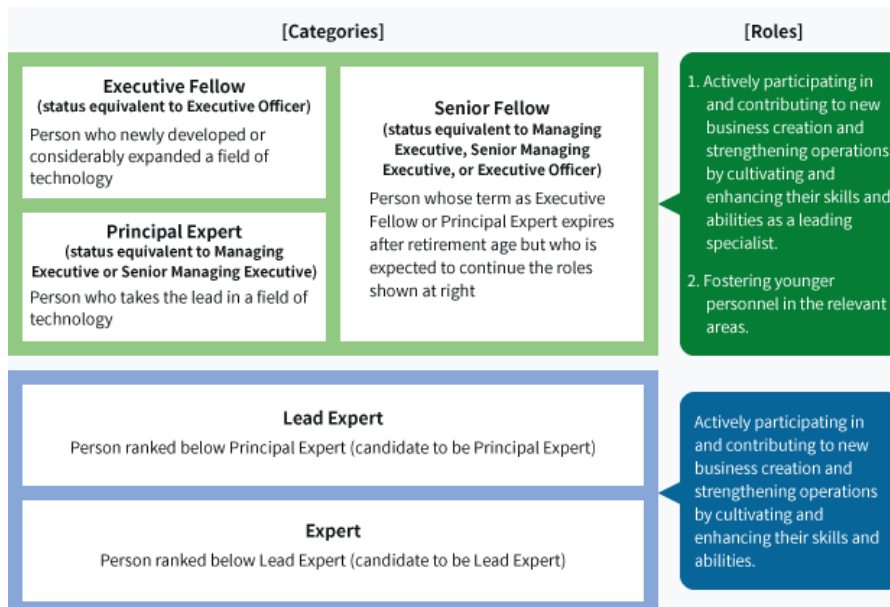
For the Asahi Kasei Group to achieve sustainable growth amid dramatic changes in the business environment, we must seek growth and win in the global market. Human resources hold the key for doing this.

In this situation, Asahi Kasei Corp. employs a "Group Masters" program to broaden the segment of human resources with expertise that holds universal value through the appointment, training, and treatment of human resources expected to be actively involved and participating in creating new business and strengthening existing business as "Group Masters."

Under the program, we have defined five categories of Group Masters. We have clarified the respective roles of each Group Master category and enhanced treatment to create a mechanism that encourages the growth of human resources while securing outstanding external human resources at the same time.

We have also formulated a succession plan for Group Masters in each field, and have linked the succession plan to business reinforcement and human resource development, which will strengthen our competitive edge.

Categories and roles of Group Masters



Target areas

We define fields of technology to be strengthened business-wide as "core technologies" and appoint engineers to lead each core technology field as Group Masters.

As a result of organizing the core technologies, production technologies, know-how, business platforms, diverse market channels and business models, which have been cultivated as the source of the Asahi Kasei Group's competitiveness, we defined the 11 fields below as business-wide core technologies. We will also define the fields and occupational categories to be cultivated internally as experts for business-specific fields and key Group-wide functions (core platform fields) and will appoint human resources to lead those areas as Group Masters.

Core technology fields	Business-specific fields	Core Platform fields
<p>(1) Fibers (polymerization, spinning and cellulose) (2) Membranes and separation (3) Electrochemistry (electrolysis and batteries) (4) Polymers (design, polymerization, processing, and applications) (5) Catalysts, chemical processes, and inorganic synthesis (6) Compound semiconductors (7) Analysis and CS (8) Process development and construction technologies (9) Product design and advanced control (10) Plant engineering (11) Digital innovation</p> <p>Note: Fields confirmed and reviewed as necessary every year</p>	<p>Target fields are defined and Group Masters are appointed for each business in the Material sector (Asahi Kasei Corp. and Asahi Kasei Microdevices Corp.) and Asahi Kasei Pharma Corp., Asahi Kasei Medical Co., Ltd., Asahi Kasei Homes Corp., and Asahi Kasei Construction Materials Corp.</p>	<p>Examples of target fields</p> <p>Administration-related: Legal affairs, accounting and tax, trade and customs</p> <p>Technology-related: Intellectual property, environment and safety, quality assurance, etc.</p>

Development of global human resources

To maintain the global business expansion under our "Cs+ for Tomorrow 2021" medium-term management initiative from the perspective of human resources, we are implementing measures such as overseas internship programs for young personnel, including practical overseas training and short-term overseas study programs, and holding training sessions for personnel at overseas subsidiaries on subjects such as overseas post succession planning, 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. In fiscal 2018, a total of 771 employees utilized the program.

Human Resources

Approach to human resources and employment

Human resources development and active engagement

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" as company policy. We promote the establishment of a lively workplace which ensures equal opportunity and enables all employees to perform at their best without suffering discrimination. We seek to instill our company policy to prevent any discrimination or harassment through training on corporate ethics for employees at each level – new hires, and newly appointed assistant managers and managers. In addition, we implement corporate ethics training by business unit and geographical area.

Management framework

The Asahi Kasei Group believe that developing into a people-oriented organization in which human resources with diverse values are actively engaged is essential for sustainable business growth. To promote diversity including the engagement of various employees, we have a Diversity Promotion Group which advances diversity management throughout the Asahi Kasei Group.

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 622 in June 2019. To support female personnel through life events such as childbirth and parenting, we hold seminars on returning to work after maternity leave, and provide a mentoring program that encourages female managers to further develop their careers.

In fiscal 2016, we also formulated an action plan and targets below in accordance with the Act on Promotion of Women's Participation and Advancement in the Workplace.

■ 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

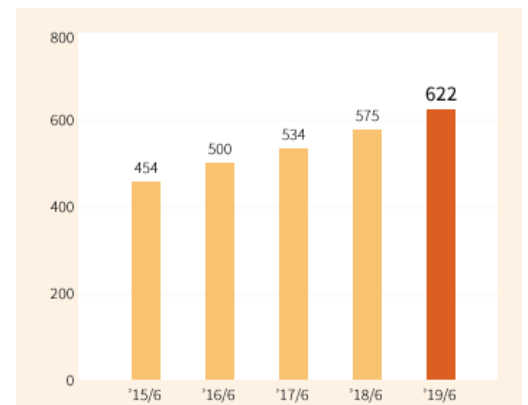
April 1, 2016 – March 31, 2021

■ 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

* 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.



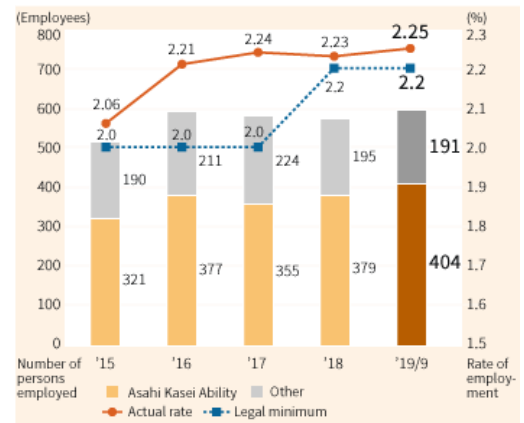
Number of women as managers*

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

Employment of persons with disabilities

Asahi Kasei Ability Corp. was established in 1985 as a special subsidiary for the employment of persons with disabilities, performing a wide range of services for the Asahi Kasei Group, including office automation services such as data entry, digitizing documents (conversion to PDF files), website design, printing of business cards, document printing and binding, dispatch of sample products, cleaning, copying, and planter box gardening.

On April 1, 2018, the legal minimum proportion for employment of persons with disabilities was revised upward from 2.0% to 2.2%. The proportion for applicable companies of the Asahi Kasei Group exceeded 2.2% throughout the year and as of June 1, 2018, stood at 2.25% (595 persons), exceeding the legal requirement.



Rate of employment and number of persons with disabilities employed*

*The rate of employment and the number of persons employed are the average figures for each fiscal year for applicable companies of the Asahi Kasei Group. Calculations are based on total employment of 26,410 persons at the 21 applicable companies as of June 1, 2019. As of June 1, 2019, 404 of the 595 persons with disabilities employed were employees of Asahi Kasei Ability (number of persons calculated in accordance with the Act on Employment Promotion, etc. of Persons with Disabilities).

Initiatives at Asahi Kasei Ability

Asahi Kasei Ability, which actively employs persons with disabilities, completed its new Mizushima office building in June 2018 and opened the Osaka office in October. Asahi Kasei Ability is expanding the size of its business, including the establishment of the Agriculture Promotion Group at the Nobeoka office in January 2019 to engage in full-scale agriculture as part of its work design for employees.

In addition, many employees of Asahi Kasei Ability compete in several prefectural Abilympics each year. Employees who win gold medals at the prefectural competitions qualify to compete in the National Abilympics. In fiscal 2018, 11 employees represented several prefectures in the fiscal 2018 National Abilympics held in Okinawa Prefecture and displayed their skills cultivated through daily work and practice. A total of 50 employees have competed in prefectural Abilympics in Miyazaki, Okayama, Osaka, Shizuoka, and Tokyo in fiscal 2019 with the aim of qualifying for the National Abilympics to be held in Aichi Prefecture in November.



New Mizushima office building completed in June 2018



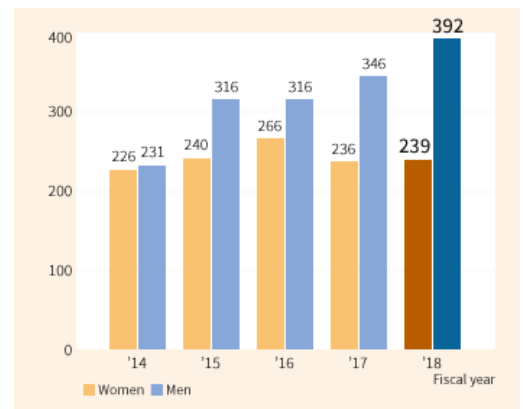
Work in the Agriculture Promotion Group, Nobeoka office

Balancing work and family life

In order to improve the balance of work and family life, the Asahi Kasei Group complies with laws and regulations aimed at eliminating and reducing long working hours and provides 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. At the same time, we also foster a workplace environment that facilitates utilization of the provisions by raising awareness of them through our corporate intranet and offering management support for superiors. Many of the provisions we offer are also available to non-regular employees with some changes to the details, and are actually utilized by them.

Parental leave

Our parental leave is available through the fiscal year in which the child turns 3 years old. In fiscal 2018, parental leave was utilized by 631 personnel. This is included 392 men, with the rate of those who were qualified and actually utilized the leave exceeding 40% for the past four years in a row, and 239 women. Among the employees on parental leave scheduled to return to work in fiscal 2018, 100% of men and 98% of women returned to work on schedule.

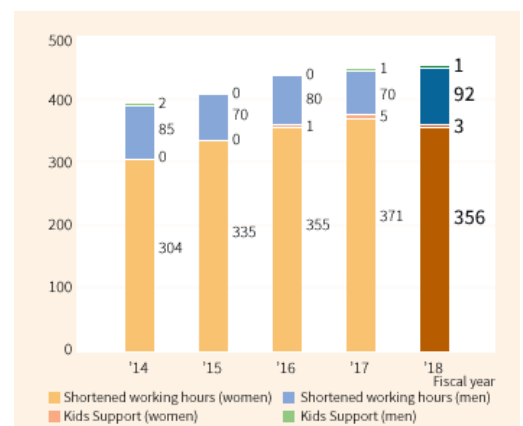


Employees using parental leave

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 2018, 20 non-regular employees utilized these provisions.



Utilization of shortened working hours and Kids Support for child care

Platinum Kurumin certification mark

In 2016, Asahi Kasei Corp., Asahi Kasei Microdevices Corp., Asahi Kasei Pharma Corp., Asahi Kasei Medical Co., Ltd., and Asahi Kasei Ability Corp. 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 particularly outstanding.

Asahi Kasei Ability Corp. is the first company in Miyazaki prefecture to receive Platinum Kurumin certification.



Support for family care

The Asahi Kasei Group has established systems to support caring for family members* that go beyond legal stipulations to provide support for balancing work with care for family members.

*Leave of absence for family care: a leave of absence of one year in total is available for each disease of each family member who requires care.

Shortened working hours for family care: available twice in three years for each family member who requires care, also available for second and subsequent diseases.

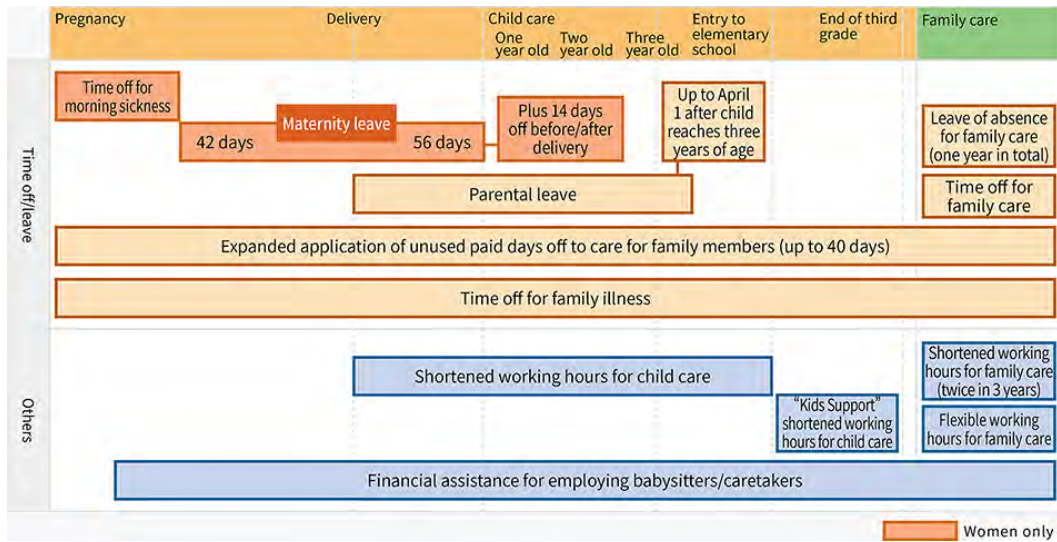
Flexible working hours for family care: "flex-time" system for working with short core times, etc.

At the same time, in order to create an environment that facilitates utilization of these provisions, we disseminate information on balancing work and family care and information about these provisions through our corporate intranet. Other efforts include the distribution of a booklet on balancing work with care for family members since January 2013 and the holding of a seminar for superiors with subordinates who are balancing work with family care in February 2019.

In addition, in April 2019, we launched a free-of-charge telephone consultation service that is available 24-hours a day every day of the year for Asahi Kasei Group employees and their family members. This service supports balancing work with care for family members by providing the opportunity to consult with family care experts.



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 2018, this provision was utilized by 18 personnel.

Re-employment of employees at mandatory retirement age

In fiscal 2001, we introduced a voluntary re-employment program for all employees who have reached the retirement age of 60 to enable them to continue working and making use of their extensive experience and advanced skills. In fiscal 2013, we conducted a revision to increase the fixed amount of compensation by 1.5 times in order to maintain the same motivation and satisfaction as before retirement. In fiscal 2018, approximately 80% of employees who reached retirement age utilized the program to be actively engaged.

Human Rights

Policy

The Asahi Kasei Group supports the International Bill of Human Rights consisting of the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights and its two Optional Protocols, and strives to respect basic human rights and diversity. The Asahi Kasei Group Code of Conduct clearly states the Group's approach on human rights to our employees, and we strive to instill our approach through multi-lingual editions of the Asahi Kasei Group Code of Conduct as well as training.

In addition, as a signatory of the UN Global Compact, we endorse the Global Compact principles relating to human rights as well as the UN Guiding Principles on Business and Human Rights and the Children's Rights and Business Principles. Based on this framework, we will strive to identify and appropriately deal with human rights issues in our business activities.

Asahi Kasei Group Code of Conduct (10) Respect for Human Rights and Diversity

The Asahi Kasei Group respects individuals' basic human rights and diversity, and endeavors to provide a workplace that enables anyone to be actively engaged.

a. Respecting Basic Human Rights and Diversity

Our employees must respect individuals' basic human rights and diversity and, along with the basic policy of the Asahi Kasei Group regarding prohibition of discrimination on any protected category under applicable law, such as nationality, ancestry, race, ethnicity, religion, gender, ideology, age, physical characteristics, sexual orientation, employment status, form of contract, etc., our employees must not condone such discrimination.

b. Prohibition of Harassment

Our employees must maintain a workplace free of unlawful harassment, whether moral, sexual harassment, physical or psychological, etc., and our employees must not condone such words or deeds.

c. Prohibition of Inhumane Labor Practices

Based on respect for basic human rights, our employees must not condone inhumane practices such as compulsory labor, child labor, slavery, etc. Furthermore, our employees must not condone such practices done by our suppliers.

Participation in human rights initiatives (signatory to UN Global Compact) [>](#)

Consideration of human rights in procurement

The Asahi Kasei Group conducts CSR questionnaires of suppliers as part of our CSR Procurement in our efforts to identify the status of initiatives on human rights and labor issues as well as foster awareness of CSR in partnership with our suppliers.

CSR Procurement [>](#)

Human rights reporting and consultation hotline

The Asahi Kasei Group's compliance hotline handles reports and consultation on all aspects of compliance, including human rights. The hotline is available to suppliers and their employees in addition to Group employees.

Occupational Health and Safety

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.

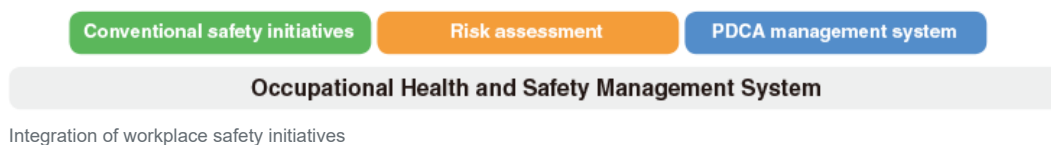
Management framework

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.

Preventive action for occupational accidents

The effort to prevent workplace accidents is integrated in our comprehensive OHSMS*¹ program that combines conventional safety initiatives*² 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.



*¹ 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

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

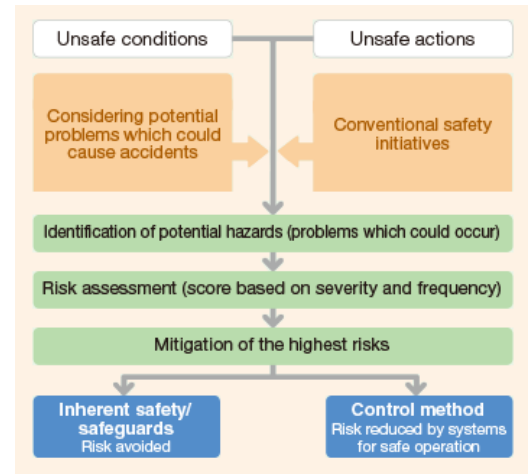
Approach to prevent occupational accidents

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.

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

Formulation of safety measures

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.

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.

Sharing and utilizing information of occupational accidents

We investigate causes and take measures to prevent recurrence at sites where workplace accidents occur. We share information on all workplace accidents within the Asahi Kasei Group for utilization in activities such as safety training, case study discussions, and prevention of similar accidents.

Occupational accident statistics

In fiscal 2018, 23 lost-workday injuries occurred involving Group employees in Japan. There were no serious injuries involving Group employees in Japan, but there was one serious injury due to heatstroke at an affiliated company.

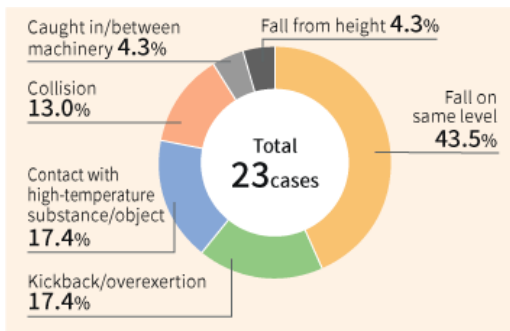
Classifying the 23 lost-workday injuries by type of accident, there was one injury in the "caught in/between machinery" category, which we have been striving to eliminate. Learning from this accident, we will reduce the risks even further by eliminating sources of danger and enhancing safeguards.

In terms of recent trends, 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.

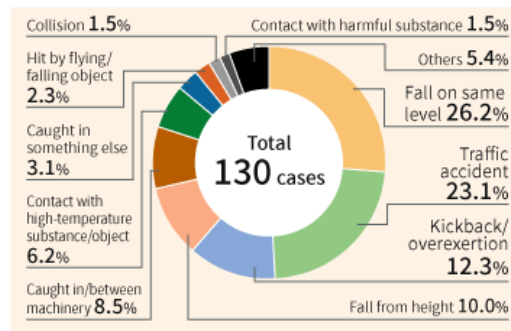
We also formulated a set of guidelines on machinery safety in accordance with ISO12100* and in fiscal 2014 began machinery risk assessments by designers in the case of building new equipment or modifying existing equipment, with deliberation among related parties as part of the equipment inspection.

Meanwhile, the category of fall accounted for 44% of 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.

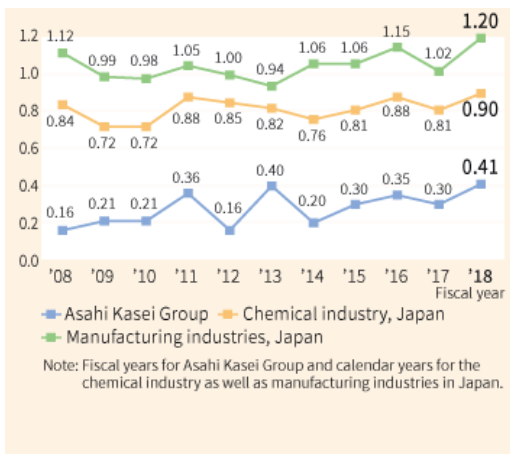
*ISO12100 specifies principles for achieving safety in machinery design and principles of risk assessment and risk reduction



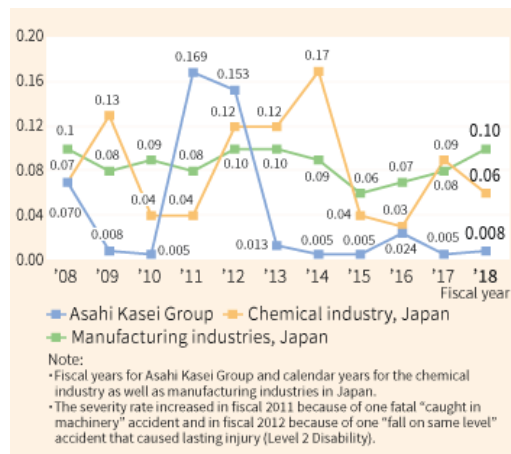
Incidence of workplace injury by event category (FY2018 in Japan)



Incidence of workplace injury by event category (FY2008–2017 in Japan)



Frequency rate*1



Severity rate*2

*1 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.

*2 Lost workdays, severity-weighted, per thousand man-hours worked.

Maintaining and improving comfortable workplaces

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 activities at Tomobe Plant of Asahi Kasei Metals Corp.

1. Objectives and results

As a plant that produces aluminum paste, a raw material for paints with a metallic sheen such as those used on metallic-colored cars, the Tomobe Plant contributes to business in the automotive and home electronics paint and ink applications sectors. In fiscal 2019, the plant received the JCIA Special Award for Safety Excellence having achieved an accident-free record for 30 years.

Meanwhile, although the plant has maintained zero lost-workday injuries over many years, injuries with no lost workdays and emergencies have occurred at a certain frequency over the period, and there are also facility improvements that need to be made.

Therefore, based on the conviction that "all accidents can be prevented," the plant has been working on the safety activities described below to further enhance tangible and intangible aspects of an inherently safe workplace with the aim of achieving inherent safety.

2. Overview of activities

The Tomobe Plant works on safety activities from the twin perspectives of operational safety and industrial safety.

From the perspective of operational safety, the risks due to dust explosions caused by aluminum powder, etc. and explosion and fire caused by organic solvents are reviewed by different assessors than previously to create cycles for taking countermeasures for newly identified risks in efforts to prevent operational accidents and associated injuries.

Activities from the industrial safety perspective are based on the following three pillars.

- (1)The plant identified minor near accidents and works to enhance follow up and pre-work hazard detection through "Tomobe Ohaba Kaizen" activities (TOK activities).
- (2)The plant conducts industrial safety risk assessments as part of the OHSMS activities introduced in 2002 and works to alleviate risk by identifying issues and taking countermeasures.
- (3)All employees take part in identifying problem areas on-site, examining improvement strategies, and achieving countermeasures from an on-site perspective through vigorous small group activities that have been running for 10 years.

Integrating the three pillars of industrial safety activities, we strive every day with the idea that the mission of managers is to work constantly to create activities that are effective while reducing the sense of burden on-site.

3. Future initiatives

Going forward, the plant will continue strenuously developing the current activities toward the goal of "preventing all accidents." It will also continue to engage in safety activities aimed at two action goals, which are strengthening equipment safety, defined as further improving equipment in order to keep people separated from moving parts, high temperature parts, hazardous substances, etc., for intrinsic safety, and developing hazard prediction, defined as upgrading hazard prediction through risk assessment in order to perform pre-work hazard prediction certainly and appropriately.



Presentation ceremony for JCIA Special Award for Safety Excellence

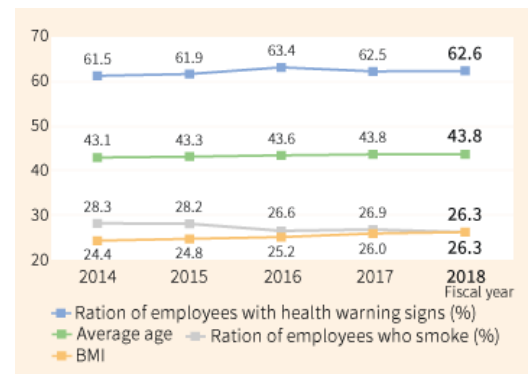


Safety sign at the plant

Health management for employees

Asahi 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 2018, the results of annual checkups indicated that the proportion of employees with health warning signs was the same, the ratio of employees with obesity slightly increased, and employees who smoke slightly decreased.



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).

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 direct 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 analyzed the causes leading to leave of absence from the standpoint of occupational health staff using 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.

By inputting contribution ratios related to direct factors and background based on interview results, the tendencies are collated and visualized through graphs 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.

Bowel cancer seminar for employees (Tokyo Health Management Office)

Today, one in every two people will suffer from cancer, and "cancer and work" has been a hot topic in occupational health recently. In 2018, we held a seminar on Bowel Cancer and the Importance of Post-screening Follow Up for employees with Dr. Yasumoto Suzuki from Matsushima Clinic as the instructor. Nearly 100 participants in the seminar listened enthusiastically to Dr. Suzuki's passionately frank discussion. There were many questions afterwards, indicating the high level of interest in bowel cancer.

A simple and non-invasive screening test called the fecal occult blood test is available for bowel cancer. There is also scientific evidence that the test reduces the cancer mortality rate, but the screening rate in the Tokyo Health Management Office jurisdiction is only 70%. The seminar is expected to trigger an increase in the screening rate.

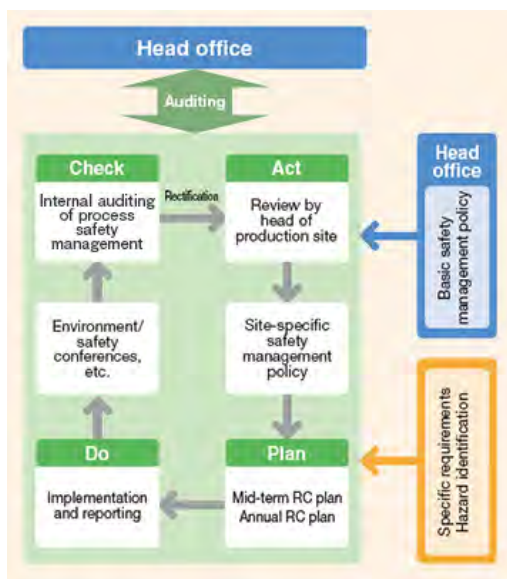


Process Safety

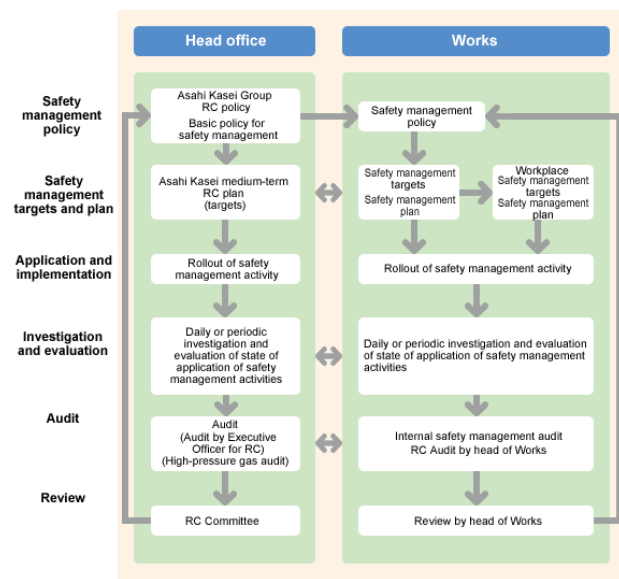
Policy

Measures for process safety in the Asahi Kasei Group are performed in accordance with our Basic Policy for Safe Operation, which states, "We maintain the safety of employees and local communities through stable and safe operation while working to prevent workplace injuries." An ongoing and autonomous program to ensure process safety includes safety assessment and hazard identification in accordance with our Basic Policy, 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, process 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.



Process safety management system



PDCA cycle for safety management

Safety management for high pressure gas

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 "certified safety" and "conformity inspections" for equipment as part of the ongoing effort to maintain stable and safe operation. Specifically, we ensure the safety of the applicable facilities with the following roles in accordance with the High Pressure Gas Certified Safety and Conformity Inspections Implementation and Management Regulations.

- High Pressure Gas Safety Controller: Asahi Kasei Corp. President
- High Pressure Gas Process Safety Division General Manager: Asahi Kasei Corp. Executive for RC (Director)
- High Pressure Gas Process Safety Management Department General Manager: Asahi Kasei Corp. Corporate ESH General Manager

We hold the High Pressure Gas Process Safety Measures Promotion Conference, chaired by the General Manager of the High Pressure Gas Process Safety Department, four times a year with the relevant parties from head office and the two Works in an effort to exchange information in a timely manner and develop a PDCA (plan-do-check-act) cycle. In addition, the High Pressure Gas Process Safety Measures Meeting, chaired by the General Manager of the High Pressure Gas Process Safety Division, is held once a year to check on the status of process safety at the two works.

Furthermore, at the time of its next recertification review in 2021, the Mizushima Works has decided to apply for the super certification program (designated certified business), which requires an even higher level of high pressure gas process safety management. The project was launched in fiscal 2018 and preparations are advancing. Going forward, the Head Office and the Works will continue working in collaboration to enhance the management of high pressure gas process safety.

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.

Process 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.

Maintaining the activities to transmit process safety and disaster prevention techniques commenced in fiscal 2013, we identify hazards at each plant and specify the risks. When doing this, we examine risks that include abnormal reactions, suspension of services, contamination, and effectiveness of polymerization inhibitors, assuming the worst-case scenario (hazard) for when safety equipment, such as interlocks, fails to function.

Details of initiatives under activities to pass on process safety technology

- (1) Identification of hazard sources
- (2) Passing on through technology communication materials (summaries)
- (3) Analysis of factors leading to high level hazards (equipment damage, fire and explosion) and checking on appropriateness of countermeasures
- (4) Training of operators with ability to apply knowledge to work through troubleshooting drills

In addition, we conduct regular visits and expert third-party verification by Corporate ESH at each plant with extensive discussions aimed at confirming and increasing progress on the content of the reviews.

There were no serious operational accidents* inside or outside Japan in fiscal 2018.

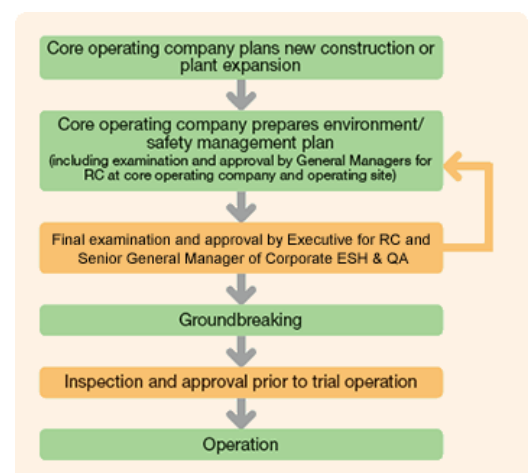
*Definition of serious operational accident

- At least one fatality or serious injury
- Direct damage of at least ¥100 million
- Major social impact (evacuation advice, human or physical damage outside of the site)

Safety review system for investment plans

We perform process hazard assessment before plant construction to ensure a high level of safety, not only when establishing new plants or expanding plants but also when modifying or dismantling plants. Internal regulations require a pre-investment inspection to verify plant safety when there are plans to invest in a new plant or plant modification, etc. of a certain scale or larger. Inspection and approval prior to trial operation provides an additional confirmation of plant safety before actual 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 risk facilities.

*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

Measures for safe and stable 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. This training program has a clear concept of developing human resources in order to train maintenance technicians to have the ability to carry out planned maintenance, to predict hazards, and to make improvements rather than being purely repair personnel who repetitively restore equipment to its original state. Based on this concept, we clarified the training principles for maintenance technicians, formulated a training curriculum for each individual based on these principles, and applied the PDCA cycle.

Training for process 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.



Training for new recruits after six months
(Kawasaki Works AOA)



Simulated experience of being caught in a
rotary valve (Kawasaki Works AOA)



Simulated experience of contacting hazardous
liquid (Kawasaki Works AOA)

Emergency response

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.



Firefighting drill (Kawasaki Works)



Drill for operation of fire hydrant (Kawasaki
Works)

Transportation and 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.



HAZMAT emergency dispatch vehicle
(example)

Social Activities

Local communities

Community fellowship

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 the Group's manufacturing sites lead communication with the communities around our plants, holding periodic networking events, plant tours, and other 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 Kurashiki, Okayama Prefecture



Plant tour for students in Izunokuni, Shizuoka Prefecture

Dialog and interaction

At each of the Group's main production sites, we engage in dialog and interaction that includes discussion with local residents through bodies such as local governments, providing public access to our facilities such as sports halls and grounds and parking lots, and holding events.



Information session on the environment for nearby local governments (Moriyama, Shiga Prefecture)



Flower planting volunteers (Suzuka, Mie Prefecture)



A cherry blossom viewing party for members of the community (Nobeoka, Miyazaki Prefecture)

NPO supporting education of the next generation

In 2009, some interested members from the Asahi Kasei retirees association formed “Hagemashitai” (Encouragers), a volunteer group for providing support with schoolwork, and began providing help with math and science schoolwork to junior high school students in Nobeoka, Miyazaki Prefecture. In 2012, Hagemashitai was incorporated as an NPO and is expanding in size and continuing its activities still today. Asahi Kasei supports the NPO.



Asahi Kasei retirees volunteer to help students as an NPO activity

Social activities

Local communities

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 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.

Asahi Kasei Group Community Fellowship Activity Themes

Nurturing the Next Generation

Coexistence with the Environment

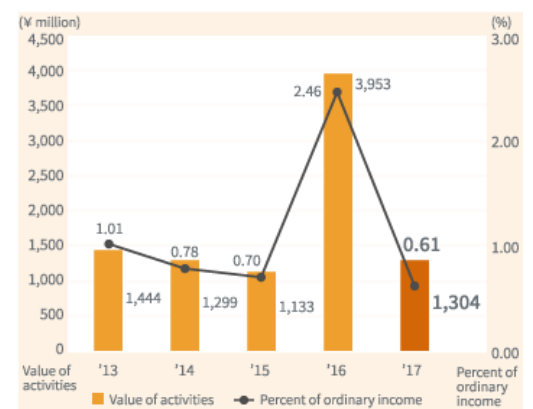
Promotion of Culture, Art, and Sports

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

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 2017 (including community investments) was ¥1,303.92 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 2018, a total of 2,641 students from 75 schools participated.



Nobeoka, Miyazaki Prefecture



Nobeoka, Miyazaki Prefecture



Nobeoka, Miyazaki Prefecture



Moriyama, Shiga Prefecture



Kurashiki, Okayama Prefecture



Nobeoka, Miyazaki Prefecture

/// Holding exhibits and sponsoring science-related events

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

We also continued to sponsor the Japan Science and Technology Agency's high-school chemistry tournament, which began in fiscal 2011. In fiscal 2018, 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 Namiki Secondary School from Ibaraki 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, provided 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 2018, 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 2018 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.

On August 23, 2018, we held a laboratory tour at our research complex in Fuji, Shizuoka Prefecture, together with informal discussion with our female researchers, under the title "Knowing and connecting with women in science and technology careers." The event was attended by 65 female high school students from the Tokyo metropolitan area, Shizuoka Prefecture, and Aichi Prefecture.

The event was divided into two programs: "Science and analysis careers" and "Housing-related careers" with tours of the Platform Laboratory for Science & Technology and the Housing R&D Center respectively. All of the female high school students had the opportunity to take part in programs using the research facilities, including the operation of advanced research equipment, to experience analysis technology and the experience of proof-of-concept testing at a large research facility that contains a complete house. The students also had informal discussions with female researchers and managers during group meetings.



Operating laboratory equipment



Discussion with female researchers

/// 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

On May 11, 2019, 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 8th year of the project which aims to regenerate a broad-leaf forest where cedar and cypress had been cultivated previously. A total of 448 people including Asahi Kasei Group employees, retirees, and local residents participated in the program, planting some 1,500 trees such as wild cherry, wild chestnut, and maple over a 1 hectare area.



/// Exhibiting at Biwako Business Messe 2018

Over three days from October 17–19, 2018, the Asahi Kasei Group exhibited at "Biwako Business Messe 2018," an environmental business exhibition in Nagahama, Shiga Prefecture, organized by Shiga Keizai Sangyo Association, Shiga Prefecture, and others. The exhibition was attended by many businesspeople and others with an interest in environmental measures.

Our exhibit was themed on environmental solutions of the Asahi Kasei Group, showcasing products and system technologies that attracted the attention of visitors such as oil leak detectors, a system using speech recognition to raise the efficiency of inspection work, and equipment to diagnose the aging of electrical equipment. We also exhibited the activities of our Moriyama Works in the "Mission 79 Dragonfly" project to preserve biodiversity, showcasing our contribution to "Harmony with the natural environment" which is part of our Group Vision.



The Asahi Kasei Group exhibit at Biwako Business Messe 2018

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.

On February 25, 2019, we held a judo workshop in Dusseldorf, Germany. Four members of our judo team served as instructors for local elementary school students and experienced judo enthusiasts. The time spent in contact with children through these kinds of community fellowship activities was a valuable opportunity for our athletes to recharge and deepen interaction with the community.



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 2018, the foundation sponsored a performance of "Majorin Who Threw Away Magic," a family musical by the Shiki Theater Company. With children from special-needs schools invited free-of-charge, the performance was packed with excitement from start to finish.

The foundation also cosponsored two art appreciation bus tours. The first tour was for a special program at the Miyazaki International Music Festival provided by the foundation and Asahi Kasei Group for the performance of "After the Dream – The Spirit of French Music" by violinist Fumiaki Miura, and the second was for a performance of "Song & Dance 65" by the Shiki Theater Company.

The foundation gave free tickets to 1,700 5th grade elementary school children from 69 schools in northern Miyazaki and their chaperons for "Theater of the Heart," a musical by the Shiki Theater Company.

The children enjoyed themselves singing together and moving their bodies while listening to a piano recital by Mayumi Matsuura, story-telling by voice actor Tomoaki Ikeda, and the music of Yasuno Kazuki, a euphonium player.



"Majorin Who Threw Away Magic" by the Shiki Theater Company
Photo by Ken Arai



"After the Dream – The Spirit of French Music" by Fumiaki Miura (violin) and others
Photo by team Miura



"Song & Dance 65" by the Shiki Theater Company (photo from previous performance)
Photo by Ken Arai



Rainbow Concert (Piano: Mayumi Matsuura, Euphonium: Yasuno Kazuki)
Photo provided by Yukan Daily Co., Ltd.

Disaster relief, local disaster prevention, and other activities

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.

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)

Blood donation

To support "Contributing to life and living around the world," our Group Mission, the Asahi Kasei Group cooperates with the Japanese Red Cross Society to run blood donation drives as an easily accessible community fellowship activity. We aim to hold the blood donation drive at our Head Office in Tokyo between February and March, when donated blood tends to be in short supply. We hope to gain the cooperation of even more employees to take part in donating blood as an easily accessible community fellowship activity.



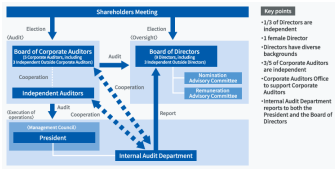
Blood donation at the Tokyo head office

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.

Governance

The Asahi Kasei Group constantly endeavors to strengthen corporate governance in an effort to increase sustainable growth and enhance medium- to long-term corporate value.



Corporate Governance

We continue to pursue the best approaches to corporate governance using a system for making decisions transparently, fairly, swiftly and boldly, based on changes in the business climate.



Compliance

We aim for a higher level of corporate ethics in all of our business activities. This includes not only compliance with laws and regulations, but also social norms.



Risk Management

We have established and are strengthening basic rules for risk management in our business operations and addressing legal contingencies.



Tax Policy

We have established a tax policy to ensure the Group's compliance with tax related laws and regulations as well as improved tax transparency.

Corporate Governance

Basic Views  Corporate Governance Framework 

Policy and Procedures to Nominate Candidates for Directors  Evaluation of the Effectiveness of the Board of Directors 

Officer Remuneration  Independence Standards for Outside Directors 

Status of Audits by Corporate Auditors, Financial Audits and Internal Audits 

Translation of the Corporate Governance Report 

As of June 26, 2019

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

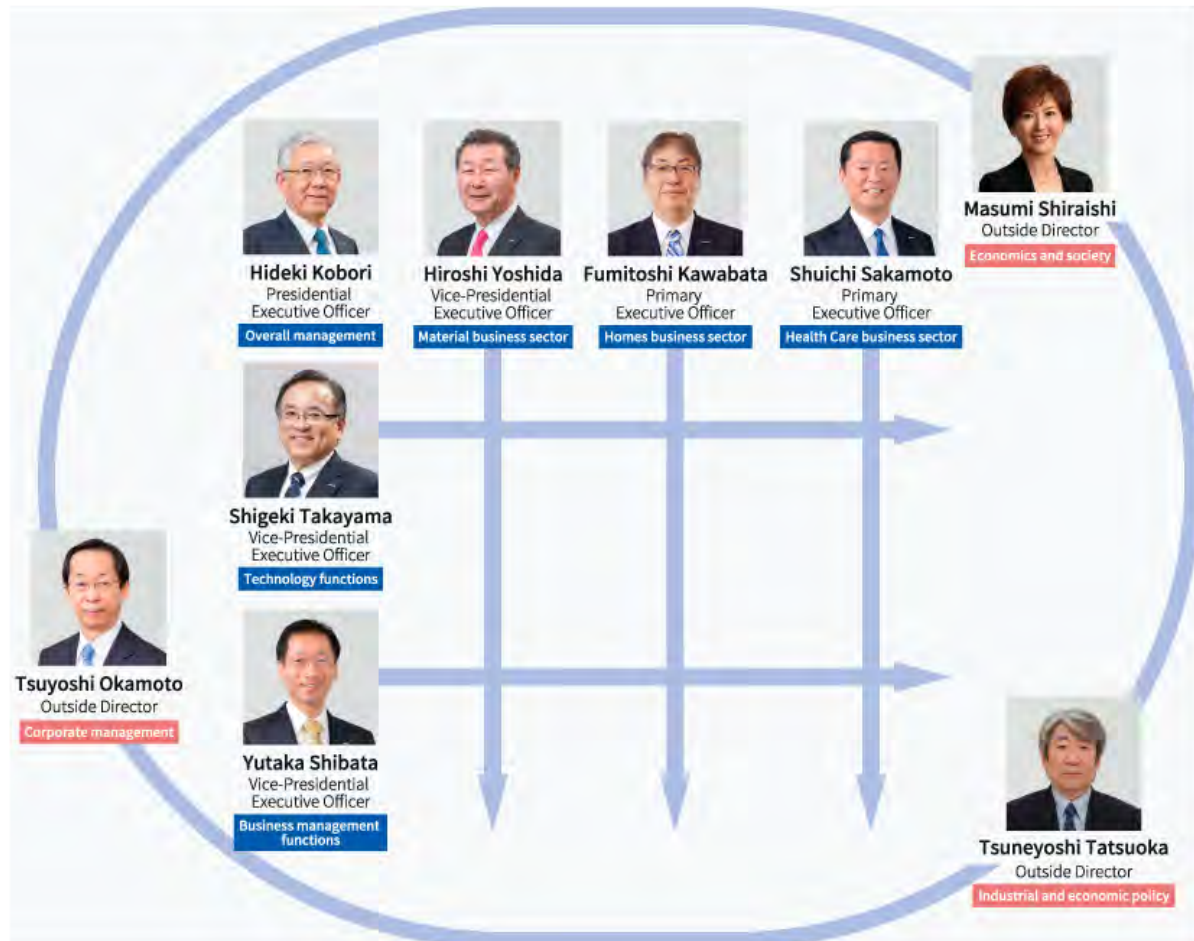
The Company develops a system to have a constructive dialog with shareholders/investors and actively promotes such dialog.

Policy and Procedures to Nominate Candidates for Directors

In selecting candidates for Directors, the Company chooses persons with deep insight and excellent skills suitable for Directors. For inside Directors, the Company chooses those with expertise, experience and skills in the required field as candidates. Meanwhile, for Outside Directors, the Company chooses as candidates corporate executives, academic experts, and former civil servants with abundant experience, expecting objective oversight of management based on their deep insight.

To further increase the objectivity and transparency of the nomination of candidates for Directors, the Company has established the Nomination Advisory Committee whose members mainly comprise outside Directors. This committee is involved in the examination of the composition and size of the Board of Directors and the nomination policy for officers and provides advice.

Composition of Board of Directors (beginning in June 2019)



The 6 Directors within the company respectively have responsibility for overall management, technology functions, business management functions, and the Material, Homes, and Health Care business sectors, while the 3 Outside Directors have a diverse range of backgrounds.

Supplementary Explanation on the Reason for Selecting Outside Directors and Their Independence (NOTICE OF THE 128TH ORDINARY GENERAL MEETING OF SHAREHOLDERS P.9) [>](#)

Evaluation of the Effectiveness of the Board of Directors

The effectiveness of our Board of Directors is regularly evaluated after each fiscal year, and results of evaluation are disclosed.

Measures implemented in fiscal 2018

The Board of Directors implemented the following measures in fiscal 2018 based on evaluation of the previous fiscal year.

1. Enhanced provision of information to Outside Directors and Outside Corporate Auditors
2. Sharing information on IR activities and opinions of investors
3. Preparations for the new medium-term management initiative

Moving forward

Based on deliberations of the effectiveness of the Board of Directors during fiscal 2018, we will continue and expand the aforementioned efforts in the future. Further, for enriched deliberation by the Board of Directors, we will work to further improve the operation of Board of Directors meetings by reviewing standards for agenda items, improving the format of materials, and securing ample deliberation time. In addition, we will continue to study the further enrichment of the effective operation of the Nomination and Remuneration Advisory Committees, and the optimum size and composition of the Board of Directors, on an ongoing basis.

Officer Remuneration

Fixed base remuneration	Performance-linked remuneration	Stock-based remuneration
50%	39%	11%

*percentages shown for Directors who have executive responsibilities

• **Performance-linked remuneration** → **commitment to results**

• **Stock-based remuneration** → **perspective of shareholders**

*Outside Directors receive fixed base remuneration only

- The remuneration of Directors is composed of fixed basic remuneration, variable performance-linked remuneration reflecting financial results, and stock-based remuneration. This remuneration is determined following the compensation system approved by the Board of Directors in advance within the maximum amount and maximum number of shares approved at the general meeting of shareholders.
 - ▶ Basic remuneration is a fixed amount determined based on the rank of each individual Director.
 - ▶ Performance-linked remuneration is determined based on the Group's consolidated performance and individual performance. Performance is comprehensively evaluated in consideration of the degree of achievement of individually-established objectives, achievements, contributions to financial performance, and the degree of contributions, in addition to management benchmarks including, but not limited to, net sales, operating income, and ROA. These criteria are selected in order to ensure objectivity and clarity of evaluation based on business results and to raise awareness for higher capital efficiency. Variable performance-linked remuneration is calculated by multiplying an index based on performance evaluation by a base amount according to the rank of each Director. Targeted fiscal 2018 financial performance standards for the purpose of variable performance-linked remuneration were consolidated net sales of ¥2,155.0 billion and operating income of ¥190.0 billion, while fiscal 2018 results were consolidated net sales of ¥2,170.4 billion, operating income of ¥209.6 billion, and ROA of 8.1%.
 - ▶ Stock-based remuneration is granted to executives of the Group upon their retirement based on a number of shares granted according to the rank of each Director, creating a framework wherein current management efforts are reflected in the future stock prices and received as consideration.
- Additionally, remuneration for Outside Directors is comprised solely of fixed basic remuneration based on their role.
- The Company determines the level of remuneration based on research data provided by external specialized agencies, etc.
- The Company's Board of Directors is authorized to determine the Directors' remuneration system and amount of remuneration. In order to ensure the objectivity and transparency of Directors' remuneration, the Company has established a Remuneration Advisory Committee, which consists of a majority of Outside Directors.
- The amount of fixed base remuneration and the number of shares to be granted as stock-based remuneration are determined in advance according to the rank of each Director. The amount of variable performance-linked remuneration is determined in part based on financial results and in part based on individual performance evaluation by the President. Arbitrariness is excluded as individual Directors' remuneration including performance evaluation is subject to prior confirmation by the Remuneration Advisory Committee.
- The Remuneration Advisory Committee consisting of three Outside Directors and two Representative Directors held two meetings in fiscal 2018 with full attendance of all members.

- The performance-linked remuneration system is not applied in the remuneration for Corporate Auditors, in consideration of their role of auditing the execution of duties of Directors in a position independent from Directors, and their remuneration consists of fixed remuneration. Individual remuneration amounts are determined through discussions among Corporate Auditors.
- In addition, the dates of resolutions of shareholders meetings concerning officer remuneration are as follows: June 27, 2014, which set the cash remuneration limit to be paid to Directors at ¥650 million per year, of which annual remuneration for Outside Directors is ¥50 million or less, June 29, 2006, which set the cash remuneration limit to be paid to Corporate Auditors at ¥150 million per year, and June 28, 2017, which set the stock-based remuneration limit at ¥300 million over three business years.

Officer Remuneration, etc. (NOTICE OF THE 128TH ORDINARY GENERAL MEETING OF SHAREHOLDERS P.27 

Independence Standards for Outside Directors

In determining that Outside Directors and Outside Corporate Auditors are independent, the Company ensures that they do not correspond to any of the following and whether they are capable of performing duties from a fair and neutral standpoint.

1. Person who currently executes or has executed businesses of the Group (executive Directors, executive officers, employees, etc.) over the last 10 years
2. Company or person who executes businesses thereof whose major business partner is the Group (company with more than 2% of its annual consolidated net sales comes from the Group)
3. Major business partner of the Group (when payments by this partner to the Group account for more than 2% of the Company's annual consolidated net sales or when the Company borrows money from such partner amounting to more than 2% of the Company's consolidated total assets) or person who executes businesses thereof
4. Person who receives money or other financial gain (10 million yen or more in a year) from the Group as an individual other than, excluding remuneration for Director/Corporate Auditor of the Company
5. Company which receives donation or aid (10 million yen or more in a year) from the Group or person who executes businesses thereof
6. Main shareholder of the Group (person/company who directly or indirectly owns 10% or more of all voting rights of the Company) or person who executes businesses thereof
7. Person who executes businesses of a company which elects Directors/Corporate Auditors/employees of the Group as Directors/Corporate Auditors
8. Independent Auditor of the Group or any staff thereof
9. Person who fell into any of the categories 2 through 8 above over the last three years
10. Person who has a close relative (spouse, relative within the second degree of kinship, and those who share living expenses) who falls under any of the categories 1 through 8 above, provided that "person who executes businesses thereof" in 1, 2, 3, 5, 6, and 7 above shall be replaced with "important person who executes businesses thereof (executive Directors and executive officers, etc.)"

Status of Audits by Corporate Auditors, Financial Audits and Internal Audits

- For internal audits of business execution, the company has established an Internal Audit Department, consisting of 16 members as of March 31, 2019, directly supervised by the President. The Internal Audit Department formulates an annual audit plan according to the Company's Basic Regulation for Internal Audits, and conducts an audit of the Group under the approval of the President.
- As for audits by Corporate Auditors, each Corporate Auditor audits the execution of duties of Directors by attending meetings of the Board of Directors and examining the status of execution of operations based on the audit policy stipulated by the Board of Corporate Auditors. To support the function of the Board of Corporate Auditors, the Company has established a Corporate Auditors Office.
- PricewaterhouseCoopers Aarata LLC is contracted as the Independent Auditors to perform financial audits according to the Companies Act and Financial Instruments and Exchange Act.
- The certified public accountants who audited the consolidated financial statements for fiscal 2018 were as follows.

Designated Limited Liability Partnership Engagement Partner: Koichiro Kimura
 Designated Limited Liability Partnership Engagement Partner: Taisuke Shiino
 Designated Limited Liability Partnership Engagement Partner: Yuichiro Amano

- The composition of assistants for performance of the audit in accordance with its audit plan is 19 certified public accountants and 34 other specialist accountants (as of March 31, 2019).
- Mutual cooperation between the Internal Audit Department, Board of Corporate Auditors and accounting auditor is reinforced through periodic liaison meetings of the Internal Audit Department, Board of Corporate Auditors and corporate auditors of operating companies. During these meetings, the effectiveness of the Group's internal control system for legal compliance and risk management is checked. In addition, the Board of Corporate Auditors confirms the audit plan with the accounting auditor and receives reports of the results of audits on the Group at the end of the quarterly consolidated accounting period and at the end of the annual consolidated accounting period.

Details of Independent Auditors Remuneration (NOTICE OF THE 128TH ORDINARY GENERAL MEETING OF SHAREHOLDERS P.29) 

Asahi Kasei Report [>](#)

Compliance

Policy

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.

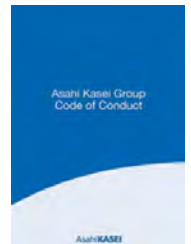
Asahi Kasei Group Code of Conduct

The Asahi Kasei Group Code of Conduct serves as a set of standards on compliance that applies to each and every member of the Asahi Kasei Group. The code serves as a foundation for the actions of all members of the Asahi Kasei Group to follow during the course of their day-to-day work activities to fulfill our Group Mission in accordance with our Group Values.

To raise awareness about the Code of Conduct, a booklet is distributed to the Group's officers along with all employees in Japan, and reading sessions covering the Code of Conduct are held at each workplace. In addition, outside of Japan the Code of Conduct is made known to all by distributing a booklet in local languages and through e-learning and other training sessions. This ensures that we are able to realize actions based on a high level of ethical values.

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

Asahi Kasei Group Code of Conduct 



Asahi Kasei Group
Code of Conduct

Management framework

We have established the Risk Management & Compliance Committee, which reports directly to the President of Asahi Kasei Corp., in order to reinforce the entire Group's risk management and compliance framework. The committee monitors the state of compliance and management of risks throughout the Asahi Kasei Group. Results of the committee's deliberations, etc., are reported to the Board of Directors.

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.

- There are no restrictions on what can be reported. The hotline receives reports on a broad range of matters, including harassment, human rights violations, and corruption, such as bribery.
- Reports can both made either anonymously and using one's real name over the Internet or in writing (addressed to a designated law office).
- The Asahi Kasei Group has measures in place to prevent the persons submitting reports to be treated unfairly as a result of their report. In addition, we strive to protect the confidentiality of the report as well as the personal information of persons submitting reports.

Reports and responses

During fiscal 2018 there were 59 reports and consultations made through the hotline system. None of them regarded significant matters which would affect the performance of operations.

Some 50% 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 endorses the UN Global Compact and has proclaimed that it will "strive to prevent all forms of corruption including coercion and bribery." Corruption including bribery is clearly prohibited within the Asahi Kasei Group Code of Conduct as well.

The Asahi Kasei Group considers bribery to be a particularly important risk factor which could seriously jeopardize our corporate reputation. The Asahi Kasei Group Policies for Prevention of Bribery clarify basic policies to prohibit bribery and procedures to follow to prevent bribery. These policies are made known to the entire Group based on a clear internal framework.

1. Procedures

Transactions subject to procedures under these regulations directly or indirectly involve counterparties in (1) the public sector (regardless of country) and (2) the private sector in certain countries with commercial bribery regulations including China. Specifically, receiving a meal or gift or providing donations is only permitted after obtaining the advanced screening and approval of the prescribed person in charge of each organization. Due diligence is conducted to check the suitability of business partners from the standpoint of bribery prevention in terms of transactions that fulfill certain formats of concern in terms of bribery prevention, such as contracts with agents and distributors. In addition, business partners are informed of our basic policy on bribery prevention and they are required to sign a pledge or include contractual provisions on the declaration of compliance with anti-bribery related laws.

2. Education

We provide educational opportunities to employees, including those outside of Japan, in the form of e-learning and in-house training on bribery prevention.

3. Monitoring

We carry out internal audits periodically as well as evaluate and review the management framework for bribery prevention in order to maintain a continuous and effective framework for bribery prevention.

4. Consulting and Reporting

We have put into place a framework by which employees can consult with a legal department in Japan or at overseas offices or with an outside law office in case uncertainties or doubts arise regarding bribery during the course of their daily work.

In case an employee discovers a violation of or act that could violate bribery laws, they are required to report the matter immediately to the prescribed person in charge.

In fiscal 2018, there were no cases where an employee was dismissed or subjected to legal proceedings due to corruption.

In terms of political contributions, we have established a system of checks and balances based on company rules to ensure compliance with the Political Funds Control Act. Political contributions are made only after the required pre-approvals are obtained. The company's political contributions in fiscal 2018 are disclosed below.

[Official Gazette \(Extra Edition No. 264, P.62\) \(in Japanese\) > □](#)

[Asahi Kasei Group Basic Policies for Prevention of Bribery > □](#)

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 undergo paper and onsite audits annually.

Ethical Considerations in Pharmaceutical and Medical Device Development

Asahi Kasei Pharma, which engages in the research and development of pharmaceuticals, and Asahi Kasei Medical, which engages in the development of medical devices, ensure ethical considerations and full compliance with laws and guidelines on animal testing. See below for further details.

[Asahi Kasei Pharma > □](#)

[Asahi Kasei Medical \(in Japanese\) > □](#)

Risk Management

Policy

The Asahi Kasei Group has established and is working to reinforce basic guidelines for risk management and emergency response in the Group's business operations in accordance with the Asahi Kasei Group Basic Regulation for Risk Management & Compliance.

Management framework

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

Information Security

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 Kobori
President
Asahi Kasei Corporation

Protection of personal information

The Asahi Kasei Group 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. Furthermore, we made necessary changes to the Asahi Kasei Group Regulation for Management of Personal Information to comply with Japan's revised Personal Information Protection Act that took effect in May 2018.

[Privacy Policy >](#)

/ Response to the EU GDPR

To comply with the General Data Protection Regulations (GDPR) that took effect in the EU in May 2017, we have newly formulated the Asahi Kasei Group Regulation for Management of Personal Information and established the necessary standards and systems.

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 >](#)

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.

Tax Policy

Asahi Kasei Group Tax Policy

The Asahi Kasei Group endeavors to thoroughly comply with the laws and regulations of each country, and to prepare and appropriately apply internal company rules, based on the Asahi Kasei Group Code of Conduct.

In terms of tax, the Asahi Kasei Group also complies with the tax laws of each country in which it operates and makes appropriate tax payments in accordance with the laws by performing tax treatment based on internal company rules.

In addition, in order to maximize free cash flow, the Asahi Kasei Group makes its best effort to minimize tax risks, implement appropriate tax planning strategies, and make use of any available tax incentives. As a result, the Asahi Kasei Group aims at the maximization of shareholders' value.

1. Tax Compliance

The Asahi Kasei Group complies with the tax laws and regulations of each country in which it operates, as well as taxes guidelines published by the OECD. In addition, the Asahi Kasei Group ensures that each group company files tax returns and pays taxes within the due dates stipulated in each country.

2. Tax Governance

In the Asahi Kasei Group Code of Conduct that is obligatory for all officers, managers, and employees, the Asahi Kasei Group establishes that each group company understands the tax laws and performs proper and lawful tax treatment based on such laws, regulations, and internal company rules. Moreover, based on the Asahi Kasei Group Accounting Regulations, each group company is required to develop practical management of tax governance and appropriately report on their tax situation.

3. Managing Tax Risk

The Asahi Kasei Group performs tax treatment based on the tax laws, regulations, and internal company rules. However, the Asahi Kasei Group realizes that, in some cases, a difference of opinion with a tax authority may arise. If this is the case, the Asahi Kasei Group endeavors to mitigate tax risks by seeking the advice of qualified external tax advisors and consulting with the tax authorities in advance as appropriate.

4. Tax Planning

The Asahi Kasei Group realizes that it is important to undertake effective tax planning for commercial purposes. The Asahi Kasei Group implements tax planning conducive to cash flow in accordance with the legislative intent underlying the tax laws and regulations, and does not use tax havens for the purpose of tax avoidance. In case that any income is subject to CFC rules in accordance with the tax laws and regulations of each country as a result of carrying out plans for commercial purposes, the Asahi Kasei Group files a tax return and pays tax appropriately.

5. Transfer Pricing

The Asahi Kasei Group realizes that prices in executing international related party transactions are easily arbitrarily determined and it likely results in a tax risk in each country. The prices for international transactions among companies of the Asahi Kasei Group are calculated in accordance with the arm's length principle. Also, the Asahi Kasei Group prepares transfer pricing documentation in each country in which it operates based on the transfer pricing documentation requirements.


6. Tax Incentives

In each country in which the Asahi Kasei Group operates, various kinds of tax incentives have been introduced based on government policy. The Asahi Kasei Group continually studies the applicable laws and endeavors to enhance tax efficiency by making use of any available tax incentives to the extent that they fall within the scope of commercial purposes.

7. Relationship with tax authorities

The Asahi Kasei Group endeavors to build and sustain mutually respectful relationships with the tax authorities by responding to inquiries in good faith. The Asahi Kasei Group endeavors to address items suggested in tax audits appropriately. However, in the event that a dispute or difference of opinion arises with a tax authority, the Asahi Kasei Group requests for system of remedy for taxpayer rights only if the Asahi Kasei Group determines that tax reassessment by the tax authorities is likely not accordance with the tax laws and that the system of remedy is appropriate in addressing the issues.

Policy Statements

CSR-orientated management	Group Philosophy >
	Guiding Principles >
Responsible Care	Asahi Kasei Group RC Principles >
Environmental	Asahi Kasei Group Code of Conduct >
	Asahi Kasei Group RC Principles >
	The Asahi Kasei Group's Global Environmental Policy >
Social	Asahi Kasei Group Code of Conduct >
	Asahi Kasei Group Quality Policy >
	The Asahi Kasei Group Purchasing and Procurement Policy >
	Human Resources Principles >
	Expansion of opportunities for women: Asahi Kasei Group Action Plan >
	Basic Policy for Safe Operation >
	Basic Policy for High-Pressure Gas Safety >
	Community Fellowship Policy >
Governance	Principles of Corporate Governance >
	Asahi Kasei Group Code of Conduct >
	Asahi Kasei Group Basic Policies for Prevention of Bribery >
	Asahi Kasei Group Information Security Policy >
	Privacy Policy >
	Tax Policy >
	Basic Guidelines on Animal Care and Use(Asahi Kasei Pharma) > 

GRI Standards Content Index

The Asahi Kasei Group's report on CSR activities references the "GRI Sustainability Reporting Standards 2016."

Universal Standards

Disclosure Number	Disclosure	Page number(s) and/or URL(s)
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	Sustainability at the Asahi Kasei Group > Compliance > Asahi Kasei Group's Responsible Care Program >
102-12	External initiatives	Sustainability at the Asahi Kasei Group > Quality assurance > Biodiversity >
102-13	Membership of associations	Sustainability at the Asahi Kasei Group > Asahi Kasei Group's Responsible Care Program > Quality assurance >

Disclosure Number	Disclosure	Page number(s) and/or URL(s)
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 > Sustainability at the Asahi Kasei Group > Compliance > Asahi Kasei Group's Responsible Care Program > CSR Procurement > Human resources development and active engagement > Community fellowship > Policy Statements >
102-17	Mechanisms for advice and concerns about ethics	Compliance >
Governance		
102-18	Governance structure	Corporate Governance >
102-19	Delegating authority	Corporate Governance > Sustainability at the Asahi Kasei Group >
102-20	Executive-level responsibility for economic, environmental, and social topics	Sustainability 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 Governance > 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	Sustainability 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 >

Disclosure Number	Disclosure	Page number(s) and/or URL(s)
102-31	Review of economic, environmental, and social topics	Sustainability at the Asahi Kasei Group >
102-32	Highest governance body's role in sustainability reporting	Risk management >
102-33	Communicating critical concerns	Sustainability at the Asahi Kasei Group >
102-34	Nature and total number of critical concerns	Compliance >
102-35	Remuneration policies	Corporate Governance >
102-36	Process for determining remuneration	Corporate Governance >
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	Sustainability at the Asahi Kasei Group >
102-41	Collective bargaining agreements	Approach to human resources and employment >
102-42	Identifying and selecting stakeholders	
102-43	Approach to stakeholder engagement	Sustainability at the Asahi Kasei Group >
102-44	Key topics and concerns raised	Social activities >
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 > Sustainability at the Asahi Kasei Group >
102-47	List of material topics	Sustainability 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 >

Disclosure Number	Disclosure	Page number(s) and/or URL(s)
102-53	Contact point for questions regarding the report	Inquiries ▶
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	Independent Review and Independent Assurance Report ▶
103 : Management Approach		
103-1	Explanation of the material topic and its Boundary	Sustainability at the Asahi Kasei Group ▶
103-2	The management approach and its components	Sustainability at the Asahi Kasei Group ▶ and the policy and management framework shown on relevant pages
103-3	Evaluation of the management approach	

Topic-specific Standards

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201 : Economic Performance		
201-1	Direct economic value generated and distributed	
201-2	Financial implications and other risks and opportunities due to climate change	Environmental Management ▶
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	Local communities ▶ Community fellowship ▶
203-2	Significant indirect economic impacts	

204 : Procurement Practices		
204-1	Proportion of spending on local suppliers	
205 : Anti-corruption		
205-1	Operations assessed for risks related to corruption	
205-2	Communication and training about anti-corruption policies and procedures	Compliance >
205-3	Confirmed incidents of corruption and actions taken	Compliance >
206 : Anti-competitive Behavior		
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Compliance >
Environmental topics		
301 : Materials		
301-1	Materials used by weight or volume	Environmental Management >
301-2	Recycled input materials used	
301-3	Reclaimed products and their packaging materials	Pollution and Natural Resources >
302 : Energy		
302-1	Energy consumption within the organization	Environmental Management >
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	Preserving Water Resources >
303-2	Water sources significantly affected by withdrawal of water	Not applicable
303-3	Water recycled and reused	Preserving Water Resources >
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 ▶
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 ▶ Environmental data ▶
305-2	Energy indirect (Scope 2) GHG emissions	Climate Change ▶ Environmental data ▶
305-3	Other indirect (Scope 3) GHG emissions	Climate Change ▶ Environmental data ▶
305-4	GHG emissions intensity	Climate Change ▶
305-5	Reduction of GHG emissions	Climate Change ▶ Environmental data ▶
305-6	Emissions of ozone-depleting substances (ODS)	Not applicable
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Pollution and Natural Resources ▶ Environmental data ▶
306 : Effluents and Waste		
306-1	Water discharge by quality and destination	Pollution and Natural Resources ▶ Environmental data ▶
306-2	Waste by type and disposal method	Pollution and Natural Resources ▶ Environmental data ▶
306-3	Significant spills	Not applicable
306-4	Transport of hazardous waste	Environmental data ▶
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	CSR Procurement ▶
308-2	Negative environmental impacts in the supply chain and actions taken	

Disclosure Number	Disclosure	Page number(s) and/or URL(s)
Social topics		
401 : Employment		
401-1	New employee hires and employee turnover	Approach to human resources and employment >
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Human resources development and active engagement > Diversity >
401-3	Parental leave	Diversity >
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	Occupational Health and Safety >
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Occupational Health and Safety >
403-3	Workers with high incidence or high risk of diseases related to their occupation	Occupational Health and Safety >
403-4	Health and safety topics covered in formal agreements with trade unions	
404 : Training and Education		
404-1	Average hours of training per year per employee	
404-2	Programs for upgrading employee skills and transition assistance programs	Human resources development and active engagement >
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	Corporate Governance > Diversity >
405-2	Ratio of basic salary and remuneration of women to men	
406 : Non-discrimination		
406-1	Incidents of discrimination and corrective actions taken	

Disclosure Number	Disclosure	Page number(s) and/or URL(s)
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	
408 : Child Labor		
408-1	Operations and suppliers at significant risk for incidents of child labor	
409 : Forced or Compulsory Labor		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	
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	
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	Local communities > Community fellowship >
413-2	Operations with significant actual and potential negative impacts on local communities	
414 : Supplier Social Assessment		
414-1	New suppliers that were screened using social criteria	CSR Procurement >
414-2	Negative social impacts in the supply chain and actions taken	
415 : Public Policy		
415-1	Political contributions	Compliance >

Disclosure Number	Disclosure	Page number(s) and/or URL(s)
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	Quality assurance >
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	

Independent Review and Independent Assurance Report

Independent Review (Japan Chemical Industry Association)

Independent review

[translation from Japanese]

Asahi Kasei Group Sustainability Report 2019 Internet Edition
Independent Review

September 10, 2019

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 Sustainability Report 2019 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 (sustainability) 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 (branch, production site, etc.) 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 Nobeoka branch: 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 at the Nobeoka branch 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 Nobeoka branch 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 implementing improvements to input error prevention this fiscal year in addition to introducing a function to confirm differences from the previous year, and improving the display of a list of frequently asked questions on the main screen, which had been completed by the previous fiscal year.
 - 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, but these have been revised in the present Report.


- 3) Evaluation of RC and CSR (sustainability) activities
 - It is noteworthy that the company has established a dedicated department for CSR (sustainability) activities under the leadership of the President to set up a framework for more proactive advancement of CSR (sustainability) by the Asahi Kasei Group as CSR (sustainability) activities are a key factor in its management.
 - It is expected that the company will identify materiality for the Asahi Kasei Group and map the relationship of materiality to the SDGs in addition to incorporating the perspectives of diverse stakeholders and establishing KPIs for each materiality to specifically address each issue.
 - In the area of industrial safety and disaster prevent, it is noteworthy that the company is implementing measures based on intrinsic safety and safeguards to reduce serious risks, that it has decided to apply for the High Pressure Gas Safety Act super certification program at the Mizushima Works in the area of operational disaster prevention, and that it is working to upgrade high pressure gas operational safety management. These measures are expected to produce definite results going forward.
 - At the Nobeoka branch, it is noteworthy that in order to ensure the safety of the local community, voluntary standards have been established to regulate total emissions that can accommodate the future tightening of standards from the regulation of the concentration of emissions into waterways in efforts to achieve a high environmental standards.

- 4) Characteristics of the Report
 - It is noteworthy that the Report covers the creation of guidelines for environment-contributing products and features a large number of environment-contributing products for which the company has conducted LCA evaluations.
 - It is noteworthy that the Report features social contributions through the many community fellowship activities, tours of plants and laboratories, dialogue with many members of the community, support for the education of the next generation, support for fostering female human resources in science and technology, disaster assistance, and sports.



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 global greenhouse gas emissions marked with  (the “GHG emissions”) for the period from April 1, 2018 to March 31, 2019 included in its Sustainability Report 2019 (the “Report”) for the fiscal year ended March 31, 2019.

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 Oita Plant of Japan Elastomer Co., Ltd. and Thai Asahi Kasei Spandex Co., 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.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
February 7, 2020