

# List of Directors

(as of June 26, 2020)



**Kimikazu Sugawara**  
Chairman of the Board  
(Representative Director)



**Minoru Tanaka**  
President  
(Representative Director)



**Kazuhiko Fujii**  
Executive Vice President



**Shinichiro Kametaka**  
Member of the Board,  
Senior Managing  
Executive Officer



**Shinobu Ishihara**  
Member of the Board,  
Senior Managing  
Executive Officer



**Katsunobu Doro**  
Member of the Board,  
Managing Executive  
Officer



**Jun Enoki**  
Member of the Board,  
Managing Executive  
Officer



**Mamoru Kadokura**  
Member of the Board,  
Senior Managing Corporate  
Executive Officer



**Takeo Inokuchi**  
Independent Member  
of the Board



**Mamoru Mohri**  
Independent Member  
of the Board



**Takao Kusakari**  
Independent Member  
of the Board



**Jun Yokota**  
Independent Member  
of the Board

**Audit & Supervisory Board Member**

Hideyuki Matsui Hiroshi Fujiwara  
Masami Kishine Yasuhiro Uozumi

**Senior Managing Corporate Executive Officer**

Akira Iwazawa Yasuaki Nuri

**Managing Executive Officer**

Atsushi Kawakatsu Takamune Yasuda  
Ikuo Aoi Kazuo Ochiai  
Fuminori Hoya Hitoshi Yahara  
Masaaki Kimura Minetoshi Marufuji  
Yoshiki Takeoka Kan Okabe  
Yasuhiro Sumi Haruhiko Maki  
Shinji Mizusawa Toshio Komori

**Executive Officer**

Riichi Nishimura Etsuo Yoshiike  
Masahiro Ueda Naoki Furukawa  
Takuo Ishibashi Hiroyuki Deguchi  
Yasuyoshi Ueda Masashi Nishikawa  
Osamu Ishida

# Corporate Governance

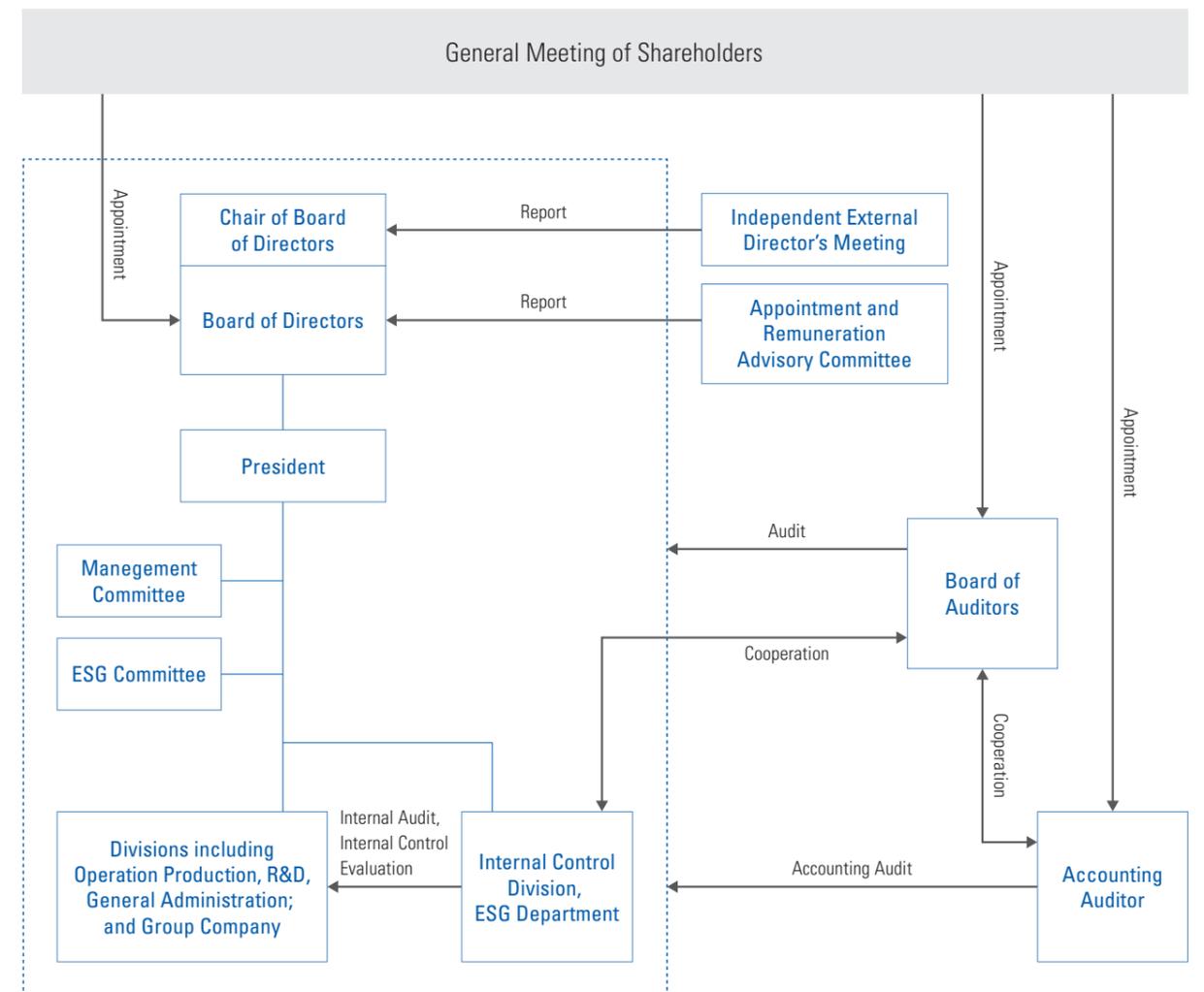
[For details, see our website. > https://www.kaneka.co.jp/en/esg/governance/corporate/](https://www.kaneka.co.jp/en/esg/governance/corporate/)

## Basic Policy

Guided by our Corporate Philosophy, Kaneka aims to achieve sustainable growth, improve medium- to long-term corporate value, and build trust among all stakeholders, including shareholders, investors, cus-

tomers, local communities, vendors, and employees, realizing optimum corporate governance to fulfill our social responsibility.

▶ Diagram of Corporate Governance System



## Corporate Governance

### Corporate Governance Structure

#### Organizational Design

We currently have four independent external directors and two independent external auditors. Since both the overseeing of business operations by the Board of Directors and auditing by the Board of Auditors are functioning well, Kaneka has chosen to be a Company with Board of Auditors under the Companies Act.

#### Directors and the Board of Directors

The Board of Directors seeks to ensure efficient and effective corporate governance in order to realize the company's sustainable growth and increase corporate value in the medium to long term.

The Board of Directors exercises its oversight functions on overall management to ensure fairness and transparency, as well as to appoint management positions, evaluate and determine remuneration, evaluate serious risks and determine strategies to counter them, and make the best decisions on important business operations. The Board of Directors makes resolutions on important matters related to the management of the Kaneka Group after deliberation by the Management Committee, which includes the president. There are at most 13 members on the Board of Directors. Of these, four are independent external directors, in principle, to strengthen the oversight function. Directors serve for a period of one year to clearly define management responsibilities.

#### Auditors and the Board of Auditors

Auditors and the Board of Auditors seek to ensure healthy and sustainable corporate growth and to establish a structure with good corporate governance that can gain social trust by checking on the performance of directors in regard to their duties.

The Board of Auditors comprises four members, two of whom are independent external auditors in principle, and performs audits in coordination with the Accounting Auditor and the ESG Department Internal Control Division's. Auditors are given space to periodically exchange views with the president, and monitor the state of business operations when necessary, by attending key meetings of the Board of Directors and those of the Management Committee, which decides on the implementation of important matters, as well as division head meetings.

#### Appointment and Remuneration Advisory Committee / Independent External Director's Meeting

The Appointment and Remuneration Advisory Committee discusses the remuneration of Directors and the appointment of Director and Auditor candidates to report to the Board of Directors. The Independent External Director's Meeting discusses the effectiveness of the Board of Directors to report to the Chair of the Board of Directors.

#### Implementation of Business Operations

Kaneka has adopted the executive officer system to harmonize the oversight function of directors with the implementation function of business operations, which also facilitates decision-making and clearly defines roles. The Board of Directors decides on key management strategies and business operations of the entire Kaneka Group, while executive officers handle business operations in their respective areas of responsibility. The Executive Officers' Meeting is held monthly to share management policies and issues with the aim of achieving management goals speedily. Division heads, including executive officers appointed by the Board of Directors, are given extensive authority over daily business execution. Monthly division head meetings are held to enable the directors and auditors to directly hear progress reports from each division head. The Internal Control Division of the ESG Department evaluates the effectiveness of internal control and conducts an internal audit.

### Standards for Independence of External Directors/Audit & Supervisory Board Members

We have defined the Standards for Independence of External Directors/Audit & Supervisory Board Members to guarantee the independence of independent external directors and auditors in practice. The standards are disclosed in our notice of convocation of general meeting of shareholders, corporate governance report, etc.

#### Selection Criteria for Directors

At Kaneka, directors are selected by the Board of Directors, on the basis of character, judgment, expertise and experience as well as ethics without limitations on gender, age, nationality and other attributes, after deliberation by the Appointment and Remuneration Advisory Committee, which is comprised of representative directors and independent external directors.

### Analysis and Evaluation of Effectiveness of the Board of Directors

Kaneka regularly implements an analysis and evaluation of the effectiveness of the Board of Directors, and discloses a summary of the evaluation results. Specifically, the Chair of Board of Directors periodically receives reports from the Independent External Director's Meeting and opinions from the internal directors. Based on these reports, the current status of operations of the Board is evaluated. In the evaluation process in fiscal 2019, the Independent External Director's Meeting held discussions focusing on the operation of the Board of Directors (number of meetings held, frequency, length, contents of information provided beforehand, contents of agendas, deliberations, etc.), role of external directors, information provision to external directors, and risk management. Based on the discussion results, the Board of Directors conducted a self-evaluation. As a result, it has been confirmed that the Board of Directors functions effectively in making decisions on important matters for the Group such as risk management and supervising business execution. We will continue to enhance the effectiveness of our Board of Directors through effectiveness evaluations.

### ► Our Efforts to Strengthen the Governance Capacity

2006	<ul style="list-style-type: none"> <li>● Introduced the executive officer system</li> <li>● Changed the number of directors from 21 to 13</li> <li>● Formulated the Basic Policy on Internal Control System</li> </ul>
2011	<ul style="list-style-type: none"> <li>● Appointed an external director</li> </ul>
2013	<ul style="list-style-type: none"> <li>● Formulated the Criteria for Independence of External Directors</li> </ul>
2015	<ul style="list-style-type: none"> <li>● Increased the number of external directors from 1 to 2</li> <li>● Formulated the Basic Policy on Corporate Governance</li> <li>● Established the Appointment and Remuneration Advisory Committee</li> <li>● Established the Independent External Director's Meeting</li> </ul>
2016	<ul style="list-style-type: none"> <li>● Commenced the effectiveness evaluation on the Board of Directors</li> </ul>
2019	<ul style="list-style-type: none"> <li>● Revised part of the Basic Policy on Corporate Governance</li> </ul>
2020	<ul style="list-style-type: none"> <li>● Increased the number of external directors from 2 to 4</li> <li>● Revised part of the Basic Policy on Corporate Governance</li> </ul>

## ESG Promotion

WEB For details, see our website. > <https://www.kaneka.co.jp/en/esg/promotion/prm/>

### Basic Policy

In 2018, Kaneka Group established the ESG Charter to evolve its ESG management. Aiming to provide valuable solutions globally with a focus on chemistry, the ESG Charter serves as an action agenda for each employee to materialize our Corporate Philosophy.

### ESG Promotion System

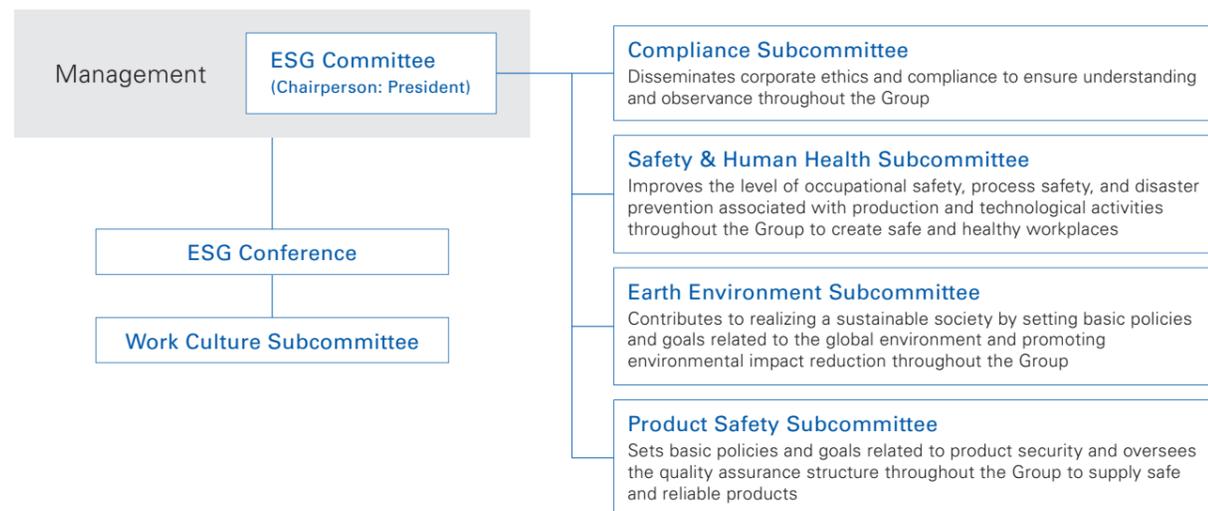
To achieve ESG management, the ESG Committee is working to resolve environmental, social, and governance issues, coordinating the Compliance Subcommittee, the Safety & Human Health Subcommittee, the Earth Environment Subcommittee, and the Product Safety Subcommittee.

In fiscal 2019, the ESG Committee met twice, and the four Subcommittees met individually (Compliance: twice, Safety & Human Health: twice, Earth Environment: twice, and Product Safety: twice).

The ESG Committee assessed the implementation status of each Subcommittee's activities, shared information on key issues, deliberated the fiscal 2020 action policy plan, and decided on necessary management measures.

In April 2019, the ESG Conference was newly established to set policy directions to promote ESG management, wellness-first management, and work culture innovation, aiming to enhance sustainable corporate value.

► Diagram of ESG Promotion System



### ESG Inspections

To inspect the legal and regulatory compliance status of the Kaneka Group and to improve its occupational safety and health performance, ESG inspections are carried out, comprising ESG safety and quality inspections and ESG evaluation audits, targeting all Group companies within and outside Japan.

In fiscal 2019, we conducted ESG safety and quality inspections at all parent manufacturing sites, 20 sites of 16 Group companies in Japan, and four sites of four Group companies outside Japan, focusing on serious risk management, compliance, implementation of basic safety actions (greetings, 3Ss, and hand-rail holding), and internal audits.

We also conducted ESG evaluation audits relating to competition laws, including the Antimonopoly Act, for all business operations divisions, 28 Group companies in Japan, and 14 outside Japan.

### ESG Education

In fiscal 2019, we conducted two training sessions for mid-career employees and overviewed the SDGs and familiar efforts to achieve them on our Intranet to promote ESG within the company.

## Business Risks and Uncertainties

WEB For details, see our website. > <https://www.kaneka.co.jp/en/esg/governance/risk/>

### Basic Policy

Kaneka Group has formulated a basic risk management policy to respond to potential risks in business operations, aiming for the goal of "Wellness First" to make the world healthy.

Our basic risk management policy is that each division identifies operational risks and other types of risks that it may face, takes appropriate preventive measures, and responds appropriately in cooperation with other relevant divisions if a risk manifests itself.

For preventive measures against potential risks including those related to ethics and legal compliance, the Compliance Subcommittee of the ESG Committee oversees the development and implementation of the company-wide plans.

When a risk occurs or is likely to occur, the ESG Committee handles the risk in cooperation with the relevant divisions.

We regularly check whether the above-mentioned activities are implemented properly to prevent our risk management system from falling into mere formality, and strive to maintain and improve its effectiveness.

### Business-Related Risks

Factors that may significantly affect the performance and the financial position of the Kaneka Group include those described below.

Please note that the matters described are only those that we considered risks as of March 31, 2020 and that this is not an exhaustive list of risks borne by the Group.

1. Risks related to the spread of COVID-19
2. Risks related to the Group's ability to maintain operational advantages and trends in the Japanese and overseas economic environments
3. Risks associated with the globalization of our business (overseas business development and fluctuations in foreign exchange rates)
4. Risks of price fluctuations of raw materials and fuels
5. Risks associated with product liability, industrial accidents and large-scale disasters
6. Risks associated with the protection of intellectual property rights
7. Impact of environment-related regulations
8. Risks associated with legal action
9. Other risks

See the Financial Section for more details.

### Enhancing Crisis Management Systems

Based on our basic risk management policy, we have set basic matters concerning emergency response (basic system, roles, emergency examples and ranks, etc.) in the Crisis Management Regulations. We will continue to fulfill our social responsibility by maintaining corporate activities while avoiding and reducing adverse effects on the Kaneka Group as much as possible. In preparation for an emergency, we regularly conduct a disaster drill and a safety confirmation system drill. We also provide employees with the Crisis Management Handbook, which contains intelligible graphs of emergency initial response rules. This handbook explains emergency procedures: proper incident notification, instructions, consultation, and response, as well as the smooth flow of information.

### Strengthening of Information Security

We appropriately manage information based on our Basic Information Management Policy to avoid information leakage and other risks, and we promote effective use of information and efficiency in operations.

To protect our information assets from risks, including cyberattacks, we strive to enhance security levels by using the knowledge of external experts. We also take measures to reduce risks associated with rapid change in the information security environment, including reviewing existing facilities and enhancing various security systems and tools.

Given that more employees engage in telecommuting due to the COVID-19 pandemic, we also seek to appropriately manage information on employees. In addition to disseminating our Basic Information Management Policy to employees, we hold training programs, audits, drills, and e-learning education programs, using the Information Security Guidebook.

# Compliance

[For details, see our website. > https://www.kaneka.co.jp/en/esg/governance/compliance/](https://www.kaneka.co.jp/en/esg/governance/compliance/)

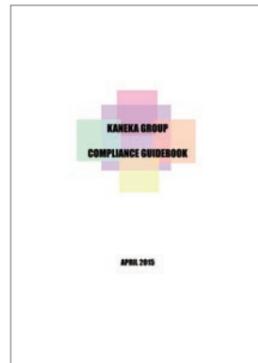
## Basic Policy

Viewing compliance as an important management issue, we implement various initiatives to ensure all directors and employees comply with all applicable laws and regulations.

The Compliance Subcommittee under the ESG Committee is responsible for ensuring corporate ethics and compliance throughout the company while promoting and overseeing activities such as checking employees' understanding and observance and providing consultation hotlines.

## Compliance Awareness Raising

Our corporate Intranet provides ready access to our Compliance Guidebook, which provides a clear explanation of our Ethical Code of Conduct as well as the laws and regulations to be observed by all of our directors and employees. Additionally, a variety of training sessions and meetings, and activities of the Compliance Subcommittee ensure that we strictly adhere to our compliance policies.



Compliance Guidebook

## Self-Check in Training Session

The compliance online course for all employees, launched in fiscal 2014, was expanded to include Group companies in Japan in fiscal 2016; employees from 43 companies were encouraged to participate in fiscal 2019. Training sessions on the Antimonopoly Act are conducted regularly with all of managerial officers from the Kaneka and Group companies in Japan who are involved in sales, purchasing, and business development, all of whom are required to submit a pledge.

## Internal Audits and Establishment of Consultation Hotlines

We at the Kaneka Group conduct ESG evaluation audits related to the Antimonopoly Act. In fiscal 2019, audits were conducted in all business operations divisions and at 28 Group companies in Japan and 14 in the U.S., Europe, and China. For Group companies in Malaysia, we plan to conduct audits from fiscal 2020 according to the Fair Trade Management Regulations formulated in October 2019.

We have also set up compliance consultation hotlines both internally and with outside law firms in order to answer inquiries from those within the Group. We strive to respond quickly to provide a rapid resolution to any concerns that may arise.

# Intellectual Property

[For details, see our website. > https://www.kaneka.co.jp/en/esg/governance/intellectual-property/](https://www.kaneka.co.jp/en/esg/governance/intellectual-property/)

## Basic Policy

We secure intellectual property rights, such as patents for our R&B results, aiming to provide prompt solutions to help resolve social issues.

From a global perspective, intellectual property staffs are allocated to each regional headquarters in the Americas, Europe, and Asia, with the Intellectual Property Department serving as the center, to respond directly to local issues. We also strengthen cooperation with Group companies within and outside Japan to avoid intellectual property risks and trade

secret leakage.

We formulate and implement intellectual property strategies along with reform for R&B structures in cooperation with the business and R&D divisions. We also perform a wider range of analysis that combines intellectual property information with market and corporate information, using intellectual property information analysis software and AI technology.

We also actively work to create intellectual property by revising our invention incentive programs at the time of patent application to further increase application incentives for employees.

We respect the intellectual property rights of other companies and, to avoid disputes, we conduct careful patent searches, securing patent clearance, at each phase of development, including theme proposal, commercialization, and specification changes.

## Establishment of Patent Portfolio

In fiscal 2019, we acquired parent rights mainly in the technological field, which contributes to our wellness-first management. In Japan, patents were registered for textiles and compositions made of marine biodegradable KANEKA Biodegradable Polymer Green Planet, catheters for the electrophysiology business, cold storage compositions which can replace dry ice could be useful for the transportation of pharmaceuticals and specimens, building integrated photovoltaics (BIPVs), and see-through photovoltaic modules.

Outside Japan, we acquired patent rights for a cell production method for antibody drugs and endoscopic clips for the gastrointestinal business, mainly in the U.S.

## Number of Patents Held

We are actively filing domestic and foreign patent applications to secure intellectual property rights toward transforming our business portfolio.

In fiscal 2019, 270 domestic patents and 303 foreign patents were newly registered. Although some product patents expired, domestic and foreign patents

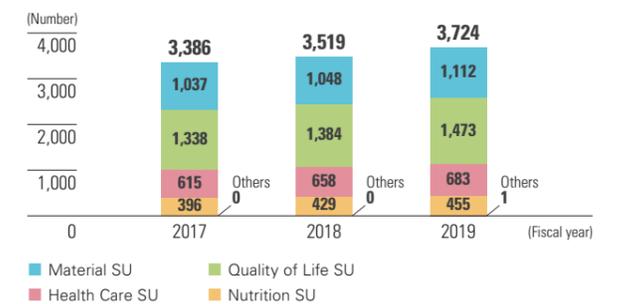
held as of the end of fiscal 2019 numbered 3,515 and 3,724, respectively, showing a year-on-year increase. Domestic patents greatly increased in the Quality of Life and Health Care SUs. Globalization of businesses significantly increased the number of foreign patents in the Material and Quality of Life SUs.

We will work to increase the number of patent applications and registrations to strengthen our intellectual property rights through cooperation with the R&B Division.

▶ Number of Domestic Patents Held



▶ Number of Foreign Patents Held



## “Divergent Discussion” and “Edge of Technology” as Starting Points! – Cultivating the ability to identify future seeds

Kaneka is a “Trial & Error experiment driven company.” We believe only such a company can generate unconventional ideas and wisdom through failures and facilitate discussion that leads to the sprouting of new seeds. Researchers at the Kaneka Group are enthusiastically searching for future seeds with “divergent discussion” and “edge of technology” as keywords to identify themes that contribute to realizing a sustainable society through resolution of the three crises. Divergent discussion helps us to have multiple 360-degree perspectives, and the edge of technology refers to the forefront of cutting-edge technology that contributes to resolving social issues. These are starting points to create future seeds. Through divergent discussion and the edge of technology, we will cultivate the ability to create exciting seeds to achieve our mission “Kaneka thinks ‘Wellness First’”.



# Sustainability – Environment

[WEB](https://www.kaneka.co.jp/en/esg/environment/env/) For details, see our website. > <https://www.kaneka.co.jp/en/esg/environment/env/>

## Basic Policy

In keeping with our ESG Charter, we at the Kaneka Group will contribute to realizing sustainable development and the enrichment of society by conserving resources and reducing environmental impacts at each stage of the entire product lifecycle.

Important matters pertaining to the protection of the global environment are decided by the Earth Environment Subcommittee and decided by the ESG

Committee. Meanwhile, issues on global environment protection are shared and further discussed at the management meeting, the Plant Management Committee, and other meetings. The mid-term management plan also focuses on strengthening initiatives on important matters to further improve our ESG management.

## Material Balance in Production Activities

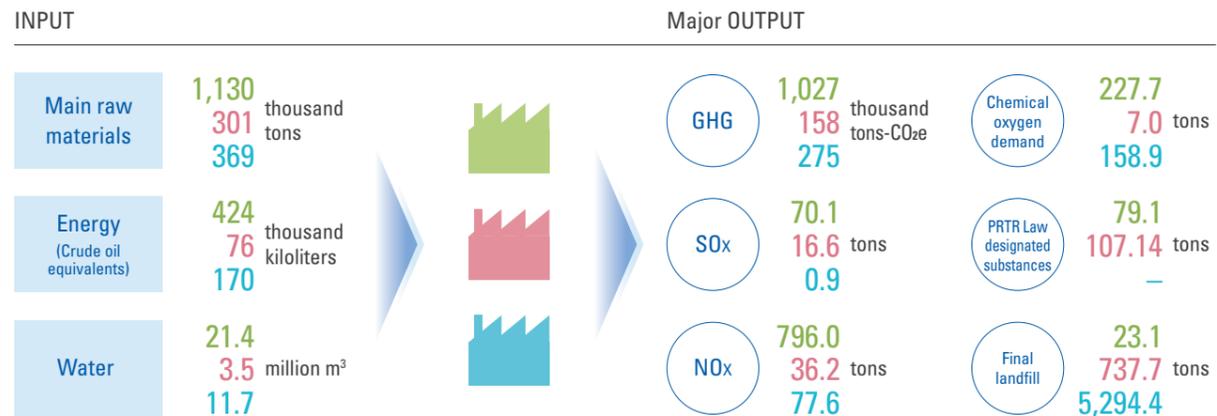
Kaneka Group is working to reduce environmental impacts by aggregating the status of energy and resource inputs and material outputs through emissions and products to grasp production activity volume, targeting Kaneka and Group companies within and outside Japan.

In fiscal 2019, raw material input decreased by 59 thousand tons from the previous year. The product,

GHG, SO<sub>x</sub>, and NO<sub>x</sub> outputs decreased by 68 thousand tons (3.3%), 109 thousand tons-CO<sub>2</sub>e (6.9%), 22.8 tons (20.7%), and 37.5 tons (4.0%), respectively. Meanwhile, final landfill waste output increased by 494 tons (8.9%) due to a rise in production volume and differences in the product mix for some Group companies outside Japan.

▶ Material Balance in Production Activities (FY 2019)

Kaneka Group companies in Japan 46 Group Companies outside Japan 15



## Biodiversity

Considering the impacts of our businesses on ecosystems, we at Kaneka strive to develop technologies, materials and products that have less environmental impacts, as well as to mitigate environmental impacts of our production.

Since 2012, employees at the Takasago Manufacturing Site have been involved in the Kaneka Forestry for the Future project aimed at conserving a private forest in Taka Town, Hyogo Prefecture. Training of newly hired employees has been used as a part of the

project. Assisting each other on the forest terrain in cutting and transporting timber, the participants build solidarity and teamwork. Tree thinning was conducted in April and November 2019. The carbon sink since the start of the project amounts to 2.08 tons-CO<sub>2</sub>.

Since 2012, we have operated the Settsu-no-mori Kaneka Biotope on the premises of the Osaka Manufacturing Site in collaboration with the Settsu Firefly Society, to create a firefly habitat in Settsu City. Along with the appearance of fireflies (May/June), we held a firefly viewing gathering, inviting local residents.

Employees at the Shiga Manufacturing Site have joined the Walnut School's efforts to conserve the Konooka Biotope, a precious natural environment of Lake Biwa, as a steering committee member. We participated in its seasonal nature observation gatherings and regular activities in July and December, such as grass mowing, sidewalk maintenance, the updating of tree signs and so on. We learn the importance of natural environment, interacting with seasonal creatures and nature together with local residents.



Kaneka Forestry for the Future (Takasago Manufacturing Site)



Settsu-no-mori Kaneka Biotope (Osaka Manufacturing Site)



Walnut School (Shiga Manufacturing Site)

## Eco-Friendly Products

Focusing on eco-friendly management, Kaneka Group has defined, enhanced, and expanded its eco-friendly products\* since fiscal 2017.

\* Products that can contribute to reducing global environmental impacts at the stages of customer use, disposal and recycling, compared to conventional products.

Energy Creation	Energy Storage	Energy Saving	Energy Saving	Waste Reduction	Chemical Pollution Prevention
<b>Product name</b> VISOLA SoltileX GRANSOLA	<b>Product name</b> Residential electricity storage systems	<b>Product name</b> Kanepearl	<b>Product name</b> Eperan	<b>Product name</b> Green Planet	<b>Product name</b> KANEKA Surfactin
<b>Intended use</b> Solar power generation systems	<b>Intended use</b> Residential stationary batteries	<b>Intended use</b> Residential/automotive foams	<b>Intended use</b> Automotive parts Package cushioning materials	<b>Intended use</b> Biodegradable Polymer (Packaging materials, garbage bags, foams)	<b>Intended use</b> Biosurfactant, Cleaning agents
<b>Reason for environmental contribution</b> Creating energy with houses equipped with this product	<b>Reason for environmental contribution</b> Storing energy by houses equipped with this product	<b>Reason for environmental contribution</b> Saving energy as insulation and lightweight residential/automotive materials	<b>Reason for environmental contribution</b> Saving energy as lightweight automotive parts	<b>Reason for environmental contribution</b> A naturally derived and biodegradable polymer that has little environmental impact when discarded	<b>Reason for environmental contribution</b> A naturally derived and biodegradable material friendly to the environment

Sustainability – Environment

Efforts to Address Climate Change

Initiatives to Reduce GHG Emissions and CO<sub>2</sub> Emission Intensity

To address prevention of global warming, we at the Kaneka Group are working to promote energy conservation and reduce CO<sub>2</sub> emission intensity through various measures, for example by utilizing our own environmental capital investment program.

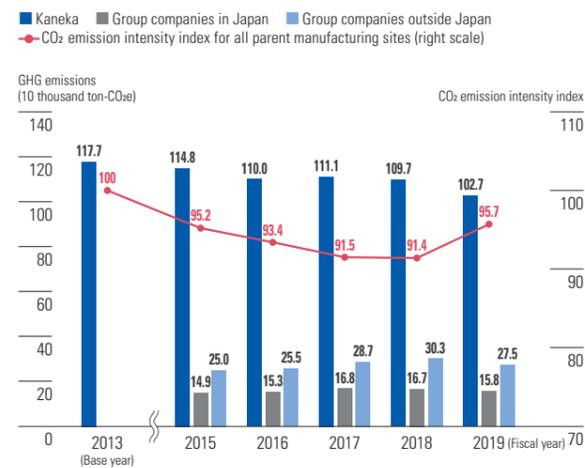
The energy origin CO<sub>2</sub> emission intensity index\*<sup>1</sup> for all parent manufacturing sites in fiscal 2019 was 95.7, which did not achieve our fiscal 2020 target of 93.2.

Our greenhouse gas (GHG) emissions\*<sup>2</sup> decreased by 6.3% from the previous year to 1,027 thousand tons-CO<sub>2</sub>e due to a reduction in production volume, a decrease in the CO<sub>2</sub> emission factor for electricity, and the results of energy conservation activities.

We will continue to streamline our production processes through innovation to reduce GHG emissions.

We also use carbon-Life Cycle Analysis (cLCA) to calculate CO<sub>2</sub> emission reduction benefits by quantitatively assessing CO<sub>2</sub> emissions throughout product lifecycle, making comparisons with similar products. We also calculate indirect GHG emissions (Scope 3) associated with our business activities through supply chains.

▶ GHG Emissions and Energy Origin CO<sub>2</sub> Emission Intensity Index



\*1 CO<sub>2</sub> emission intensity index: CO<sub>2</sub> emission intensity is a numerical value calculated by dividing CO<sub>2</sub> emissions from energy consumption associated with production activities, which are calculated using a fixed emission factor unique to Kaneka, by the volume of activity. The CO<sub>2</sub> emission intensity index is calculated by indexing the CO<sub>2</sub> emission intensity, with fiscal 2013 used as the base year of 100. Our target for fiscal 2020 is 93.2.

\*2 GHG emissions, calculated in accordance with the Act on Promotion of Global Warming Countermeasures, are the total amount of energy origin CO<sub>2</sub> emissions, non-energy origin CO<sub>2</sub> emissions, and the CO<sub>2</sub> equivalent of methane and N<sub>2</sub>O emissions. For emission factors for electricity, the basic emission factors are used for calculation.

▶ GHG Emissions by Scope (FY 2019 results at Kaneka)

Scope	GHG emissions [Thousand tons-CO <sub>2</sub> e /year] (year-on-year)
Scope 1 Direct emissions* <sup>3</sup>	769.6 (+0.3%)
Scope 2 Indirect emissions from energy consumption* <sup>4</sup>	257.5 (-21.8%)
Scope 3 Other indirect emissions (upstream/downstream)* <sup>3</sup>	2,580.1 (+24.0%)
<b>Total GHG emissions</b>	<b>3,607.2 (+13.5%)</b>

\*3 Non-energy CO<sub>2</sub> emissions and CO<sub>2</sub>-equivalent emissions of methane and N<sub>2</sub>O are included.

\*4 As emission factors for electricity, the basic emission factor for each power company was used for calculation. GHG emissions calculated using the location-based method were 322.4 thousand tons-CO<sub>2</sub>e (-15.9%).

Preventing Pollution and Managing Chemical Substances

Toward the prevention of air and water pollution, the appropriate management of toxic chemical substances, and the reduction of their emissions, we are engaged in production activities in compliance with the standards specified in the Air Pollution Control Act and the Water Pollution Control Act as well as the criteria included in agreements made with local governments.

We will continue to comply with these standards, reduce and control the emission of volatile organic compounds (VOCs) and chemical substances subject to the Pollutant Release and Transfer Register (PRTR) Act, including six toxic air pollutants set independently by us.

Reducing Waste and Recycling Resources

Since waste reduction leads to maintaining and improving the global environment through resource savings, cost cutting, CO<sub>2</sub> emission reduction and so on, we promote the 3Rs (Reduce, Reuse, and Recycle) company-wide. We also promote the reduction and recycling of industrial waste, and Kaneka Group has achieved zero emissions\*<sup>5</sup> for 14 years consecutively. We also facilitate continuous improvement activities through process analysis using Material Flow Cost Accounting (MFCA).

\*5 Zero emission defined by Kaneka: The final landfill waste must be less than 0.5% of the generated waste.

TOPIC

Green Bond (Environmental Bond) Issued

As its 7th unsecured straight bond, Kaneka issued a green bond (environmental bond) to procure funds for the manufacture and R&D of KANEKA Biodegradable Polymer Green Planet\*<sup>6</sup> ("Green Planet") in September 2019. A green bond is an ESG bond, and fund usage is limited to projects that contribute to resolving environmental issues. It is the first such industrial bond issued by a Japanese chemical company.

Green Planet is a 100% plant-based polymer extracted from microorganisms that process plant oils and is biodegradable in the sea and soil. It is expected to contribute to reducing marine pollution caused by microplastics.

For the issuance of the green bond, Kaneka has established the Green Bond Framework, which conforms to the Green Bond Principles 2018 of the International Capital Market Association (ICMA) and the Green Bond Guidelines 2017 Edition of Japan's Ministry of the Environment. To obtain eligibility for and transparency of this green bond and raise its appeal for investors, as a third-party evaluation, Kaneka has obtained a second opinion from Rating and Investment Information, Inc. (R&I) of how this framework conforms to the Green Bond Principles 2018 and the Green Bond Guidelines 2017 Edition. Kaneka has also obtained top-level evaluation in the green bond assessment by R&I, the GA1 preliminary evaluation.

The relevant business segments of the green bond principles and the relevant development objectives of the SDGs are shown in the table below.

\*6 We changed our product registered trademark from "KANEKA Biodegradable Polymer PHBH" to "KANEKA Biodegradable Polymer Green Planet" in February 2021.

Green bond principles / Green project categories	SDGs Development objectives
<ul style="list-style-type: none"> <li>● Pollution Prevention and Control</li> <li>● Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Process</li> </ul>	

Sustainability – Environment

Announcing Support for TCFD to Address Climate Change

Kaneka has announced that it supports the recommendations of the Task Force on Climate-related Financial Disclosures (referred to below as TCFD), a task force created by the Financial Stability Board at the request of the G20.

As recommended by the TCFD, Kaneka conducted a structural analysis of the activities of the Kaneka group companies based on risk and opportunity and selected areas of importance and urgency that need to be addressed. Specifically, Kaneka selected three areas they will address from here on: (1) cutting emissions of greenhouse gas (GHG), (2) contributing to a recycling-oriented society, and (3) increasing produc-

tion of food resources. The progress of these initiatives will be conveyed to all stakeholders in a timely manner.

Kaneka defines its purpose (meaning of existence) as “to solve social issues and realize a sustainable society by providing innovative materials as solutions through the break-through technology and global network.” Kaneka has defined the three crises of “Global

Environment / Energy”, “Food” and “Wellness (living an enriched life)” as domains. Kaneka will put into practice ESG management. Through solving problems related to climate change, Kaneka will help realize a more sustainable society and aim for “Wellness First” to make the world healthy.

We will endeavor to realize carbon neutrality by 2050.

Changes in the social environment due to climate change	Supposed changes in the social environment			Business risk and opportunity	Direction of measures	
	2025 (short term)	2030 (medium term)	2050 (long term)		Existing efforts	Additional efforts
<b>1. Cutting emissions of greenhouse gas (GHG)</b>						
1-1. Reduction of GHG emissions	Reduced GHG emission*: 20% compared to fiscal 2015	Reduced GHG emission*: 30% compared to fiscal 2015	Reduced GHG emission*: 60% compared to fiscal 2015	<b>[Opportunity]</b> <ul style="list-style-type: none"> <li>Increase in demand for renewable energy</li> </ul> <b>[Risk]</b> <ul style="list-style-type: none"> <li>Rise in cost</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of GHG emission reduction target by 2030 and implementation of measures</li> <li>Promotion of investment for energy saving</li> <li>Improvement in energy intensity</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of a committee that investigates carbon neutral technology and examination of strategies</li> <li>Realization of an energy-saving plant through production process innovation</li> <li>R&amp;D of products useful for GHG emission reduction and business expansion</li> </ul>
1-2. Energy policy Drastic changes in industrial structure due to a major policy shift across the world	<ul style="list-style-type: none"> <li>Acceleration of conversion to non-fossil fuel</li> <li>Increase in demand for renewable energy</li> <li>Changes in social structure</li> </ul>	<ul style="list-style-type: none"> <li>Expansion of renewable energy-related markets → Progress of electrification in society → Increase in EVs in the transportation sector → Acceleration of use of renewable energy and green hydrogen</li> </ul>		<b>[Opportunity]</b> <ul style="list-style-type: none"> <li>Expansion of carbon neutral-related businesses, such as energy saving, energy creation, and energy storage</li> </ul> <b>[Risk]</b> <ul style="list-style-type: none"> <li>Rise in cost</li> </ul>	<ul style="list-style-type: none"> <li>Production and operation innovation through implementation of IoT technology</li> <li>Development of a business related to energy-saving and comfortable Solar Circuit (PVs, insulation materials)</li> <li>Launch of in-house PV power generation</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of DX strategies (AI, IoT, etc.) at manufacturing sites</li> <li>Development and social implementation of next-generation PV systems and high heat-insulating materials and their use for ZEHs/ZEBs</li> <li>R&amp;D of storage batteries</li> <li>Procurement of green power</li> </ul>
<b>2. Contributing to a recycling-oriented society</b>						
Acceleration of circular economy	<ul style="list-style-type: none"> <li>Increase in demand for renewable materials in the fields of automobiles, apparel, and electronics</li> <li>Establishment of recycling technology for various materials</li> </ul>	<ul style="list-style-type: none"> <li>Acceleration of social implementation of biodegradable polymers and non-fossil polymers</li> <li>Evolution of 3Rs society</li> </ul>		<b>[Opportunity]</b> <ul style="list-style-type: none"> <li>Rise in demand for products and technologies that realize resource recycling</li> </ul>	<ul style="list-style-type: none"> <li>Social implementation of KANEKA Biodegradable Polymer Green Planet™</li> <li>Implementation of 3Rs and landfill waste reduction in production process</li> </ul>	<ul style="list-style-type: none"> <li>Expansion of application of KANEKA Biodegradable Polymer Green Planet™</li> <li>Development of waste recycling technology and social implementation of a recycling system</li> </ul>
<b>3. Increasing production of food resources</b>						
Crisis of sustainability in the primary industry, such as agriculture, livestock, and fisheries	<ul style="list-style-type: none"> <li>Decline in agricultural productivity caused by deterioration of crop resistance due to severe environmental change such as soil degradation and desertification</li> <li>Issue in the supply of proteins, such as fish and meat</li> </ul>	<ul style="list-style-type: none"> <li>Expansion of market for safe and reliable food</li> <li>Food shortage</li> </ul>		<b>[Opportunity]</b> <ul style="list-style-type: none"> <li>Rise in need for the development of sustainable technology capable of enhancing production (productivity) in agriculture and livestock industry</li> <li>Increase in demand for safe and reliable food</li> </ul> <b>[Risk]</b> <ul style="list-style-type: none"> <li>Concerns about the procurement of safe food raw materials</li> </ul>	<ul style="list-style-type: none"> <li>Development of food production support technology with no reliance on excessive pesticides or chemical fertilizers (biostimulants, etc.)</li> <li>Promotion of the dairy products and lactic acid businesses that support a safe and rich dietary</li> <li>Development of technology that reduces food waste</li> </ul>	<ul style="list-style-type: none"> <li>Development and social implementation of products made using biotechnology (seed business, biopesticides, etc.)</li> <li>Promotion of environmentally-friendly recycling-based organic dairy farming</li> <li>R&amp;D toward a one health approach</li> </ul>

\* Amount of GHG emission reduction required of the chemical sector by IEA based on the IEA's Sustainable Development Scenario (SDS).

# Safety / Quality

 For details, see our website. > <https://www.kaneka.co.jp/en/esg/social/safety-quality/>

## Process Safety and Disaster Prevention, Occupational Safety

### Basic Policy

Placing the top priority for management on safety, we have established the Basic Policy on Safety, under which all employees as well as all persons working at the Kaneka Group and our partner companies work to create safe and healthy workplaces and share the importance of safety with the goal of no accidents and no disasters.

The Safety & Human Health Subcommittee, with the director in charge of process safety as the chair, which was established under the ESG Committee, sets policies and goals related to occupational safety, process safety, and disaster prevention and checks the progress of goals.

To share the importance of safety first between management and on-site staff, members of top management inspect plants to check the on-site situation and create an opportunity to talk with employees.

### Basic Safety Policies

- **Safety forms our management foundation, and is the basis of all corporate activities.**  
We take action with priority given to ensuring safety in all activities in the company.
- **Safety is the foundation of local and worldwide communities' confidence in Kaneka.**  
We do our best to develop their trust.
- **Safety is based on our belief that "All accidents can be prevented."**  
We always move forward without being satisfied with lukewarm results.
- **Safety is the responsibility of every employee in accordance with his/her duties.**  
We fulfill our responsibilities by mutually clarifying the duties we have assumed.
- **Safety must be maintained continuously.**  
We ensure safety through steady efforts on a daily basis.

### Efforts to Ensure Zero Accidents

We share the importance of safety first and work to ensure zero process accidents. In fiscal 2019, we worked on two key challenges: ensuring the intrinsic safety of equipment and fostering a safe culture.

#### Ensuring the Intrinsic Safety of Equipment

We are promoting our efforts from the perspective of multiple protection based on risk assessment (safety assessment) of plants. We are also working to establish a smart plant by actively adopting DX (digital transformation) with a view to realizing an unmanned plant.

#### Fostering a Safe Culture

To have employees recognize the importance of observance of rules, we develop basic safety actions (greetings, 3Ss, handrail holding) and encourage these actions through posters and questionnaires. Based on the questionnaire results, we provide feedback to organization administrators and promote discussion at the workplace to help employees recognize the importance of basic actions and raise their safety awareness. We also take measures to recognize the importance of preventing human errors.

To ensure safe and secure operations, it is also important to create a workplace environment where employees can work in good physical and mental health. To realize this, we have established the Zero Accident Principles, based on which all employees, including members of top management, make a point of following the rules.

In 2019, 19 occupational accidents occurred in the Kaneka Group, of which 10 resulted in lost work time, and nine did not. We will boost personal safety awareness by promoting safety activities in compliance with the Zero Accident Principles, including identifying potential danger, ensuring the intrinsic safety of equipment, and taking safeguarding measures.

### Zero Accident Principles

- **All people, you and me, are indispensable**  
We ensure everyone is working safely.  
[Pledge of safety]
- **Safety is everyone's responsibility**  
We do not miss sparing the time to seek safety.  
[Participation in safety]
- **There is no trick to safety**  
We always value a fundamental approach to it.  
[Adherence to safety basics]
- **Be aware of potential danger**  
We endeavor to eliminate safety risks.  
[Safety in advance]
- **Where there is carelessness, there is the possibility of an accident**  
We do not allow even a small chance of negligence.  
[99%, yet 0%]

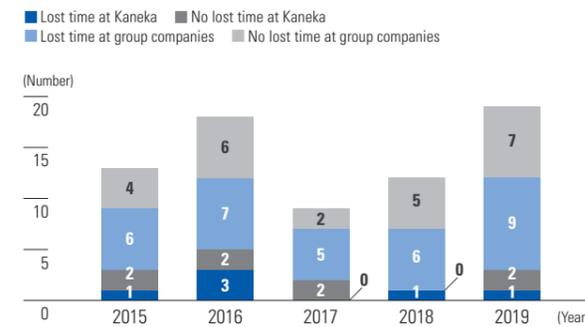
### Implementation of Disaster Drills

We annually conduct comprehensive disaster drills, based on a scenario of a large-scale earthquake and a fire caused by hazardous material leakage, at all parent Manufacturing Sites jointly with local governments and an industrial complex so that we can promptly and effectively respond to emergency situations.

We advance countermeasures against natural disasters in order to priority, including promoting the earthquake-proofing of equipment in preparation for large-scale earthquakes, and implementing risk assessment for typhoons and heavy rain, which have frequently occurred in recent years, based on hazard maps for all parent Manufacturing Sites and Group companies in Japan.

We also learn how to initially respond to a fire and how to use a hydrant to prevent the spread of a fire. To improve disaster coping skills, we join a hydrant operation competition held locally, ranking higher every year.

#### Accidents Resulting/Not Resulting in Lost Time



The number of occupational accidents includes those among employees at Kaneka and partner companies working in the Kaneka Group.



Cooperation with the local government

#### Accident Frequency Rate and Accident Severity Rate

Area	All Kaneka Group		Kaneka		Group Companies in Japan and Overseas	
	2018	2019	2018	2019	2018	2019
Accident Frequency Rate	0.23	0.52	0.00	0.00	0.36	0.78
Accident Severity Rate	0.02	0.01	0.00	0.00	0.03	0.02

**Accident Frequency Rate:** An indicator that shows the frequency of occupational accidents that caused death and/or injury by indicating the number of casualties per total 1 million actual working hours.

**Accident Severity Rate:** An indicator that shows the level of severity of occupational accidents by indicating the number of lost work days per total 1,000 working hours.

Both rates are calculated targeting employees at Kaneka and Group companies.

#### Comprehensive Disaster Drills

Manufacturing Site	Date	Participants	Details
Takasago Manufacturing Site	December 16, 2019	2,158	An earthquake resulting in a fire caused by hazardous material leakage
Osaka Manufacturing Site	November 6, 2019	1,087	An earthquake resulting in a fire caused by harmful material leakage
Shiga Manufacturing Site	November 27, 2019	464	An earthquake resulting in a fire
Kashima Manufacturing Site	March 4, 2020	90	An earthquake resulting in a fire caused by hazardous material leakage

## Safety / Quality

### Prevention of Machine Accidents and Hands-on Safety Experience Programs

To prevent machine accidents, such as being caught in machinery, we foster experts in machine safety.

We have also established hands-on safety experience facilities to have employees experience the fear of occupational accidents. For Group companies in Japan, we provide employees with the opportunity to gain simulated experience, using in-vehicle hands-on safety experience equipment, to raise their safety awareness. We also promote the introduction of a system that enables virtual reality experience.



New employees in hands-on training

## Product Responsibility

### Basic Policy

Aiming to benefit society and satisfy customers through a stable supply of safe and reliable products, Kaneka Group has set Quality Management Regulations to ensure product safety at all stages, from product design and development to delivery to customers.

The Product Safety Subcommittee under the ESG Committee sets policies and goals related to product safety and quality assurance and checks the progress of the goals. Established as its implementation bodies, the Product Safety Review Conference and Quality Management Conference oversee the quality assurance structure throughout the Kaneka Group.

### Quality Management

Kaneka Group undertake quality management activities to ensure product safety at all stages of product design and development, raw material procurement, manufacturing, and sales.

In fiscal 2019, related activities included the followings:

- Self-inspection was conducted to check management review implementation in each division for more improvement.
- We checked product inspection implementation at the plants of Group companies and found no serious compliance violations.
- We held four Quality Management conferences, inviting persons in charge of quality management in each business division, to instill the policy and instructions of the ESG Committee and the Product Safety Subcommittee, exchange views, and share information on product quality.
- We undertook a range of activities to improve the capacity of our employees, including through outside seminars and in-house lectures by external experts.

### Product Safety Review Conference

Due to expanded business operations and diversified activities of the Group, we need to conduct an increasing number of reviews of our new services and products targeted at general consumers.

To respond to emerging opportunities in a timely and speedy manner, in fiscal 2019 the Product Safety Review Conference and its administration office carried out related pre-consultations (hearings). In new food fields, in particular, we asked external experts to check risks to ensure product safety.

### Chemical Substance Management

We appropriately manage chemical substances at all stages of product development, manufacturing, transportation, sales, and disposal, following Japanese and international laws and regulations. For raw material procurement, we have established the Green Procurement Standards to prevent mixing of chemicals prohibited under the Chemical Substances Control Act\*1. We also actively offer information for the proper handling of our products through displaying Globally Harmonized System of Classification and Labelling of Chemicals (GHS)\*2 labels and providing a safety data sheet for products.

\*1 Chemical Substances Control Act: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

\*2 GHS: A worldwide system for classifying and labelling chemicals according to their hazardous properties.

### Audits and Inspections

We regularly undergo reviews and audits by external organizations based on established standards and criteria, such as the ISO 9001 standards.

In addition, we are working to improve our performance through ESG safety and quality inspections and internal auditing.

In fiscal 2019, related activities included the followings:

- We conducted an inspection and checked business operations with external experts, targeting expandable plastics, food, high-performance resin, and regenerative medicine and cell therapy.
- We continued to clarify the strengths and weaknesses of our product quality through quantitative evaluation and conducted an audit at all Group companies in Japan, including the production, sales, and administration divisions, through self-inspection using an audit checklist.
- We continued to develop and train internal auditors to further improve internal audit capabilities.

The expansion of the scope of internal audits led to enhancing our ability to inspect and improve product manufacturing as well as services for customers.

We will optimize the quality management system with the Product Safety Subcommittee serving as a center and through the improvement of frontline execution.