

Global "sukima" ideas



# Nippon Kayaku Group Integrated Report 2023



# KAYAKU spirit

Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences

The Nippon Kayaku Group conducts business activities in various countries and regions.  
The **KAYAKU spirit** is our ideal corporate vision, shared by all officers and employees.

## Aiming to Achieve our Vision: *KAYAKU Vision 2025* Sustainable Management

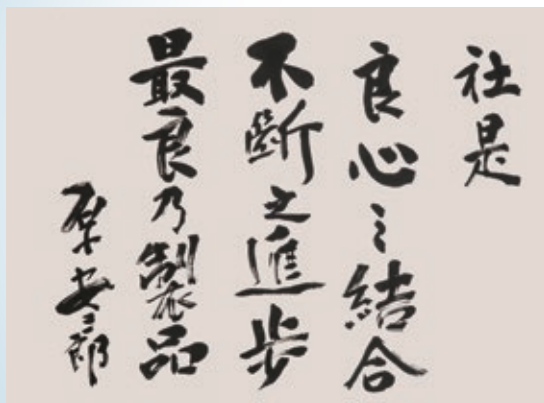
### Basic Policy on Sustainable Management

Under its corporate vision, the **KAYAKU spirit**, the Nippon Kayaku Group will practice sustainable management that responds to the trust placed in it by all of its stakeholders, by ensuring transparency and fairness in management and contributing to the creation of a sustainable environment and society through its business activities.



Although the Nippon Kayaku Group reorganized business segments in June 2023, in this Integrated Report 2023, in principle, the results are reported in the four conventional business segments of Functional Chemicals, Pharmaceuticals, Safety Systems, and Agrochemicals. In addition, some information is presented in the three new business segments of Mobility & Imaging, Fine Chemicals, and Life Science after the reorganization.

## Origin of the KAYAKU spirit



### Founded 1916

### Company credo established 1962

Yasusaburo Hara—our third president, who was involved in the Group's management for many years—established the company credo in 1962, with the desire to convey the important ideas that should be shared by all officers and employees in an easily understandable manner. This is the origin of the **KAYAKU spirit**.

Company credo: The combined forces of our consciences, Ceaseless progress, The best products.

### KAYAKU spirit

Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences.

### Mission in KAYAKU Vision 2025 (KV25)

The Nippon Kayaku Group aims to be a company with a strong presence that can consistently provide happiness and delight to the environment, society and all stakeholders under the **KAYAKU spirit**.

### Value created through sustainable management

$$= \text{Economic Value} + \text{Environmental and Social Value}$$

Under the Sustainable Management Basic Policy, company-wide material issues will be addressed by Materiality Cross-Functional Team in four businesses.

Management foundation for continuing business activities

Nippon Kayaku Group Charter of Conduct and Code of Conduct

# Nippon Kayaku Group Integrated Report 2023

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## Editorial Policy

### Organizations Covered

This report covers 27 out of the 47 companies in the Nippon Kayaku Group, in principle. The 27 companies covered are Nippon Kayaku Co., Ltd. and its 26 consolidated subsidiaries (as of March 31, 2023).

### Time Period Covered

Fiscal year 2022 (from April 1, 2022 to March 31, 2023). However, the report also contains some information from outside of this time period.

### Date published

October 13, 2023

### Guidelines Referenced

- International Integrated Reporting Framework
- GRI Standards
- Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

### Disclaimer

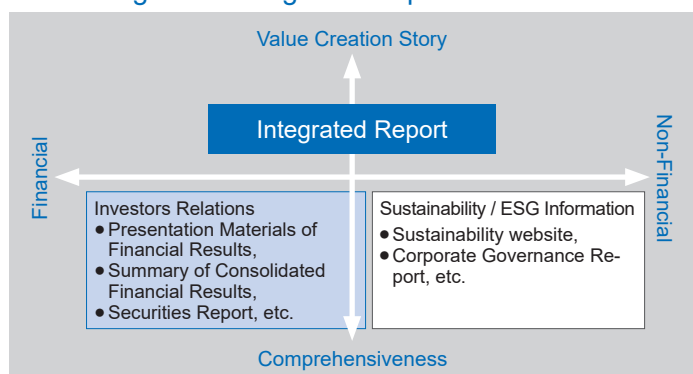
This integrated report contains various forward-looking statements about future developments that are based on Nippon Kayaku Group assumptions and forecasts at present. They are subject to risks and uncertainties which could cause the actual outcome, including the Company's financial position, its development, and/or performance, to differ considerably.

## Other Information Disclosure

The Nippon Kayaku Group discloses various kinds of corporate information on the Group's website in addition to the Integrated Report. Click on the following URLs for more information.

<b>Investor Relations</b>	<a href="https://www.nipponkayaku.co.jp/english/ir/">https://www.nipponkayaku.co.jp/english/ir/</a>
<b>Sustainability</b>	<a href="https://www.nipponkayaku.co.jp/english/sustainability/">https://www.nipponkayaku.co.jp/english/sustainability/</a>
■ GRI Index	<a href="https://www.nipponkayaku.co.jp/english/sustainability/other/gri/">https://www.nipponkayaku.co.jp/english/sustainability/other/gri/</a>
<b>Reports</b>	
■ Annual Securities Report for the 166th Period (Japanese)	<a href="https://ssl4.eir-parts.net/doc/4272/yo_ho_pdf/S100QY0D/00.pdf">https://ssl4.eir-parts.net/doc/4272/yo_ho_pdf/S100QY0D/00.pdf</a>
■ Corporate Governance Report	<a href="https://www.nipponkayaku.co.jp/media/pdf/english/ir/esg/files/governance_report.pdf">https://www.nipponkayaku.co.jp/media/pdf/english/ir/esg/files/governance_report.pdf</a>
<b>External Evaluation and Awards</b>	<a href="https://www.nipponkayaku.co.jp/english/sustainability/other/evaluation/">https://www.nipponkayaku.co.jp/english/sustainability/other/evaluation/</a>

## Positioning of the Integrated Report



## About Cover Design

The design reflects the tangible realization of the vision and its further penetration into the world. The diagonal lines in the corporate colors give a sense of momentum and speed, and indicate the progress of the medium-term business plan.



## At a Glance

### Corporate Slogan

## Global "sukima" ideas

At Nippon Kayaku Group, we strive to deliver value through the pursuit of originality, rather than relying on scale. To realize this ambition, each employee must strive to improve his or her capabilities while continuing to create products that deliver added value.

We are developing Nippon Kayaku into a company that the world truly needs, by accumulating unique technology that stands out in niche markets and elsewhere.

**No.1**  
of Nippon Kayaku Group

Epoxy resins for environmentally friendly semiconductor encapsulation

The worldwide market share

**No.1**

Number of cancer related products' lineups

The domestic company

**No.1**

Automobile safety components  
Micro gas generators

The domestic market share

**No.1**

## Basic Data of Nippon Kayaku Group



Net Sales

**198.4** billion yen\*<sup>1</sup>

Global Business Expansion

**12** countries and regions\*<sup>1</sup>

Paid-in Capital

**14.9** billion yen

Group Employees

**5,782** people\*<sup>2</sup>

Founding

**107**<sup>th</sup> anniversary

Operating Income

**21.5** billion yen\*<sup>1</sup>

R&amp;D Expenses

**13.3** billion yen\*<sup>1</sup>\*<sup>1</sup> Net Sales, Global Business Expansion, Operating Income, R&D Expenses: FY2022\*<sup>2</sup> Group employees: as of Mar 31, 2023

## Market size for businesses entered by Nippon Kayaku Group



## Expected Markets

Market Size of  
Semiconductor in 2030Approx. **100** trillion yen(Semiconductor-related Products of  
Functional Chemicals Business)

## New Markets

Market Size of Drone for Logistics  
and Inspection in FY2025Approx. **600** billion yen(Safety components for drones of Safety  
Systems Business)Excerpts from "Strategy for Semiconductors (Synopsis, June 2021 Published),"  
Ministry of Economy, Trade and Industry website

Excerpts from FY2022 data on the Impress Research Institute website

## At a Glance

# Nippon Kayaku Group's products are used in various places



### Functional Chemicals Business

Nippon Kayaku provides products that help optimize the office efficiency and enrich and facilitate everyday life, as well as various chemical products used in the manufacturing of such products.

FY2022 Ratio to  
Total Net Sales

41%

FY2022 Ratio to  
Total Operating Income  
by Industry Segment

36%

#### Subsegment

- **Functional Materials** 2 5 9  
Epoxy resin for semiconductor, etc.
- **Color Materials** 3 4 6 8  
Colorants and inks for inkjet printer, etc.
- **Catalysts** 7  
Catalysts for the production of acrylic acid, metacrylic acid, etc.
- **Products of Polatechno business** 1 9  
Polarizer and Components for X-Ray analysis systems, etc.



### Pharmaceuticals Business

Nippon Kayaku strives to achieve the stable supply of medical supplies leading to improvements in the level of healthcare on offer, and the streamlining of medical expenses.

FY2022 Ratio to  
Total Net Sales

26%

FY2022 Ratio to  
Total Operating Income  
by Industry Segment

30%

#### Main Products

- **Domestic pharmaceuticals for medical use with a focus on oncology** 1 2 3
- **Active pharmaceutical ingredients (including exports) / Diagnostic agents, etc.** 4 5



### Safety Systems Business

Nippon Kayaku provides automotive safety components that contribute to improving automotive safety.

FY2022 Ratio to  
Total Net Sales

27%

FY2022 Ratio to  
Total Operating Income  
by Industry Segment

27%

#### Main Products

- **Automotive Safety Components** 1 2 3
- **Safety components for drones, etc.** 4 5



### Agrochemicals Business

Nippon Kayaku provides products that help produce a stable supply of agricultural products, and develop a hygienic environment.

FY2022 Ratio to  
Total Net Sales

5%

FY2022 Ratio to  
Total Operating Income  
by Industry Segment

7%

#### Main Products

- **Insecticides for vegetables and fruits, soil fumigants, etc.** 1 - 5



in our daily lives while being transformed into final products.



- 1 Projectors (polarizing films, inorganic polarizers)
- 2 PC monitors (ultraviolet curing resins, etc.)
- 3 Printers (colorants for inkjet printers)
- 4 Tags (paper dyes)
- 5 Smartphones (epoxy resins, etc.)
- 6 Airline tickets (developers for thermal paper)
- 7 Paper diapers (catalysts for the production of acrylic acid used as a raw material for high water absorption resin)
- 8 Clothing (dyes for textiles)
- 9 In-vehicle displays (LCD films, liquid crystal sealant)



- 1 Generic drugs (PEMETREXED: Drugs for lung cancer and other indications / PACLITAXEL: Drugs for breast cancer and other indications, etc.)
- 2 Biosimilars (BEVACIZUMAB BS: Drugs for rectal/colon, ovarian cancer and other indications, etc.)
- 3 New Drugs (DARVIAS®: Drugs for peripheral T-cell lymphoma / ALAGLIO®: a photodynamic diagnostic agent for bladder cancer, etc.)
- 4 Active pharmaceutical ingredients (Volk powder of Voglibose: Alpha-glucosidase inhibitors, etc.)
- 5 Diagnostic agents (LANA MAMMOCARD CEA®: Reagent for fetal cancer antigen assay, etc.)



- 1 Airbag inflators
- 2 Micro gas generators for seatbelt pretensioners\*1
- 3 Squibs (ignition components include in 1 and 2)
- 4 "PARASAFE®", Emergency parachute system for drones
- 5 ATS\*2, control system for drones

\*1 A device that rewinds the seatbelt to ensure safety of passengers in the event of an emergency  
\*2 Autonomous triggering system: a device that detects danger and activates safety component



- 1 Insecticides (FINESAVE® for thrips, etc.)
- 2 Herbicides (Codal® S wettable powder, etc.)
- 3 Soil fumigants (Kayaku chloropicrin, TERON™/ Ashahi D-D, etc.)
- 4 Rat poisons for cable protection (the bite damage prevention agent R-731, etc.)
- 5 Epidemic prevention agents for pest control (the epidemic prevention agent SAFROTIN® MC, etc.)



# The History of Value Creation

## Providing the best products while evolving core

**1916-**  
Formation of Core Technologies

**1945-**  
Development as an Integrated Chemical Manufacturer

**1965-**  
Growth and Development through Development of New Fields

### Corporate History and Trend in Net sales

**1916**

Founded Nippon Kayaku Seizo Co., Ltd. (Head office: 1-1 Yurakucho, Kojimachi-ku, Tokyo) Morizo Oshiage assumes position of president

**1928**

Buyout of Teikoku Senryo Seizo Co., Ltd.

**1943**

Merged and absorbed Teikoku Senryo Seizo Co., Ltd. and Yamakawa Seiyaku Co., Ltd.

**1963**

Recipient of the Deming Prize

**1931**

Established Yamakawa Seiyaku Co., Ltd.

**1945**

Company name changed to Nippon Kayaku

**1949**

Listed on the Tokyo Stock Exchange

1945 1950 1955 1960 1965 1970 1975

### Functional Chemicals Business

● Functional Materials Group

★ Color Materials Group

■ Catalysts Group

▲ Polatechno Group

★ **1916**

Succeeded in producing sulfur black dye in Japan

A pioneer in Japan



★ **1951**

Launches the direct dye, Kayarus, intended for use with cotton, hemp yarn and other cellulose fibers



■ **1963**

Entered into a contract with U.S. firm, Standard Oil Co. (Ohio), concerning the introduction of acrylic acid technologies (catalysts)

● **1969**

Began production of epoxy resins

■ **1972**

Began manufacturing catalysts used in the production of acrylic acid used as a raw material for the high water absorption resin used in diapers, etc.

Catalysts products on the market

● **1979**

Began pilot production of the ultraviolet curing resin DPHA

▲ **1992**

Began shipments of a polarizing film used in projectors and in vehicles

Polatechno products on the market



### Pharmaceuticals Business

● Ethical pharmaceuticals

★ Active pharmaceutical ingredients / Diagnostic agents

● **1932**

Launched the anti-inflammatory drug, ASPIRIN



● **1948**

Began production of the antibiotic, PENICILLIN

● **1969**

Launched the antitumor antibiotic, BLEO®

Began focusing on oncology

● **1994**

Launched the prostate cancer drug, ODYNE®

● **1984**

Launched the anti-cancer drug, RANDA®

### Explosives / Safety Systems Business

● Automotive safety components

★ Emergency parachute system for drone

●★ **1917**

Began production of Japan's first industrial dynamite

A pioneer in Japan



● **1989**

Began production of squibs

Technology changes

Applying safety pyrotechnics to automotive safety components



● **1992**

Began production of disk-type aluminum inflators



● **1998**

Began production of micro gas generators



### Agrochemicals Business

● Insecticides for vegetables and fruits, Soil fumigants

● **1934**

Began production of the soil fumigant, CHLOROPICRIN

Technology changes

Started production of agrochemicals using dye synthesis technology.



● **1964**

Began production of the insecticide, DIAZINON® Granules



● **1992**

Launched the bite damage prevention agent, R-731

● **2005**

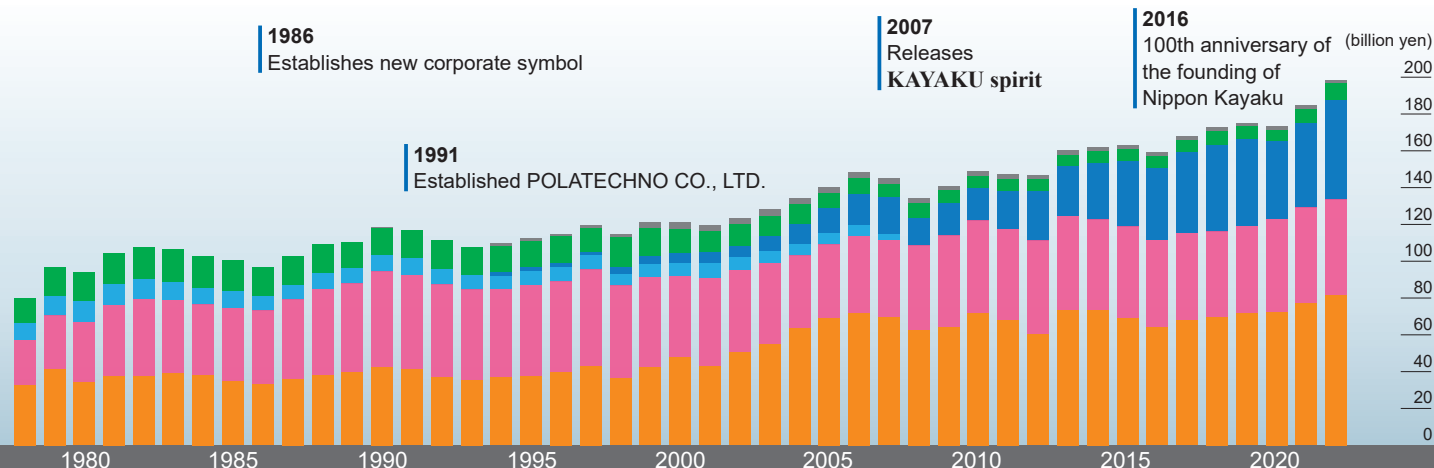
Launched the epidemic prevention agent, SAFROTIN® MC

# technologies in step with the needs of the times

**1990-**  
Providing Solutions to Changing  
Customer Needs

**2010-**  
Development of Sustainable  
Management

Functional Chemicals Business   Pharmaceuticals Business   Explosives Business   Safety Systems Business   Agrochemicals Business   Other



★ **1999**  
Began full-scale production of colorants for inkjet printers

Conversion of applications of color materials



● **2002**  
Full-scale release of the NC-3000 epoxy resins used for semiconductor encapsulation, etc.

Resins for semiconductors, still the main product

▲ **2004**  
Made a capital investment in MOXTEC, Inc. providing inorganic polarizers and components for X-ray analysis systems

▲ **2017**  
Expanded a business in components for X-ray analysis systems following a buyout of RaySpec Ltd.

● **Functional Materials**  
We focus on the expansion of semiconductor-related products by leveraging synergies among resins, cleaners, and manufacturing equipment.

★ **Color Materials**  
We focus on initiatives to achieve growth of inkjet printers in industrial applications, offering developers for thermal paper and functional colorants.

■ **Catalysts**  
We develop catalysts that contribute to a hydrogen energy society and others, with a focus on catalysts for the production of acrylic acid and methacrylic acid.

▲ **Polatechno**  
We are expanding high durability dye-type polarizers, including new applications, and focusing on initiatives to achieve growth of components for X-ray analysis systems.

● **2014**  
Launched the biosimilar, INFLIXIMAB BS

A pioneer in Japan

● **2019**  
Launched Portrazza®, an anti-EGFR (epidermal growth factor receptor) human monoclonal antibody

● **2021**  
Launched PEMETREXED, a generic drug  
Launched ALAGLIO®, a photodynamic diagnostic agent

● **2022**  
Launched DARVIAS®, an anticancer drug

● **2022**  
Launched BEVACIZUMAB BS, a biosimilar

We reliably supply biosimilar formulations and generic drugs, mainly in the cancer field, while working on the development of outstanding pharmaceuticals and medical devices.

● **2000**  
Began production of cylinder-type steel inflators

● **2018**  
Began production of new types of inflators

Weight reduction and smaller diameter

★ **2021**  
Began sales of PARASAFE® emergency parachute system for drones used for industrial purposes



PARASAFE® attached to drone



We provide safety and security for automobiles and new types of mobility by utilizing technologies for safe handling of pyrotechnics.

● **2016**  
Launched the insecticide/miticide, FUHMON®

Evolution of Formulation Technology

● **2018**  
Launched the insecticide, FINESAVE®

Launch of agrochemicals with medicinal ingredient developed in-house



We contribute to sustainable agriculture by meeting the needs for agrochemicals specialized in the fruit and vegetable fields by using our strength in formulation technology.

## Global Business Expansion


Global expansion of the “best products, technologies and services” based on the concept of Global “sukima” ideas.





The Nippon Kayaku Group consists of Group companies in Japan and 11 other countries and regions (for a total of 26 consolidated Group companies). These Group companies are engaged in four areas of business, functional chemicals, pharmaceuticals, safety systems, and agrochemicals and other. Nippon Kayaku strives to be an invaluable global company by applying core technologies, technologies which may even come to prominence in niche areas, to deliver the “best products, technologies and service” to fill out “Sukima (gaps)” in the global market.


## Consolidated subsidiaries: 26 (Japan: 6; Overseas: 20)


(As of March 31, 2023)


 Functional Chemicals Business

 Other Businesses

 Pharmaceuticals Business


 Manufacturing and development sites

 Safety Systems Business

 Sales locations


### Japan

Nippon Kayaku Co., Ltd.

 Teikoku Taping System Co., Ltd.

 POLATECHNO CO., LTD.

 NIKKA FINE TECHNO CO., LTD.


 Kowa Sangyo Co., Ltd.


 NIPPONKAYAKU FOOD TECHNO CO., LTD.

 Wako Toshi Kaihatsu Co., Ltd.

### U.S.A.


 MOXTEK, INC.

 KAYAKU Advanced Materials, Inc.

 THE GILMORE ROAD PROPERTY, LLC

 NIPPON KAYAKU AMERICA, INC.

### Mexico

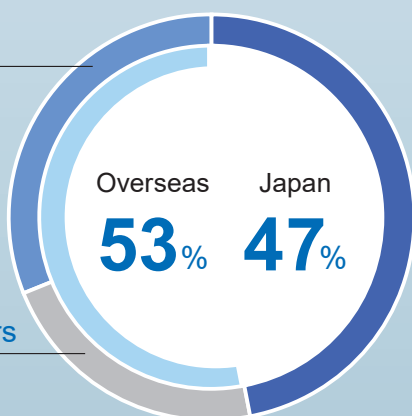
 Kayaku Safety Systems  
de Mexico, S.A. de C.V.

FY2022

Composition ratio of net sales by region

Asia

31%



As of end of March 2023

Number of global employees

Japan

46%

Number of all employees

5,782 people

Overseas

54%





## Chapter

# 1





# Business Results and Strategy

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## Message from the President

# Creating a circle of happiness by providing the best products for realizing a sustainable society.

In FY2022, the first fiscal year of **KAYAKU Vision 2025 (KV25)**, our new four-year medium-term business plan, people began exploring new lifestyles after years of the COVID-19 pandemic. However, the business performance of the Nippon Kayaku Group was significantly affected by the soaring prices of raw materials, the fluctuation of exchange rates, the semiconductor shortage, and other events reflecting geopolitical risks such as the increasing seriousness of the situation in Ukraine and the US-China conflict. We must reaffirm the fact that unexpected events could happen one after another. I am painfully aware of this fact along with the social changes attributed to COVID-19 that are still going on.

Despite these circumstances, in FY2022 the Nippon Kayaku Group posted net sales of 198.4 billion yen, which was greater than the initially forecast 196.8 billion yen and a record high. We also achieved an increase in operating income, which was initially forecast to decline temporarily to 18.4 billion yen. We actually achieved operating income of 21.5 billion yen, an increase of approx. 0.5 billion yen. These results mainly reflect extremely strong results of the functional chemicals business and the safety systems business that were achieved in the first half. On the other hand, declines in the semiconductor-related market and domestic automobile production began to affect the respective businesses in the second half, and this trend is expected to continue into FY2023. All the more because we have now entered a difficult phase, we, the members of the management team, are determined to sharpen our focus in fulfilling our duties at the helm of the Nippon Kayaku Group.

Member of the Board  
President  
Representative Director

**Atsuhiko Wakumoto**

## Message from the President

## Q1 | What are your future prospects, including the trends in each business?

### Functional Chemicals Business

We expect growth to accelerate again reflecting the recovery following customers' adjustments of their semiconductor-related product inventories (functional materials business) and from the decline in the market of in-car products (Polatechno business). We expect this to happen in the second half of FY2023 or later. To continue to respond to demand in the semiconductor, digital printing and automobile markets which will expand in the medium to long term, we will invest to increase production, which is necessary for the production of resins for semiconductors and inkjet inks in industrial applications, and strive to popularize new products, including polarizing films for heads-up displays.

### Pharmaceuticals Business

We will offset the impact of annual drug price revisions with the growth of generic drugs and biosimilars as before. Further, we will prepare for the establishment of a structure for new drug discoveries, including introduction of the structure and in-house drug development, to achieve medium- to long-term growth during and after **KV25**.

### Safety Systems Business

While global automobile production is modestly trending toward recovery, the key to the resumption of growth is the timing of the recovery of domestic demand. Overseas, we will strive to get ready to increase production, aiming to

respond to the expansion of the automotive safety component market, mainly in China and ASEAN countries.

### Agrochemicals Business

As with the pharmaceuticals business, this business is unlikely to be influenced by economic trends. While pushing forward with development by leveraging the formulation technology that is our strength, we will continue to aim for the steady growth of insecticides and soil fumigants for fruits and vegetables.

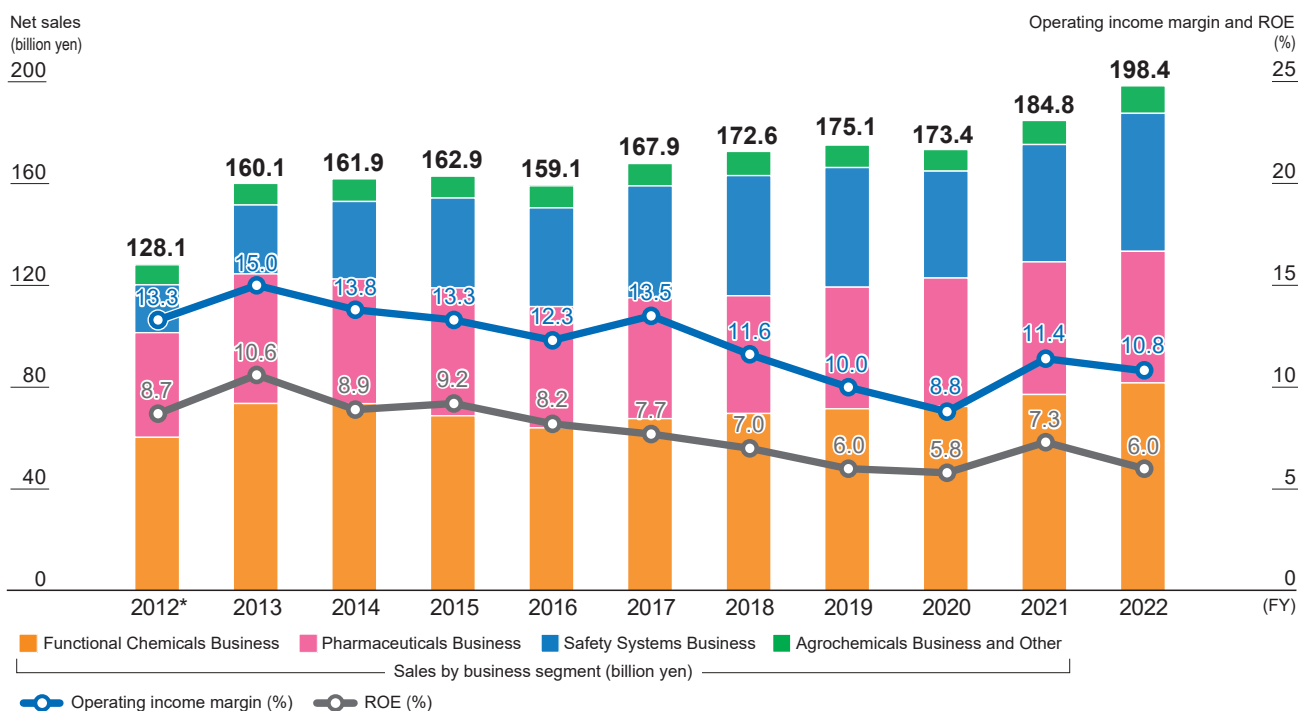
### Overall Policy

The company as a whole is now being significantly affected by the changes in the market conditions. While we cannot be optimistic about the situation, we will ensure that we have a correct understanding of the actual conditions and advance cost-cutting activities and other initiatives in a company-wide manner. Thus, we will just continue to do the things that we should do to achieve net sales of 230.0 billion yen and operating income of 26.5 billion yen in FY2025, which are targets in **KV25**. Further, while net sales have been growing steadily for a while, operating income margin and ROE have been declining. We have set their improvement as one of our management issues, as I mentioned last year. As our medium- to long-term mission, we will work to improve the operating income margin and achieve the growth of each business in pursuit of our target ROE of 8%.

Medium-term Business Plan ▶ [p. 31](#)

More information on each business ▶ [p. 41](#)

11-year Trend in Nippon Kayaku Group Operating Results



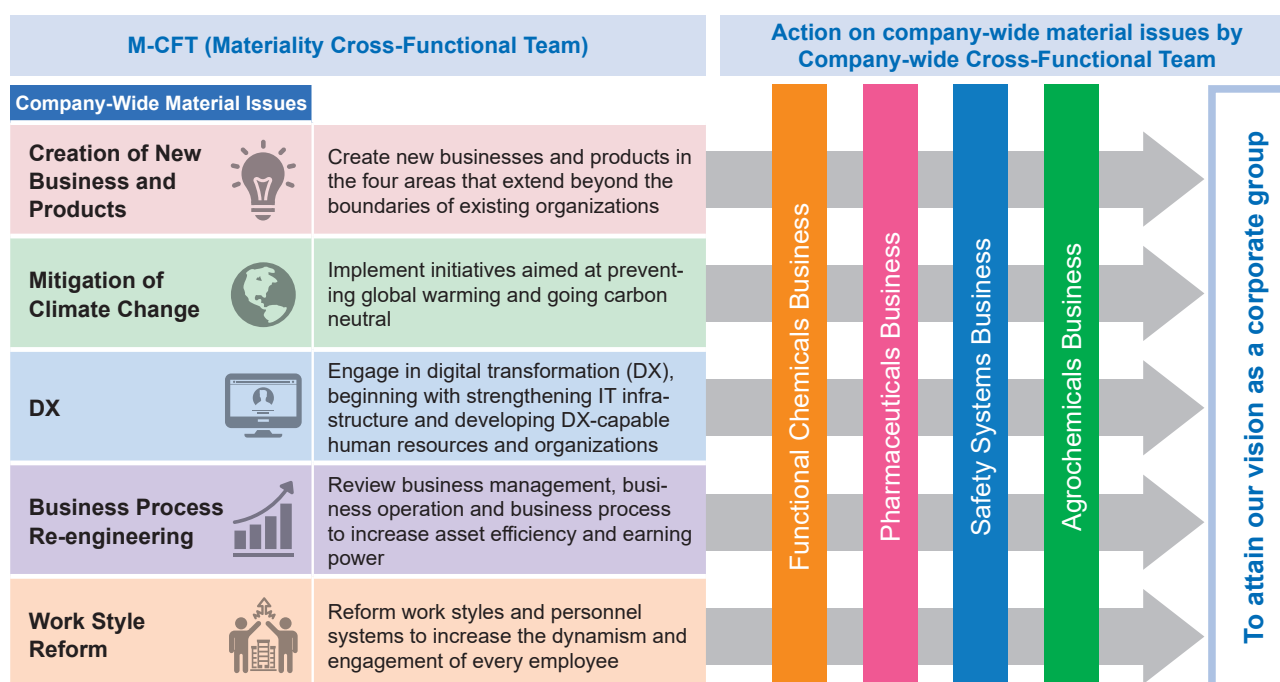
\* The fiscal year end was changed from May 31 to March 31 in FY2012. As a result, the FY2012 accounting period of Nippon Kayaku Co., Ltd. and its consolidated subsidiaries is the 10 months from June 1, 2012 to March 31, 2013.



## Q2 Please tell us about the activities of M-CFT which are addressing the company-wide material issues for sustainable growth.

### M-CFT (Materiality Cross-Functional Team)

During **KV25**, five company-wide material issues are being addressed simultaneously with the operations of each business. All of the selected themes are essential for continuing to grow sustainably in a sustainable society. We have established M-CFT, which engages in company-wide, cross-organizational activities to address each of the issues. Activities in FY2022 alone resulted in various achievements in each theme.



### Creation of New Business and Products

We have been able to dramatically increase our opportunities to interact to achieve open innovation, such as opportunities to exchange information with academics and startups and to cooperate with them, including investment activities. Combined with the Group's current technologies, these interactions will be useful in creating new ideas in peripheral domains and new fields. In addition, we expect the interactions to create a climate that exposes the employees involved in research and development to new things every day and enables them to absorb new knowledge and technologies with enthusiasm.

Research and Development ▶ [p. 55](#)

### Mitigation of Climate Change

We began to disclose information based on the TCFD recommendations last year in addition to implementing initiatives to achieve specific targets for reducing greenhouse

gas emissions by 2030 and collecting data about Scope 3 emissions. In addition to internal efforts, such as efforts to save energy and conserve resources and the installation of solar power generation equipment and gas co-generation systems, we will consider a roadmap for achieving carbon neutrality that includes cooperation with the supply chain among the possible options.

Mitigation of Climate Change ▶ [p. 59](#)

### DX

For companies, DX is necessary to ensure they stay current with the world and remain competitive. In anticipation of changes in the value chain of the company as a whole, we have begun to strengthen IT infrastructure, take cybersecurity measures, and implement production DX linked to workplaces. In research, an informatics environment has begun to be built and used, and progress is being made in projects and initiatives led by researchers and engineers.

DX ▶ [p. 65](#)



## Message from the President

### Business Process Re-engineering

To realize management with high capital efficiency, we have set a company-wide ROIC target and are promoting division-based management and its use of ROIC in performance evaluations. In addition, we will engage in A3 activities (KAIZEN), which are aimed at promoting the reform of awareness to reduce the company's expenses by eliminating difficulty, waste, and inconsistency in all operations, in our efforts to develop a corporate climate that enables the improvement of productivity.

### Work Style Reform

Based on the idea that people are the most important element of a company, we are pursuing a number

initiatives, including steps to promote diversity, such as encouraging the active participation of women and increasing globalization, as well as the careful development of human resources and improvement of productivity through the development of an environment with high psychological safety. In FY2022, we introduced a talent management system and began using it as an HR tool that enables us to clearly see each individual employee.

Human Resources and a Comfortable Workplace Environment ▶ [p. 67](#)

While we have achieved results through these M-CFT activities by the final fiscal year of **KV25**, we will improve our capabilities as a sustainable company that continues to create economic, environmental and social value.

## Q3 | Please tell us about other initiatives related to materiality.

**KV25** Materiality ▶ [p. 26](#)

### Strengthening Corporate Governance

In the **KV25** Materiality, we have included Strengthening Corporate Governance among the most important issues for corporate survival and have been working to improve the effectiveness of the Board of Directors by exchanging opinions with outside directors. Above all, I feel that the Nomination and Remuneration Advisory Committee, which was established in March 2020, engaged in elaborate, enthusiastic discussion involving the outside directors that are its members, leading to the reform of governance to meet the requirements of the Corporate Governance Code. In June 2023, we welcomed Ms. Ikuko Akamatsu as the first female director of the Nippon Kayaku Group. She has a wealth of experience as an accountant and an outside officer. We will therefore consult her about a wide range of issues, from the Group's finance and accounting to sustainability-related issues, as we further deepen discussions about corporate governance.

Corporate Governance ▶ [p. 72](#)

### Respect for Human Rights

One of the material issues to which we want to attach importance is respect for human rights. Groups that operate globally must have a correct understanding of human rights issues, which arise in various parts of their businesses, and they must address them appropriately. Above all, as a company committed to sustainable management, we must never promote heart-wrenching human rights problems, such as child labor, in the procurement of materials. We have therefore signed the United Nations Global Compact to more effectively promote compliance initiatives, such as respecting human rights, and we registered as a participating company in September 2021. In April 2022, we established the Nippon Kayaku Group Human Rights Policy, committing ourselves to supporting and respecting international norms related to human rights as a company.

Respect for Human Rights ▶ [p. 71](#)

Addressing diverse social issues in consideration of problems on the global environment and human rights is the duty of companies, which are allowed to continue existing only when they are accepted by society. We will promote sustainable management by working sincerely on our **KV25** Materiality action plan, thereby contributing to the realization of a sustainable society.

## Q4 | Please tell us about the business restructuring and changes to the management and execution system implemented in June 2023, including their significance.

### Shift to a system with three business units

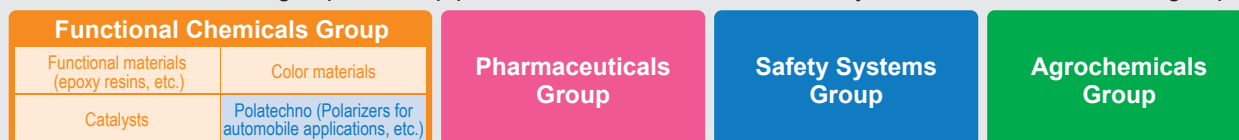
Believing that now is precisely the time for the reform because of major changes occurring in the external environment, we reorganized our segments from the previous system with four business groups into the Mobility & Imaging Business Unit, the Fine Chemicals Business Unit and the Life Science Business Unit. With this restructuring,



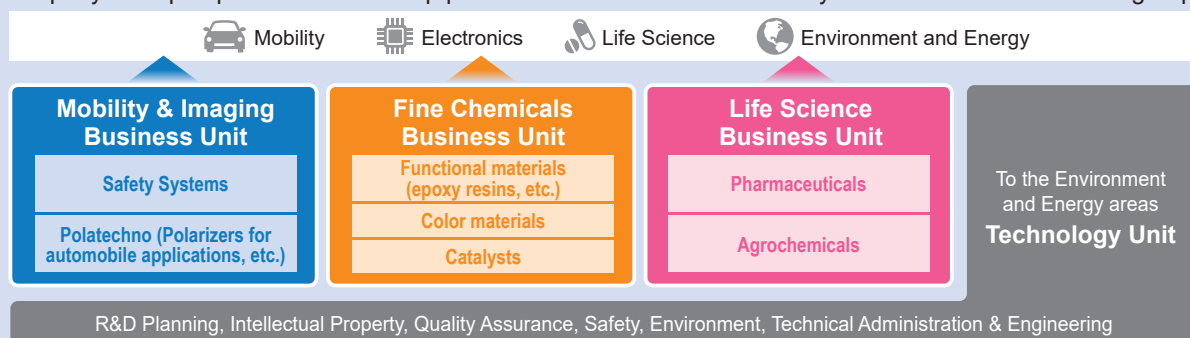
we have clarified the three business units targeting the markets that we have defined as growth areas. In addition, we have newly established the Technology Unit, which brings together the Research & Development Group and the Technical Operation Group. The Technology Unit has

taken over the roles of the previously existing divisions that it includes. At the same time, it has the mission of leading the creation of new business and products by mobilizing the Group's knowledge about the Environment and Energy areas, which are focus markets.

Previous four business groups: The top position in each business was held by the head of each business group.



Shift to a system with three business units in June 2023: The officer in charge leads each business area from a company-wide perspective while the top position in each business is held by the head of each business group.



### Introduction of the “Officer-in-Charge” system

At the same time, as a result of the transition from the “Head-of-Business-Group” system to the “Officer-in-Charge” system, a large portion of the authority has been transferred to the heads of business groups who hold the top position in each subsegment. We will further accelerate site operations in accordance with the changing market environment. In addition, this enables the officer in charge who holds the top position in the business unit, to

concentrate on making business decisions from the perspective of the management of the Group as a whole, such as the efficient sharing and utilization of human resources, possessed technologies and other management resources by the subsegments.

For the Group, this was the first major segment change since the Safety Systems Group was established in 2007. I have great hopes that this structural change will result in flexible, agile organizations which are likely to demonstrate synergy between the business units.

## Q5 | Please tell us about the vision of the Nippon Kayaku Group under the new system.

### KAYAKU spirit and the virtuous circle of happiness

Nippon Kayaku was founded in 1916 as Japan's first manufacturer of industrial explosives, which are essential for mining and the development of social infrastructure such as dams and tunnels. The company started with a desire to provide something useful to people and society. This spirit is reflected in the **KAYAKU spirit**, our corporate vision that was created based on the company credo expressing the founder's spirit: the combined forces of our consciences, ceaseless progress and the best products.

Expressed in a single phrase, the **KAYAKU spirit** is the spirit of altruism. I think that the result of the continued pursuit of this spirit of altruism, that is, the pursuit of things that are useful to society and people, will be your own

happiness and the happiness of the people around you. The happiness of living a fulfilling life filled with meaningful things to do is a great pleasure for a person. At the Nippon Kayaku Group, we would like to embody this spirit as a corporate entity and build a virtuous circle of happiness involving the **KAYAKU spirit** and people.

### KAYAKU spirit

Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences.

### Mission in KAYAKU Vision 2025 (KV25)

The Nippon Kayaku Group aims to be a company with a strong presence that can consistently provide happiness and delight to the environment, society and all stakeholders under the **KAYAKU spirit**.

## Message from the President

### Developing a corporate culture with high psychological safety

For us to remain a sound corporate entity that embodies the **KAYAKU spirit**, it is very important to practice conscientious communication internally and externally. First, we management team members must take a hands-on approach to have a better understanding of workplaces than anyone else. I think we can develop a sound, open corporate culture by listening closely to the voices of people in workplaces and realizing close two-way communication, not only taking a top-down approach of one-way actions. It is also important that leaders in each job class of the company be properly aware of regulations and compliance matters and try to create workplaces with a high level of psychological safety, not to mention being knowledgeable about the operations they are in charge of. We would like to develop a culture which will allow anyone to express their opinions without worry within their organizations, thus

### Becoming an organization and a group of human resources which are flexible and resilient like a living creature

At the Nippon Kayaku Group, we aim to be an organization and a group of human resources which are flexible and resilient like a living creature. I was taught the idea at the base of this comparison when talking with Professor Shiniichi Fukuoka,\* a biologist.

One of the things about living creatures that we want to emulate is their part in invisible, micro-level activities. The cells of living creatures are constantly and spontaneously replaced with new cells before the old ones become broken. The same is true for companies. There are concerns that if a company's system remains unchanged for a long time, its organizations and customs will become too rigid to keep up with the changes of the times. I believe that companies need to regularly work to regain their flexibility.

The Group will also refresh its thinking as a corporate entity and each one of us will refresh our own thinking, through activities such as the reorganization of the company into three business units and its efforts to create new businesses and products.

\* Professor Fukuoka is a professor of Aoyamagakuin University and a visiting professor at Rockefeller University in the United States.

He has published a large number of works asking "What is life?" based on the dynamic equilibrium theory. They include *Seibutsu to Museibutsu-no Aida* (between animate and inanimate), a long-selling book that has sold 870,000 copies, and the *Dynamic Equilibrium* series.

**Aiming for flexible and resilient organizations and talent pools**

**A sense of the value in being constantly mindful of KAIZEN**

Developing a corporate culture that increases productivity ▶ p. 69

**A culture that makes it possible to take on challenges**

DX ▶ p. 65

**Improving psychological safety**

Initiatives for increasing psychological safety ▶ p. 70  
Compliance ▶ p. 81

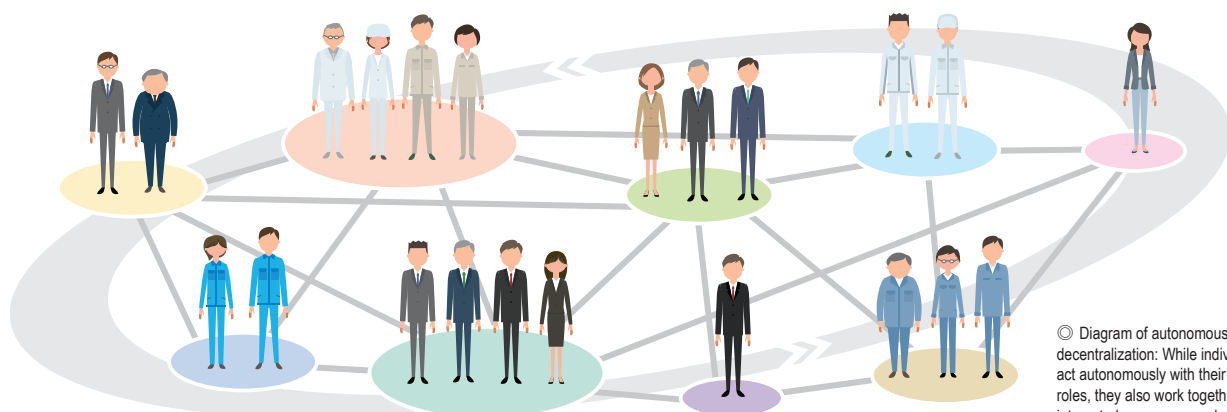
**High quality corporate culture**

contributing to increasing employees' productivity and motivation.

Further, according to Professor Fukuoka, animals act not in a centralized manner with the brain controlling everything but in an autonomous and decentralized manner, with the heart, digestive tract, muscles, and other body parts that have specialized roles working together in an integrated manner. Companies also have various organizations and each of their employees have ideas. If they share the same vision, each with their own responsibilities, and they act in an integrated, autonomous and decentralized manner, they can demonstrate potential several times greater than what they would normally do.

The idea of a decentralized autonomous organization has recently been attracting the attention of companies, and some companies are actually trying to transform into this kind of organization. I expect that the change to the "Officer-in-Charge" system will enable businesses and each division to operate autonomously and quickly, and in addition, enable people and organizations inside and outside the Group to cooperate autonomously and closely, thus creating more value.

When a living creature dies, the baton of life is handed



© Diagram of autonomous decentralization: While individuals act autonomously with their own roles, they also work together in an integrated manner as a whole.

down to the next generation. By changing even the species through adaptation to the environment and evolution, life has been resilient and continued to exist for 3.8 billion years, which is a mind-bogglingly long time. We at Nippon

Kayaku Group will also aim to continue developing eternally by demonstrating our strengths, doggedness and flexibility like living creatures in a business environment where competition is intensifying.

## Q6 | Lastly, please share a message for our stakeholders.

### To our business partners:

The more developed society is, the more complicated issues become. What the Nippon Kayaku Group can achieve on its own is quite limited. I think that our business partners are better described as our supply foundation than supply chain. We will strive to communicate closely with them by positioning them as valuable partners who will solve social issues with us while understanding the Group's thinking.

### To the customers purchasing the products of each business:

For our customers, the Group is positioned as a materials manufacturer and a components manufacturer. Materials are able to serve society as products only when they are used by customers. We will work hard to refine our technologies and create the Group's technologies which exist nowhere else to build strong trust-based relationships with customers and become essential to each other. I ask for your continued support.

### To employees working for the Nippon Kayaku Group:

As the president, I think that one of my important missions is to build an environment where employees can work happily and act according to one's conscience. I will connect the Group's development to the self-actualization of each individual employee so that they act in an integrated manner to achieve the same vision. For this purpose, I will create a workplace that ensures psychological safety with a high awareness of compliance so employees are happy to work for the Nippon Kayaku Group.



### To solve environmental and social issues:

I think that as a corporate entity we have a natural duty to proactively address the recent global environmental and social issues, such as climate change and global warming, as well as respecting diversity and human rights. We will endeavor to be a company with a strong presence that can consistently provide happiness and delight to environment, society, and all stakeholders, by practicing the **KAYAKU spirit** as our corporate vision: Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences.

### To our shareholders and investors:

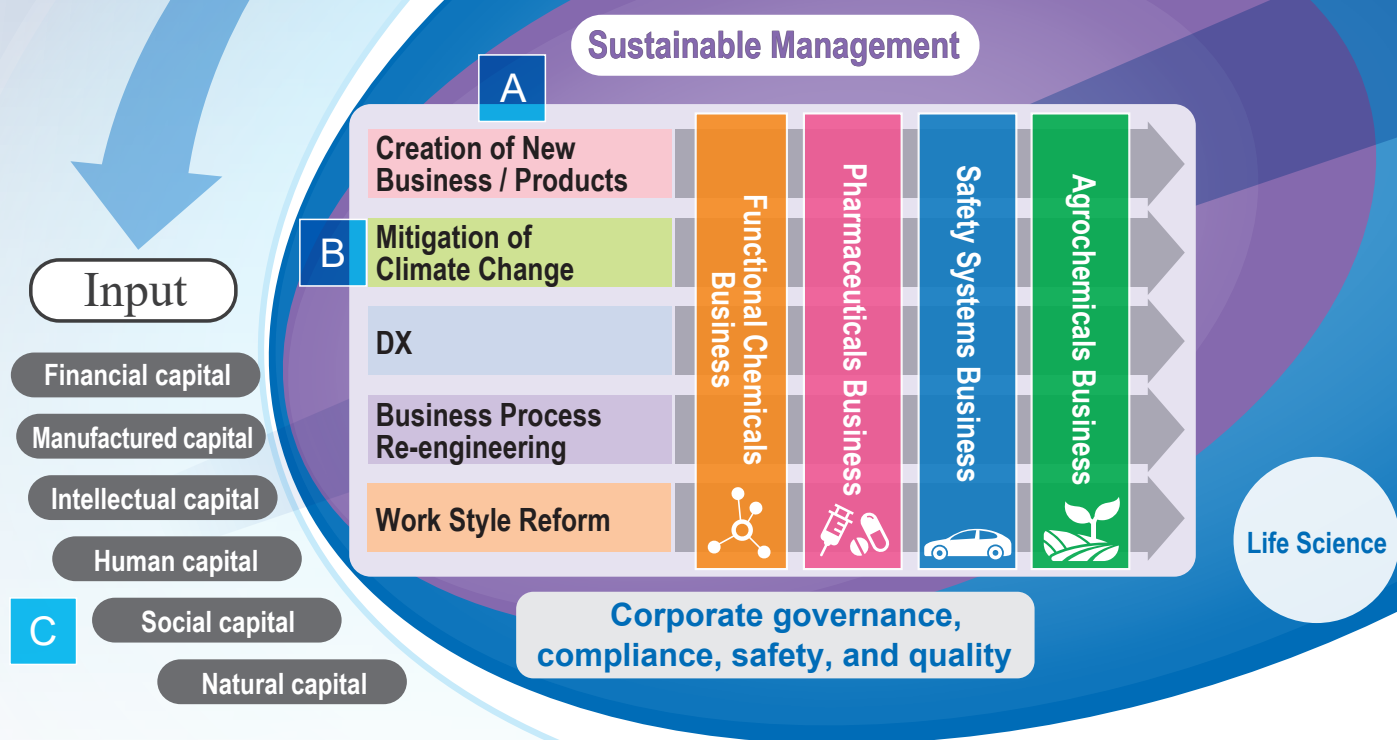
I believe that constructive dialogue with our shareholders and investors is a valuable opportunity for the Nippon Kayaku Group to make a wide range of discoveries. We will continue to strive to proactively share information in our dialogue with you, including the status of our management and sustainability-related initiatives. We will also continuously improve our IR activities by listening to requests and opinions during financial results briefings, social gatherings, one-on-one meetings with investors and other opportunities. I look forward to your continued support.



September 1, 2023  
President, Representative Director



# Nippon Kayaku Group's Value Creation Process



## A The entire company is united in our commitment to materiality

Promote initiatives of five company-wide material issues, key sustainability issues and action plan.

KV25 Materiality (initiatives of company-wide material issues, initiatives of key sustainability issues) ▶ [p. 26-28](#)

## B Mitigation of Climate Change

Addressing climate change challenges in line with TCFD recommendations

Working Toward Carbon Neutrality in 2050

Mitigation of Climate Change ▶ [p. 59-63](#)



## KAYAKU spirit

Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences

### Outcome

### Output

The best products, technologies and services that protect life and health and support a comfortable life

#### Shareholders

- Sustainable growth
- Returning of profits

#### Suppliers

- Value co-creation

#### Customers

- Products that provide economic value
- Products that contribute to the SDGs

#### Employees

- A workplace where employees can work with security and peace of mind
- Maintaining employment

### Environment and Society

- Contributing to a sustainable society through products
- Carbon neutrality

### C

#### Toward a good cycle of human capital

For the continuous creation of new businesses and products Group of creative people, who are proactive in overcoming challenges

Human Resources and Creating a Workplace Environment That Is Comfortable ▶ p. 67-70

Respect for Human Rights ▶ p. 71

Compliance ▶ p. 81-82

### D

#### Toward the creation of new value

Creating new businesses and products in the four areas of "Mobility," "Environmental Energy," "Electronics," and "Life Science," which are important for a sustainable society.

Research & Development ▶ p. 55-58

Opportunities in Each Business Area in Transitioning to a Decarbonized Economy ▶ p. 61-62  
DX ▶ p. 65-66

#### Economic value (FY2025)

Net sales	ROE
<b>230</b> billion yen	<b>8%</b> or more
Operating Income	ROIC
<b>26.5</b> billion yen	<b>10%</b> or more

#### Environmental and social value

Greenhouse gas emissions	Carbon neutrality
Reduce by <b>32.5%</b> in FY2030 (Compared to FY2019)	Achieve in FY <b>2050</b>
Building a digital society	Creating a healthy society
Providing environmentally friendly semiconductor materials that contribute to next-generation communications and digital transformation (DX)	Contributing to the improvement of QOL Providing a stable supply of pharmaceuticals
Continuing to protect lives	Supporting the supply of food
Providing products that ensure safety and security in the mobility field	Providing safe agro-products to meet global food needs
Creating a company with a strong presence	Human resources development
Increasing customer satisfaction Human rights due diligence to business partners	Improve employee satisfaction Promotion of diversity (Percentage of female managers over 10%, etc.)

# Nippon Kayaku Group's Sustainable Management

## Policy and Basic Approach

### Basic Policy on Sustainable Management

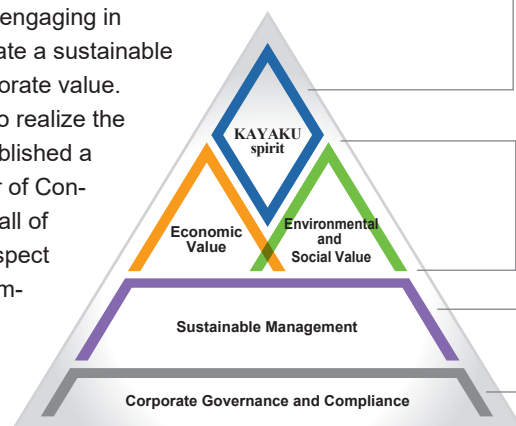
Under its corporate vision, the **KAYAKU spirit**, the Nippon Kayaku Group will practice sustainable management that responds to the trust placed in it by all of its stakeholders, by ensuring transparency and fairness in management and contributing to the creation of a sustainable environment and society through its business activities.

(**KAYAKU spirit**: Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences.)

## The KAYAKU spirit and Sustainable Management

The Nippon Kayaku Group's Corporate Vision is embodied by the **KAYAKU spirit**: "continuously providing society with the best products through ceaseless progress and the combined forces of our consciences." Under the **KAYAKU spirit**, we aim to create environmental, social and economic value by engaging in sustainable management, create a sustainable society, and increase our corporate value.

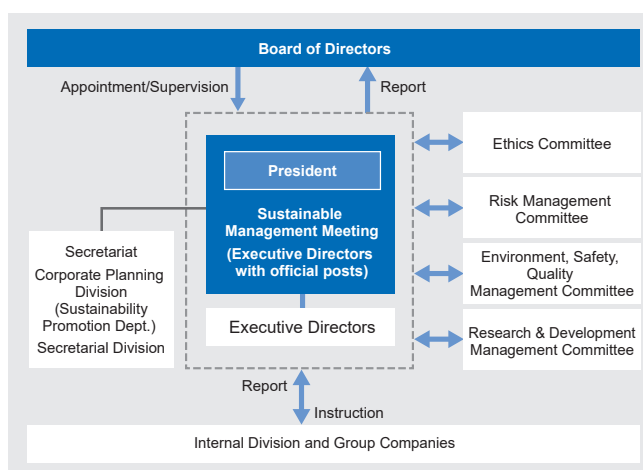
As a standard of conduct to realize the **KAYAKU spirit**, we have established a Nippon Kayaku Group Charter of Conduct and Code of Conduct. In all of our corporate activities, we respect fundamental human rights, comply with laws and regulations, engage in fair business activities and respond to the trust of all stakeholders.



## System

The Nippon Kayaku Group has created a Sustainable Management Meeting, chaired by the President under the direct supervision of the Board of Directors to implement sustainability initiatives throughout the Group. In principle, Sustainable Management Meetings are held on a weekly basis to discuss and report on all matters relating to the sustainability of the corporate group, society, and the environment. Agenda items are approved by the Sustainable Management Meeting before discussion and reporting at Board of Directors meetings.

Under the umbrella of the Sustainable Management Meeting, we have established four subcommittees: the Ethics Committee, the Risk Management Committee, the Environment, Safety, Quality Management Committee, and the Research & Development Management Committee. The committees hold meetings on a regular basis and discuss and report to the Sustainable Management Meeting to ensure the transparency and fairness of management.



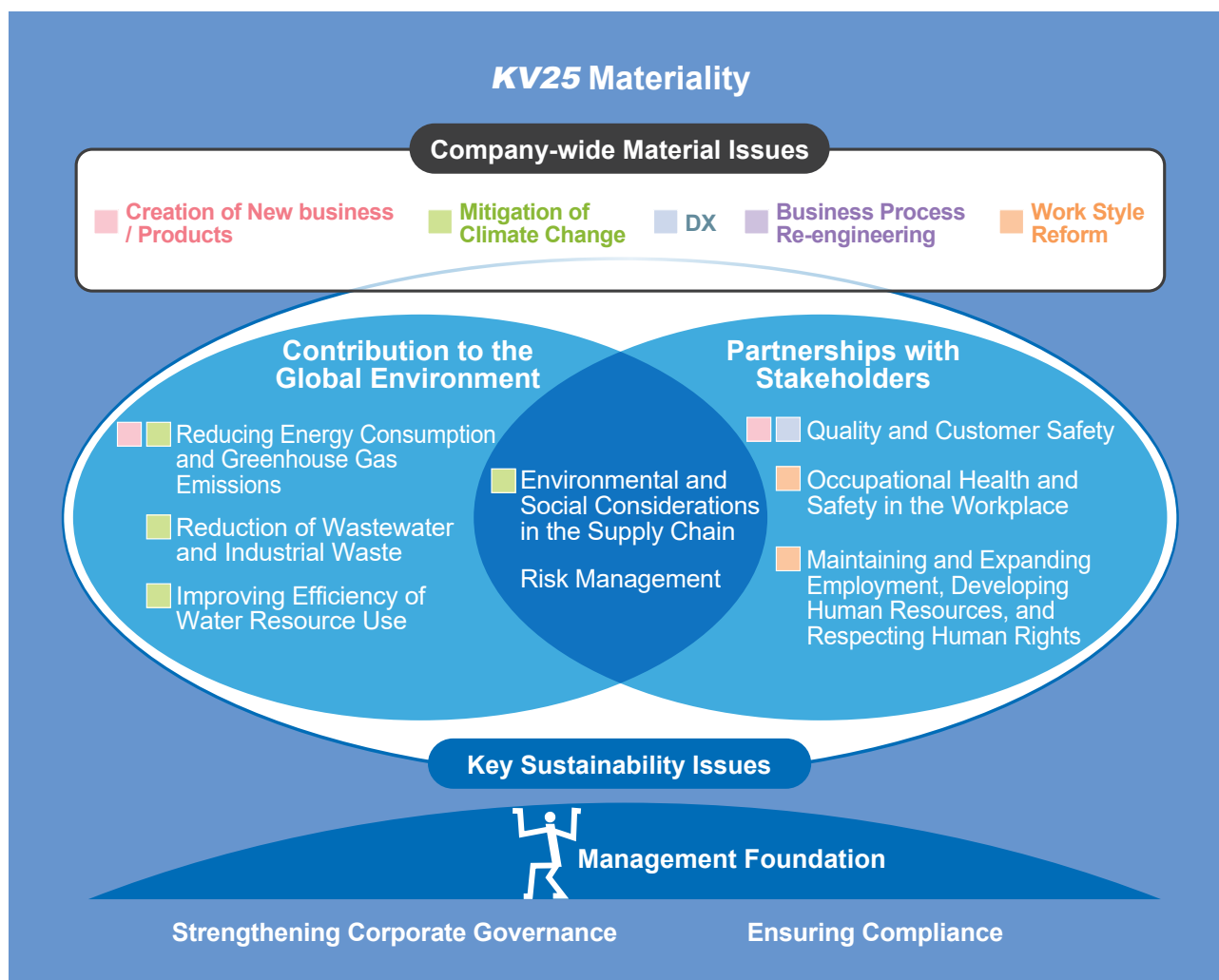
## KV25 Materiality

In order to realize its mission of being a company with a strong presence that can consistently provide happiness and delight to the environment, society and all stakeholders under the **KAYAKU spirit**, the Nippon Kayaku Group has identified five key company-wide material issues (materiality) to be addressed as priorities: Creation of New Business and Products, Mitigation of Climate Change, DX, Business Process Re-engineering and Work Style Reform.

We have also appropriately identified key themes faced by the Group in implementing sustainable management,

from both internal and external perspectives, defined them as key sustainability issues (materiality), and formulated a Sustainability Action Plan linked to our business activities.

**KV25** places top priority on addressing these company-wide material issues and the key sustainability issues that supplement them, to contribute to the creation of a sustainable environment and society based on our Basic Policy on Sustainable Management. **KV25** Materiality is a generic term combining these company-wide material issues and key sustainability issues.



**KV25** Materiality consists of company-wide material issues and the key sustainability issues that supplement them. The color of the solid square in front of each material issue shows the relationship between the two.








## Nippon Kayaku Group's Sustainable Management

### Company-wide Material Issues Initiatives and M-CFT (Materiality Cross-Functional Teams)

Nippon Kayaku Group has identified five key issues that should be prioritized in company-wide cross-organizational projects, as company-wide material issues: Creation of New Business and Products, Mitigation of Climate Change, DX, Business Process Re-engineering and Work Style

Reform. Our Materiality Cross-Functional Team (M-CFT), composed of members selected from multiple divisions, is working to instill awareness of initiatives addressing company-wide material issues and speed up the resolution of each issue.

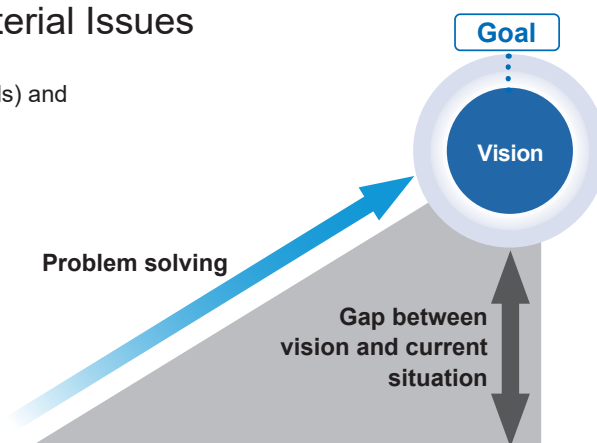
Company-wide material issues	Initiatives
<b>Creation of New Business / Products</b> 	M-1 Team will collaborate with our four businesses to create new businesses and products in the four fields of Mobility, Environment & Energy, Electronics, and Life Science, transcending the boundaries of existing organizational units and contributing to the realization of our mission.
<b>Mitigation of Climate Change</b> 	We will work to prevent global warming—such as the reduction of greenhouse gases emissions—and achieve carbon neutrality, and make united efforts with each plant and research institute to combat climate change risks.
<b>DX</b> 	Our current goals are to drive DX (digital transformation) throughout the Group, increase sales through process transformation, and expand our businesses by reducing costs. Specifically, we will work to achieve DX in the areas of (1) IT education and awareness reform, (2) strengthening IT infrastructure through ERP and IT infrastructure restructuring, etc., (3) R&D, production, sales/marketing and management business processes.
<b>Business Process Re-engineering</b> 	We will work to improve our asset efficiency and earning power by reviewing our group business management, business operation / control (management) and cost control methods, and by improving work efficiency and productivity through A3 (KAIZEN)* activities aimed at business process improvement—to eliminate all kinds of waste—and cost reduction.
<b>Work Style Reform</b> 	We will work to implement workstyle reforms and personnel system reforms to enable every employee to work energetically and increase employee engagement, with the aim of being a good, strong, energetic company.

\* A3 activities (KAIZEN): Awareness reform activities—based on awareness of reducing costs—designed to develop individual and organizational strengths (skills and expertise) and autonomy, to make the Nippon Kayaku Group an energetic company.

### Method for Identifying Company-wide Material Issues

Nippon Kayaku Group analyzed disparities between its vision (goals) and the current situation and identified five key issues.

Key issues (materialities)	
<ul style="list-style-type: none"> <li>• Lack of new businesses and new products</li> <li>• Strengthening measures for mitigation of climate change</li> <li>• Delay in digital transformation (DX)</li> </ul>	<ul style="list-style-type: none"> <li>• Decline in earning power</li> <li>• Lack of strictness in corporate culture</li> </ul>





## Key Sustainability Issues Initiatives and KPIs

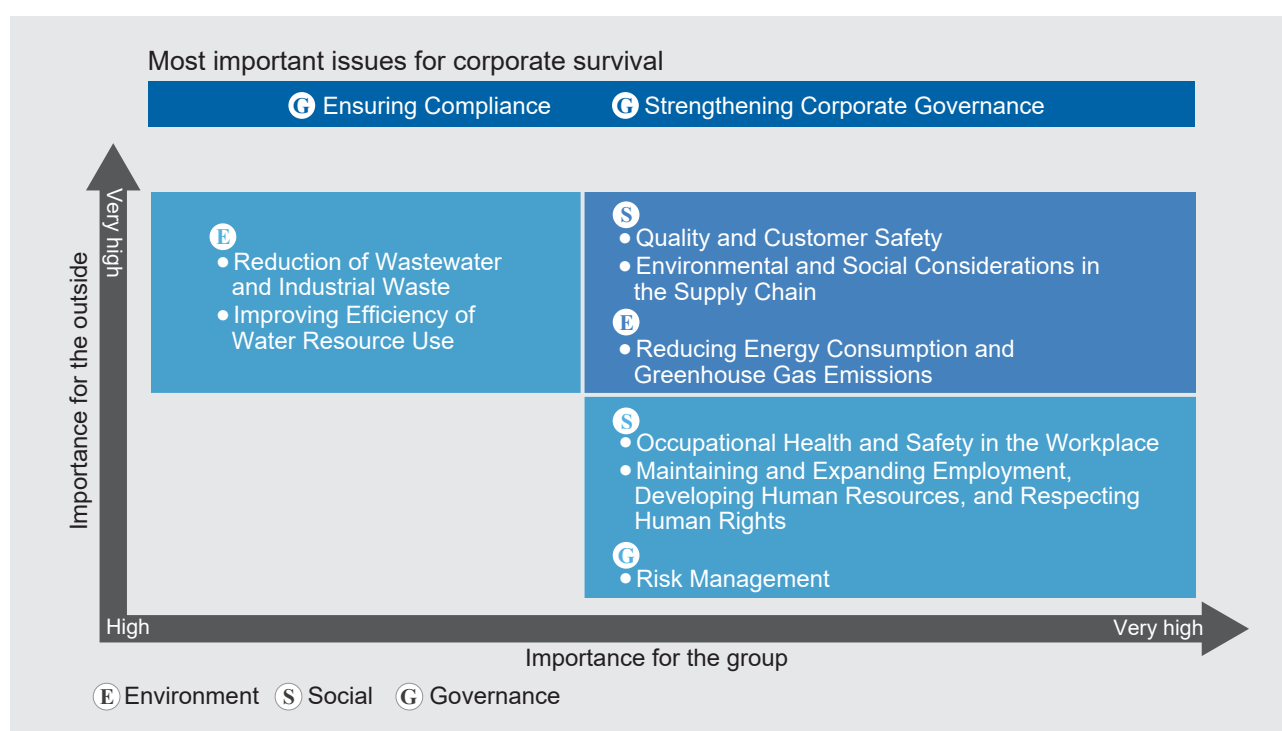
The Nippon Kayaku Group has formulated a Sustainability Action Plan linking its business activities with the identified key sustainability issues. We also utilize the SDG Compass\* to link each materiality with one or more of the

17 SDGs. By implementing initiatives to achieve the KPIs in the Sustainability Action Plan, we will contribute to the achievement of the SDGs and the creation of a sustainable society.

\* The official name is "SDG Compass - Corporate Action Guidelines for SDGs", which was jointly developed by three international organizations, GRI, UNGC and WBCSD, as a guide to the SDGs for companies.

### Key Sustainability Issues

We have classified our key sustainability issues into three categories—most important issues for corporate survival, most important issues, and important issues—and established action plans for each issue.

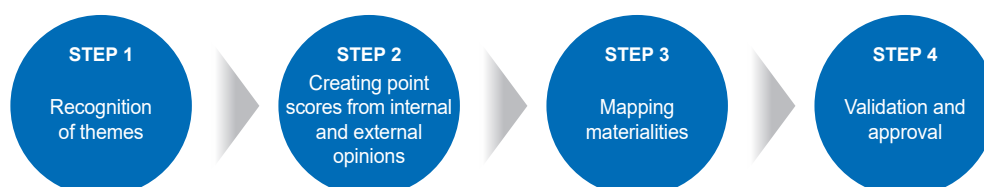


## Method for Identifying Key Sustainability Issues

To appropriately grasp issues facing the Nippon Kayaku Group from both internal and external perspectives and respond to the expectations and demands of stakeholders, the Group identified key medium-term CSR issues in 2019.

To coincide with the start of the new Medium-term

Business Plan—**KAYAKU Vision 2025**—and the shift from CSR management to sustainable management, in April 2022, we changed the term “key CSR issues” to “key sustainability issues” and reviewed them in order to appropriately respond to the diversification of our business activities and various changes in social issues.


















## Nippon Kayaku Group's Sustainable Management

## Key Sustainability Issues and Sustainability Action Plan

The Nippon Kayaku Group's Sustainability Action Plan utilizes the SDG Compass to link each key issue (materiality) with one or more of the 17 SDGs. By managing and disclosing the progress of KPIs every year and

implementing sustainability activities, the Group aims to create environmental, social and economic value, help to achieve the SDGs (i.e., to create a sustainable society) and increase corporate value.

Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Results
Most important issues for corporate survival		<ul style="list-style-type: none"> <li>Exercise thorough compliance, which is a basic principle for conducting corporate activities, and engaging in fair business operations</li> <li>Maintain and enhance an open corporate culture with a high sense of ethics</li> </ul>	Number of serious compliance violations* <sup>1</sup>	0	0
			Compliance training rate	100%	97%
			Percentage of group companies with compliance / whistleblowing hotlines	100%	83%
	Strengthening Corporate Governance	<ul style="list-style-type: none"> <li>Strengthen corporate governance of the entire group and manage in a highly transparent and sound manner</li> </ul>	Number of times that the assessment on the effectiveness of the Board of Directors meetings is evaluated	Once per year	Once
			Number of times internal business audits are performed by the Audit Division	60 times in four years	22 times
Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Results
Most important issues		<ul style="list-style-type: none"> <li>Enhance our quality control and quality assurance systems by continuously improving our quality management system and ensuring thorough quality-related governance</li> <li>Implement quality management, improve production efficiency and reduce process abnormalities through digitalization</li> </ul>	Number of serious complaints by customers* <sup>2</sup>	0	1
			Number of serious quality process abnormalities in processes* <sup>2</sup>	0	1
	 	<ul style="list-style-type: none"> <li>Practice supply chain management with consideration for environmental and social aspects, based on the Sustainable Procurement Guidelines</li> </ul>	Response rate for confirmation of consent to Sustainable Procurement Guidelines	(Non-consolidated) 90%	(Non-consolidated) 99%
			Formulation and implementation of improvement plans using questionnaires to suppliers	(Non-consolidated) Disclose progress	—
	    	<ul style="list-style-type: none"> <li>Implement energy-saving and global warming countermeasures and achieve FY2030 environmental targets</li> <li>Identify issues and clarify strategies for achieving carbon neutrality by FY2050</li> </ul>	Greenhouse gas emissions (Scope 1+2)	(Targets to be achieved by FY2030) 88,324 tons or less (32.5% reduction or higher compared with FY2019) (Targets to be achieved by FY2022) 119,252 tons or less	108,107 tons
			VOC emissions	(Non-consolidated) Disclose results	(Non-consolidated) 38.7 tons
			COD emissions	(Non-consolidated) Disclose results	(Non-consolidated) 171.8 tons
			Total waste output	(Non-consolidated) Disclose results	(Non-consolidated) 27,621 tons
			Recycling rate	(Non-consolidated) 80% or higher	(Non-consolidated) 85.0%
			Zero emission rate	(Non-consolidated) 1% or less	(Non-consolidated) 0.8%
			Goal setting in line with SBT and consideration and implementation of specific measures	Disclose progress	Earned A- CDP (climate change) score Implemented improvements to accuracy of Scope 3 emission calculations
			Disclosure in line with TCFD recommendations	Disclose progress	Information Disclosed
			Develop products and technologies with consideration for environmental issues	Disclose progress	Listed in Topics

	Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Results
Important issues	Occupational Health and Safety in the Workplace	 	<ul style="list-style-type: none"> <li>Strengthen the foundation for safe operation by thoroughly enforcing basic rules on safety and health and improving equipment and work procedures</li> <li>Implement health and productivity management and provide a workplace environment with a healthy work-life balance where employees can work with enthusiasm</li> </ul>	Number of serious accidents*3	0	0
				Acquisition of certifications under the Certified Health & Productivity Management Outstanding Organizations Recognition Program (Large Enterprise category)	(Non-consolidated) Continued certification	(Non-consolidated) Acquired certification for 2023 Certified Health & Productivity Management Organization Recognition Program (Large Enterprise category)
				Percentage of paid leave taken	(Non-consolidated) 70% or higher	(Non-consolidated) 63.7%
				Percentage of employees who take mental health training	(Non-consolidated) 100%	(Non-consolidated) 100%
				Percentage of employees receiving regular health checkups	(Non-consolidated) 100%	(Non-consolidated) 100%
				Ascertaining and improving employee satisfaction through questionnaire surveys	(Non-consolidated) Disclose progress	—
				Percentage of female employees in management posts*4	(Non-consolidated) 10% or higher	(Non-consolidated) 9.0%
	Maintaining and Expanding Employment, Developing Human Resources, and Respecting Human Rights	   	<ul style="list-style-type: none"> <li>Promoting diversity and inclusion through the recruitment of diverse human resources, effective HR assignment and exchanges</li> <li>Pass down and strengthen technical capabilities in monozukuri (manufacturing) and achieve globalization in human resources through ongoing human resource development</li> <li>Engage in business operations that pay care and consideration to the human rights of employees and all other people involved in the supply chain</li> </ul>	Percentage of employees with disabilities	(Non-consolidated) Achieve legal minimum employment rate	(Non-consolidated) 1.98%
				Amount invested in education and training per employee	(Non-consolidated) Disclose results	(Non-consolidated) ¥83,002 / person
				Training hours per employee	(Non-consolidated) Disclose results	(Non-consolidated) 14.9 hours
				Number of training sessions held on human rights	Once or more per year	Once
				Human rights due diligence: human rights impact assessment rate	(Non-consolidated) FY2022: 100% (Consolidated) FY2025: 100%	(Non-consolidated) Incomplete
				Implementation rate of risk control activities for business, etc., and top five risk control activities	100%	100%
	Risk Management		<ul style="list-style-type: none"> <li>Respond to various business-related risks and ensure business continuity by maintaining production systems, ensuring the proper procurement of raw materials, and strengthening measures against disasters</li> </ul>	Number of BCP drills conducted	Once or more per year	2 times

\*1 Number of serious accidents as judged by the Ethics Committee

\*2 Losses of 10 million yen or more

\*3 Accidents involving three or more people requiring time off work, or resulting in fatalities

\*4 Targets for the end of FY2024

## The SDGs and the KAYAKU spirit

The SDGs are a set of 17 social, economic and environmental goals to be addressed by various bodies, organizations and entities by FY2030, adopted unanimously by UN member states with the goal of building a sustainable world.

The philosophy of the SDGs is synonymous with the Nippon Kayaku Group's corporate vision of continuously providing society with the best products through ceaseless progress and the combined forces of our consciences, and we believe that corporate activities for the realization of the **KAYAKU spirit** are consistent with the actualization of the SDGs, although the scale and targets are different from those of the United Nations.

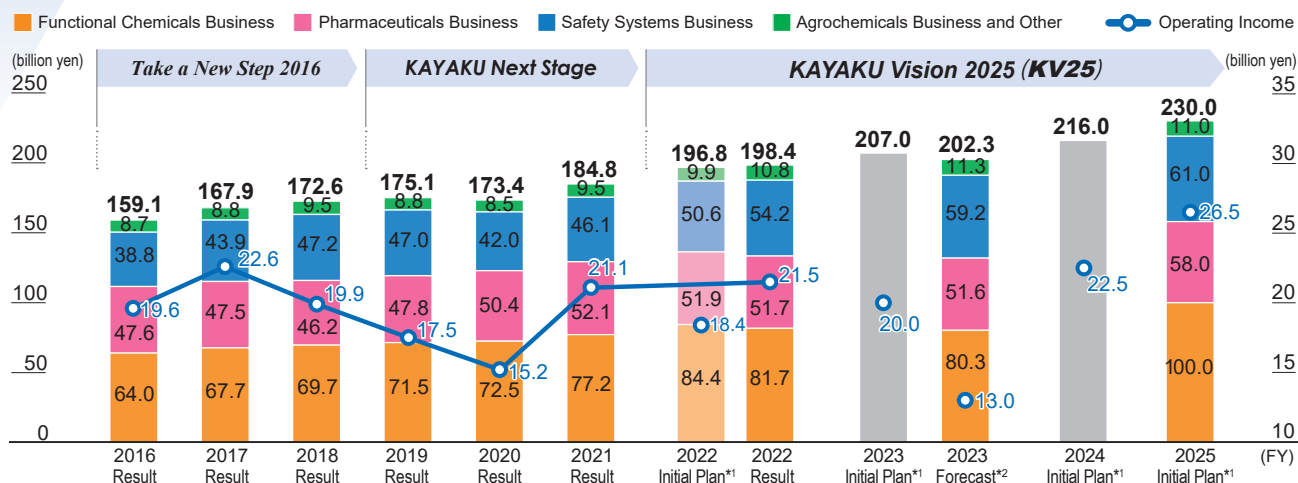
The Nippon Kayaku Group's Sustainability Action Plan utilizes the SDG Compass to link each key sustainability issue (materiality) with one or more of the 17 SDGs.

Going forward, the Nippon Kayaku Group will continue working to generate environmental, social and economic value, create a sustainable society, increase its corporate value, and contribute to the achievement of the SDGs.



# Review of Past Mid-term Business Plans and Progress of the *KAYAKU Vision 2025*

## KV25 Net Sales & Operating Income Plan



\*1 Figures of Initial Plan are based on the disclosure in the financial results presentation on May 13, 2022.

\*2 Figures of Forecast are based on the disclosure in the financial results presentation on May 16, 2023.

	Take a New Step 2016	KAYAKU Next Stage	KAYAKU Vision 2025 (KV25)
Results/Progress of each business	<p><b>Functional Chemicals Business</b></p> <ul style="list-style-type: none"> <li>Launched maleimide resins for 5G communications systems (Functional Chemicals)</li> <li>Expanded supply of colorants for inkjet printers in industrial applications for digital printing (Color materials)</li> <li>Acquisition of RaySpec Ltd. operating the business in components for X-ray analysis systems (Polatechno)</li> </ul> <p><b>Pharmaceutical Business</b></p> <ul style="list-style-type: none"> <li>Expanded the line-up of biosimilars and generic anti-cancer drugs</li> <li>Targeting domestic manufacture of biomedicines, established Cultivex Inc. with Mitsubishi Gas Chemical Company, Inc.</li> </ul> <p><b>Safety Systems Business</b></p> <ul style="list-style-type: none"> <li>Sales increased by more than 10 billion yen from the end of the previous mid-term business plan</li> <li>Built a global production structure through active capital investments</li> </ul> <p><b>Agrochemicals Business</b></p> <ul style="list-style-type: none"> <li>Launched FINESAVE®, an insecticide for vegetables and fruits, a formulation of the new medicinal ingredient flomethoquin</li> </ul>	<p><b>Functional Chemicals Business</b></p> <ul style="list-style-type: none"> <li>Achieved record-high sales of 77.2 billion yen, due to growth in semiconductor-related products (Functional Materials) and inkjet inks and colorants (Color materials)</li> <li>Catalysts sales reached a record-high of 10.9 billion yen</li> <li>Polatechno dissolved its parent-subsidiary listing and became a business division in October 2020</li> </ul> <p><b>Pharmaceutical Business</b></p> <ul style="list-style-type: none"> <li>Achieved record-high net sales of 52.1 billion yen, impact of drug price revisions covered by innovative formulation of generics and growth in biosimilars</li> </ul> <p><b>Safety Systems Business</b></p> <ul style="list-style-type: none"> <li>Automotive manufacturing as a whole has slowed sharply, in FY2020 due to the impact of the spread of COVID-19, from FY2021 due to the impact of semiconductor shortages, etc.</li> <li>Sales recovery to 46.1 billion yen in FY2021</li> </ul> <p><b>Agrochemicals Business</b></p> <ul style="list-style-type: none"> <li>Focusing on promoting FINESAVE®, sales in FY2021 were 7.4 billion yen, an increase of 0.4 billion yen from the end of the previous mid-term business plan</li> </ul>	<p><b>Achievements and progress in FY2022, the first year of KV25</b></p> <p><b>Functional Chemicals Business</b></p> <ul style="list-style-type: none"> <li>Overall, sales increased but income slightly decreased due to market conditions for each product</li> <li><b>Steady/recovery</b> Colorants and Inks for inkjet printers in industrial applications, Resist materials for MEMS (Functional Materials), Catalysts for manufacturing acrylic acid and metacrylic acid, Components for X-ray analysis systems (Polatechno)</li> <li><b>Maintain/Slow down</b> Epoxy resin for semiconductor (Functional Materials), Colorants and Inks for inkjet printers in consumer applications, Optical films for automobile applications (Polatechno)</li> </ul> <p><b>Pharmaceutical Business</b></p> <ul style="list-style-type: none"> <li>Sales and income remained almost flat year on year, as the impact of NHI drug price revisions was offset by growth in sales of PEMETREXED, etc.</li> <li>Launched new drugs: DARVIAS® drugs for peripheral T-cell lymphoma and biosimilar: BEVACIZUMAB BS Intravenous Infusion</li> <li>Established the West Japan distribution center</li> </ul> <p><b>Safety Systems Business</b></p> <ul style="list-style-type: none"> <li>Sales and operating income increased from the previous year, but market recovery varied by region</li> <li>Production of automobiles in Japan saw sluggish due to the shortage of semiconductors and other factors</li> <li>Overseas, recovery continues mainly in the ASEAN regions, despite sluggishness in Europe</li> </ul> <p><b>Agrochemicals Business</b></p> <ul style="list-style-type: none"> <li>Sales increased from the previous year, domestic sales reflected higher raw materials costs in sales prices</li> <li>Overseas sales continued to expand, mainly for EVISECT and flomethoquin products</li> </ul>
Summary of operating results	<ul style="list-style-type: none"> <li>Achieved record-high sales of 172.6 billion yen, exceeding 170 billion yen, in FY2018 due to growth of businesses</li> <li>In particular, Safety Systems business has grown to account for 30% of the company's total sales due to continued growth from the previous medium-term business plan.</li> </ul>	<ul style="list-style-type: none"> <li>U.S.-China trade friction and the spread of COVID-19 affected both positively and negatively in each business</li> <li>Markets for Functional Chemicals and Safety Systems businesses to improve from the second half of FY2020</li> <li>In 2021, achieved record-high sales of 184.8 billion yen, although we will not reach the initial plan and operating income recovered to 21.1 billion yen</li> </ul>	<p><b>Overview of FY2022, the first year of KV25</b></p> <ul style="list-style-type: none"> <li>Net sales increased by 13.6 billion yen to reach a record high of 198.4 billion yen, operating income increased 0.5 billion yen to 21.5 billion yen</li> <li>Strong sales and profit in 1H, reaching a record high in 1H</li> <li>In 2H, a slowdown in the semiconductor-related market and a drop in domestic automobile production will affect the Functional Chemicals and Safety Systems business</li> <li>Profit (owners of parent) decreased by 2.2 billion yen to 15.0 billion yen, owing to recognition of an impairment loss on property, plant, and equipment of Polatechno business, etc.</li> </ul> <p><b>Outlook for FY2023</b></p> <ul style="list-style-type: none"> <li>In 1H, inventory adjustment of semiconductor-related materials (Functional Chemicals business) and the impact of domestic automobile production cutbacks (Safety Systems business) are expected to continue</li> <li>Recovery in both businesses from 2H, but high prices for raw materials and energy are expected to continue</li> </ul> <p><b>To achieve FY2025 Plan</b></p> <ul style="list-style-type: none"> <li>Focus on achieving reasonable prices and cost reduction efforts</li> <li>Expand existing businesses and accelerate the development of new businesses and products</li> </ul>



## To achieve Targets of **KV25**



### Key measures to expand sales

- **Functional Chemicals Business:** Expansion of production capacity for epoxy resins and inkjet-related products
- **Pharmaceuticals Business:** Improvement of production facilities for stable supply, introduction of new products
- **Safety Systems Business:** Expansion of production capacity in China and Malaysia, expansion of inflator business



### Key measures of reduce costs

- Improvement of profitability of Polatechno business
- Cost reduction with both environmental impact reduction and energy reduction\*
- Promotion of company-wide A3 activities (KAIZEN)

\* Including introduction of solar power generation, etc.



### Review of group management and business operations (management methods) and cost control methods

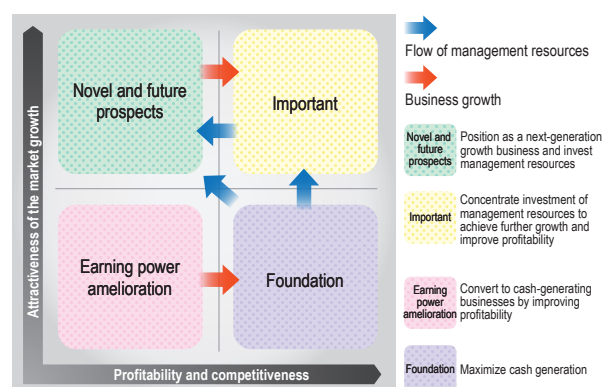
- Capital policy that contributes to higher PBR
- Promotion of proactive shareholder returns and constructive dialogue with investors
- Introduction of an incentive-based restricted stock compensation system

## **KV25** Company-wide Management Targets

Economic value (FY2025)	<b>Net sales</b> <b>230 billion yen</b> <b>Steady growth to exceed 200 billion yen in FY2023</b> Sales is expected to achieve net sales of 202.3 billion yen in FY2023. We will strive to expand sales while closely monitoring market conditions.	<b>Greenhouse gas emissions</b> Reduce by <b>32.5%</b> in FY2030 (Compared to FY2019) Mitigation of Climate Change ▶ <a href="#">p. 59-63</a>	<b>Carbon neutrality</b> Achieve in FY <b>2050</b> Mitigation of Climate Change ▶ <a href="#">p. 59-63</a>
	<b>Operating Income</b> <b>26.5 billion yen</b> <b>Exceed record profits of 24.1 billion yen</b> Operating income is expected to be 13 billion yen in FY2023. In addition to sales expansion, we will work on profit improvement through acceleration of new product development and cost reduction.	<b>Building a digital society</b> Providing environmentally friendly semiconductor materials that contribute to nextgeneration communications and digital transformation (DX) Functional Chemicals Business ▶ <a href="#">p. 41-44</a>	<b>Creating a healthy society</b> Contributing to the improvement of QOL Providing a stable supply of pharmaceuticals Pharmaceuticals Business ▶ <a href="#">p. 45-47</a>
	<b>ROE</b> <b>8% or more</b> <b>Seek to improve by increasing asset efficiency</b> In FY2022, ROE was 6.0%. In addition to profit improvement, we aim to improve ROE through shareholder returns and aggressive investment for growth.	<b>Continuing to protect lives</b> Providing products that ensure safety and security in the mobility field Safety Systems Business ▶ <a href="#">p. 48-50</a> Special Future ▶ <a href="#">p. 37-40</a>	<b>Supporting the supply of food</b> Providing safe agro-products to meet global food needs Agrochemicals Business ▶ <a href="#">p. 51-52</a>
	<b>ROIC</b> <b>10% or more</b> <b>Increase asset efficiency through management with ROIC on a divisional basis</b> In FY2022, ROIC was 8.3%*. We will strive to raise the ROIC of the entire company by operating each business with an awareness of asset efficiency. * Calculated as Profit before income taxes divided by invested capital	<b>Creating a company with a strong presence</b> Increasing customer satisfaction Human rights due diligence to business partners Respect for Human Rights ▶ <a href="#">p. 71</a>	<b>Human resources development</b> Improve employee satisfaction Promotion of diversity (Percentage of female managers over 10%, etc.) Human Resources and Creating a Workplace Environment That Is Comfortable ▶ <a href="#">p. 67-70</a>
		<b>Environmental and social value</b>	

## **KV25** Business Portfolio

Allocate management resources to each product group in a well-balanced manner



Businesses	Important	Semiconductor and MEMS materials, industrial inkjet inks, X-ray analyzer components
	Important	Biosimilars, formulated drugs (generic anti-cancer drugs)
	Important	Inflators
	Important	Formulations (functional agrochemical formulations)
Novel and future prospects	Novel and future prospects	Next-generation communication resins, semiconductor cleaners, semiconductor manufacturing equipment, new functional colorants, catalysts that contribute to a carbon-neutral society, new optical films for automotive applications
	Novel and future prospects	Biomedicine, new anti-cancer drugs, new medical devices
	Novel and future prospects	New pyrotechnic devices for automotive applications, drone safety devices
	Novel and future prospects	Biostimulants, new agrochemicals, new formulations (new functional agrochemical formulations)
Foundation	Foundation	Semiconductor resins, consumer inkjet colorants, catalysts for the production of acrylic acid and methacrylic acid, dye-type polarizers
	Foundation	Generic anti-cancer drugs, diagnostic reagents, and active pharmaceuticals
	Foundation	Micro gas generators and Squibs
	Foundation	Pesticides, contract manufacturing

Functional Chemicals Business Pharmaceuticals Business Safety Systems Business Agrochemicals Business

# Message from Chief Financial Officer



Member of the Board  
Senior Managing Director, In charge of Corporate Planning Division, Corporate Communications Division, Finance & Accounting Division, and Information Systems Division

Yoshitsugu Ishida

Through **KAYAKU Vision 2025 (KV25)**, the four-year medium-term business plan that began in FY2022, we at the Nippon Kayaku Group will maintain our solid financial structure, which is our strength, at a certain level as we contribute to the realization of a sustainable society by providing economic value and environmental and social value through mitigation of climate change and other measures.

In June 2023, we defined promising market areas and reorganized our segments into three business units: —Mobility & Imaging\*<sup>1</sup>, Fine Chemicals\*<sup>2</sup>, and Life Science\*<sup>3</sup>. While maintaining a balanced portfolio with the sustained growth of these three

main business units, we will aim to achieve **KV25** management targets and subsequent growth over the medium and long terms by leveraging synergies within each business unit and actively investing in growth areas.

In addition, we will continue striving to build a strong financial base by properly managing business resources through balance sheet management with an awareness of optimal capital structure, so that we can flexibly respond to changes in the market environment and business and other risks.

\*1 Safety Systems Group (Automotive Safety Components), Polatechno Group (Optical films for automotive, etc.)

\*2 Functional Materials Group, Color Materials Group, Catalysts Group

\*3 Pharmaceuticals Group, Agrochemicals Group

## Appropriate Management of Business Resources for Enhancing Corporate Value

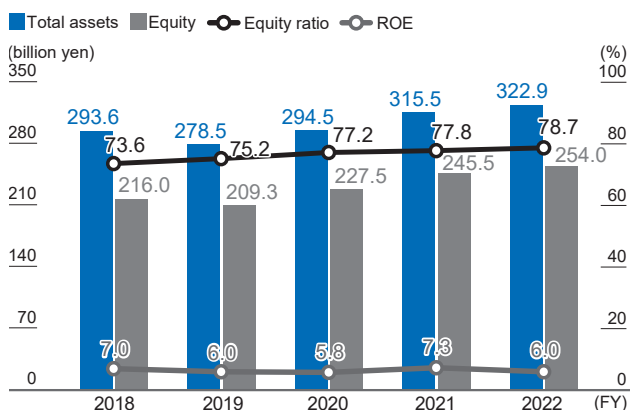
The Nippon Kayaku Group focuses on cash flow management and balance sheet management. We recognize the need to maintain ROE, a KPI set as a company-wide target, at around 8%. This is the minimum condition for the Nippon Kayaku Group to command presence.

ROE at the end of FY2022, the first fiscal year of **KV25**, was 6.0% due to a decrease in profits that resulted from changes in the business environment, and the equity ratio increased slightly to 78.7%. During the period of **KV25**, we will strive to secure profits by increasing sales of each product, coping with rising raw material prices, and reducing costs, and endeavor to shorten and appropriately manage the days of receivables and inventories on hand

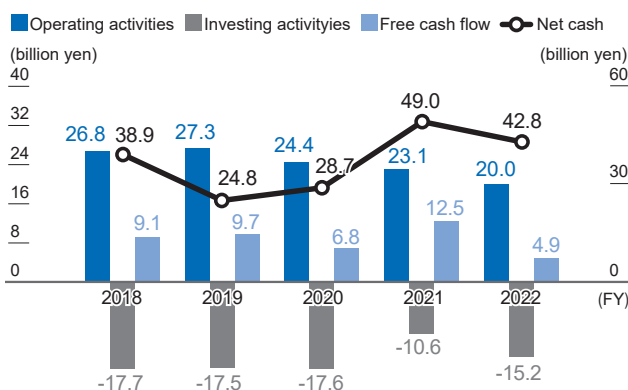
as operating capital. We will also examine the reasons for cross-shareholdings every year and sell those we have deemed as no longer needed, while taking the impact on the market into consideration\*<sup>4</sup>. In addition to this, we will consider other measures, including the appropriate timing for reducing holding of idle assets, mainly consisting of former plant premises, as we drive business management with cash and equivalents maintained at an appropriate level and pursue ROE at an appropriate level from a comprehensive perspective by considering shareholder return as well.

\*4 Trend in cross-shareholdings ▶ p. 75

Trend in Assets



Trend in Cash Flows



## Financial Strategy for Sustainable Growth

During the four years of **KV25**, we plan to significantly increase investment in R&D expenses and capital investments as investments for the future. Regarding capital investment, we considered the forecast for growth in demand, profitability, investment efficiency, and other factors. To give major examples, we have developed concrete plans for capital investment in expanding manufacturing equipment for inkjet inks used in industrial applications\*1 and epoxy resin manufacturing equipment\*2 in the functional chemicals business. In the safety systems business, we plan to add capacity for inflator and squib manufacturing equipment\*3 with a focus on products for ASEAN and Chinese markets.

From the Annual Securities Report for the 166th Period

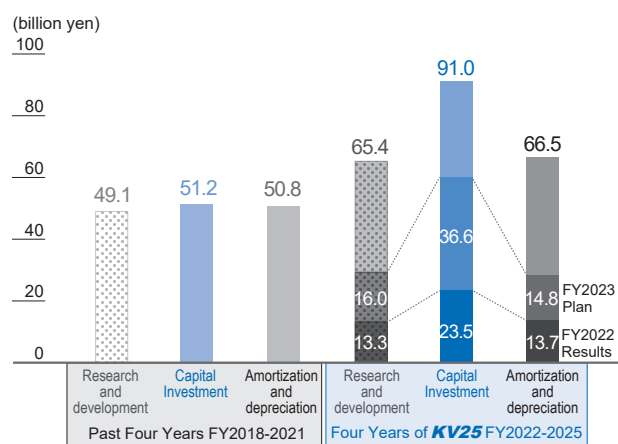
\*1 Fukuyama Plant (Fukuyama City, Hiroshima Prefecture): Approx. 4.3 billion yen

\*2 Asa Plant (Sanyoonoda City, Yamaguchi Prefecture): Approx. 6.6 billion yen

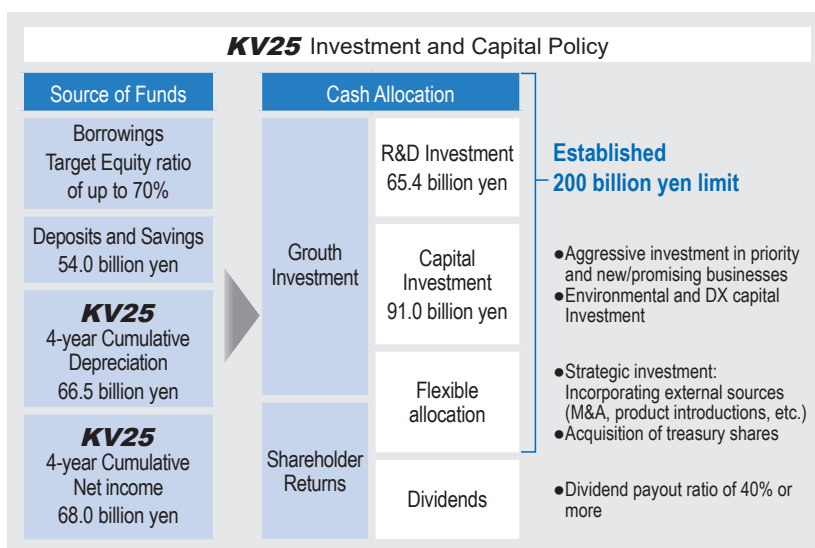
\*3 Kayaku Safety Systems (Huzhou) Co., Ltd.: Approx. 0.6 billion yen

Kayaku Safety Systems de Mexico, S.A. de C.V.: Approx. 0.7 billion yen

Kayaku Safety Systems Malaysia Sdn. Bhd.: Total Approx. 4.8 billion yen



We will secure funds by using corporate bonds and borrowing while maintaining our "A" corporate rating by R&I (Rating and Investment Information, Inc.) as an objective evaluation of our credit rating and considering capital cost. During **KV25**, we will also utilize borrowing up to an equity ratio of around 70%, and provide sufficient shareholder return while investing in growth. For total cash allocations, we will actively pursue investment in the future although we have set a maximum of 200 billion yen, including agile allocations for strategic investment in product introductions and M&A, in addition to allocations for R&D investment and capital expenditures.



## Shareholder Returns

The Nippon Kayaku Group regards returns to our shareholders as important. We will also target a dividend payout ratio of 40% or higher during **KV25**, FY2022–2025 medium-term business plan. We intend to be flexible in acquiring treasury shares as part of profit return while ensuring sufficient retained earnings. We will use retained earnings for R&D expenses and capital investments in growth businesses for future development, as well as strategic investment in product introductions and M&A, thus enhancing our corporate value.

In FY2022, we declared interim dividends of 20 yen per share, with a record date of September 30, and year-end dividends of 25 yen per share, for total annual dividends of 45 yen per share. The dividend payout ratio was 50.4%. The total return ratio for FY2022 was 70.4%, after acquiring roughly 3 billion yen in treasury shares from May through September 2022.

