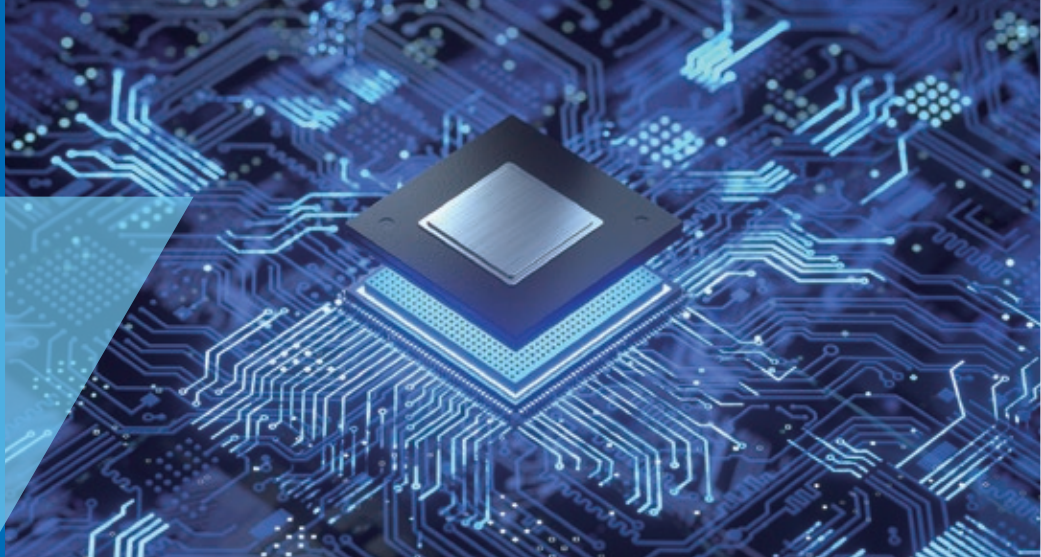


Chapter

2



Businesses

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New Products of Safety Systems Business

“PARASAFE®”, Emergency Parachute System for Drones

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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.

Special
FeatureNew Products of Safety Systems Business
“PARASAFE®”, Emergency Parachute System for Drones

PARASAFE

Aiming for Popularization of Drone “LEVEL4” Flight, and development of aero business

In the safety systems business, we created the product PARASAFE®, a safety device for drones used in industrial applications as a new air mobility, and launched sales in December 2021.

To PARASAFE®, we have applied our **pyrotechnic safety technology**, which we have cultivated for automotive safety components. When a drone drops from the sky due to unforeseen circumstances, PARASAFE® swiftly deploys a parachute with its pyrotechnic igniter, thus protecting safety at ground level while preventing damage to the drone itself and cameras and other on-board equipment. Also used for drone certification, etc. under the revised Civil Aeronautics Act, this product is expected to contribute to the spread and expansion of Level 4 flights (operation beyond the visual line of sight (BVLOS) over populated areas without pilot action) in the future.

PARASAFE®, a safety device and emergency parachute system to be attached to a drone

When a drone drops from the sky due to unforeseen circumstances, PARASAFE® protects safety by quickly deploying the parachute, which is enabled by the application of our **pyrotechnic safety technology**.

PARASAFE® main body housing a parachute

Video showing experiments of PARASAFE®:
<https://www.youtube.com/watch?v=P3nENy8kvEo>

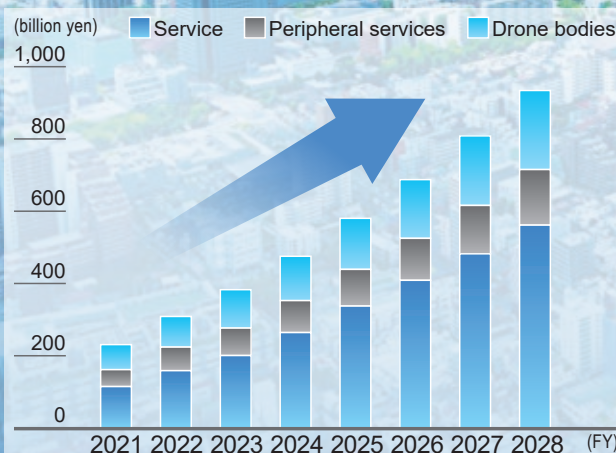


Market for Drones for Distribution and Inspection Expected to Grow Significantly in the Future

In 2021, the Nippon Kayaku Group established a new Aero Business Development Office, which is dedicated to marketing, development, and sales in the market for drones for distribution and inspection.

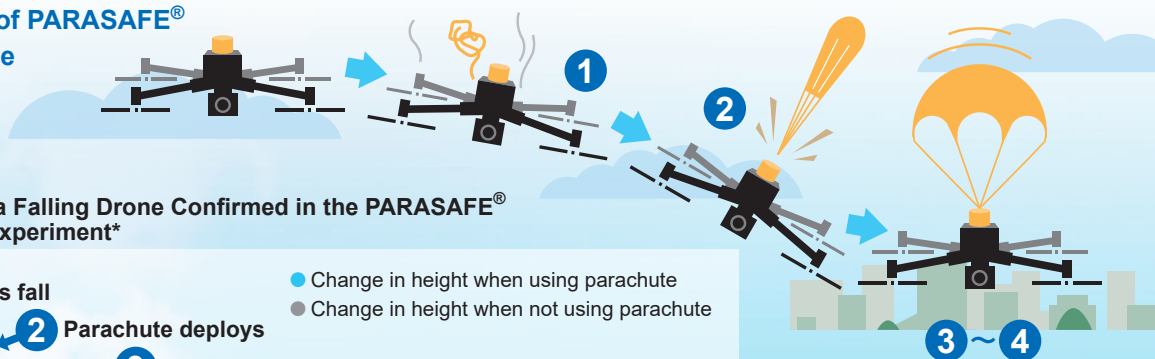
We are working in partnerships with drone manufacturers to quickly commercialize PARASAFE®, targeting **1.5 billion yen** in net sales in **FY2025** in the market for peripheral services. Over the long term, we want to grow this business to around 10 billion yen.

Forecast of the Size of the Domestic Market for Industrial Drone Business

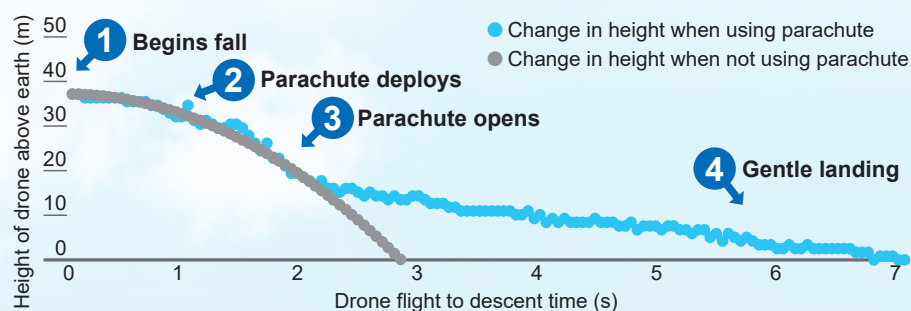


* Partial excerpt from FY2022 data from the website of Impress Corporation

Operating state of PARASAFE[®] attached to drone



Safe Landing of a Falling Drone Confirmed in the PARASAFE[®] Demonstration Experiment*



* Data from a demonstration experiment that was conducted in 2021 in Yabu City, Hyogo Prefecture, which is designated as a national strategic special zone

Core technologies that enabled the development of PARASAFE[®]



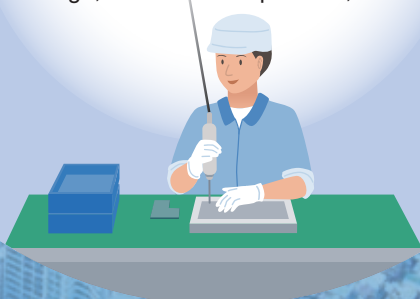
1 Pyrotechnic Safety Technology

Industrial pyrotechnics have the outstanding ability to reliably generate a certain amount of energy in an instant. We have handled pyrotechnics since our founding and our extensive expertise in the properties and safe handling of pyrotechnics is a major advantage of Nippon Kayaku.

2

High-performance Component Development Capabilities

In addition to materials, another strength of our company is our ability to develop components that offer both high performance and reliability and durability. We manufacture all products inhouse, using our expertise in material and form design, simulation of operation, etc.



Core technologies used for PARASAFE[®]

3

Sensing and Programming Technology

A device called an ATS (Autonomous Triggering System) is necessary to activate safety components when a dangerous fall is detected. We select the optimal sensors from drone flight data and simulations, develop an activation program, and are working on other technologies for ATS.



PARASAFE

—Ensuring safety for the future, when air mobility will be used widely—

The air mobility market has kept expanding globally. Air mobility is expected to be used in various fields, such as agriculture and security, in addition to use in urban areas. Diversification and evolution of aircraft bodies is also anticipated, and various trials are being conducted on a whole range of aircraft, from small models weighing several kilograms to large models exceeding 100 kg, and flying cars that can transport people. The Nippon Kayaku Group will provide optimal safety components in accordance with needs, including products for various weights and ones applying sensing technologies, in addition to the current PARASAFE®. We will thus secure our position as a peripheral device manufacturer and contribute to realizing a society with safe and secure air mobility.



Expansion to logistics use

Use for inspections, surveys, and security

Demonstration experiment of Level 4 flight

Use for Level 4 certified aircraft

Demonstration Experiment for Spread of Level 4 Drone Flights

Video showing the demonstration experiment
<https://youtu.be/MwSA29H4ESY>



Demonstration experiment at Kobe Gakuin University in September 2022 (experiment conducted during the Drone Summit)

The Nippon Kayaku Group is cooperating to a project for promoting social implementation of drones in densely populated areas with use of parachute and airbag devices for drones, which is implemented by the Hyogo Prefectural Government and the New Industry Research Organization (NIRO).

To date, we have participated in experiments to verify the effectiveness of a number of safety devices, aiming to realize widespread use of industrial drones.

Aircraft Equipped with PARASAFE® First in Japan to Receive Level 4 Class1 UAS Type Certificate

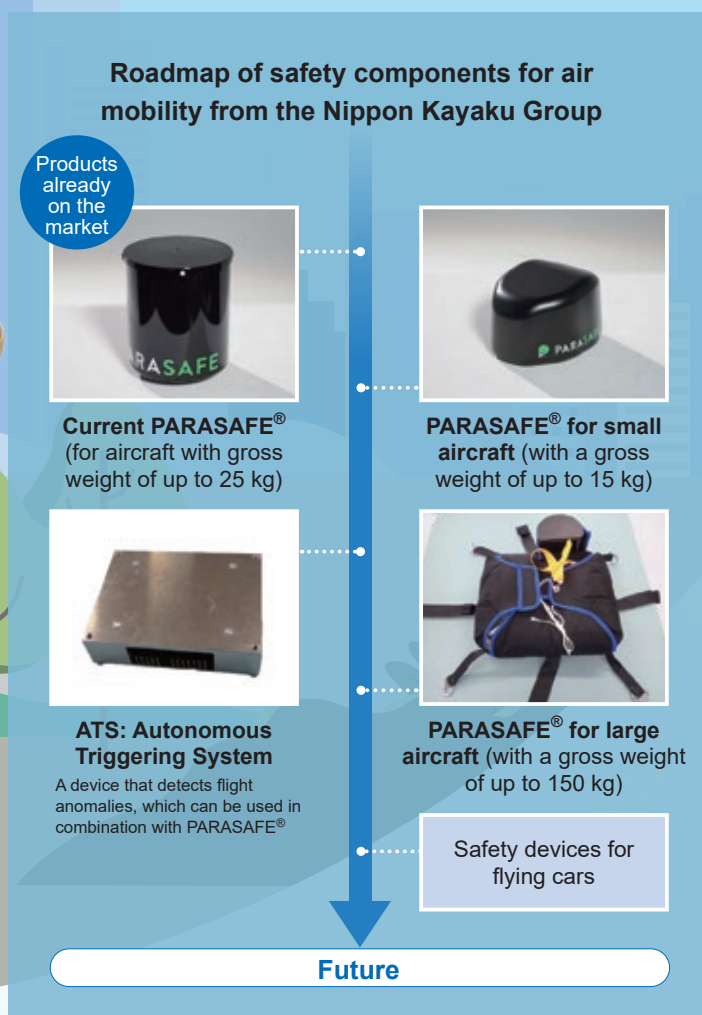


A drone for distribution from ACSL Ltd., which is equipped with dedicated PARASAFE® and acquired the Level 4 certificate

In December 2022, the Civil Aeronautics Act was partially revised, and Level 4 flight of drones (operation beyond the visual line of sight (BVLOS) over populated areas without pilot action) finally became possible in Japan. In response to this revision, in March 2023 ACSL Ltd. (Edogawa-ku, Tokyo), a major drone manufacturer, acquired an official certificate for Level 4 flight for the first in Japan with aircraft equipped with PARASAFE® from Nippon Kayaku.



Emergence of flying cars



Application to flying cars

Collaboration with SkyDrive Inc., a Company Known for Flying Cars



Illustration of the SD-05 flying car developed by SkyDrive Inc.

In 2022, the Nippon Kayaku Group invested in SkyDrive Inc. (Toyota City, Aichi Prefecture) and formed a partnership to study safety devices for flying cars which are developed by SkyDrive and expected to play an active role in the future. We will ensure safety of manned air mobility by utilizing our expertise that we have cultivated for drones.

Global expansion

For the Development of Air Mobility around the World



ASW, a Group company, ran a booth at Commercial UAV Expo 2022, a drone-related trade show in the U.S.

Drones in industrial applications are also expected to become popular in the United States, Europe, and China, etc. In the United States, Aero Systems West, Inc. (ASW, California, the United States), which specializes in drone design and development, as well as manufacturing and operational training, joined the Group through a capital participation. We will continue to actively participate in trade shows and other events held in various countries to promote marketing while closely exchanging information with related companies.

Functional Chemicals Business

We will place emphasis on communication and trust with our suppliers and customers, and steadily promote business operations while building a forecast that accurately captures changing market conditions.

Member of the Board
Managing Director, In charge of Fine Chemicals Business Unit

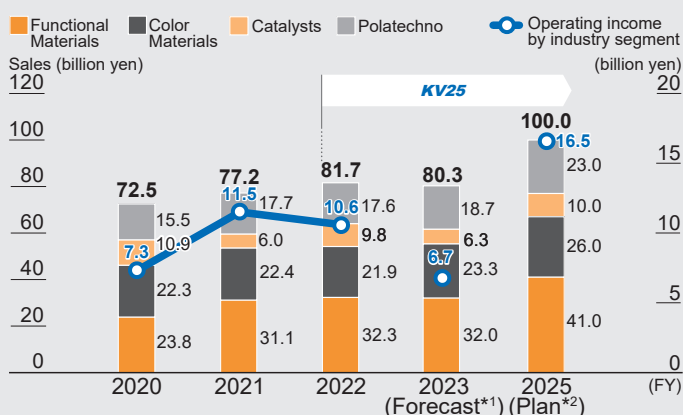
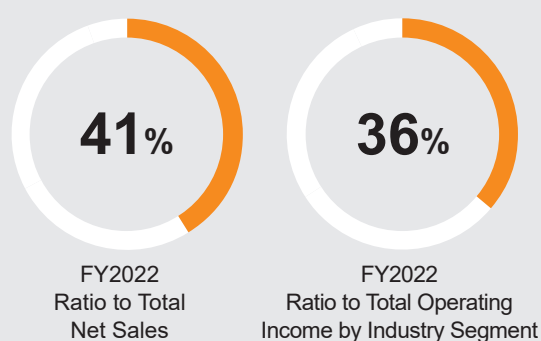
Masatomi Akezuma



Business Overview for FY2022

- **Functional materials:** Demand for epoxy resins for semiconductors for use in circuit boards and encapsulation was strong in the previous fiscal year. However, demand for such epoxy resins for use in circuit boards slowed down in the second quarter due to declining demand from consumers. Dry film resists for Surface Acoustic Wave (SAW) and Bulk Acoustic Wave (BAW) filters*, which are needed for next-generation communication devices, performed well due to market expansion.
- * Components used in smartphones and other communication devices, which are needed to extract specific frequency signals
- **Color materials:** Sales of colorants for consumer inkjet printers were strong in the first half of the year, but slowed down in the second half. The market for colorants and inks for industrial inkjet printers, on which we are focusing our efforts, recovered and remained strong.
- **Catalysts:** Although there were some delays in the achievement of results due to logistics disruptions in the first half of the year, sales remained strong in the full year.
- **Polatechno (optical films and precision components):** Demand for optical films, mainly those for automobile applications, stagnated as the shortage of semiconductors and the situation in Ukraine affected customers' production. On the other hand, sales of precision components for X-ray analysis systems remained strong as in the previous fiscal year.

Trends in Operating Results



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

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

Progress in the First Year of the Medium-term Business Plan KAYAKU Vision 2025 and Future Outlook

In FY2022, the environment surrounding the functional chemicals business remained uncertain mainly reflecting geopolitical risks, surging raw material and energy prices, and exchange rate fluctuations, despite expectations of a gradual return to the lifestyle that existed before the COVID-19 pandemic.

Above all, the business began to be significantly affected by the external environment in the second half, making it imperative to improve profitability. In order to achieve **KV25**, going forward we will drive initiatives to pass on higher raw material and energy costs to prices, reduce costs, and accelerate development and preparation for

market launch, while keeping in mind the need to improve asset efficiency.

From a medium- to long-term perspective, we still expect significant growth in the market for the Group's semiconductor-related products (functional materials) and products for inkjet printers (color materials). In the catalysts business, the market for acrylic acid and methacrylic acid is expected to continue growing at 5% to 6% per year.

In FY2023, we will make a fresh start as the Fine Chemicals business unit consisting of the three businesses of functional materials, color materials, and catalysts. We will redouble our focus on communication and trust with our suppliers and customers, and steadily pursue our business operations while building a forecast that accurately captures changing market conditions.

Strengths We Possess

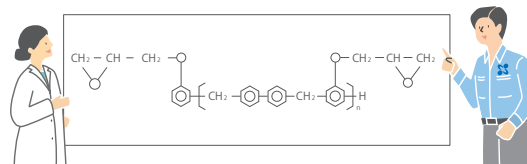
1 Close-to-the-customer business focused on VOC*



- Provide total solutions by accurately ascertaining needs and connecting them to sales and technology
 - Establish manufacturing, sales, and service locations globally
- Global expansion ▶ p. 11

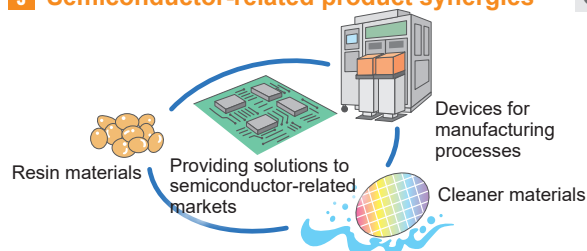
* Voice of Customer

2 Functional molecule design



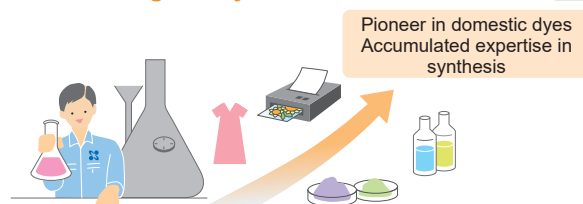
- Enables the design of resins with special functions according to the purpose, such as high-purity, high heat-resistance, etc.

3 Semiconductor-related product synergies



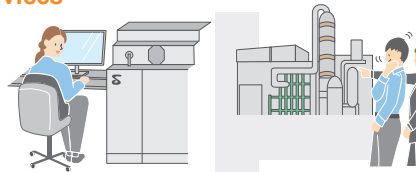
- Strengths in using epoxy and maleimide resins for 5G, MEMS materials, cleaner materials, semiconductor manufacturing equipment, and other products for reciprocal identification of customer needs and expansion of sales

4 Precise organic synthesis



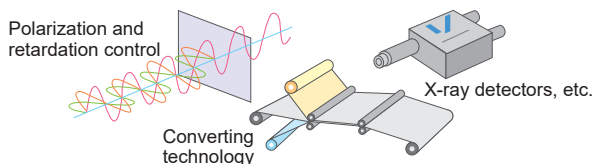
- Possess expertise in the synthesis of a wide range of color materials, from dyes that were the first in history in Japan, to colorants for inkjet printers and functional colorant materials
- Capable of fine customization of properties, etc. according to the type of printer

5 Catalyst composition design and technical services



- Creation of high-performance catalysts using expertise in the composition of metallic elements used and grain size design
- Provision of technical services such as filling methods that manifest top performance

6 Light control in polarizers, X-rays, etc.

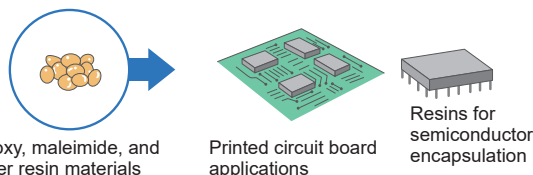


- Knowledge in development of high durability dye-type polarizers, inorganic polarizers, precision components (for X-ray analysis systems used in elementary analysis)
- Possess material design and film converting technology

Current Core Products

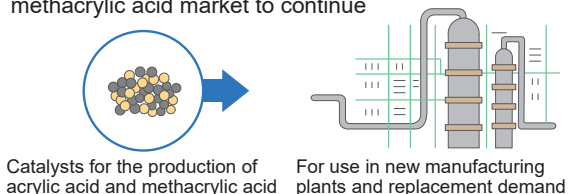
Epoxy resins

The semiconductor market will grow to 100 trillion yen by 2030



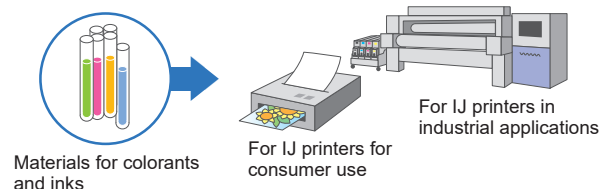
Catalysts for the production of acrylic acid and methacrylic acid

Expect 5% to 6% annual growth of the acrylic acid and methacrylic acid market to continue



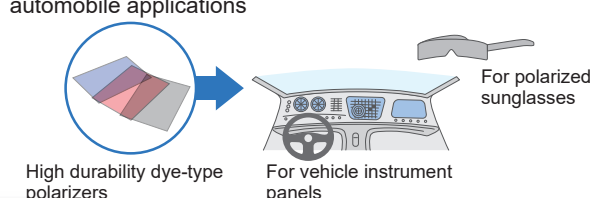
Colorants and inks for inkjet printer

Expect continued expansion of the digital printing market



High durability dye-type polarizers

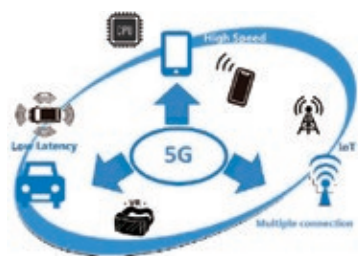
Capture evolution and expansion of display function for automobile applications



Growth Areas and Things We Want to Achieve in 2025

Semiconductors and peripheral areas

Capture expansion of semiconductor demand from the proliferation of IoT and nextgeneration high-speed communications



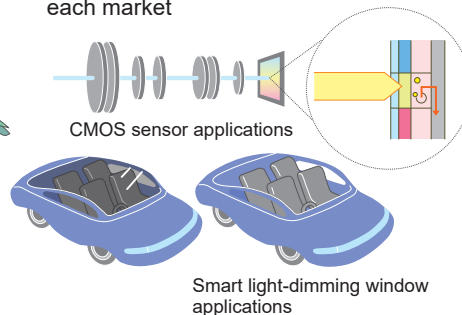
Expansion of colorants for inkjet printers in industrial applications

Expansion of demand for digital printing for flexible packaging materials, textiles, etc.



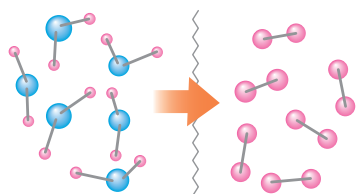
Commercialization of functional colorants

Taking in the expansion and spread of each market



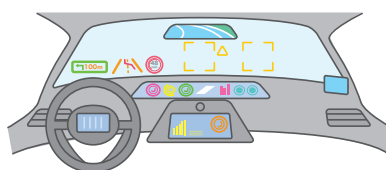
Development of catalysts for hydrogen production

R&D on catalysts that contribute to a zero carbon society



In-vehicle applications

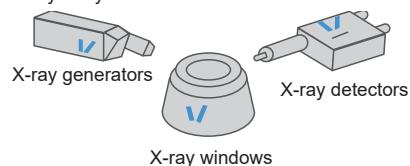
Response to the evolution of heads-up displays, smart room mirrors, and other vehicle display devices



Expansion of the X-ray business

Increasing demand of the recycle of rare metals

Expansion of components for X-ray analysis systems



Vision for the Functional Chemicals Business

**Contribute to a rich lifestyle and sustainable society
by providing valuable products that leverage technology**

Contribution to SDGs



Key Areas

Functional Materials	Color Materials	Catalysts	Polatechno
<p>Providing important materials with unique materials</p> <ul style="list-style-type: none"> Expansion in semiconductor-related businesses, including circuit boards, encapsulants, cleaners, and manufacturing equipment Development and launch of nextgeneration telecommunications resins (low-inducement materials) Expansion of epoxy resins production capacity 	<p>Contributing to digitization and resource conservation with inkjet and functional colorants</p> <ul style="list-style-type: none"> Expansion of industrial inkjet inks and improvement of production system Mass production and expansion of image sensor materials Mass production and expansion of dichromatic colorants 	<p>Providing high-yield catalysts to contribute to enriching people's lives and reducing CO₂</p> <ul style="list-style-type: none"> Enhanced yields for catalysts for the manufacture of acrylic and methacrylic acids Steady repeat orders and new development Development of a contributing catalyst towards a decarbonized society 	<p>Contributing to the realization of a supersmart society with products that control light using proprietary materials</p> <ul style="list-style-type: none"> Expansion of new applications for components and inorganic polarizers for X-ray analyzers Expansion of new automotive applications for highly durable polarizers in head-up displays

TOPICS 1

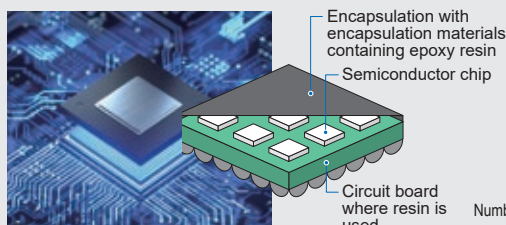
Investment to increase production in growth areas such as epoxy resins for semiconductors and colorants and inks for inkjet ink

Epoxy resins for semiconductors

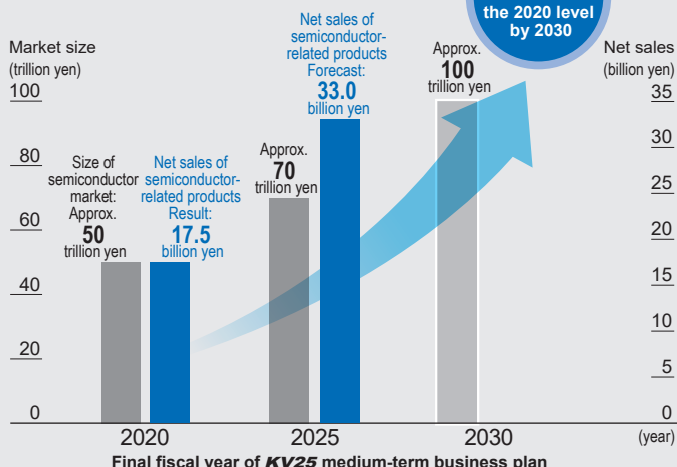
Among high-purity epoxy resins in our functional materials business, demand is growing recently for those for package circuit boards, in addition to ones for use as materials for semiconductor encapsulation, which must have a high degree of electrical reliability. The semiconductor market is expected to expand rapidly to 100 trillion yen, doubling in size during 2020 to 2030, due to the rapid progress of digitalization mainly reflecting the development of 5G communication networks and the spread of telework and social media. To meet this demand, we are making planned investments*¹ to increase production at the Asa Plant, our manufacturing base.

*¹ We already increased production capacity by about 1.2 times in FY2021.

We are currently investing about 6.6 billion yen in facilities, aiming for completion by March 2025.



Rapid growth in semiconductor-related products boosted by market growth



Final fiscal year of KV25 medium-term business plan

Numbers for semiconductor market size: Partially excerpted from *Handotai Senryaku (Gairiyaku)* (semiconductor strategy (short summary)), which was published at the website of the Ministry of Economy, Trade and Industry in June 2021

Colorants for industrial inkjet inks, and inks

Among colorants and inks in the color materials business, we see growth in sales of ones for industrial digital printing, as well as ones for consumer applications such as home printers and office printing, which used to be the mainstay. Digital printing is suitable for printing small quantities of a large variety of materials. It is also environmentally friendly because it does not require cleaning water after printing. This market is expected to grow significantly in the future. In order to respond to the demand associated with the expansion of industrial inkjet printers, we are making capital investments*², including in the construction of a new manufacturing building, at the Fukuyama Plant as our manufacturing base.

*² The investment will be approximately 4.3 billion yen and the construction is scheduled to be completed in August 2024.



Rendering of the new manufacturing building of the Fukuyama Plant

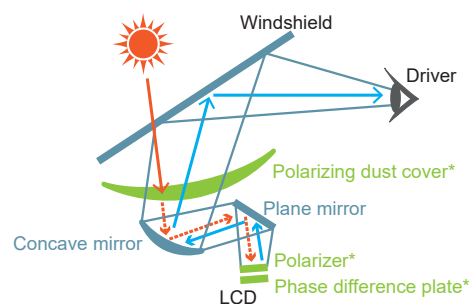
TOPICS 2

High durability dye-type polarizers: Expanding and developing automobile applications

High durability dye-type polarizers in the Polatechno business have long been used in LCDs for automobile meter cluster panels as materials that can pass tests for long-term durability, or capability of withstanding direct sunlight exposure and high temperature environments. In recent years, we see growth in their applications for polarizing dust covers for protecting projection equipment of head-up displays (HUDs), which have begun to become popular for in-vehicle use. Our products can be used for multiple sections of HUD projection equipment, so we aim to further expand the applications of our products in the future. In addition, currently available cluster panels and other in-vehicle devices display more information than before. They are therefore required to be more sophisticated and have larger areas. In particular, the highest display quality is required for the high-end models from European automobile manufacturers, and polarizers that meet these requirements in terms of high contrast, wide viewing angle, and durability have become indispensable. Until now, our polarizers for cluster panels have been offered mainly in Asia. In order to accelerate expansion into the European market, where higher quality is demanded, we are making efforts to realize more advanced features and higher quality while making the most of the Group's proprietary technologies.

We will continue to quickly grasp the trends in automotive displays, which will continue to evolve year by year, and actively promote proposals for applying our dye-type polarizers to a variety of automotive devices.

How HUD works



* Sections where Polatechno products are used



A cluster panel with an LCD using a polarizer

Pharmaceuticals Business

As a company that provides pharmaceutical products, we will build a complete system by reaffirming the importance of quality assurance and stable supply.

Managing Director, In charge of Life Science Business Unit,
Head of Pharmaceuticals Group

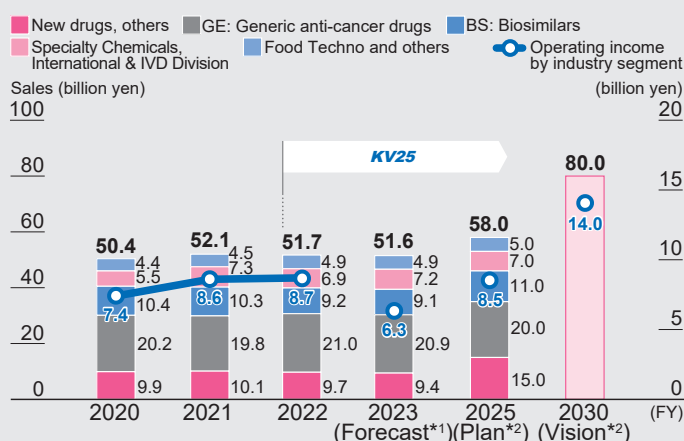
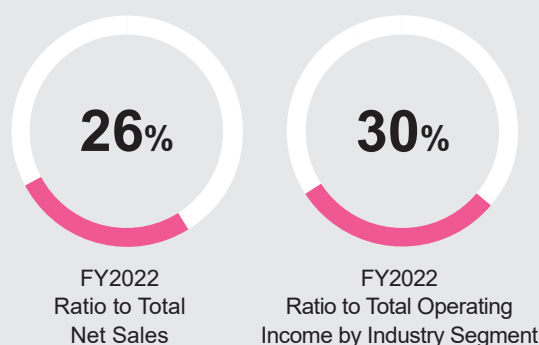
Hiroshi Shimada



Business Overview for FY2022

- Sales of pharmaceuticals in Japan remained almost unchanged year on year (with a slight decline) as higher sales volume of generic anti-cancer drugs and biosimilars offset the impact of the drug price revisions. In particular, the sales were driven mainly by PEMETREXED, a unique formulation of a generic anti-cancer drug.
- Sales in Specialty Chemicals, International & IVD business declined year on year despite year-on-year increase in revenues from Specialty Chemicals and International, due to a year-on-year decline in exports and contract manufacturing.
- Divisional operating income increased mainly due to growth in sales of new products.

Trends in Operating Results



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

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

Progress in the First Year of the Medium-term Business Plan *KAYAKU Vision 2025* and Future Outlook

In FY2022, sales were affected by the drug price revisions for domestic formulations as in previous years. However, sales were on par with the previous year due to growth of sales volume, mainly of generic anti-cancer drugs including unique formulations and biosimilars. In addition, Specialty Chemicals, International & IVD business and Food Techno, a subsidiary, enjoyed steady business performance, and we could almost achieve forecast net sales and divisional operating income for the pharmaceuticals business as a whole.

In R&D, we have promoted several themes for which we aim to enter clinical trials in 2025. We have also started to acquire new modalities through partnerships with academia. As in the past, we are also heavily engaged in activities for the continued launch of generic anti-cancer

drugs and biosimilars. On the other hand, it was also a year in which we reaffirmed the importance of quality assurance and stable supply as a company that provides pharmaceutical products. All of us will continue to work hard to ensure that our business operations are conducted under the best possible system.

In the second year of *KV25*, the Life Science business unit, which includes the agrochemicals business as well as the pharmaceuticals business, will be newly launched. This business unit as a whole has the strength of having food and healthcare-related products in addition to pharmaceuticals and agrochemicals. In technological fields which are closely related to people's lives, including living and eating, we will create businesses and products based on new ideas through synergies within the business unit, in our efforts to achieve our vision.

Strengths We Possess

1 Integrated business operation from R&D to manufacturing and sales

- We possess domestic manufacturing locations and contribute to a stable supply of high quality pharmaceutical drugs.
- The ability to share information bidirectionally between R&D and manufacturing and sales is a strength.

2 R&D platform that supports multiple modalities

- We possess the human resources and organizations for utilizing our core technologies in small molecule drugs, polymers, and biosimilars.

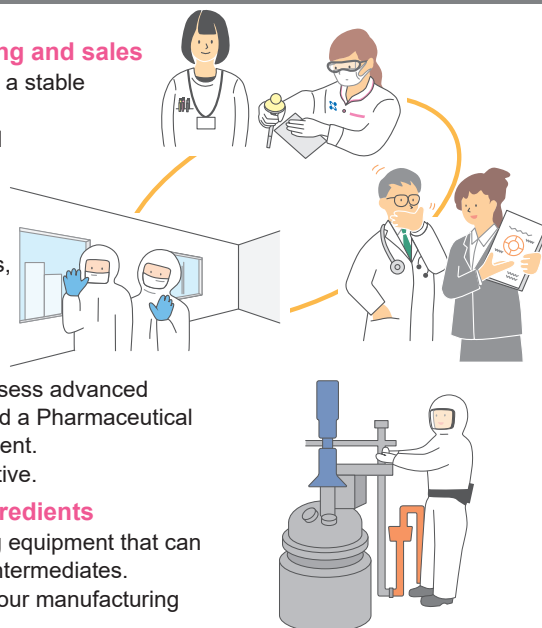
3 System for compiling and providing information to medical professionals

- We have medical representatives stationed nationwide who possess advanced expertise and cover information on all products, have established a Pharmaceutical Information Center, and built a support system for cancer treatment.
- Information is compiled and provided from the patient's perspective.

4 Manufacturing technology for active pharmaceutical ingredients

- We have a comprehensive range of multipurpose manufacturing equipment that can be used for contract manufacturing of pharmaceutical API and intermediates.
- We have introduced global GMP Standards* and take care that our manufacturing processes are friendly to environment and people.

* We have poured effort into building complete containment systems in facilities and maintain compliance with cGMP, EU-GMP, PIC/S GMP, and other standards.



Current Core Products

New Drugs

DARVIAS[®] for treatment of peripheral T-cell lymphoma;
PORTRAZZA[®], a therapeutic agent for lung cancer;
ALAGLIO[®], a photodynamic diagnostic agent for bladder cancer, etc.

Generic Anti-cancer Drugs

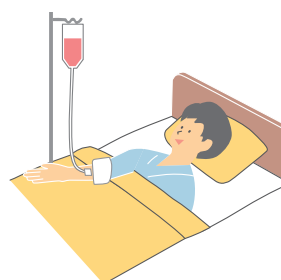
PACLITAXEL, PEMETREXED, etc.

Biosimilars

INFLIXIMAB BS, a therapeutic treatment mainly for inflammatory bowel disease, TRASTUZUMAB BS, a therapeutic treatment mainly for breast cancer, etc.

Active pharmaceutical ingredients (APIs) and diagnostic agents

Contract manufacturing of APIs and intermediates, diagnostic agents for Japan and the U.S., etc.



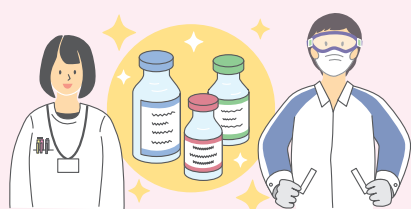
Improving healthcare
Compilation and
provision of medical
information



Essential drugs, etc.
Stable supply of
pharmaceuticals

Growth Areas and Things We Want to Achieve in 2030

Pharmaceuticals developed in-house



New drug development in the cancer field
using our R&D platform

Establish a
platform for
sustained
growth

Results achieved through alliance activities



Focusing on introduction and other activities to follow
DARVIAS[®], PORTRAZZA[®], ALAGLIO[®], etc.

**Demonstrate Nippon Kayaku's presence in pharmaceuticals and medical devices
in the cancer field and peripheral fields**

Vision for the Pharmaceuticals Business

Develop outstanding pharmaceuticals and devices and provide new diagnostic and therapeutic opportunities
Contribute to people's health by providing a stable supply of biosimilars formulations and generics

Contribution to SDGs



New Drugs

- Increase in share of ALAGLIO® in the TURBT* market
- Market penetration of DARVIAS®
- Maximizing value through market penetration

* Transurethral Resection of Bladder Tumor:
A surgical technique in which a surgical cystoscope is inserted through the urethra and a tumor is resected while preserving the bladder, without opening the abdomen.

Generic Anti-cancer Drugs (GE)

- Expansion of PEMETREXED and TEMOZOLOMIDE
- Development and launch of new generics
- Establishment of production structure to increase production capacity for generics

Biosimilars (BS)

- Promotion of biosimilars from revision of the medical payment system
- Expansion of the line-up by introducing new drugs

Toward "The Vision" in 2030

- Filling the pipeline
- Development of new drugs in-house and through collaboration with external organizations
- Introduction of new drugs and new medical devices

TOPICS 1

Accelerating new drug development in Oncology

Since the launch of BLEO® in 1969, Nippon Kayaku has been expanding businesses, from new drugs to essential drugs, generics, and biosimilars, building on its strength in Oncology. As a result, as of July 2023, we have launched 42 cancer-related pharmaceutical drugs, possessing one of the largest lineups among pharmaceutical manufacturers in Japan. Currently, we are promoting the creation and diffusion of new drugs as a priority task under **KV25**, the medium-term business plan. We are focusing on the diffusion of PORTRAZZA®, a therapeutic agent for lung cancer for which we took over the domestic sales rights in 2019, and ALAGLIO®, a photo-diagnostic agent for bladder cancer, which we similarly concluded a domestic sales agreement on in 2021. We are also working intensively on market penetration of DARVIAS® for treatment of peripheral T-cell lymphoma, which we began selling in August 2022 after licensing domestic commercialization from Solacia Pharma K.K. We will build a system that enables us to create a pipeline continuously and promote new drug development through a combination of internal research and development and collaborations with external organizations, including introduction and licensing.



TOPICS 2

Initiatives for achieving growth of generic anti-cancer drugs and biosimilars

In order to promote the proper use of generic drugs and biosimilars we have launched, we are taking initiatives to obtain approvals for new indications and dosage and administration for formulations in addition to making efforts to resolve discrepancies with original drugs in indications and dosage and administration.

As for generic drugs, we filed applications for partial changes of approved matters for marketing approval of PACLITAXEL and PEMETREXED, which have been delivered to many medical institutions and have already contributed to sales, and obtained approval for new indications and new dosage and administration.

For biosimilars, we launched BEVACIZUMAB BS intravenous infusion in November 2022. We then added an indication*1 to it in April 2023.

In addition to making these efforts, we will work to contribute to the medical community and achieve growth of our business, especially in the cancer-related segment, while strengthening our quality control and stable supply system*2 to further meet the expectations of medical professionals who have placed their trust in us.

*1 Ovarian cancer was added to colorectal cancer, non-small cell lung cancer, and breast cancer.

*2 Capital investment is underway at Takasaki Plant (approx. 1.0 billion yen in facilities for manufacturing solid formulations, with completion scheduled in January 2024, and approx. 600 million yen in injection manufacturing facilities, with completion scheduled in December 2025).





Safety Systems Business

We will strive to achieve growth of automotive safety components, which are expected to grow in the medium- to long-term, and promote the development of new products that contribute to the safety of new mobility such as EVs, drones, and flying cars.

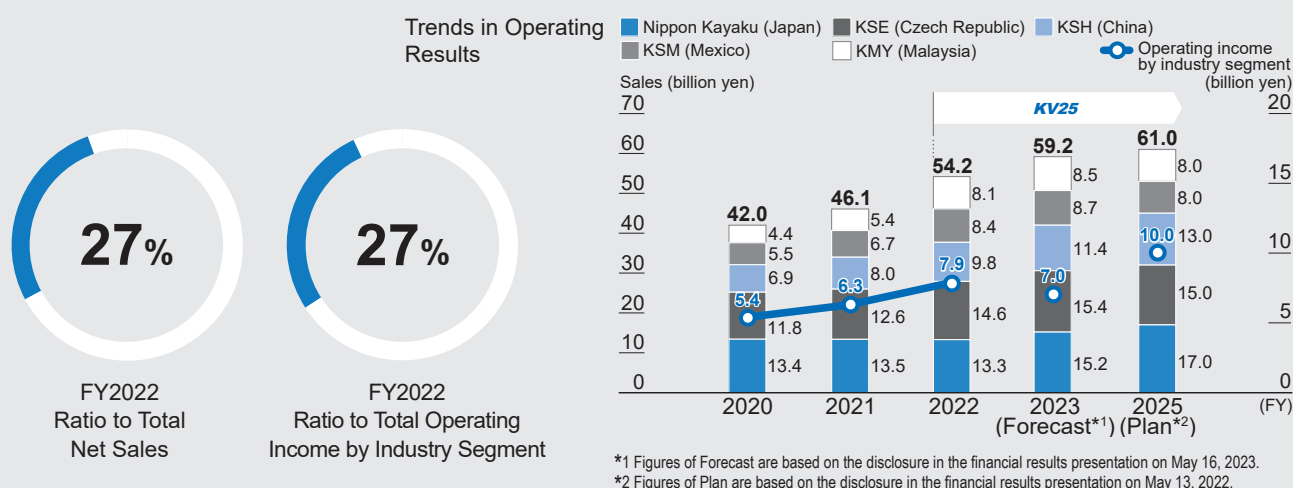
Member of the Board

Managing Director, In charge of Mobility & Imaging Business Unit, Head of Safety Systems Group

Shigeyuki Kawamura

Business Overview for FY2022

- In Japan, demand for automotive safety parts remained sluggish as automobile production declined due to the shortage of semiconductors and other factors.
- Overseas demand was generally firm, although the pace of recovery slowed in some regions.
- Operating income in the division increased due to an increase in sales that resulted from recovery in overseas demand and the impact of foreign exchange rates.



Progress in the First Year of the Medium-term Business Plan KAYAKU Vision 2025 and Future Outlook

In the safety systems business, we aim to become a trusted global brand of automotive safety components, with the goal of contributing to a safe and secure mobility society while focusing on solving social issues such as ones on carbon neutrality. In FY2022, both sales and profits increased due to foreign exchange fluctuations and aggressive global business expansion, more than offsetting the impact of the rapid spread of COVID-19 in China and supply problems in semiconductors and other products on automobile production.

The global situation is expected to remain uncertain for the foreseeable future, and the automobile market will see the rise of emerging EV manufacturers and the development of new EV technologies that will create chaos throughout the supply chain. On the other hand, the de-

mand for automotive safety components is expected to be even stronger, especially in China and the Global South.

At the Nippon Kayaku Group, we will strive to achieve growth of automotive safety components including inflators and micro gas generators as our current mainstay products. At the same time, we will drive the development of pyrotechnic devices for use in electrical circuit breakers for EVs and new products which will be useful for safety in new mobility such as drones and flying cars.

In FY2023, we will start as the new Mobility & Imaging business unit with two businesses: safety systems business and Polatechno business that mainly deals in polarizers for automobile applications. We will strive to strengthen product competitiveness in the business unit as a whole by sharing information on the market of products for automotive applications, jointly formulating new strategies, and reducing costs through the sharing of production technologies and expertise.

Strengths We Possess

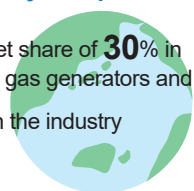
1 Technology for handling pyrotechnics safely and passing on that technology



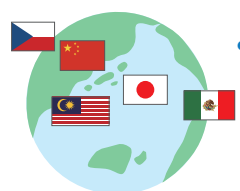
- High degree of expertise in safety technology handling pyrotechnics for industrial use since the Company was founded is a strength
- System for passing on technology and training

2 Share of automotive safety components

Market share of **30%** in micro gas generators and squibs
Top in the industry

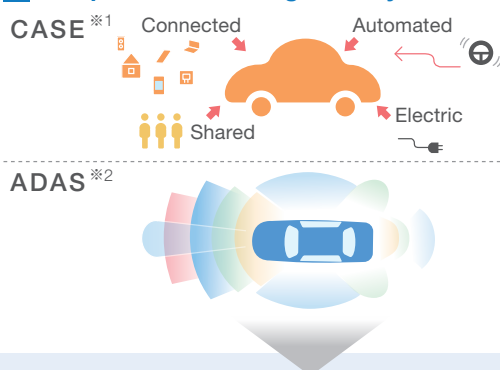


3 Structure for global expansion



- Optimal production and supply structure with five global locations
- Core functions are centralized at the mother plant (Himeji), and a wide variety of initiatives in technology, quality, safety, and other aspects are rapidly deployed to each location

4 Response to evolving mobility technologies



- The Research & Development Division assumes the main role in researching development of the next generation of pyrotechnics safety technology

*1 CASE: A technological revolution in new areas related to vehicles, such as Connected, Automated, Shared, and Electric technologies

*2 ADAS: An acronym for Advanced Driver-Assistance Systems. This refers to systems that gather information from the environment surrounding the vehicle itself and display accurate indicators and warnings to achieve drive safety and comfort. This is a collective term for driving assistance functions that control vehicle operation.

Current Core Products

Inflator

Inflators are devices used to instantly inflate airbags. Airbags are loaded with a gas generating agent, which applies explosive technologies to control the speed at which an airbag deploys at within 1/1000th of a second at the point of impact.



Disk-type



Cylinder-type

Micro Gas Generators

Micro gas generators are compact gas generating devices used for seat-belt pretensioners, which are devices to retract seat belts in the event of a collision, safely restraining passengers in place.



Squibs

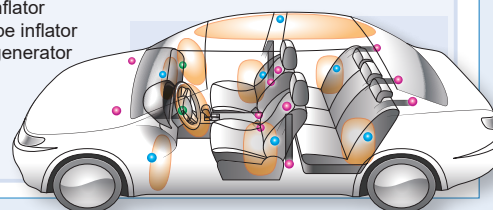
A squib is an ignition device embedded in inflators and micro gas generators. It receives electric signals from impact sensors to operate safety devices.



Growing Automotive Safety Components Market

- Global vehicle production is rebounding from the impact of the COVID-19 pandemic and the semiconductor shortage will persist in the short term.
- The safety component installation rate is increasing, mainly in emerging countries.

- Disk-type inflator
- Cylinder-type inflator
- Micro gas generator



Growth Areas and Things We Want to Achieve in 2025

Expansion of new uses for automotive safety components

Increase in demand due to EVs and others

Next-generation micro gas generators

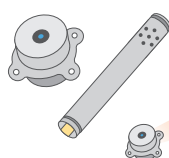
Electrical circuit breakers for use in electric vehicles (EV)

Hood pop-ups (to protect pedestrians)

Applications related to automated driving

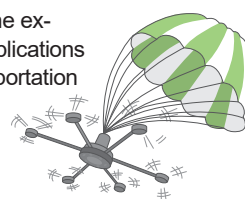
Expand sales volume of inflators

Target expansion of sales volume of inflators while maintaining global market share in micro gas generators and squibs



Safety components for Drone

Demand for the expansion of applications such as transportation by the drone and the assurance of safety



Development that can address diverse needs

Make it the defacto standard

Develop larger components

Vision for the Safety Systems Business

**Become a global brand that contributes to society
by providing safety to people around the world with products
that respond to changing mobility technologies**

Contribution to SDGs



Key Areas

Inflators

- Expansion of production locations for cylinder-type inflators (Japan, China, and Malaysia)
- Expansion of sales to customers in China and South Korea
- Development of next-generation inflators

Micro Gas Generators/Squibs/Pyrotechnic Devices

- Acquisition of module proposals for next fiscal year
- Acquisition of proposals for an increase in number for rear passenger seats, etc.
- Expansion of uses to pedestrian protection, electrical current interruption, etc.
- Exploration of uses for new pyrotechnic devices

Safety Components for Drone

- Expansion of PARASAFE® sales for 25 kg drones launched in 2021
- Development and early market launch of PARASAFE® for 15 kg drones
- Development of safety components for flying cars and large drones

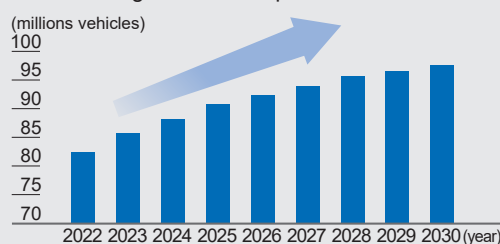
TOPICS 1

Expanding inflators in response to growing demand for automotive safety components

Car sales are expected to grow over the medium to long term, albeit more moderately than the previous forecast due to the spread of COVID-19 and the shortage of semiconductors. In addition, the number of safety components per vehicle is on the rise, especially in emerging countries.

To take advantage of this demand as an opportunity, in the safety systems business, we aim to increase the global sales volume of inflators by leveraging the increased adoption of two new types of inflators that were launched in 2018 or later. The lineup of our new inflators includes a cylinder-type inflator (for side and knee airbags), which we succeeded in making smaller in diameter and lighter by improving the method of pyrotechnic ignition, as well as disc-type inflators, for which we have succeeded in weight reduction. Under **KV25**, we will focus on measures to achieve growth of the cylinder-type inflator. Cylinder-type inflators are currently produced at the Himeji Plant, but we are planning technology transfer to manufacturing locations in China and Malaysia in the future to establish a global supply structure from multiple locations and expand our target market to the China and the ASEAN market, where robust demand is anticipated.

Forecast of global vehicle production



* Estimated by the Nippon Kayaku Group based on survey data from S&P Global Mobility that was released in May 2023



Kayaku Safety Systems (Huzhou) Co., Ltd.



Kayaku Safety Systems Malaysia Sdn. Bhd.

TOPICS 2

Aiming to contribute to carbon neutrality

In response to the demand for high environmental and safety performance in automobiles, we have succeeded in reducing the weight of our new disc-type inflators for airbags (ones for driver and passenger seats that began to be produced in April 2018) by 25% while maintaining strength and durability, by devising creative measures such as reducing the thickness of metal components. This improvement enabled to reduce CO₂ emissions per product by 36%*¹ compared to conventional products and also contribute to improvement in fuel efficiency of automobiles they are installed in.

Moreover, we are also providing squibs and other components to customers for devices that interrupt*² the high voltage electrical current supplied from EV batteries. We intend to continue focusing on expansion of this product group in the future in response to the shift to EVs.

At the Himeji Plant, a production site in Japan, we will pursue complete electrification of the entire plant by FY2025 to switch to green energy. Further, we introduced solar power generation in 2014, and during the period of **KV25**, we will work to introduce on-site Power Purchase Agreements (PPAs), which will contribute significantly to energy supply to the plant.

In order to continue reducing greenhouse gas emissions, we will strive to operate our business in a way that contributes to carbon neutrality, by communicating closely with our customers and suppliers and sharing information on CO₂ reduction with them.

*¹ Comparison of Scope 1 + Scope 2 + Scope 3, Category 1 (purchased components only) emissions in 2020, with 2015 as the base year

*² A safety device for sensing collisions or other abnormal conditions and interrupting electrical current to prevent the possibility of accidental electric shock



Agrochemicals Business

We will continue to contribute to the development of sustainable agriculture, mainly in the vegetable and fruit segments, by supporting the food supply through provision of agrochemicals and agricultural materials.

Member of the Board

Representative Executive Vice President, In charge of Human Resources Division, Purchasing Division, Legal Affairs Division, General Affairs Division, and Secretarial Division

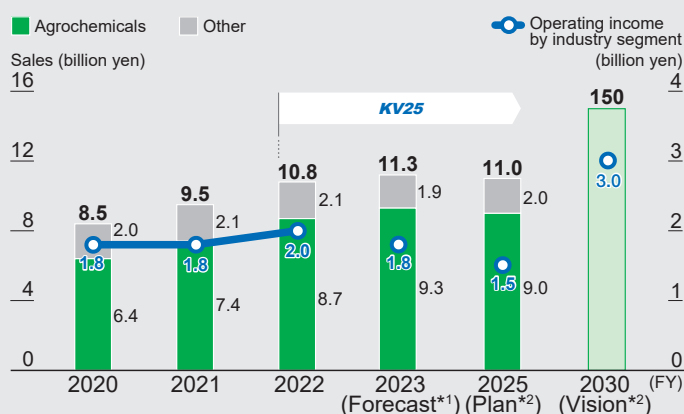
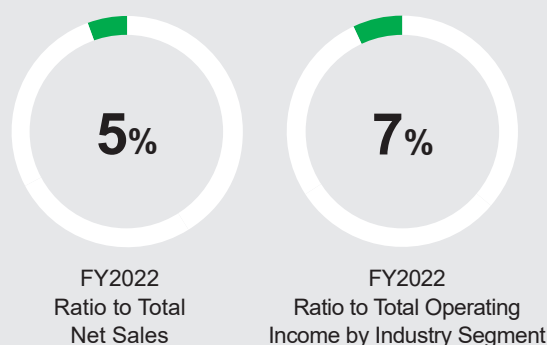
Tomoo Shibuya



Business Overview for FY2022

- In Japan, we worked to reflect the sharp rise in raw material prices in selling prices, while overseas we continued efforts to expand sales, especially of EVISECT and Flometoquin formulations, which are insecticides. This resulted in growth of both sales and profits.

Trends in Operating Results



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

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

Progress in the First Year of the Medium-term Business Plan *KAYAKU Vision 2025* and Future Outlook

The agrochemicals business will continue to contribute to the development of sustainable agriculture by supporting the food supply through the provision of agrochemicals and agricultural materials, mainly in the vegetable and fruit segments. As the global population continues to grow and the importance of food security is being emphasized, there is demand for products that contribute to both increasing food production and reducing the environmental impact of agriculture. We will develop new products that meet this demand and offer them together with existing products, aiming to achieve the segment targets for FY2030 established as our vision.

The **KV25** medium-term business plan made a good start,

with significant growth in overseas sales. Above all, higher sales of EVISECT and Flometoquin formulation, which are insecticides, contributed greatly. On the other hand, soaring raw material prices worsened profitability. In addition to maintaining domestic sales and expanding overseas sales, we will hereafter drive initiatives to reflect cost increase in sales prices and to reduce cost, aiming to achieve sales of 9.0 billion yen in FY2025, the final fiscal year of **KV25**.

Starting in FY2023, our business will belong to the Life Science business unit along with the pharmaceutical business. First, we will promote the exchange of information on synthesis, biotechnology, and formulation technologies in research and manufacturing, quality assurance, etc., and consider the creation of synergies such as business efficiency improvement and collaborations.

TOPICS

Registration of FINESNIPER®, an insecticide exclusively for cucumbers, as an agrochemical

In August 2022, we had FINESNIPER®, an insecticide exclusively for cucumbers, registered as an agrochemical. This product is especially effective against thrip-class pests. In particular, it works quickly against melon thrips. It is therefore expected to suppress the transmission of melon yellow spot virus (MYSV), which affects the growth of cucumbers. It also has a low effect on the natural enemies of thrips, such as the Phytoseiidae and tomato bugs, and can be used in combination with other chemicals at the time of its introduction. On the other hand, since it may produce harmful effects when used under conditions outside of proper usage or mixed with other drugs, we need to properly inform customers of the characteristics of the chemical and ensure that they fully understand the risk of harmful effects. Therefore, we will have close consultation with prefectural administrative agencies, guidance agencies, and distributors and release the product on an area-by-area basis, starting from ones deemed have infrastructure in place for promoting the spread of the product. Currently, the product is sold in Miyazaki and Kochi prefectures, where it has been well received. We will expand the sales area whenever possible.



Strengths We Possess

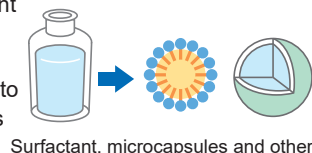
1 Insecticides for fruits and vegetables, and soil fumigants

- We can provide detailed support of needs for insecticides and soil fumigants, focusing on fields of vegetables and fruits.



2 Utilization of formulation technology in development

- In addition to the long development period for new active pharmaceutical ingredients, we utilize our extensive formulation technology to enable development of new forms of existing formulations



Surfactant, microcapsules and others

3 Sales activities integrated with technical service and provision of information

- Listening to farmers' needs, soliciting feedback on implementation trials, and sharing information with customers through other forms of two-way communication
- Rapid customer service that combines technology and sales



4 Structure for global provision of agrochemicals

- Provision of insecticides through alliances with local sales companies in Europe, Asia, Africa, Central and South America, and other regions
- FINESAVE® registered as an agrochemical in various countries and sales launched in 2020



Current Core Products

Insecticides and antimicrobials



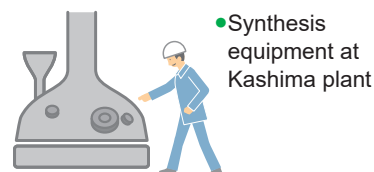
- DIAZINON®
- FINESAVE®
- FUHMOM®
- Etc.

Soil fumigants

- Double Stopper®
- TERON™ and
- ASAHI D-D
- Etc.



Contract manufacturing



- Synthesis equipment at Kashima plant

Growth Areas and Things We Want to Achieve in 2030

Ongoing market launches of unique formulations



Reduced toxicity, improved ease of use



For distribution by drones

Establishment of a foundation for sustained growth

Development of new active ingredients for insecticides



Research and develop new active pharmaceutical ingredients over the medium and long term

Vision for the Agrochemicals Business

Continue to provide environmentally friendly agrochemicals together with their technologies and services, support food supply, and contribute to the development of sustainable agriculture

Contribution to SDGs



Key Areas

Domestic

- Expansion of Flometoquin formulation (FINESAVE®), FUMON®
- Expand sales by increasing the scope of agrochemical registration
- Expand sales of TERON™, Asahi D-D
- Respond to DIAZINON® and other agrochemical reevaluation system
- Increasing contract manufacturing

Overseas

- Recovery of the EVISECT business through supply chain restructure
- Promote registration and expand sales of Flometoquin formulation

Toward "The Vision" in 2030

- Development of new innovative formulation
- Development and induction of biostimulant
- Development of new insecticides

Chapter 3



Management Foundation to Support Sustainable Growth

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- 83** Risk Management

Research & Development



Member of the Board
Senior Managing Director, In charge of Technology Unit

Yoshimi Inoue

As target areas in our company-wide research and development, we have established four promising industrial fields that contribute to realizing a sustainable society: Mobility, Environment and Energy, Electronics, and Life Science. Our goal is to achieve so-called ambidexterity in identifying new knowledge while also developing existing businesses in greater depth. One concrete example of this is the IP landscape activities we engage in to analyze market information and information on the intellectual property of our competitors. We are actively involved in open innovation with start-ups and academia, and are working to secure

competitive advantages.

Led by the M-CFT* team, which aims to create new businesses and new products, and in cooperation with the team promoting DX, we have begun to develop IT infrastructure, introduce electronic experiment notes, and utilize machine learning and informatics with the aim of streamlining and enhancing the sophistication of our R&D. The Technology Unit is teaming up with each business group in pursuing company-wide R&D activities to implement ambidexterity and achieve balance in R&D activities.

* Materiality Cross-Functional Team ▶ [p. 27](#)

Research and Development Policies

Vision of R&D

Increase our corporate value by creating new businesses and products through R&D

The role of the R&D division is to create new businesses and products through R&D activities and increase our corporate value.

We want to be **an R&D division that can create and increase corporate value.**

R&D activities that simultaneously **expand existing core businesses** and **develop new businesses** to continuously increase corporate value

||

R&D to put “ambidextrous management” into practice

Research and Development Strategies

R&D to put “ambidextrous management” into practice

- Continue to provide balanced input into R&D to **strengthen core businesses** and R&D to **create new businesses**
- Create and grow new businesses in four new business target areas

Selection of themes based on marketing

- Set R&D domains based on marketing activities and IP landscape, and select and plan themes using “**unmet needs** + seeds”
- ▶ Selection of themes that can contribute to “**solving social issues**”

Active use of open innovation

- Actively introduce and utilize external technologies through external exchanges, such as **startups** and academia. Identify and collaborate with startups with particularly strong technical capabilities
- Bring in what is needed from outside the company, including not only technology but also human resources.

Four Areas Targeted to Contribute to Realization of a Sustainable Society

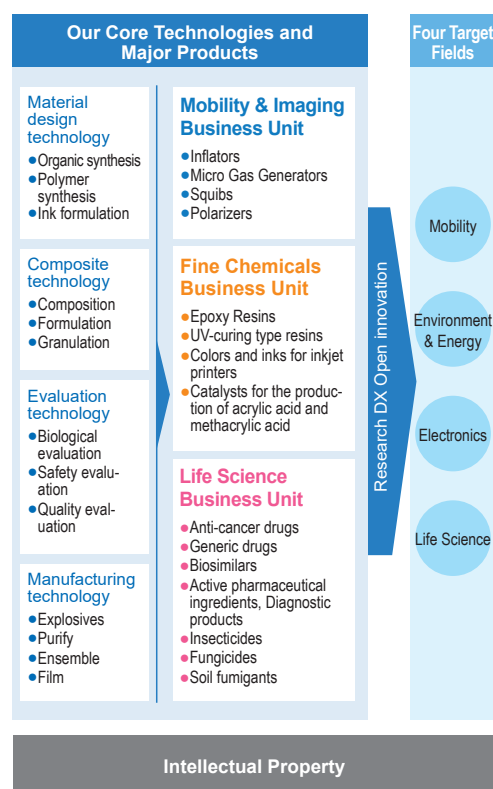
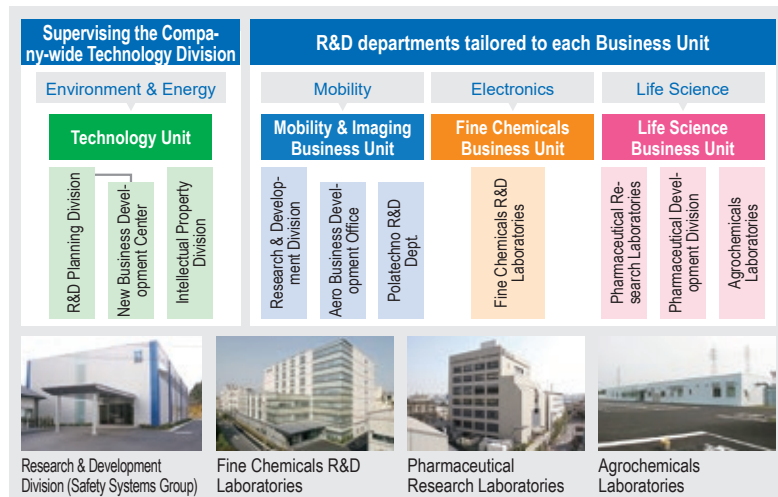
Mobility	Environment & Energy	Electronics	Life Sciences
<ul style="list-style-type: none"> ■ Active use of open innovation (partnerships with industry and academia, collaboration and alliance with and investment in venture firms, venture capital, business acquisitions, etc.) ■ Selection and planning through marketing and IP landscape 			
<ul style="list-style-type: none"> ■ Emergency parachute for drones used in industrial applications ■ Safety devices for flying cars (corporate research theme) ■ Optical films for windshields, for head-up displays (HUD) 	<ul style="list-style-type: none"> ■ Development of AZUL Catalyst* <ul style="list-style-type: none"> ■ Anion exchange membrane used in water electrolysis for green hydrogen production equipment ■ Biomass epoxy resins ■ Catalysts that contribute to a decarbonized society 	<ul style="list-style-type: none"> ■ Organic Electronics Materials (corporate research theme) <p>Will also continue to collaborate with the fine chemicals business unit on planning and marketing</p>	<ul style="list-style-type: none"> ■ About Biostimulants <p>Will also continue to collaborate with the pharmaceuticals group and agrochemicals group on planning and marketing</p>

* Initiatives of business alliance with AZUL Energy Inc. ▶ p. 57

Our Core Technologies / Research and Development System

Each business division will work together with the R&D department under its direct control to closely monitor business opportunities related to the four target areas and to develop new products that accurately meet market needs by utilizing core technologies.

On the other hand, the Technology Unit formulates company-wide R&D policies and strategies, and works with each R&D department and business division to strengthen cross-organizational R&D, such as maximizing intellectual property value and introducing common core technologies, and to create new businesses.



TOPICS 1

Initiatives for research and development using a co-working space

To focus further on open innovation with other companies, government organizations, academic institutions, and start-ups, which is driven by the Technology Unit, we have assigned our staff members in charge of planning to work in a co-working space of Cambridge Innovation Center Tokyo (CIC Tokyo, website: <https://jp.cic.com/>). (Two staff members from R&D Planning Division have been working there since September 2022.)

At CIC Tokyo, horizontal connections are made actively through close exchange of information by about 250 organizations, including companies, startups, local governments, and universities. The Nippon Kayaku Group is also building a pipeline with external organizations and a range of communities by exchanging ideas at theme-specific events and taking part in programs that match overseas startups with Japanese companies. The information we obtain is shared with staff in charge of collaborations with startups from each business unit, the Corporate Planning Division, and the Intellectual Property Division, and is used to search for business opportunities in the four target areas.



TOPICS 2

Investment in UMI No.3 Fund —Support for outstanding materials and chemical companies and open innovation—

The UMI No. 3 Fund, managed by Universal Materials Incubator Corporation ("UMI", <https://www.umi.co.jp/>), was established with the vision of strengthening Japan's technological capabilities and fostering a world-class industrial structure through the development of superior materials and chemical companies. We provide appropriate risk money and management support for the stages from development to establishment of production technologies in such industrial fields as environment and energy, food and agriculture, life science, electronics and information, and mobility. In the mass production stage, we coordinate active collaboration between ventures and companies.

The Nippon Kayaku Group invested in December 2022 to support companies in the investment area of the UMI No. 3 Fund. We also intend to use information on startup companies for investors and to actively interact with them to introduce the basic technologies needed for research and development.



TOPICS 3

Initiatives of business alliance with AZUL Energy Inc. —Catalysts-related materials that contribute to the environment and energy field—

The AZUL catalyst, a subject of the R&D initiatives of AZUL Energy Inc. (<https://www.azul-energy.co.jp/>), has an organic dye structure in its active center and exhibits higher activity than the platinum-based catalysts conventionally used in fuel cells. This material also boasts superior cost, performance, durability, and other properties. Focusing on this advantage, the Nippon Kayaku Group began joint development of a catalyst production method in 2021 and has formed a capital alliance as part of its efforts to strengthen the relationship. The joint development, which combines the Group's expertise in precise organic synthesis and material dispersion with AZUL Energy's catalyst technologies, has advanced to the stage where we can implement pilot production. In 2023, we signed a business alliance agreement for closer collaboration and cooperation. It is expected that in the future we will be able to provide AZUL catalyst manufactured on a pilot scale to customers dealing with next-generation energy devices such as metal-air batteries and fuel cells. We will also focus our efforts on initiatives to pioneer new applications.



Initiatives to Strengthen Intellectual Property

Intellectual Property Policy

The Nippon Kayaku Group has positioned intellectual property as a business resource for sustained development of the Nippon Kayaku Group. We actively create and utilize intellectual property while respecting the intellectual property of other companies.

Intellectual Property Strategy

- 1 Work together with business divisions and laboratories on creating and utilizing intellectual property.
 - 2 Use information to create new knowledge and strategies.
- We formulate our intellectual property strategy and pursue intellectual property activities based on the business strategy of each business and the R&D strategy.

1. Creation and Utilization of Intellectual Property

The Intellectual Property Division works with each business division and laboratory to create intellectual property based on the business strategy and R&D strategy in each business. Decisions on whether or not to apply for a patent and acquire rights is made after considering the contribution to our business and products. We use time stamps and other means of recording and managing manufacturing technology, other core technology, and expertise. Investments in intellectual property are reassessed by regularly checking the contribution of registered rights to business in each business division.

■ Building an Intellectual Property Strategy

The strategies for creating, acquiring rights on, and utilizing intellectual property differ according to the business division. We are currently working to visualize intellectual property in the business portfolio strategy described in the mid-term business plan. We ask what the strengths of the business and products are, analyze how intellectual property contributes in that context, and use this sort of analysis to secure a competitive advantage.

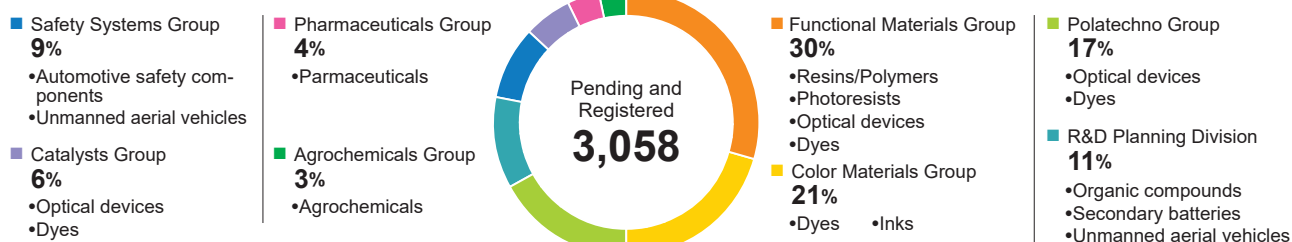
■ Risk Reduction Activities

We are constantly checking to make sure that our products do not infringe on the rights of other companies from the R&D stage to the post-sale stage in order to minimize intellectual property risk. We also act to eliminate business risk from intellectual property as necessary.

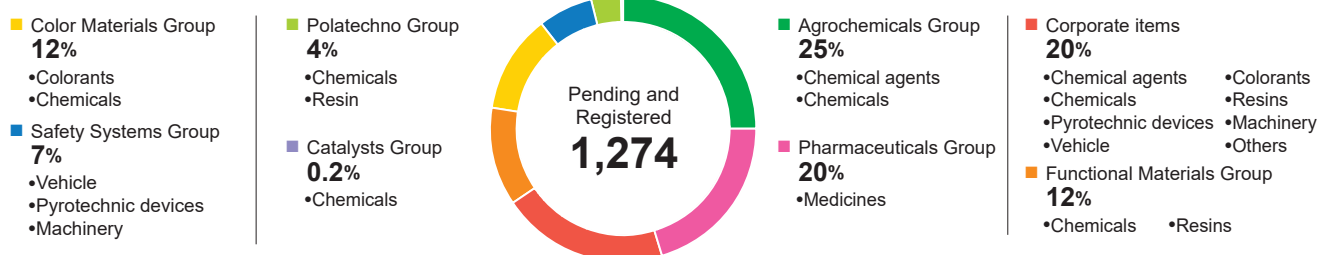
■ Development of Human Resources

To develop human resources with expertise in intellectual property, we deepen understanding of intellectual property through ongoing systematic internal training of researchers. Researchers are also encouraged to take external short courses on intellectual property and obtain related qualifications.

Global Patent Application Status (as of March 31, 2023)



Global Trademark Application Status (as of March 31, 2023)



2. Information Use

The Research & Development Division and the Intellectual Property Division work together on creation of new businesses and new products by using the IP landscape (analysis of patent information on non-patented information to provide new insights, develop hypotheses, etc.) to analyze and advise on business strategy and R&D strategy.

■ Support for Idea Generation, and Invention and Discovery

We help researchers generate ideas through ongoing Initiatives to develop technical and market information sources (books, academic literature, and databases). In addition, to discover inventions, each laboratory and the Intellectual Property Division regularly hold discussions on how to link research results to inventions.

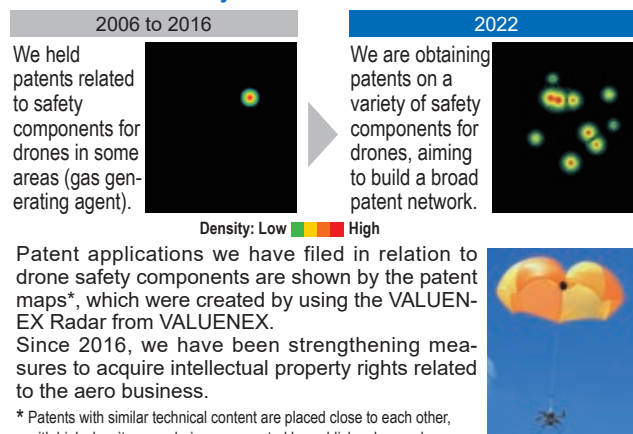
TOPICS 4

Intellectual property strategies for driving aero business

Utilizing the pyrotechnic safety technology cultivated in automotive safety components business, we have been actively promoting activities since around 2017 to strengthen our intellectual properties for drone safety components, which are currently marketed by Aero Business Development Office. Specifically, assuming that we will offer diverse products, we are acquiring a broad range of patent rights, for instance in compositions and materials of safety components, with the aim of building an extensive patent network. In addition, we are taking an intellectual property mix strategy including trademarks and designs, such as branding the PARASAFE® emergency parachute system for drones as a registered trademark.

Moving forward, we plan to expand intellectual property rights in line with the expansion of overseas markets and strengthen intellectual property rights for flying cars, which are expected to appear around 2030, in addition to drones used in industrial applications.

Patent map showing the Nippon Kayaku Group's patents related to drone safety devices



TOPICS 5

Information research training for fostering self-motivated R&D human resources

We support the creation of new knowledge with information research training aimed at fostering self-motivated R&D human resources.

In this training program, researchers who have worked for us for about three years set research themes that they consider vital to the future R&D strategy of their departments, and pursue research activities on their own initiative in cooperation with their workplace advisors, the Intellectual Property Division, and related departments. They devote a significant period of time, or around ten months, on the activities, by conducting external interviews as necessary. They finally summarize the findings and strategic proposals and give presentations to officers and the general manager of the laboratories. We begin to improve the research and analysis skills of researchers and have them apply the expertise and output obtained through training to actual R&D sites while they are young, in our efforts to reinforce the foundation for deepening and exploring knowledge for creating innovations in the future.





Member of the Board
Senior Managing Director, In charge of Technology Unit

Yoshimi Inoue

Mitigation of Climate Change

As a producer of chemical products, Nippon Kayaku Group recognizes climate change as an important issue facing the international community and believes that we should actively fulfill our responsibility for the global environment. In July 2020, we set a medium-term environmental target^{*1} for reducing greenhouse gas missions. In April 2022, we announced our endorsement of the TCFD^{*2} in conjunction with the start of **KV25**, our medium-term business plan to further promote sustainable management. With the basic policy of achieving carbon neutrality by 2050, we have organized four operational teams in Technology Unit to address each of the disclosure items recommended by the TCFD. We are working

together as a whole company to achieve this goal, in cooperation with not only our business groups but also with back-office divisions, Purchasing Division, Corporate Communication Division, etc. Currently, in addition to deepening our existing energy conservation activities, we are systematically and steadily implementing environmental investments to introduce new distributed power generation and technical studies for energy conversion. As a result of these activities, our CDP score^{*3} also improved from “B” in FY2021 to “A-” in FY2022. Nippon Kayaku Group will continue to contribute to solving global environmental issues by pursuing both the realization of a sustainable society and the creation of future business opportunities.

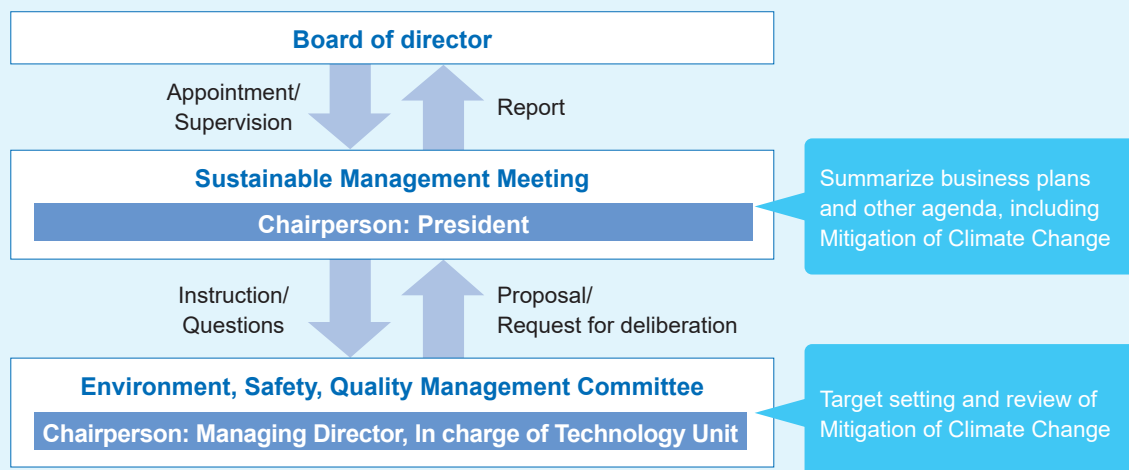


^{*1} Reduce greenhouse gas emissions from Group business activities (Scopes 1 and 2) by 32.5% in FY 2030 compared to FY2019.
^{*2} The Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board (FSB) in 2015.
^{*3} Score used by CDP, an international NGO that encourages companies to disclose their climate change initiatives, to assess the degree of corporate environmental stewardship.

Information Disclosure on TCFD Recommendations

Governance

Nippon Kayaku Group is addressing climate change from a company-wide perspective through the collaboration of the Board of Directors, the Sustainable Management Meeting (Chairperson: President), and the Environment, Safety, Quality Management Committee (Chairperson: Managing Director, In charge of Technology Unit).



^{*} One of the specialized committees of the Sustainable Management Meeting

Strategy — Climate-related Risks and Opportunities —

The Nippon Kayaku Group operates multiple businesses globally and various risks and opportunities accompany each business area. We evaluated climate-related risks for the entire Group based on the TCFD recommendations to specify the impact of climate change on each business and considered the opportunities for each business area.

We have defined the timeframe for the materialization of risks as follows when specifying climate-related risks and opportunities.

Period		Reason
Short-term	Four years up to FY2025	Set the period for the KAYAKU Vision 2025 (KV25) mid-term business plan which began in FY2022
Medium-term	Through FY2030	Aligned with the FY2030 target specified in the medium-term environmental goals of the Nippon Kayaku Group
Long-term	Through FY2050	Referred with NDC (Nationally Determined Contribution, determined by the Japanese government)

■ Climate-related Risks

Business risks related to climate change are based on the IPCC's (United Nations Intergovernmental Panel on Climate Change) Representative Concentration Pathway (RCP 2.6, 8.5) scenarios, IEA's (International Energy Agency) Sustainable Development Scenario (SDS) and the Stated Policies Scenario (STEPS) for both the 2°C and 4°C scenarios.

Risks in Transitioning to a Decarbonized Economy for the 2°C Scenario

Category	Major Risks	Period of Risk Emergence	Financial Impact*1	Major Countermeasures
Policies & Regulations	Increased operating costs from tighter emissions regulations*2	Short to long term	Medium	●Implement distributed power for each site, such as solar power and high-efficiency cogeneration power generators
	Rising price of electricity, LNG, etc.	Short to long term	Medium	●Reduce material loss by utilizing material flow cost accounting (MFCA) and implement comprehensive energy-saving activities
	Increased raw material costs from tighter emissions regulations	Short to long term	Medium	●Encourage suppliers to reduce emissions through engagement activities
Market & Reputation	Increased costs from disclosure of environmental information, life cycle assessment (LCA) calculations, etc.	Medium to long term	Small	●Streamline the emissions calculation method at each site and systemize the LCA calculations

Physical Risks from the 4°C Scenario

Category	Major Risks	Period of Risk Emergence	Financial Impact*1	Major Countermeasures
Acute & Chronic Physical Risks	Increased costs from flood damage caused by typhoons, heavy rain, high tides, etc.	Short to long term	Medium	●When building new plants, account for the possibility of flooding when considering the geographical situation and the configuration and placement of equipment
	Impact on operations due to water shortage	Medium to long term	Small	●Strengthen efforts to save water used during production, and consider reusing and recycling water
	Reduced labor productivity due to increased temperatures	Medium to long term	Small	●Enhance the work environment by improving air-conditioning, promoting the automation of high-temperature work processes, etc.

*1 Financial impact: Large = 2 billion yen or more; Medium = 0.5 to 2 billion yen; Small = 0 to 0.5 billion yen

*2 Based on carbon tax and energy price projections under the IEA's Net Zero Emissions (NZE) scenario, we have also calculated the risk impact under the 1.5 degree scenario and are considering disclosing information based on the 1.5 degree scenario.

TOPICS 1

Initiatives of MFCA

Material flow cost accounting (MFCA) is a method for visualizing the quantity and cost of material losses for raw materials and other inputs in the production process. By clearly visualizing reduction of material losses, we can expect benefits from reducing the burden on the environment by reducing costs and improving resource efficiency, and from reducing energy consumption.

We began using MFCA for products at the Fukuyama Plant in FY2019. Installation of equipment to recycle previously discarded solvents with a high boiling point made a substantial economic contribution and enabled us to contribute to resource efficiency.

We are expanding the use of MFCA to the Asa and Tokyo Plants, which manufacture synthetic chemicals, and the Joetsu Plant, which processes film. Our ultimate goal is to roll MFCA out to the entire Nippon Kayaku Group.



■ Opportunities in Each Business Area in Transitioning to a Decarbonized Economy for the 2°C Scenario

We aim to achieve sustainable growth by creating new businesses and products that solve future social issues, such as environment-related products, while promoting measures to address transition and physical risks related to climate change.

Business Area	Business Environment
Functional Chemicals	<p>Tightened regulations against greenhouse gas emissions in various countries & regions</p> <ul style="list-style-type: none"> ● Advances in social changes, such as growth of smart cities ● Heightened demand for increased energy efficiency of electronics products ● Increased demand for storage batteries that are able to handle large output fluctuations and green hydrogen as an alternative to fossil fuels in response to expansion of renewable energy ● Global expansion of demand for mobility/transport methods that have relatively low emissions
Pharmaceuticals	<ul style="list-style-type: none"> ● Direct impact is limited
Safety Systems	<ul style="list-style-type: none"> ● Global expansion of demand for mobility & transport methods that have relatively low emissions ● Significant restrictions on sales of internal combustion engine vehicles, depending on the region
Agrochemicals	<ul style="list-style-type: none"> ● Direct impact is limited

Risk Management

In order to properly understand Nippon Kayaku Group's issues and meet the expectations and demands of our stakeholders, we identify key sustainability issues through a process that incorporates an objective perspective.

▶ [p. 28](#) Initiatives of key sustainability issues / Identification method of key sustainability issues

As a key sustainability issue related to climate change, we have identified "Reduction of Energy Consumption and Greenhouse Gas Emissions" and set KPI and targets to be achieved in FY2025 to achieve the specific action plans: "promote energy conservation and global warming prevention activities and achieve FY2030 environmental targets" and "identify issues and clarify strategies to achieve carbon neutrality in FY2050".

▶ [p. 29-30](#) Keysustainability Issues and Action Plan

Key Sustainability Issues

"Reduction of Energy Consumption and Greenhouse Gas Emissions"

Environment-related KPIs for **KV25** Targets

Greenhouse gas emissions (Scope 1+2)	FY2030 Target: 32.5% reduction or higher compared with FY2019 (88,324 tons or less)
Goal setting in line with SBT* and consideration and implementation of specific measures	Disclose progress
Disclosure in line with TCFD recommendations	Disclose progress
Develop products and technologies with consideration for environmental issues	Disclose progress

*Science Based Targets: Greenhouse gas emission reduction targets set by companies, consistent with the Paris Climate Agreement

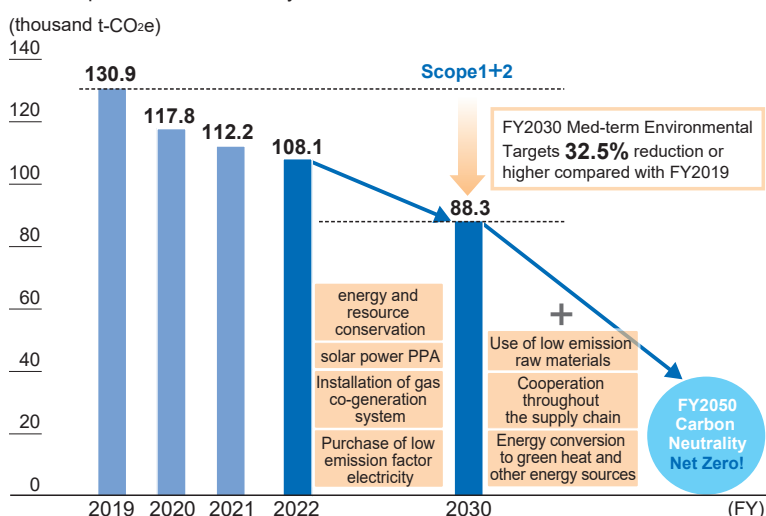
Opportunity		Period of Opportunity Creation	Financial Impact*
Functional Materials	<ul style="list-style-type: none"> Expansion of semiconductor-related products from growth of smart cities and DX Expansion of functional materials that help reduce energy consumption of display devices Expansion of low-emission materials due to the increased shift toward use of biomass for raw materials Expansion of resin materials that help make mobility frames more lightweight 	Short to long term	Large
Color Materials	<ul style="list-style-type: none"> Expansion of ink for digital on-demand printing that enables low-carbon printing Expansion of dimming glass/film that controls incident sunlight 	Short to long term	Large
Catalysts	<ul style="list-style-type: none"> Growth of catalysts for producing green energy, such as hydrogen Growth of catalysts for promoting the use of biomass-derived raw materials 	Medium to long term	Large
Polatechno	<ul style="list-style-type: none"> Growth of sensors, HUD, and other safety display device components, brought on by the development of EV and automated driving Growth of polarizing plates that help reduce energy consumption of display devices 	Short to long term	Medium
Studying items within the entire range of business activities that will become opportunities		Short to medium term	Small
<ul style="list-style-type: none"> Rise of EV and automated driving brings increased diversification in smallness of size, lightness of weight, and shape to automobile safety parts Expansion of safety parts for unmanned aircraft such as drones 		Short to long term	Large
<ul style="list-style-type: none"> A certain level of temperature increase is expected even for the 2°C scenario, thus expanding the use of biostimulants that help maintain and improve agricultural productivity Expanded use of existing agrochemicals to deal with new problems with pests 		Medium to long term	Small

* Financial impact: Large = 2 billion yen or more; Medium = 0.5 to 2 billion yen; Small = 0 to 0.5 billion yen

Metrics and Targets

We are aiming to achieve the annual average emission reduction rate of 3%, which was our target during **KV25**, by thorough energy and resource conservation, introduction of facilities such as solar power PPA (Power Purchase Agreement), and purchase of low emission factor electricity, etc. After 2030, we will need to make further efforts in addition to the activities up to that time. We will plan actions to achieve carbon neutrality by 2050, including the use of low emission raw materials, cooperation in climate change issues throughout the supply chain, and energy conversion to green heat and other energy sources.

Roadmap for Carbon Neutrality



TOPICS 2

Aggregation of CO₂ Emissions Data throughout the Supply ChainDisclosure of CO₂ Emissions Data Throughout the Supply Chain (Scope 3)

In a report published in 2021, the United Nations Intergovernmental Panel on Climate Change (IPCC) sounded the alarm on the frequency and intensity of heat waves, torrential rains, and events caused by global warming judged to be the result of human activities. We must reduce greenhouse gases substantially by acting in cooperation with the chemical industry, which has prospered while using fossil fuels, in order to mitigate global warming and achieve carbon neutrality.

The Nippon Kayaku Group calculates CO₂ emissions in our supply chain (Scope 3) in order to ascertain the total volume of greenhouse gas emissions generated in corporate activities and formulate a plan for reducing emissions in the entire supply chain.

From FY2021, we have improved the accuracy of calculations by using more appropriate emissions base units and improved efficiency and reduced the amount of labor involved by automating part of the aggregation work. We also implemented independent verification of aggregation results. In FY2022, the accuracy of the tabulation of Category 5 "Waste generated in operations" was improved, resulting in even more precise tabulation method. As we review the results, we will discuss them with our internal procurement departments and other departments to set specific targets that encompass the entire supply chain.

Scope 1 Direct emission of CO₂ from emission source that the business owns or manages (emissions from fuel use, manufacturing process, etc.)

Scope 2 Indirect emission from the use of electricity, heat, and steam supplied by another company (use of purchased electricity, etc.)

Scope 3 Indirect emissions outside of scope 2 (procurement of raw materials, employees' commute, business trips, waste treatment consignment, use of products, disposal, etc.)

Category		Emissions (thousand tons-CO ₂ e /year)			
		FY2019	FY2020	FY2021*	FY2022
1	Purchased products and services	243.6	237.3	294.5	275.0
2	Capital goods	42.7	42.9	26.8	29.6
3	Fuels and energy related activities not included in scope 1 and 2	22.4	21.2	22.3	21.0
4	Transportation and distribution (upstream)	19.0	17.6	22.3	19.7
5	Waste generated in operations	26.5	28.8	31.8	16.2
6	Business travel	0.8	0.8	0.8	0.8
7	Employee commuting	2.5	2.4	2.4	2.4
8	Leased assets (upstream)	Not calculated as included in Scope 1 and 2			
9	Transportation and distribution (downstream)	1.0	1.0	1.6	1.5
10/11	Processing/use of sold products	-	-	-	-
12	End-of-life treatment of sold products	15.4	23.2	26.4	23.0
13	Leased asset (downstream)	0.4	0.4	0.4	0.4
14/15	Franchise/investment	-	-	-	-
Scope 3 total		374.3	375.6	429.3	389.6
Scope 1		36.2	35.3	37.5	35.5
Scope 2		94.7	82.5	74.7	72.6
Total of Scopes 1+2+3		505.2	493.4	541.5	497.7

Calculation method: Calculated, in principle, using the emissions coefficients in the Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain by the Ministry of the Environment and Ministry of Economy, Trade and Industry

* Calculation results for FY2021 were independently verified by Sustainability Accounting Co., Ltd.



Nippon Kayaku Installs Self-consumption Solar Power Generation System at Fukuyama Plant
 ~ CO₂ emissions reduced by 731 tons per year through introduction of PPA model ~ (Japanese)
<https://www.nipponkayaku.co.jp/news/img/pdf.php?acd=163>

Nippon Kayaku Introduces JFE Engineering's "Multisite Energy Total Service" at 11 Sites
 ~ CO₂ emissions significantly reduced and BCP functions strengthened ~ (Japanese)
<https://www.nipponkayaku.co.jp/news/img/pdf.php?acd=172>

Improving Efficiency of Water Resource Use

Water resources are limited and important resources, and their conservation is an issue of global importance. Water resources are also essential for Nippon Kayaku Group, which manufactures a wide variety of products in various countries and regions. Nippon Kayaku Group focuses on improving treatment methods for wastewater discharged from production, reducing the volume of contracted industrial water, and improving the efficiency of water resource use through such measures as the introduction of facilities that utilize rainwater.

In addition, in order to understand the risks associated with the use of water resources and to more effectively address water risks, Nippon Kayaku Group conducts surveys on water stress conditions in countries where its plants are located, using Aqeduct, a water risk assessment tool developed by the World Resources Institute (WRI).



[Important Issues] Improving Efficiency of Water Resource Use
<https://www.nipponkayaku.co.jp/english/sustainability/environment/water/>

Reduction of Wastewater and Industrial Waste

■ Drainage measures

Nippon Kayaku Group is working to conserve water resources and properly manage wastewater treatment and wastewater quality at all of its sites. In addition to promoting the installation of treatment equipment and conversion of raw materials, we have established voluntary control standards that are stricter than the regulatory values set by law and local governments at each production site.

We also regularly hold training sessions for employees who work and supervise wastewater treatment equipment and wastewater discharge methods to ensure that all employees have a good understanding of these issues.

■ Reduction of Industrial Waste

The Nippon Kayaku Group has set KPIs of 80% or higher recycling rate and 1% or lower zero emission rate in **KV25**, and is working to reduce waste through waste recycling and other measures.

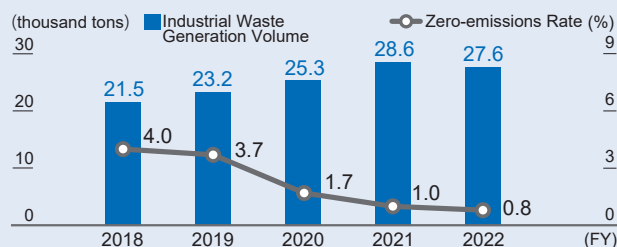
In April 2022, the Law for Recycling Plastic Materials will be enforced, requiring recycling of plastic resources, and the Nippon Kayaku Group is systematically reducing waste plastic waste with the “3Rs” in mind: reduce (Reduce), reuse (Reuse), and recycle (Recycle).

Drainage management

Indicator	Scope	Unit	FY2021	FY2022
COD	Non-consolidated	tons	153.6	171.8
Total phosphorus emissions	Non-consolidated	tons	11.2	7.1
Total nitrogen emissions	Non-consolidated	tons	73.5	114.0
SS*	Non-consolidated	tons	49.9	47.5

* SS: Suspended solids (SS refers to particulate-like substances of 2 mm or less in diameter found floating or suspended in water. These include metal particles, animal and plant plankton and their carcasses, and organic and metal sediments originating from sewage and factory effluents, among others. The increase in SS causes a decline in water transparency, and affects underwater photosynthesis by preventing light penetration.)

Trend in the Volume of Industrial Waste Generated and in the Zero-emissions Rate



Waste plastics emissions

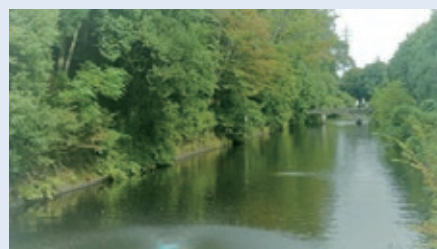
Indicator	Scope	Unit	FY2020	FY2021	FY2022
Waste plastics emissions	Non-consolidated	tons	954	888	886
Recycle rate	Non-consolidated	%	80.2	80.8	81.8



[Important Issues] Reduction of Wastewater and Industrial Waste
<https://www.nipponkayaku.co.jp/english/sustainability/environment/waste/>

Biodiversity

Nippon Kayaku Group recognizes that biodiversity is an important foundation for a sustainable society. For example, at the Takasaki Plant, which has aimed to coexist in harmony with nature since the start of operations, 110,000 m² of green space has been left almost in its natural vegetation, providing a valuable habitat for migratory birds and other plants and animals. We are also promoting business activities aimed at contributing to the preservation of biodiversity, such as switching all copy paper and company-wide handouts to certified forest paper.



The site of Takasaki Plant in harmony with nature



Biodiversity
<https://www.nipponkayaku.co.jp/english/sustainability/environment/biodiversity/>

DX



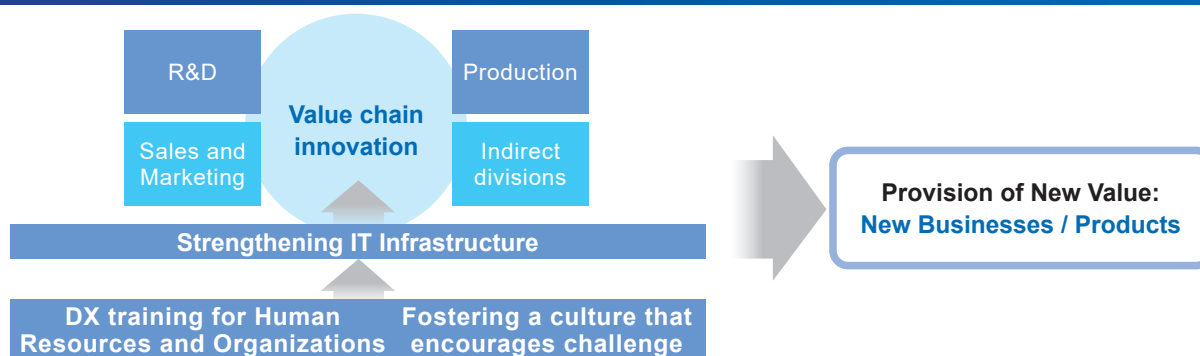
Member of the Board
Senior Managing Director, In charge of Corporate Planning Division, Corporate Communications Division,
Finance & Accounting Division, and Information Systems Division

Yoshitsugu Ishida

We have positioned FY2022 as the first year for the Nippon Kayaku Group's DX Challenge. We have formed an M-CFT DX team anchored by the Information Systems Division and started activities to make steady progress on preparing the soil to bear the fruits of that challenge by FY2025, the final fiscal year of **KV25** medium-term business plan. In addition to improving each employee's literacy

and building IT/network environment, we have begun to make changes happen steadily in each area, such as DX initiatives in manufacturing and R&D, which require speed to keep up with the competition. We will steadily advance the **KV25** plan toward the ultimate goal of creating new products and services and providing new value to our customers by transforming the entire value chain.

DX Initiatives and Vision of Nippon Kayaku Group



Strengthening IT Infrastructure / Cybersecurity

FY2023 Theme of strengthen IT infrastructure

Company-wide control of IT and DX	<ul style="list-style-type: none"> ■ Planning and management ■ Cybersecurity ■ Improve employee literacy 	IT Service Promotion	<ul style="list-style-type: none"> ■ Next-generation network development ■ Implementation and promotion of integrated cloud environment
Promoting Communication	<ul style="list-style-type: none"> ■ Developing an integrated tool infrastructure for chat and file sharing ■ Optimized workflow implementation for each department 	Business Systems Planning	<ul style="list-style-type: none"> ■ Promoted renewal for next ERP implementation

We will take sufficient time, including the period of **KV25**, studying the next core operating system (ERP), which is especially important as one of the multiple priority themes initiated in FY2022, so that data from various business activities can be accumulated and used for speedy management decision-making.

To create an environment where employees can communicate anytime, anywhere and with anyone, we have rapidly taken steps to facilitate the sharing of business information files, in addition to introducing Microsoft Teams and online conferencing, which employees use daily. As a result, we

could further activate internal and external communication.

In FY2023 and beyond, we will focus further on cybersecurity measures. Aspiring to create an environment that enables to perform work quickly and securely, we will develop content cloud that permits employees to set appropriate security settings for information, in addition to providing training for having employees understand information security levels appropriate for their work, in order to create an environment that enhances operational productivity.



Production DX — DX linked to workplaces —

FY2023 Themes for Supporting Digital Utilization of Production Operations

Support for smart factory development	<ul style="list-style-type: none"> ■Fukuyama Plant: System redesign of existing facilities ■Asa Plant: Digitalization of new building operations ■Fostering Factory Scientists from Frontline Personnel 	Automation of production processes	<ul style="list-style-type: none"> ■Automated inspection process by image recognition, reduced the number of needed person ■Application of Automotive safety components, Functional chemicals, Pharmaceuticals, Agrochemicals
		OT (Operational Technology) network development	<ul style="list-style-type: none"> ■Develop a network for integrated control and operation of the plant

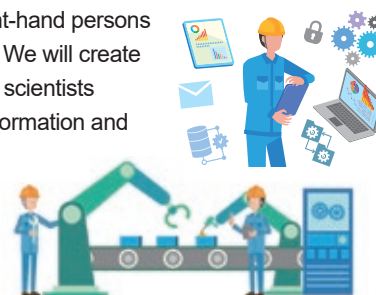
The DX of our plants is being driven through cooperation by the head office and each plant, with the aim of improving process efficiency and cost competitiveness.

At the Asa Plant, our manufacturing site for epoxy resin and other products, we identified the gap between what we want to make the plant like and what it is at present and began discussions on how to realize the ideal by advancing DX, aiming to make it a smart factory. We will examine the facilities and equipment needed to improve the operational aspects (production planning optimization, supply chain design, etc.) and manufacturing aspects (production equipment: hardware and control, recording methods: software), and work to essentially improve production efficiency by FY2025, including reducing manpower and labor.

In addition, at the Himeji Plant, which manufactures automotive safety components, we are driving initiatives for improving the efficiency of indirect operations and process

traceability through robotic process automation (RPA). At the Fukuyama Plant, which produces functional materials and color materials, we are working to automate the process at new manufacturing facilities for inks for inkjet printers, which are under construction, and to build an environment that enables detailed monitoring of usage status in order to reduce energy consumption.

In terms of human resources, we have begun to develop factory scientists, who drive digitalization of manufacturing sites and serve as the right-hand persons of the factory supervisors. We will create a system to permit factory scientists from each site to share information and horizontally develop all improvements, including improvements in indirect operations.



R&D DX — Improvement and utilization of the environment for informatics —

FY2023 Three major initiatives for R&D DX

Accumulation of digital data	<ul style="list-style-type: none"> ■Electronic laboratory notebooks ■Establishment of OT network of each research laboratory
Utilization of digital data	<ul style="list-style-type: none"> ■Introduction of digital tools for R&D ■Data analysis support (Resident Dispatch, External Agency Collaboration)
Education to improve literacy and skills	<ul style="list-style-type: none"> ■Providing training and materials to improve DX literacy and skills for Researchers

Informatics used in researching and developing chemical products has become more familiar than ever before. Easy-to-use machine learning (ML) software has appeared, and high-quality computational codes can now be run on the cloud. We are in an era when these and other functions are available without expensive dedicated computers.

With the leading role played by the Research Strategy Group and the R&D Planning Division, the Group has built an environment in which researchers and engineers can freely verify ML and cloud computing for informatics. The necessary digital tools differ among business units. They include the use of ML for more complex and sophisticated development goals, as well as statistical analysis tools for clinical research, for which the volume of data is expected

to increase in the future. To enable efficient and speedy research and development, we are currently moving forward with Research DX, such as applying digital tools suited to each site, with the leading role played by researchers in each business unit and engineers in the plants. In addition, the Research Strategy Group provides comprehensive support for integration and collaboration with existing development operations, with a system in place to facilitate daily Research DX, including the dispatch of DX representatives to Agrochemicals Laboratories.



Human Resources and Creating a Workplace Environment That Is Comfortable



Member of the Board
Representative Executive Vice President, In charge of Human Resources Division, Purchasing Division,
Legal Affairs Division, General Affairs Division, and Secretarial Division

Tomoo Shibuya

People play leading roles in the activities of the Nippon Kayaku Group. We aim to be a company that enables each employee to grow by working in a workplace environment which respects their human rights and enables them to feel safe as they work. We want to be a company where all employees derive a sense of happiness from their work by practicing the **KAYAKU spirit**, our corporate vision. We will develop a personnel system in which everyone can challenge fairly and have their results evaluated fairly, leading to appropriate placement

and treatment, and a sense of happiness with a real sense of accomplishment.

In addition, based on the “Human Resource Development Policy” and “Internal Environment Development Policy”* announced in FY2023, we will foster a productive and flexible corporate culture that ensures diversity and psychological safety, and strive to develop “people” who will create innovation, the source of our competitiveness.

* Listed as a policy of Nippon Kayaku in “(2) Human Capital Management Initiatives” on p. 17 of the Annual Securities Report submitted on June 28, 2023

Human Resource Development Policy

Under our corporate vision, the **KAYAKU spirit**, we aim to create environmental, social and economic value by engaging in sustainable management, create a sustainable environment and society, and increase our corporate value.

We have established the human resource development policy shown at right to help realize the **KAYAKU spirit**.

To realize our human resource development

Human Resource Development Policy

-  **Fostering autonomous human resources who can increase their creativity and expertise and act autonomously**
-  **Fostering human resources who can boldly attempt new challenges in response to environmental changes without fear of failure**
-  **Fostering human resources who can play active roles with a global perspective**

policy, we have prepared various training programs such as grade/level-based group training and e-learning, and are working to enhance human resource development.

Internal Environment Improvement Policy

We place an emphasis on ensuring diversity, fostering a comfortable and rewarding work culture and increasing employee engagement, so that employees can work with motivation and enthusiasm, while empathizing with the **KAYAKU spirit** and developing a relationship of mutual trust with senior management.

In terms of our personnel system, we have established a “position class” (job grade) system that enables appropriate assignment and treatment irrespective of age, gender, career

background, educational background, nationality, etc., and a system based on roles and responsibilities that allows employees to voluntarily take on challenges in promotion to managerial positions.

In human resource development, we encourage the autonomous growth of each employee by supporting employees who want to grow and learn for themselves; and support the formation of diverse careers in line with the wishes of individual employees.

TOPICS 1

Introduction and operation of a position class (PC) system

Under the PC system, we clarify responsibilities based on the work to be undertaken in accordance with one's abilities and use them as the basis for personnel evaluation, instead of simply determining positions based on seniority or other attributes. In addition to the usual evaluation, in which the organization's mission is incorporated into the individual's targets, there is also a challenge-based evaluation, in which individuals set their own targets, and a process evaluation, in which the process of work execution is evaluated. Employees to be promoted to managerial positions are judged based on whether they have worked on challenging themes of their own choice in a well-planned manner and demonstrated creativity appropriately as managers of the Group and produced results.

In the evaluations, emphasis is placed on dialogue through 1-on-1 meetings with supervisors to ensure that the company's growth is aligned with each employee's personal fulfillment. We then motivate them to do their jobs, aiming to increase employee engagement.



TOPICS 2

Training next-generation management candidates: Nippon Kayaku Business Academy

The Nippon Kayaku Business Academy (NBA) was initiated in 2000 by Teruo Nakamura, the seventh president of Nippon Kayaku, as a program designed to develop young to mid-career human resources into candidates for the next-generation management executives. With the Corporate Planning Division and Human Resources Division serving as the secretariat, trainees are selected from all divisions, including those of overseas Group companies, and monthly group training is provided to them over a period of approximately one year.

Through workshops, trainees acquire the necessary skills, such as skills in formulating management strategies and envisioning future businesses based on social issues, in the process fostering a managerial mindset based on the **KAYAKU spirit**. The training programs include lectures by all Executive Directors with official posts. They serve as valuable opportunities to pass on the experience, expertise, and philosophy of management to the next generation.

In FY2023 as the 13th year of NBA, we added an ambitious workshop for planning a post-KV25 medium-term management strategies. We also introduced more effective learning methods, such as customizing the skills to be acquired to suit each individual's background.

The program has produced a large number of management executives (most of the current executive officers and higher-ranked officers have participated in NBA), and we plan to continue the program as an effective training program for the development of human resources to be involved in management.



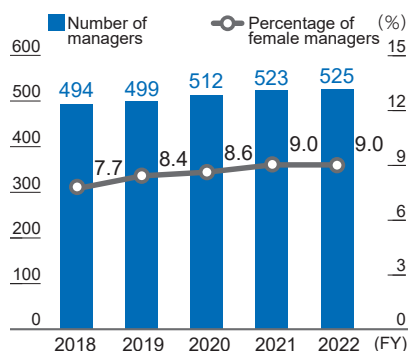
Diversity / Equity & Inclusion

Aiming to develop a comfortable workplace culture where diverse human resources can play an active role and diverse work styles are accepted, we have established KPIs related to occupational health and safety and human resources in our Sustainability Action Plan. The percentage of female managers, a KPI for diversity promotion, has

been increasing steadily at present. While the target for FY2024 is 10.0% or higher, the percentage for FY2022 was 9.0% as in FY2021. We will develop an environment in which women can play an active role and work comfortably, by continuously reviewing our work system and taking other measures.

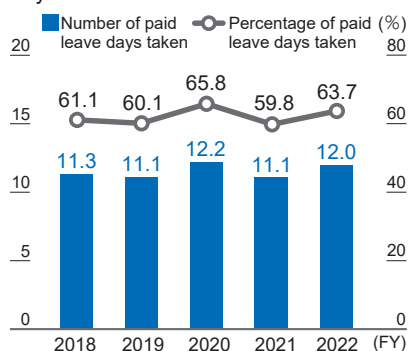
Encouraging Diversity

Percentage of female managers



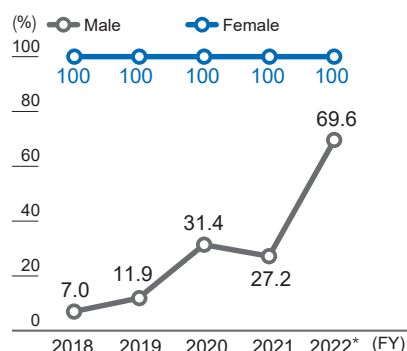
Work-life Balance

Percentage and number of paid leave days taken



Gender Equality

Percentage of employees taking childcare leave



* The percentage in 2022 was calculated using the method in Percentage of employees taking childcare leave or leave for childcare purposes (Paragraph 4, Item 2, Article 71)

The percentage of paid leave taken, a KPI for achieving a good work-life balance, is still only about 60%, compared with the target of 70% or higher. We will create a climate and environment conducive to the acquisition of paid leave, as we seek to improve employee productivity and motivation and attract outstanding human resources.

In addition, every year we track the rate of male employees taking childcare leave, which is an indicator for gender equality. Although the percentage of employees

taking childcare leave among men has been lower than that of female employees, we actively encourage male employees to take childcare leave, believing that it will support diverse work styles and have a positive effect on attracting career-oriented human resources, etc. As a result of our ongoing efforts to increase the percentage, it reached 69.6% in FY2022, exceeding the target value of 50%*.

* The standard value for the "Platinum Kurumin" special certification, which is the Ministry of Health, Labor and Welfare's standard for certification of companies supporting childcare

Diversity & Inclusion

<https://www.nipponkayaku.co.jp/english/sustainability/social/diversity/>

Diversity-related data

<https://www.nipponkayaku.co.jp/english/sustainability/other/data/#h-02-04>

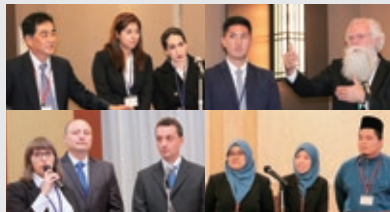


TOPICS 3

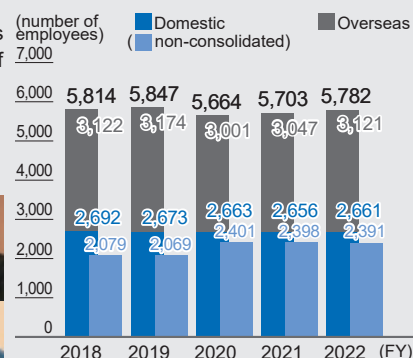
Promotion of active participation of global human resources

The Nippon Kayaku Group has business locations in a total of 12 countries and regions, and overseas employees constitute the majority. We create a list of people who have a strong desire to work overseas from among those with overseas work experience, those who have earned M.B.A., and other qualifications. We are enhancing our ability to drive global operations, such as by raising the level of English conversation skills and providing training on working knowledge of English designed for each type of work. For expatriates and seconded staff, we have expanded our support system to provide pre-assignment training and training on different cultures and commercial practices. In addition to planning effective training, such as combining on-the-job training, location rotation, and multiple overseas assignments, we are also proactive in hiring new graduates as global human resources.

To develop global human resources from among those hired locally at overseas Group companies, we plan to support necessary development measures by making sure they know and understand management policies and conducting surveys of overseas employees to identify and analyze career intentions.



Number of Domestic Overseas Employees



Appropriate Human Resource Development — Visualization of HR information and Engagement with employees —

A talent management system (Kaonavi service by Kaonavi, inc.) was introduced for the purpose of visualizing human resource information and enable timely and appropriate staffing. The system has been in operation since September 2022 to promote awareness of the system, and more than 90% of employees have registered their data. Taking advantage of its features that enable easy and quick access to necessary information on human resources, such as job history, work interests, qualifications, experience, skills, knowledge, and career vision, the system is expanding its application to HR-related activities as appropriate.

In addition to the database function, the menu can be expanded to include surveys, etc. In the future, personnel

evaluations can also be completed on the system. We believe that centralized management of personnel information will enable smooth linkage with “fostering a workplace culture that is easy to work in and rewarding to work in” and “developing global human resources”. In addition to the visualization of human resources, we plan to conduct surveys about engagement with employees and other surveys to help us allocate human resources appropriately.



Fostering a Corporate Culture that Enhances Productivity

The term “A3 Activities (KAIZEN)” derives from our intention to be always conscious of 3% cost reduction. Employees in the entire Group are routinely and actively engaged in these awareness reform activities to increase operating efficiency and productivity, aiming to firmly instill the value of always being conscious of eliminating difficulty, waste, and inconsistency (referred to as the 3Ms (Muri, Muda, Mura) in Japanese) to reduce cost.

Members who play a central role in pursuing activities in each business location, plant, and laboratory and core members who work in a company-wide cross-organizational manner work together to instill ideas and practices through multilateral activities, such as communicating information, conducting campaigns, and holding information exchange meetings.

TOPICS 4

The 62nd A3 Activities (KAIZEN) presentation meeting

In November 2022, the 62nd A3 Activities (KAIZEN) presentation meeting was held at a venue in Tokyo, with approximately 600 participants from domestic and overseas Group companies, who participated on-site or online. A total of 20 cases of various A3 activities from various countries and business locations were shared through active questioning and information exchange, providing clues to each activity.

We will continue to foster a corporate culture that will make strong divisions and a strong companies, by working to make sure that everyone is mindful of A3 through various A3 activities and by having each employee proactively enhance his or her KAIZEN awareness.



TOPICS 5

Initiatives Aimed at Enhancing Psychological Safety

At the Nippon Kayaku Group, we believe that a healthy workplace that allows employees to speak to each other and discuss their ideas frankly will ensure psychological safety and enhance organizational productivity. The number of incidents of power harassment and other types of harassment have been on a decline due to the ongoing compliance activities. Eradication of such behaviors is a matter of high concern for both officers and employees.

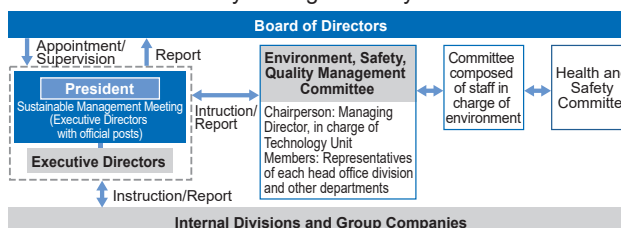
In FY2022, we set securing psychological safety as the topic of an e-learning course for employees led by the Internal Control Management Division and the Human Resources Division. As a result, we have been able to deepen employees' understanding of workplace practices for enhancing psychological safety, and many expressed their desire to continue learning in the sessions to follow. We will continue working to develop a workplace climate that enables to work with peace of mind while having good understanding of issues related to psychological safety in each workplace and learning practically useful actions through seminars, training, and other opportunities.



Occupational Health and Safety in the Workplace / Health and Productivity Management

The Nippon Kayaku Group has established a company-wide Responsible Care Policy based on the belief that safe operations take precedence over everything else, and promotes health and safety activities and health and productivity management with the goal of eliminating fatal industrial accidents and serious accidents and promoting good health among employees. The Environment, Safety, and Quality Management Committee, which discusses the activity status, issues, and responses to them, works closely with the Sustainable Management Meeting, and decisions are communicated to the Environment, Health and Safety Committee, which meets at the head office and each business site, and are disseminated and deployed as company-wide initiatives.

Health and Productivity Management System



Responsible Care Policy

<https://www.nipponkayaku.co.jp/english/sustainability/social/safety/>

TOPICS 6

Responsible Care Policy to Workplace and Frontline Initiatives

Matters communicated to and discussed by the Environment, Health and Safety Committee at each work site, including the head office, are communicated to each employee at the monthly Workplace Safety Meeting, which is held at each workplace to raise awareness of safety and health. Employees in each workplace are informed of matters that they need to know. The workplaces include indirect divisions, not to mention laboratories and plants where experiments and operations are involved. In addition, at each laboratory and plant, we deepen sensitivity and knowledge to avoid various possible hazards and to work safely, through safety reviews and risk assessments at the time of equipment installation, as well as risk prediction training before work.

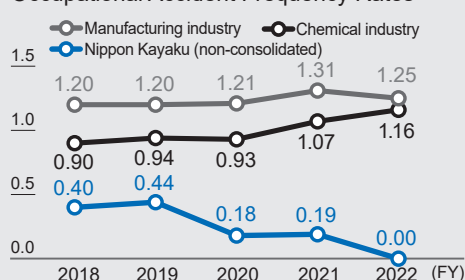


TOPICS 7

30-second patrols and fixed-point observations
—Changes in occupational accident frequency rates—

A close examination of industrial injuries that have occurred at Nippon Kayaku to date shows that most have been caused by non-standard operation. In response, in FY2018, we began to identify potential unsafe behaviors at production sites through 30-second patrols, in which managers routinely observe daily operations, and fixed-point observation, in which related persons take time observing operations when a non-standard operation, etc. is conducted. As a result of incorporating these initiatives into our safety activities, the frequency rate of accidents (requiring time off work) has remained low compared to the manufacturing and chemical industry average, and we were able to achieve zero accidents requiring time off work in FY2022.

Occupational Accident Frequency Rates



TOPICS 8

Initiatives for Mental Health Care

We have been committed to mental healthcare since we announced the Declaration to Introduce a Mental Healthcare System in 2005. For prevention, which is particularly important, we invite speakers from an Employee Assistance Program provider to give lectures and make the lectures available to all employees every three years. In addition, we conduct stress check every year in accordance with the Industrial Safety and Health Act. For those who take leave due to mental illness, we offer a reinstatement program to support their smooth return to work and prevent a relapse.

Excellent Corporations for Health Management 2023

Nippon Kayaku was certified under the large enterprise category of the 2023 Certified Health and Productivity Management Organization Recognition Program by the Ministry of Economy, Trade and Industry (METI) and the Nippon Kenko Kaigi.

To maintain and enhance employees' health, we have been pursuing a number of initiatives. For example, we are keeping the percentage of employees who undergo regular health check-ups at 100% and providing stress check and mental health training. We received the certification in recognition of our having extracted issues to address for health enhancement and taken as many specific measures as possible to address them while considering COVID-19 pandemic countermeasures.



Respect for Human Rights

Human rights are essential for the pursuit of happiness and prosperity of life for all, and basic human rights should be protected with the highest priority. The Nippon Kayaku Group respects the human rights of all employees, regardless of their employment status. We also respect the human rights of all people involved in our business activities, including employees of business partners, customers, and local community residents.

In addition, we will strive to build sustainable relationships with our supply chain partners that enable collaboration, coexistence and co-prosperity, based on the Declaration of Partnership Building that we announced in May 2023 in support of the purpose of the Conference on Promoting Partnership Building for the Future presided over by the Minister of State for Economic and Fiscal Policy and the Minister of Economy, Trade and Industry.

Participating in the United Nations Global Compact

The Nippon Kayaku Group signed the United Nations Global Compact (UNGC), which is sponsored by the United Nations, and was registered as a participating company in September 2021. We will observe the ten principles in the four areas of human rights, environment, labour, and anti-corruption and aim to achieve targets set under the Sustainable Development Goals through business activities.



Establishment of the Nippon Kayaku Group Human Rights Policy

In order to further promote respect for human rights, the Nippon Kayaku Group had the Nippon Kayaku Group Human Rights Policy, which is based on the United Na-

Nippon Kayaku Group Charter of Conduct and Code of Conduct

The Nippon Kayaku Group Charter of Conduct and Code of Conduct*1 was established in reference to international standards*2 as a guide to realize the **KAYAKU spirit** corporate vision.

In those, "Respect for Human Rights" has been clearly stated and translated into the six languages in which the Nippon Kayaku Group has bases, and all executives and employees of the Nippon Kayaku Group are informed that it is applicable to them.

*1 Nippon Kayaku Group Charter of Conduct / Code of Conduct
<https://www.nipponkayaku.co.jp/english/company/vision/conduct.html>

*2 ISO 26000 (Guidance on social responsibility)
OECD: Guidelines for Multinational Enterprises
ILO: Declaration on Fundamental Principles and Rights at Work



tions Guiding Principles on Business and Human Rights, approved by the Board of Directors and established the policy in April 2022.

Based on this policy, we will hereafter establish a system to ensure human rights due diligence, identify negative impacts of our corporate activities on human rights in society, and strive to prevent and mitigate such impacts. We will also foster a corporate culture of respecting human rights through dialogue with stakeholders, establishment of an effective grievance mechanism, human rights training, and other initiatives, aiming to be a company that can live up to the trust of all stakeholders and provide happiness and delight to them.



Nippon Kayaku Group Human Rights Policy
<https://www.nipponkayaku.co.jp/english/sustainability/social/human-rights/>

Initiatives of Sustainable Procurement

At the Nippon Kayaku Group, we aim to achieve mutual sustainable development with our business partners by conducting fair, just, and honest transactions based on our Basic Procurement Policies, which are aimed at sustainable procurement. As part of these efforts, we have created a sustainable procurement guidebook that takes into consideration respect for human rights, reduction of environmental impact, occupational health and safety, and fair trade, among others, and we share our procurement policies with all our business partners.

Business Partner Assessment

In FY2022, as in the previous fiscal year, we conducted a questionnaire survey in line with our policies with 300 business partners with which we had a certain amount of or greater transaction for raw materials. As a result, of the 229 business partners that responded, 226 agreed to the policies. We also confirmed that all the business partners who responded had no negative impact on human rights, the environment, occupational health and safety, or other environmental or social aspects.

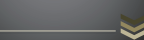
We will continue to promote sustainable procurement while striving for mutual understanding and shared awareness with our business partners.



Environmental and Social Considerations in the Supply Chain
<https://www.nipponkayaku.co.jp/english/sustainability/social/supply-chain/>

Sustainable Procurement Guidebook

Basic Procurement Principles
Basic Procurement Policies
Sustainable Procurement Guidelines



Global Partner's View
NIPPON KAYAKU

Company Information

Corporate Governance

Nomination & Remuneration Advisory Committee

The Nomination & Remuneration Advisory Committee is comprised of at least three(3) Directors (with the majority of these being those who are independent and from outside of the company) selected by the Board of Directors. The aim of this is to further enhance corporate governance by strengthening the fairness, transparency and objectivity of the procedures relating to the nomination and remuneration of Directors. This committee deliberates the selection and dismissal of Directors and Audit & Supervisory Board Members, the selection and dismissal of Representative Directors, the remuneration (e.g., the remuneration structure) of Directors and Audit & Supervisory Board Members, and other matters deemed necessary by the Board of Directors in response to inquiries from the Board of Directors. The committee then reports its findings to the Board of Directors.

Sustainable Management Meeting (convenes weekly)

This meeting discusses and receives reports concerning important items related to management and operations. After full discussion by the Sustainable Management

Meeting members, these items are decided by the Executive President, who is the meeting chairman.

The Sustainable Management Meeting is composed of Managing Directors and Senior Directors. Standing Audit & Supervisory Board Member attends these meetings as an observer.

Directors Meeting (convenes quarterly)

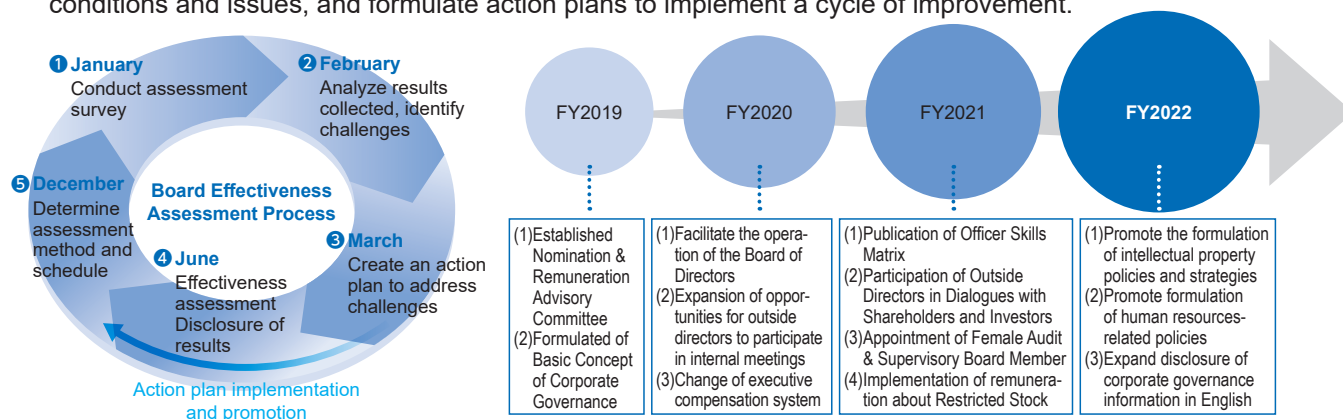
This meeting is chaired by the company president, and is composed of Directors (up to twenty-five(25)) who are in charge of the execution of operations, and who are appointed by the Board of Directors. At the meeting, Executive Directors report on the status of operational execution that are entrusted to them by the Board of Directors and the company president, as well as on other necessary items. In addition, Outside Directors and Audit & Supervisory Board Members attend these meetings as an observer.

Management Strategy Meeting (convenes biannually)

The Nippon Kayaku Group business policies and business strategies decided by the Board of Directors, as well as other important items related to general management are communicated at this meeting to management personnel to ensure that everyone in the Group is well informed.

Assesment on the Effectiveness of the Board of Directors

Each year, we conduct a questionnaire to evaluate the effectiveness of the Board of Directors, identify current conditions and issues, and formulate action plans to implement a cycle of improvement.



Expansion of Public Information about Corporate Governance

We are taking steps to expand the corporate governance-related information we publish on our website and other media, in parallel with the cycle of evaluating the effectiveness of the Board of Directors, so that we can meet requirements based on revisions to the Corporate Governance Code.

In addition to the formulation of a basic policy in FY2019 that outlines our basic approach to corporate governance, in FY2021 we identified the skills possessed by our officers, including directors and Audit & Supervisory Board members, and published them as a skills matrix.

In FY2022, we clarified the company's approach to intellectual property and human resources, including Intellectual Property Policy, Intellectual Property Strategy, Human Resource Development Policy, and Internal Environment Improvement Policy. We also made efforts to enhance the information we deliver globally, including timely disclosure of information, disclosure of our articles of incorporation in English, and English translation of our corporate governance report that we have continued.

Initiatives for Smooth and Effective Operation of the Board of Directors

Based on the results of the effectiveness evaluation questionnaire, we are advancing a number of initiatives aimed at smooth and highly effective operation of the Board of Directors. In FY2020, the Board of Directors' meeting materials were distributed early to allow sufficient time to review meeting content in advance. We also provided outside directors with opportunities to receive advance explanations of agenda items. In addition, we worked actively to have objective opinions fed back to management. For example, we provided outside directors with opportunities to participate in important company meetings and events. In FY2021, we involved outside directors in constructive dialogues with shareholders and investors.

Results of Assessment and Issues in FY2022

In this analysis and evaluation, we found relative improvements in the evaluation results, which are attributed to various improvements that we have achieved in our action plans.
















With this analysis, we have confirmed that the Board of Directors is totally working effectively by fulfilling its role and responsibilities. However, as we have also recognized that there are some open issues that the Board of Directors is supposed to resolve, such as ensuring diversity in the core members of the Board of Directors, discussions on policies for human resource development and internal environment development which are carried forward from the last fiscal year, and actions to enhance discussions on management strategies to set agendas necessary for business decisions to be made by the Board of Directors, we have compiled a new action plan for the Board of Directors in the fiscal year 2023 at the Board of Directors meeting held on March 2023 and steadily implemented the action plan since April 2023.

We will also continue efforts to improve the effectiveness of the Board of Directors in the future.

From the Corporate Governance Report updated August 2023.

Officer Skills Matrix

The Nomination and Remuneration Advisory Committee specifies skills considered universally necessary and skills necessary for the M-CFT activities that form the cornerstones of **KV25** for Board Members and Audit & Supervisory Board members, and discloses these as a Skills Matrix, which is reported to the Board of Directors.

Position, Name	Corporate Management	International Experience	Finance Accounting Tax	Regal Compliance	Risk Management	Business Strategy Marketing	Personnel Labor Affairs Human Resources Development	Research & Development	Manufacturing Quality Management	ESG Sustainability	IT-DX (Digital Transformation)
 Member of the Board President Representative Director Atsuhiko Wakumoto	○	○				○				○	
 Member of the Board Representative Executive Vice President Tomoo Shibuya	○	○	○		○					○	
 Member of the Board Senior Managing Director Yoshimi Inoue	○							○	○		
 Member of the Board Senior Managing Director Yoshitsugu Ishida	○	○	○			○					○
 Member of the Board Managing Director Masatomi Akezuma	○	○				○		○	○		
 Member of the Board Managing Director Shigeyuki Kawamura	○	○				○					
 Member of the Board Outside Director Yo Ota		○	○	○						○	○
 Member of the Board Outside Director Yasuyuki Fujishima	○	○				○					○
 Member of the Board Outside Director Seiichi Fusamura				○			○				
 Member of the Board Outside Director Ikuko Akamatsu			○	○						○	
 Standing Audit & Supervisory Board Member Megumi Machida							○	○	○		
 Full-time Audit & Supervisory Board Member Yoichiro Wada	○	○					○				
 Outside Audit & Supervisory Board Member Katsuji Higashi			○		○					○	
 Outside Audit & Supervisory Board Member Yasuhiro Osaki				○						○	
 Outside Audit & Supervisory Board Member Ichiro Wakasa	○				○		○			○	

Corporate Governance

Remuneration to Directors and Audit & Supervisory Board Members

In June 2021, Nippon Kayaku introduced a system of remuneration about Restricted Stock and reviewed incentive remuneration with the aim of making the remuneration system function fully as an incentive and be of a competitive level from the perspective of securing excellent human resources in order to sustainably increase corporate value and share value with shareholders. As a result, remuneration for member of the board & managing directors consists of base remuneration and incentive remuneration (performance-linked bonus and remuneration about Restricted Stock). The basic remuneration amount is determined by the sum of objective criteria such as representation, duties in charge, etc. Performance-linked bonuses are calculated based on ROE of the medium-term business plan targets and the degree of achievement of consolidated operating income target, the performance of the division in charge, the degree of achievement of the medium- to long-term priority issue targets. The amount of remuneration about Restricted stock are determined based on factors such as position, responsibility, and stock price.

Guideline for Composition of "Member of the Board & Managing director"s Remuneration

60% Base Remuneration	40% Incentive Remuneration (Performance-linked bonus and Remuneration about Restricted Stock)
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Remuneration for outside directors is limited to base remuneration only, in consideration of their responsibilities as such. Remuneration for Audit & Supervisory Board Members is fixed remuneration only, in consideration of their responsibility to audit the execution of Members of the Board, and the amount of remuneration for each Audit & Supervisory Board Member is determined through discussions among Audit & Supervisory Board Members within the annual remuneration limit.

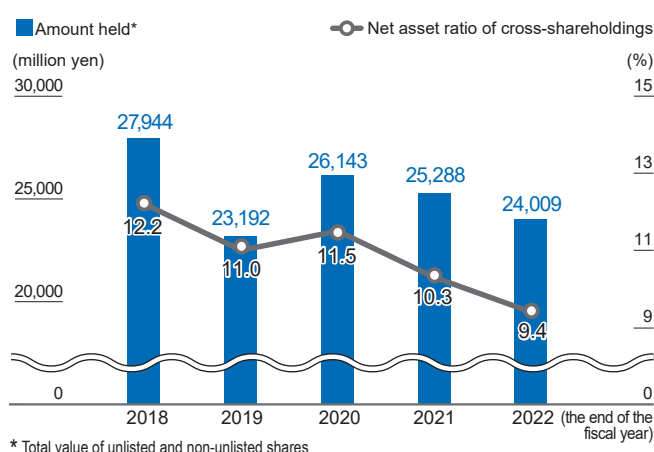
Total amount of remuneration, etc., by executive officer category, total amount of remuneration, etc., by type of remuneration, and number of directors/auditors covered (FY2022)

Executive officer category	Total amount of remuneration, etc. (million yen)	Total amount of remuneration, etc., by type of remuneration			Number of officers
		Fixed remuneration	Performance-based remuneration	Non-monetary remuneration, etc.	
Member of the Board (excluding outside members)	382	216	116	49	6
Audit & Supervisory Board Member (excluding outside members)	45	45	—	—	2
Outside member	57	57	—	—	7

Trends in cross-shareholdings

The Nippon Kayaku Group engages in cross-shareholdings for the purpose of maintaining and strengthening de facto relationships with its business partners from the perspective of enhancing corporate value over the medium to long term. Every year, the Board of Directors reviews individual cross-shareholdings from the perspective of improving corporate value over the medium to long term, and sells those deemed no longer needed while taking the impact on the market into consideration. The ratio of cross-shareholdings to net assets at the end of FY2022 was 9.4%, a decrease of 0.9 percentage points from the end of FY2021.

Net asset ratio of cross-shareholdings



Outside Directors Roundtable

After the end of the first fiscal year of the **KAYAKU Vision 2025 (KV25)** FY2022–2025 Medium-term Business Plan, our three outside directors engaged in an exchange of opinions on the current state of corporate governance of the Nippon Kayaku Group, reflections on the first fiscal year of **KV25**, and effective ways to engage in constructive dialogue in the future.



Progress in corporate governance at the Nippon Kayaku Group

Moderator:

Thank you for your time today. To begin with, I will ask you about what have been achieved through effectiveness evaluation of the Nippon Kayaku Group's corporate governance.

Director Fujishima

Looking back, our corporate governance reforms accelerated with the establishment (in June 2020) of the Nomination and Remuneration Advisory Committee, chaired by President Wakumoto, the representative director, and attended by three outside directors.

Director Fusamura

The chair of the Nomination and Remuneration Advisory Committee gave a very thorough explanation of the issues to be discussed, including their backgrounds. The explanation of internal information to us outside directors, which was given from the basics, deepened our understanding of the company and facilitated objective opinions from us outside directors, which also led to lively discussions and prompt reports to the Board of Directors.

Director Fujishima

I feel that the improvement of the governance system has progressed quite a bit faster than we had initially anticipated. During the review of the Director Remuneration System in 2021, the chair of the committee explained the calculation mechanism in detail as we proceeded with our discussions. This facilitated the smooth introduction of restricted stock compensation. I hope that Nomination and Remuneration Advisory Committee will be operated in a way that it can fulfill its mission to the fullest extent.

Director Ota

Traditionally, the Group has had a strong defensive governance structure, while being relatively cautious about offensive governance that proactively adopts trends. In recent

years, however, governance reforms have progressed*¹ and the first female director was appointed in June 2023.

In order to comply with the revised Corporate Governance Code, progress was also made in disclosing information related to climate change, intellectual property, and human resources*². I believe we now have the foundation in place to deepen internal discussions on rapidly changing social needs. I would therefore like to see the company promptly announce its initiatives on biodiversity, business and human rights, and other issues in the future, which would be even more favorable.

*¹ Assessment on the Effectiveness of the Board of Directors ▶ p. 73

*² Climate Change ▶ p. 59 | Intellectual Property ▶ p. 57 | Human Resources ▶ p. 67

Utilization of human resources

Moderator:

Please give us your opinions on the utilization of human resources, which was a focus for this report as well.

Director Fusamura

The appointment of the female director has increased the diversity of the Board of Directors, and we are gradually increasing the percentage of female managers toward our 2024 target of 10% or higher. I hope that generous support will be provided in the aspects of both human resource development and comfortable work environment, such as enhancement of systems to support women who are highly motivated to work and training programs for mid-career female human resources, to continue promoting active participation of women.

Director Fujishima

Japan's population is currently declining, and labor shortages are expected to become increasingly serious. In response to the growing importance of labor force from overseas, companies in Japan have been accepting foreign nationals as technical interns and other trainees.

Corporate Governance



Director Fujishima

We believe that the time will come when we will go farther, actively promoting foreigners to important positions such as management executives and technical leaders. I think that the Group, which operates globally, should consider

what systems to employ to accept foreigners, as soon as possible.

In terms of human resource utilization, training is not the only method. We can also recruit human resources. Promptly hiring human resources needed for our new system from external sources would be effective in some cases. Various methods are possible, such as acquiring an entire organization through M&A. We hope that the utilization of human resources for our long-term vision will be done reasonably and speedily.

Moderator:

Thank you for your informative opinions on how we work and how we promote diversity.

After the end of the first fiscal year of the Medium-term Business Plan KAYAKU Vision 2025 (KV25)

Moderator:

Next, please give us your impressions of the progress made and your advice for the future regarding the Medium-term Business Plan KV25, after the end of its first fiscal year.

Director Fusamura

Since the initial planning process, there have been significant changes in the global economy and market conditions for semiconductors and automobiles. Although our performance was solid in FY2022, we expect a significant impact on profits in FY2023. In light of this current situation, we now need to accelerate the creation of new business and products. To this end, in June 2023, there was a reorganization of business segments and a transition from the “Head-of-Business-Group” system to an “Officer-in-Charge” system^{*3}.

^{*3} Reorganization of business segments ▶ p. 19

Director Fujishima

This change is expected to create more synergies within business units. In addition, the Technology Unit, which is in charge of research, development, and production technology, has been established on the same level as the business units, and the system for creating new businesses and products by mobilizing all the company’s capabilities has been clarified. With this new system, an action plan will take shape towards achievement of targets for the final fiscal year of KV25.

Director Ota

This is the first company-wide reform in a long time since

the Safety Systems Group was established in 2007. We have so far been providing products by changing core technologies according to the needs. Hereafter, it will also be necessary to open up new areas for new products and new businesses. We believe that our system has become agile enough to implement such Initiatives.

Proactive investment in growth and a corporate culture that enables people to take on challenges

Moderator:

What actions will be required from FY2023 onward?

Director Fusamura

Aggressive investment is still necessary for accelerating the creation of new businesses and products that will contribute to profit improvement. A certain level of risk will need to be considered, and it is important to understand this point correctly.

Director Ota

Semiconductor-related materials and other products in the Fine Chemicals Business Unit are areas that are attracting attention from institutional investors, so I feel that it would be good to go through trials and errors with bold investment decisions. To this end, it may be important to foster a culture that enables people to take on challenges without fear of failure.

Director Fujishima

The impression of our management, which we described on our own as “hitting the stone bridge and still avoiding crossing it” (exercising caution and ending up not taking any action) has begun to change. There was a time when I gave advice on the need for investment in growth, but now the top management themselves are encouraging proactive investment, and investment in production increase in growth areas of each business and investment in research and development on a large scale have begun to be implemented.

Director Fusamura

Even though the goal is to achieve a large return, it is unavoidable for the company and each one employee to be reluctant to accept risk.

It would be good to have not only the mentality but also a system for accepting risk. We must

also remember that having the leeway to accept risk and tolerate failure will help curb corporate scandals caused by falsehoods and cover-ups at work sites. It is important to demonstrate the company’s willingness to make positive use of any results as long as they are based on hard work.

Director Fujishima

I also took many risks when I was working for a trading



Director Fusamura

company, but I could also take on bold challenges to the extent that the company tolerated the investments by regarding them as risk money. I believe that by setting up a mechanism to use risk money separately from funds for business operations, and by ensuring that employees involved in development and investment are clearly aware of this, we can create a better environment in which each individual can actively engage in the creation of new businesses and products.

Moderator:

Thank you for your feedback, which is very helpful in disseminating information internally about fostering a culture that enables people to take on challenges.

IR activities for attracting investment globally

Moderator:

Finally, please give us your opinions on the dialogue with shareholders, investors and other stakeholders.

Director Ota

Since FY2021, outside directors have also been involved in the dialogue with shareholders and investors, and I think that we will be able to cooperate to constructive dialogues. I recommend that you should focus your efforts on disseminating information to overseas investors in the future, so as to be understood by the capital market as a global company. I feel that the Group's niche product line, described as Global "sukima" ideas, is promising as a subject of interest for overseas value-growth investors.

Director Fujishima

The company where I served as an outside director about 20 years ago also started out on a compact scale with a niche business as its strength. The top management themselves visited overseas funds every year to attract investment, and as a result, this company grew into the world-leading company in the field. I think that efforts to have your company appeal to overseas investors as much as possible should be made on a regular basis as a corporate activity.

Director Ota

That's right. From a practical standpoint, it is also important to further enhance information published in English, respond to requests for disclosure and implementation of measures to improve P/B ratios, and present rational



Director Ota

capital policies by sharing values with investors. I expect the company to disclose a value creation story, which will be of more interest to shareholders and investors, along with the creation of new businesses and products.

Moderator:

We learned a lot from the many informative opinions on management and information disclosure. Thank you all very much for joining us today.

Message from a newly appointed outside director

I am pleased to see you for the first time. My name is Ikuko Akamatsu, and I was appointed as an outside director. I am a Certified Public Accountant and Certified Fraud Examiner by profession. After working for an auditing firm, I was engaged in research and consulting activities at a university (for ten years). Currently, I serve as a board member of the Japanese Institute of Certified Public Accountants (JICPA). Thus, I am working to improve the quality of certified public accountants as outside directors while serving as an outside director myself.

The mission of outside directors is to bring diversity to the organization. People instinctively seek homogeneity, but pursuit of diversity, especially in the Board of Directors as a company's decision-making body, increases the accuracy of decision-making and the risk sensitivity of the organization. I feel positively strained about the weight of my



Member of the Board,
Outside Director
Ikuko Akamatsu

Appointed as an outside director in June 2023, with extensive experience as a certified public accountant and an outside director

responsibility because decisions I will be involved in making will have a significant impact on the future of the company.

As a working woman and one of the first so-called "mom accountants," I have had many experiences as a person in a minority. I hope to be useful for the company with what I can see because I am in a minority, that is, from a perspective that people in the majority cannot have.

I appreciate your support.

Corporate Governance

<https://www.nipponkayaku.co.jp/english/company/governance.html>



Corporate Governance Basic Policy

https://www.nipponkayaku.co.jp/media/pdf/english/ir/esg/files/governance_basic_policy.pdf

Corporate Governance Report

https://www.nipponkayaku.co.jp/media/pdf/english/ir/esg/files/governance_report.pdf

Directors, Audit & Supervisory Board Members, and

Directors



1979 Joined the Company
2008 General Manager of Global Business Division, Safety Systems Group
2010 General Manager of Marketing Division, Safety Systems Group
2012 Director
2016 Member of the Board
2018 Member of the Board, Head of Safety Systems Group
2019 President, Representative Director (current)

Member of the Board
President
Representative Director
Atsuhiko Wakumoto

Date of Birth
March 15, 1957



1980 Joined the Company
2005 General Manager of Public Relations & Investor Relations Division, Strategic Corporate Planning Group
2006 General Manager of Corporate Planning Division, Strategic Corporate Planning Group
2007 Vice President of LifeSpark Inc.
2010 General Manager of Corporate Planning Division, Strategic Corporate Planning Group
2013 Director
2017 Member of the Board, Head of Strategic Corporate Planning Group, Head of Research & Development Group, Head of Agrochemicals Division
2018 Member of the Board, Head of Financial Group, General Manager of Finance & Accounting Division
2019 Member of the Board, Head of Financial Group
2021 Representative Director, Head of Strategic Corporate Planning Group, Head of Agrochemicals Division
2023 Representative Director, In charge of Human Resources Division, Purchasing Division, Legal Affairs Division, General Affairs Division, and Secretarial Division (current)

Member of the Board
Representative Executive
Vice President
Tomoo Shibuya

Date of Birth
December 15, 1957



1980 Joined the Company
2007 General Manager of R&D Planning Division, Research & Development Group
2011 General Manager of Functional Chemicals R&D Laboratories, Research & Development Group
2016 Director
General Manager of Functional Chemicals R&D Laboratories, Functional Chemicals Group
2017 General Manager of Planning & Coordination Division, Functional Chemicals Group
2019 Managing Director
Head of Technical Operation Group
2020 Head of Research & Development Group
2021 Senior Managing Director
2023 Member of the Board, In charge of Technology Unit (current)

Member of the Board
Senior Managing Director
Yoshimi Inoue

Date of Birth
January 2, 1958



1981 Joined the Company
2010 General Manager of Planning & Coordination Division, Safety Systems Group
2016 Director
2018 General Manager of Strategic Planning Division, Safety Systems Group
2019 Member of the Board, Head of Safety Systems Group
2021 Member of the Board, Head of Financial Group, Executive Lead of Safety Systems Group
2021 Member of the Board, Head of Financial Group
2023 Member of the Board, In charge of Corporate Planning Division, Corporate Communications Division, Finance & Accounting Division, and Information Systems Division (current)

Member of the Board Senior
Managing Director
Yoshitsugu Ishida

Date of Birth
September 8, 1958



1986 Joined the Company
2010 Chairman & General Manager of KAYAKU CHEMICAL (WUXI) CO., LTD.
2014 General Manager of Functional Materials Division, Functional Chemicals Group
2017 Director
2020 President & General Manager of Development Division of Polatechno Co., Ltd.
General Manager of Polatechno Division, Functional Chemicals Group
2021 Member of the Board, Head of Functional Chemicals Group
2023 Member of the Board, In charge of Fine Chemicals Business Unit (current)

Member of the Board
Managing Director
Masatomi Akezuma

Date of Birth
March 17, 1961



1987 Joined the Company
2016 Chairman & General Manager of Kayaku Safety Systems (Huzhou) Co., Ltd.
2020 Director
General Manager of Strategic Planning Division, Safety Systems Group
2021 Deputy Director, General Manager of Strategic Planning Division, Safety Systems Group
2021 Senior Director
Head of Safety Systems Group
2022 Managing Director
2023 Member of the Board, In charge of Mobility & Imaging Business Unit, Head of Safety Systems Group (current)

Member of the Board Man-
aging Director
Shigeyuki Kawamura

Date of Birth
June 30, 1963



1993 Registered lawyer. Joined Nishimura Tokiwa Law office
2001 Registered lawyer in New York State, USA
2004 Outside Audit & Supervisory Board Member of the Company
2005 Outside Director, Denki Kogyo Co., Ltd.
2007 Partner of Nishimura & Asahi Law Office (Gaikokuho Kyodo Jigyō) (current)
2016 Member of the Board, Outside Director (current)
2017 Outside Audit & Supervisory Board, Ricoh Co., Ltd. (current)

Member of the Board
Outside Director
Yo Ota

Date of Birth
October 3, 1967



1969 Joined the Ministry of International Trade and Industry (currently the Ministry of Economy, Trade and Industry)
1997 Representative of the Economic Planning Agency to the Policy Board of Bank of Japan
1998 Japan Ambassador Extraordinary and Plenipotentiary to Panama, Ministry of Foreign Affairs
2002 Outside Director, Wacom Co., Ltd.
2005 Representative Director and Senior Managing Executive Officer, Sojitz Corp.
2008 Executive Vice President, Sojitz Corp.
2010 President & Representative Director, Mutual Service Aid Guarantee Corporation
2016 Member of the Board, Outside Director (current)
2017 President & Representative Director, Ceremonial Occasions Research Institute, Inc.
2018 Director, Human Resources Development & Employment Organization (current)

Member of the Board
Outside Director
Yasuyuki Fujishima

Date of Birth
March 25, 1947



1971 Assistant judge of Kyoto District Court
1998 General Manager of Judicial Research Department, Ministry of Justice
2001 Director-General of the Civil Affairs Bureau, Ministry of Justice
2006 Chief of Saitama District Court
2009 Chief of Sendai High Court
2011 Chief of Nagoya High Court
2012 Outside Audit & Supervisory Board, Nippon Paper Industries Co., Ltd.
Lawyer registration
2013 Chairman of Public Security Examination Commission
Chairman of Tokyo Metropolitan Labor Relations Commission
2016 Outside Audit & Supervisory Board, The Bank of Yokohama, Ltd.
2020 Outside Audit & Supervisory Board, Concordia Financial Group, Ltd. (current)
Member of the Board, Outside Director (current)

Member of the Board
Outside Director
Seiichi Fusamura

Date of Birth
March 18, 1947



1995 Joined Showa Ota & Co. (presently Ernst & Young ShinNihon LLC) (Left in October 2010)
1997 Registered as Certified Public Accountant
2008 Registered as Certified Fraud Examiner
2010 Chief Researcher, Management Training and Consulting Division, Institute of Management, SANNŌ University
2019 Senior Researcher, Management Training and Consulting Division, Institute of Management, SANNŌ University
Outside Audit & Supervisory Board Member of Shinsei Bank, Limited (presently SBI Shinsei Bank, Limited) (current)
Board Director, The Japanese Institute of Certified Public Accountants (current)
2020 Outside Director of CAWACHI LIMITED
Outside Audit & Supervisory Board Member of Toyo Seikan Group Holdings, Ltd. (current)
2022 Outside Director of Mitsubishi UFJ Securities Holdings Co., Ltd. (current)
2023 Member of the Board, Outside Director (current)

Member of the Board
Outside Director
Ikuko Akamatsu

Date of Birth
February 27, 1968

Executive Directors (As of September 1, 2023)

Audit & Supervisory Board Members



1985 Joined the Company
2015 Manager of Development Management Department, Pharmaceuticals Group
2018 Manager of R&D Management Department, Pharmaceuticals Group
2020 General Manager of Regional Administration Division, Administration Group
General Manager of Tokyo Research Administration Office
2021 Audit & Supervisory Board Member (current)

Standing Audit & Supervisory Board Member

Megumi Machida

Date of Birth
March 26, 1961



1984 Joined the Company
2017 Managing Director of Kayaku Safety Systems Malaysia Sdn. Bhd.
2019 General Manager of Purchasing Division, Administration Group
2022 General Manager of Audit Division
2023 Audit & Supervisory Board Member (current)

Full-time Audit & Supervisory Board Member

Yoichiro Wada

Date of Birth
February 18, 1962



1981 Registered as certified public accountant and joined Ohta Tetsuzo Auditing Company Office
2001 Representative Partner of Shinnihon Auditing Company (currently Ernst & Young ShinNihon LLC.)
2014 Established accounting firm (current)
2016 Audit & Supervisory Board Member of the Company (current)
2019 Auditor of Asia Pacific Energy Research Centre (current)

Outside Audit & Supervisory Board Member

Katsuji Higashi

Date of Birth
November 27, 1952



1985 Assistant Professor, School of Law, Waseda University
1992 Professor, School of Law, Waseda University (current)
2010 Outside Director, NBC Meshtec Inc.
2016 Audit & Supervisory Board Member of the Company (current)

Outside Audit & Supervisory Board Member

Yasuhiro Osaki

Date of Birth
September 14, 1954



1977 Joined Meiji Life Insurance Company (currently Meiji Yasuda Life Insurance Company)
2014 Member of the Board and Deputy President of Meiji Yasuda Life Insurance Company
2018 Outside Director of The Hyakugo Bank, Ltd.
2021 Representative Director and Chairman of Meiji Yasuda System Technology Company Limited
2022 Audit & Supervisory Board Member of the Company (current)

Outside Audit & Supervisory Board Member

Ichiro Wakasa

Date of Birth
January 1, 1955

Executive Directors

Atsuhiko Wakumoto
President

Tomoo Shibuya
Executive Vice President In charge of Human Resources Division, Purchasing Division, Legal Affairs Division, General Affairs Division, and Secretarial Division

Yoshimi Inoue
Senior Managing Director In charge of Technology Unit

Yoshitsugu Ishida
Senior Managing Director In charge of Corporate Planning Division, Corporate Communications Division, Finance & Accounting Division, and Information Systems Division

Masatomi Akezuma
Managing Director In charge of Fine Chemicals Business Unit

Shigeyuki Kawamura
Managing Director In charge of Mobility & Imaging Business Unit, Head of Safety Systems Group

Hiroshi Shimada
Managing Director In charge of Life Science Business Unit, Head of Pharmaceuticals Group

Shinji Inoue
Senior Director Head of Functional Materials Group, Fine Chemicals Business Unit

Makoto Takeda
Senior Director General Manager of Human Resources Division

Tsutomu Kawamura
Director General Manager of Finance & Accounting Division

Kenichiro Yoshioka
Director US General Manager (Chairman of KAYAKU Advanced Materials, Inc. & NIPPON KAYAKU AMERICA, INC.)

Takumi Fujita
Director Chairman & General Manager of Kayaku Safety Systems (Huzhou) Co., Ltd.

Yasuhito Kato
Director Head of Agrochemicals Group, Life Science Business Unit

Hideyuki Yuya
Director Head of Polatechno Group, Mobility & Imaging Business Unit

Yoshinori Kato
Director General Manager of Environmental Protection & Safety Division, Technology Unit

Tadayuki Kiyoyanagi
Director Head of Color Materials Group, Fine Chemicals Business Unit

Seiichiro Kodama
Director General Manager of Agrochemicals Laboratories, Manager of Biology Group, Agrochemicals Group, Life Science Business Unit

Yoshiki Akatani
Director General Manager of Tokyo Plant

Yuko Nagai
Director General Manager of Quality & Pharmacovigilance Division, Manager of Regulatory Affairs Department, Pharmaceuticals Group, Life Science Business Unit

Atsurou Inubushi
Director General Manager of Specialty Chemicals, International & IVD Division, Pharmaceuticals Group, Life Science Business Unit

Compliance

Policy and Basic Approach

The Nippon Kayaku Group views compliance in a broad sense, considering it to mean not only abiding by laws and regulations, internal rules and rules of the industry, but also responding to social norms and the demands of society and continuing to earn the trust of diverse stakeholders.

As our group-wide standards of conduct, we established the Nippon Kayaku Group Charter of Conduct and Code of Conduct. We conduct business activities based on the spirit of these standards to fulfill our social responsibilities and contribute to society.

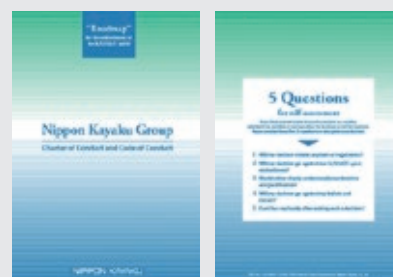
The Nippon Kayaku Group firmly ensures compliance in its business activities, and will further promote its compliance activities under the strong leadership of its top management.

Nippon Kayaku Group Charter of Conduct and Code of Conduct

The Nippon Kayaku Group established the Nippon Kayaku Group Charter of Conduct and Code of Conduct in 2000, recognizing compliance to be a matter of highest priority in its corporate activities. Subsequently, in 2011, these were revised in view of ISO 26000 (Guidance on social responsibility for organizations), and in 2020 they were revised with the aim of spontaneously putting them into practice to help achieve a sustainable society.



Nippon Kayaku Group Charter of Conduct / Code of Conduct
<https://www.nipponkayaku.co.jp/english/company/vision/conduct.html>

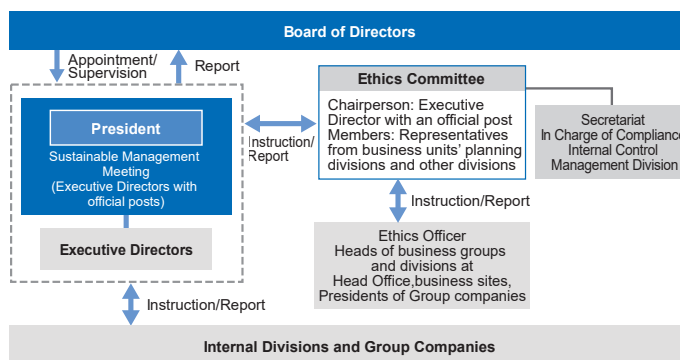


The Nippon Kayaku Group Charter of Conduct and Code of Conduct

Systems

The Nippon Kayaku Group has established an “Ethics Committee” to ensure compliance, which meets twice a year (or whenever necessary).

An Executive Director with an official post appointed by the president serves as the chairperson of the committee, which is comprised of representatives from each group and division at the Head Office. The committee makes decisions on policies and concrete measures pertaining to compliance with the Nippon Kayaku Group Charter of Conduct and Code of Conduct, and discusses and determines how to respond to reported matters and incidents, along with measures to prevent recurrence.



Indicators

Key sustainability issues	Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2022 Result	FY2022 Topics for initiatives
Ensuring Compliance		<ul style="list-style-type: none"> Exercise thorough compliance, which is a basic principle for conducting corporate activities, and engaging in fair business operations Maintain and enhance an open corporate culture with a high sense of ethics 	Number of serious compliance violations*	0	0	<ul style="list-style-type: none"> No significant compliance violations Compliance training incorporates the theme of psychological safety in the workplace and was conducted at all Group companies in Japan As a result of checking all Group companies for the presence of internal reporting services, external reporting services and the establishment of regulations, we determined that reporting services had not been established at three overseas Group companies
			Compliance training rate	100%	97%	
			Percentage of group companies with compliance / whistleblowing hotlines	100%	83%	

* Number of serious accidents as judged by the Ethics Committee

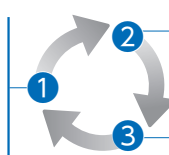
TOPICS 1

Instilling within the Company

To raise awareness about thorough compliance and ensure it is practiced throughout the corporate group, the Nippon Kayaku Group has created a portable card displaying its corporate vision, Charter of Conduct and Code of Conduct in six different languages (Japanese, English, Chinese, Spanish, Malay and Czech) spoken by all of the countries where we have manufacturing hubs. The card is distributed to all executives and employees of the Nippon Kayaku Group so that they can refer to Nippon Kayaku Group Charter of Conduct and Code of Conduct whenever necessary. Also, a pamphlet with easy-to-understand explanation of the Charter of Conduct and the Code of Conduct is distributed to all employees of domestic companies of the Nippon Kayaku Group.

Continuous monitoring and improvement of compliance penetration

“Compliance Promotion Month” every October
~ Message from the Ethics Committee Chairman to all Group employees



Compliance Awareness Survey
~ Implementation, tabulation, analysis, problem identification, and feedback to each workplace

Compliance action plans developed for each workplace

Overseas Group Company Initiatives (Case Study in China)



Conduct global compliance activities in cooperation within the Group in accordance with the laws and business practices of each country.



Every year, a meeting is held between the general manager and ethics officers to promote compliance at group companies.



Internal Control Management Division and KSC* legal staff cooperate to hold compliance training for local employees

* KSC: Kayaku (Shanghai) Co., Ltd. in China

TOPICS 2

Education and Training

The Nippon Kayaku Group holds domestic compliance education and training on different themes every year, and uses regular meetings at business sites to conduct study groups and training based on case studies. The FY2022 compliance training was themed on psychological safety at workplaces. Nippon Kayaku provided training, mainly e-learning programs, and the companies of the Nippon Kayaku Group mostly conducted group training with the goal of providing all employees with training opportunities and programs.

Name of training program	Main themes covered	Main target	FY	Training format	Number of sessions	Attendance rate
Compliance training (Yearly and mandatory)	Psychological safety at workplaces	Executives and employees (including contract employees and part-time employees), temporary employees	2022	e-learning/ group training	1	97.3%
	Guidelines for Handling Whistleblower Complaints / Nippon Kayaku Group Basic Policy on Anti-Bribery		2021		1	98.2%
Compliance training (Monthly)	<ul style="list-style-type: none"> ● Harassment (difference between instruction/request and harassment) ● Fundamental human rights (LGBT, unconscious bias) ● Sincere activities (integrity, action taken in the event of a mistake) ● Good workplace environment (problems of negative and passive words and behaviors) 		2022	e-learning	6	Average of 79.2%
	<ul style="list-style-type: none"> ● Insider trading ● Good workplace environment (how to interact with people who are hard to talk to) ● Fundamental human rights (portrait rights) ● Sincere activities (compliance risk, prohibition of conflicts of interest) ● Harassment (Power harassment) 		2021		6	Average of 77.7%
Risk management training	Nippon Kayaku's crisis management system		2022		1	77.8%
	Risk of infection		2021		1	76.0%
New employee training*1	Compliance basics, Charter of Conduct and Code of Conduct, Compliance Hotline, etc.	New employees	2022	group training	1	100%
Newly appointed manager training*1	Charter of Conduct and Code of Conduct, Harassment, Compliance Hotline, etc.	Newly appointed managers	2022		2	100%
Expatriate training*2	Charter of Conduct and Code of Conduct, Nippon Kayaku Group Basic Policy on Anti-Bribery, etc.	Expatriates	2022	In-person/ online	10	100%

*1 Held annually *2 Provided to expatriates before they are assigned to a new post

TOPICS 3

Initiatives to Prevent Corruption and Anti-competitive Behavior

The Nippon Kayaku Group Charter of Conduct and Code of Conduct uphold that fair, transparent and free competition should be conducted in all business activities in compliance with both the letter and spirit of relevant laws and regulations, including competition laws, as well as internal rules. In addition, they prohibit bribery and other misconduct in relation to our business transactions. Furthermore, to clarify our basic approach to the prevention of bribery, the scope of application, and rules to abide by, we have established the Nippon Kayaku Group Basic Policy on Anti-Bribery, which is widely embraced and practiced by our officers and employees, including Group companies in Japan and overseas.



Nippon Kayaku Group Basic Policy on Anti-Bribery
<https://www.nipponkayaku.co.jp/english/sustainability/governance/compliance/>

Risk Management

Policy and Basic Approach

The Nippon Kayaku Group's risk management policy is to address various risks related to its business and secure business continuity by maintaining the production system, procuring appropriate raw materials and strengthening measures against disasters.

To restore our business within a predetermined target time in the event of an emergency such as a disaster, the Head Office and each business division and plant have established their own business continuity plan (BCP) manuals and our overseas business sites are also preparing their own versions of the manuals.

System

The Nippon Kayaku Group has in place a Risk Management Committee chaired by an executive director with an official post appointed by the president and comprised of representatives from each group and division at the Head Office. The committee configures and manages a risk management system to prevent risks that could inflict serious damage on the Nippon Kayaku Group's corporate management and business activities, respond to emergencies and recover from any damage inflicted by a crisis when it comes to an end.



TOPICS 1

Continuation of BCP drills

At the Nippon Kayaku Group, the Internal Control Management Division takes the lead on pursuing global risk management activities targeted at the key themes of establishing a BCP structure and training and drills in overseas Group companies. As part of these activities, we conduct a BCP drill every year by selecting one or more locations from among domestic and overseas Group companies. In addition to ensuring employee safety and preventing secondary damage by continuing to conduct the drills, we will further develop a BCP system that focuses on business continuity, including the continuation and early recovery of production, sales, and other operations after a disaster.

BCP drill of the safety systems business (December 2022)

At the Himeji Plant, which assembles automotive safety components, we conducted an initial response simulation by assuming an earthquake with a magnitude around 6, with the participation of head office staff. As a result, we reaffirmed the importance of regular drills focused primarily on cooperation between plants and the head office and of reflecting what is learned through the drills in the BCP manual.

BCP drill at the Himeji Plant



BCP drill at a Group company in China (February 2023)

WUXI POLATECHNO OPTICS CO., LTD.(WPLC), which produces optical films for the Polatechno business in Wuxi, Jiangsu Province, China, conducted a drill to simulate a multi-day response to a typhoon disaster. The drill led us to understand the importance of grasping information collected by the disaster headquarters and communicating it without omission, as well as the importance of BCP for not only disaster response but also the business continuity phase.

BCP drill at WPLC, a Group company in China



Business Risks (Summary)

For details of business risks, see pages 20-23 of Annual Securities Report (Japanese) submitted in June 2023.

	Number	Risk category	Risk Details	Countermeasures
Risks related to management strategy	1	Raw materials procurement	<ul style="list-style-type: none"> Price hikes attributed to geopolitical risks, etc. (functional chemicals business, pharmaceuticals business, etc.) Production halt and supply chain disruptions caused by the impact of carbon neutrality measures (safety systems business, etc.) 	<ul style="list-style-type: none"> Understanding market conditions through close information exchange with suppliers Preventing supply disruptions through supplier audits, etc. Driving purchases from multiple suppliers and low-cost purchases, strategic stockholding of non-substitutable products Promptly collecting and sharing information on extreme weather, accidents, and disasters
	2	Product quality	<ul style="list-style-type: none"> Occurrence of recall, product liability claims, etc. resulting from product defects or poor quality (especially for products in the pharmaceuticals and safety systems businesses with high levels of quality) 	<ul style="list-style-type: none"> Coordination with the Environment, Safety, Quality Management Committee, which monitors events with high quality risks, and the quality assurance department of each business Acquiring ISO 9001, ISO 13485, IATF 16949, and other quality-related certifications at each production location Strengthening quality Risk Management by promoting training on FMEA, etc. Granting product liability insurance covering the entire Group, etc.
	3	Accident occurrence	<ul style="list-style-type: none"> Damage to surrounding areas, shutdown, etc. resulting from accidents at production locations Accidents caused by explosives used for products in the safety systems business 	<ul style="list-style-type: none"> Enhancing environmental, safety, and quality training at plants Identifying all potentially unsafe areas through safety assessment, safety diagnosis, etc. and taking countermeasures Developing explosive engineers and improving the safety technology level in the safety systems business Reducing risks through communication with logistics companies and training by establishing a manual for countermeasures against logistics accidents, such as product leaks
	4	Research and development	<ul style="list-style-type: none"> Delays in the development of new technologies and products Decline in competitiveness attributed to technological innovation by competitors 	<ul style="list-style-type: none"> Driving future-oriented research and technology development and aggressive marketing Introducing cutting-edge technologies through collaboration with domestic and foreign research institutions and other external parties Building and implementing IT infrastructure and developing data scientists specialized in machine learning, AI, etc.
	5	Changes in regulations/policies	<ul style="list-style-type: none"> Not knowing the latest requirements of various laws and regulations, such as regulations on hazardous materials and chemicals, guidelines on activities for providing sales information on pharmaceutical products, and rules on handling of explosives and pesticides, as well as unforeseen circumstances, etc. 	<ul style="list-style-type: none"> Introducing and using a law information database Building an environment that enables prompt access to information on the establishment and revision of laws, regulations, and policies through corporate lawyers and consulting firms Establishing internal systems for complying with laws and regulations to observe the Act on the Regulation of Manufacture and Evaluation of Chemical Substances, Industrial Safety and Health Act, REACH regulations, Act on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices, and GMP Ministerial Ordinance in Japan, as well as local laws and regulations of countries of export customers
	6	Foreign exchange volatility	<ul style="list-style-type: none"> Foreign exchange losses on overseas transactions resulting from rapid fluctuations in exchange rates Impact of exchange rates on the results of overseas consolidated subsidiaries that are converted to yen in the consolidated financial statements 	<ul style="list-style-type: none"> Balancing receivables and payables denominated in foreign currencies and utilizing forward exchange contracts as necessary
	7	Intellectual properties	<ul style="list-style-type: none"> Negative impacts of IPR infringement disputes such as suspension of development and incurrence of damages 	<ul style="list-style-type: none"> Real-time research and monitoring using patent information database Taking countermeasures such as invalidating patent applications of concern and preventing establishment of rights Responding appropriately to infringements of our rights by involving lawyers, etc. as necessary
	8	Information Technology	<ul style="list-style-type: none"> Temporary unavailability of the computer system causing stagnation in purchasing, production, shipping, and financial closing operations Data leakage, business interruption, and occurrence of liability for damage, etc. caused by unauthorized use or misuse of confidential data by hackers or computer viruses 	<ul style="list-style-type: none"> Establishing countermeasures for computer systems and developing a cyber security system Duplexing and virtualizing data and evacuating data to remote locations Installing anti-virus software, firewalls, etc. Enhancing information security training
Risks related to natural disasters and mitigation climate change	9	Natural disasters	<ul style="list-style-type: none"> Enormous impact on facilities and a major impact on the supply chain that would be caused by a natural disaster, such as a major earthquake and flooding Damage to our plants in Yamaguchi, Hiroshima, and Hyogo that would be caused by a Tokai or Nankai Trough earthquake in Japan Flooding damage to plants and business locations in the Asa district in Yamaguchi and Adachi-ku and Kita-ku in Tokyo that may be caused by large typhoons and torrential rains 	<ul style="list-style-type: none"> Developing a medium-term master plan in preparation for a disaster Developing BCP manuals and conducting BCP drills in Japan and overseas Securing stable raw material supply through regular supplier audits and purchases from multiple suppliers
	10	Mitigation climate change	<ul style="list-style-type: none"> Transition risks such as a risk of cost increase resulting from introduction of carbon tax and tighter environmental regulations as measures for mitigation of climate change Rising fossil fuel prices Loss of credibility and damage to image caused by delays in tackling climate change 	<ul style="list-style-type: none"> Keeping abreast of international trends in climate change Setting clear targets on CO₂ reduction and driving reduction plans Establishing a framework for cooperation with suppliers, selecting suppliers in anticipation of introduction a carbon tax, and promoting green procurement Deploying effective initiatives horizontally to overseas Group companies Endorsing TCFD recommendations and driving disclosure in line with requirements
Risks related to compliance	11	Legal violations and other issues / Compliance	<ul style="list-style-type: none"> Fraud related to demand for product differentiation, tight sales schedules and product delivery deadlines, pressure to achieve performance targets, etc., which are attributed to challenging business environment Harassment, etc., stemming from differences in values caused by diversity in generations and other attributes of employees 	<ul style="list-style-type: none"> Ensuring compliance with laws and regulations such as by holding Ethics Committee meetings, establishing a compliance hotline (whistleblowing hotline), continuing compliance training, and conducting compliance awareness surveys Monitoring business activities, including audits by Audit & Supervisory Board members and audits by the Audit Division, to detect and respond to inappropriate activities at an early stage Providing training and taking other initiatives with a focus on improving psychological safety in the workplace to prevent harassment

Chapter 4



Company Information

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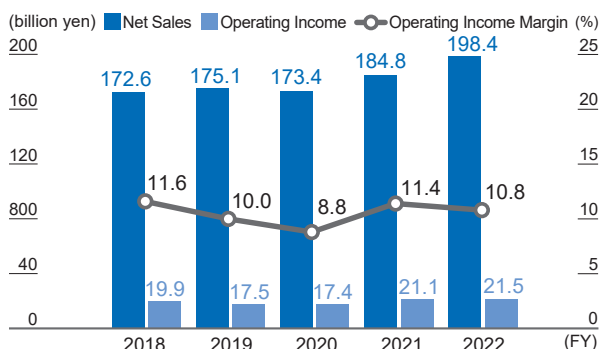
- 87** Financial and Non-Financial Highlights
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Although the Nippon Kayaku Group reorganized business segments in June 2023, in this Integrated Report 2023, in principle, the results are reported in the four conventional business segments of Functional 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.

Financial and Non-Financial Highlights

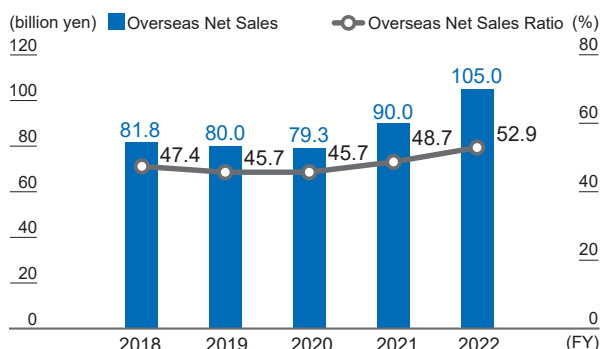
Financial Highlights

Net Sales / Operating Income / Operating Income Margin



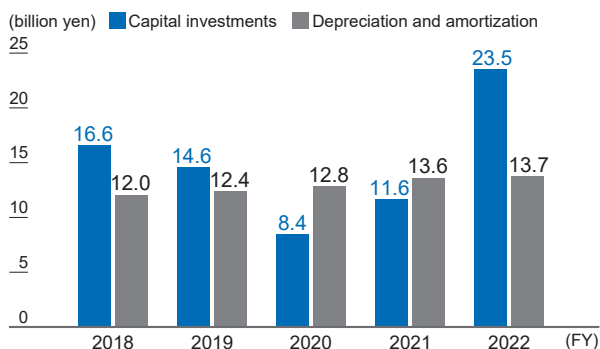
Net sales have been on an increasing trend, reaching a record high of 198.4 billion yen in FY2022. On the other hand, the operating income margin, which has been on a declining trend in recent years, once increased in FY2021 due to increased profits from the Functional Chemicals, Pharmaceuticals, and Safety Systems businesses, but declined in FY2022 due to the impact of surging raw material and energy prices.

Overseas Net Sales / Overseas Net Sales Ratio



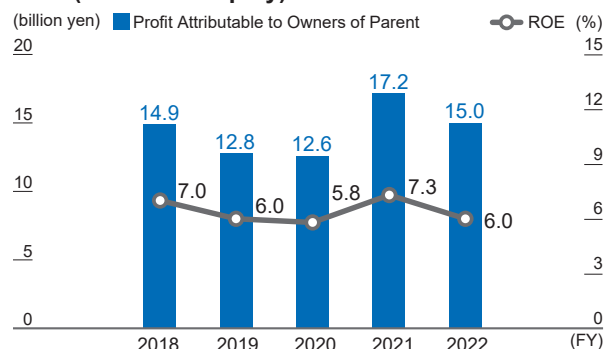
We have promoted product development overseas, mainly in Functional Chemicals business and Safety Systems business, with overseas sales of 105.0 billion yen and an overseas sales ratio of 52.9% in fiscal 2022.

Capital Investments / Depreciation and Amortization



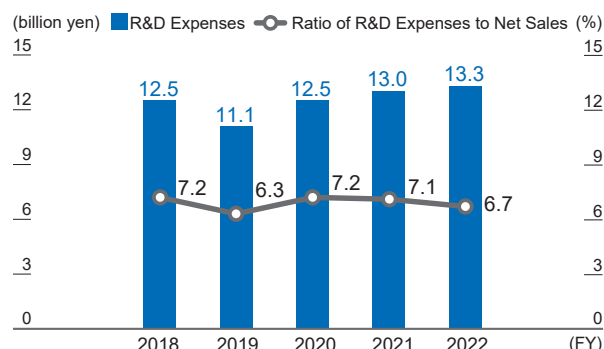
To aggressively implement investments for future growth, company-wide capital investments during **KAYAKU Vision 2025** mid-term business plan for FY2022–2025 will total 91.0 billion yen. In FY2022, capital investments was 23.5 billion yen and depreciation and amortization was 13.7 billion yen.

Profit Attributable to Owners of Parent / ROE (Return on Equity)



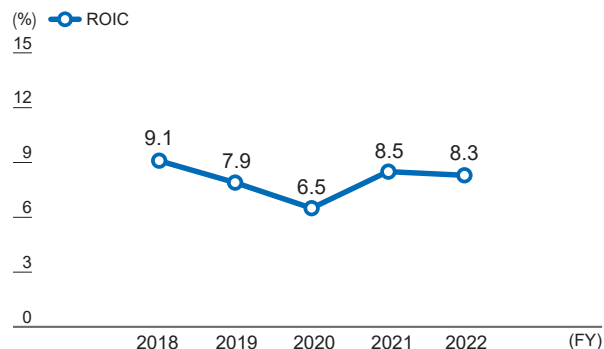
Profit attributable to owners of parent and ROE, which had been on a declining trend in recent years, reversed their upward trend in FY2021, following the trend of operating income, but both declined in FY2022. Profit attributable to owners of parent for FY2022 was 15.0 billion yen, and ROE was 6.0%.

R&D Expenses / Ratio of R&D Expenses to Net Sales



Company-wide R&D expenses during **KAYAKU Vision 2025** mid-term business plan for FY2022–2025 will total 65.4 billion yen. The ratio of R&D expenses to net sales is trending at around 7% and was 6.7% in FY2022.

ROIC

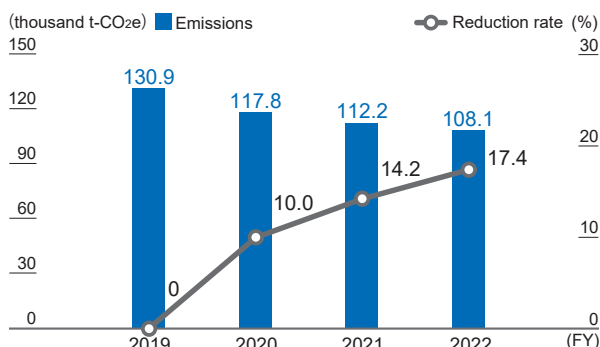


Company-wide ROIC was 8.3% in FY2022. We will continue to promote divisional management with an awareness of the efficiency of invested capital, aiming to achieve the company-wide ROIC target of 10% or more under the **KAYAKU Vision 2025**.

* Calculated as profit before income taxes divided by invested capital.

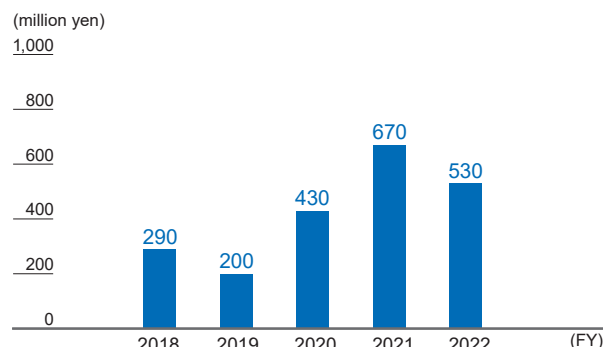
Non-Financial Highlights

Greenhouse gas emissions (Scope 1+2)



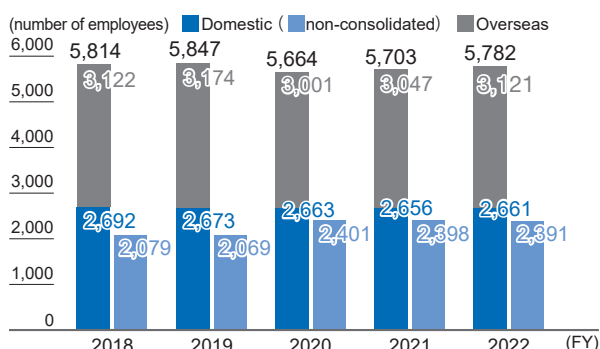
The amount of GHGs in Scope 1+2, an indicator for our FY2030 mid-term environmental target (reduction of 32.5% or more compared to FY2019), has been decreasing year by year. In FY2022, we achieved a reduction of up to 17.4%.

Environment Related Capital Investments



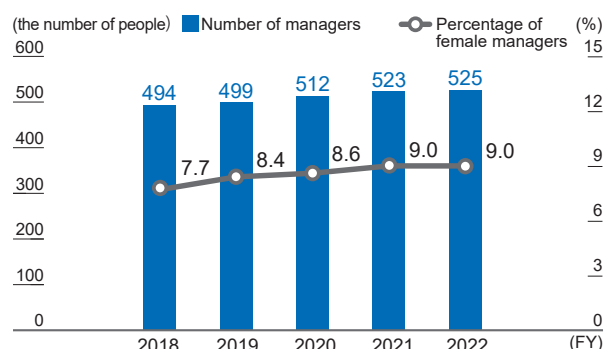
We have been systematically and continuously investing in environment-related facilities, and in FY2022, we allocated 530 million yen. Of this amount, water pollution prevention equipment accounted for about 39%, and equipment related to energy conservation and global warming prevention accounted for about 44%.

Number of Domestic and Overseas Employees



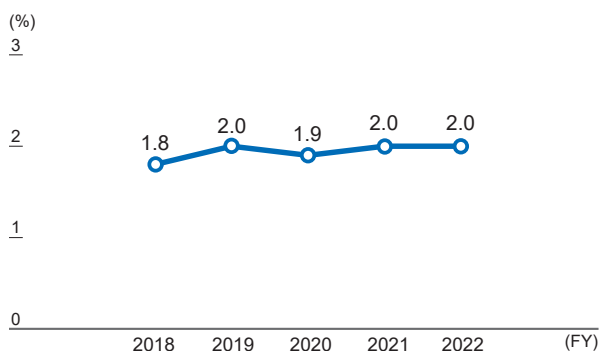
As a result of the global expansion of manufacturing and sales bases, the 27 group companies including Nippon Kayaku have a total of 5,782 employees. Twenty overseas group companies have a total of 3,121 employees, more than half of the total workforce.

Number of managers / Percentage of female managers



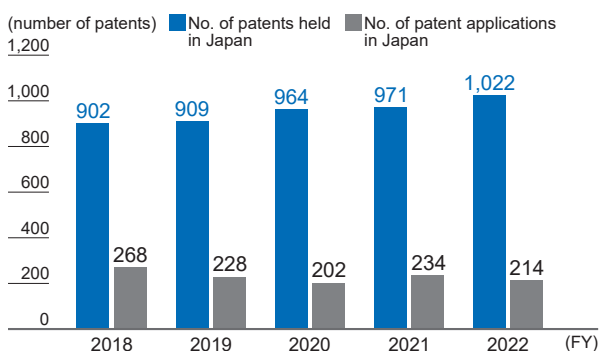
The ratio of female managers is gradually increasing toward the FY2024 target of 10% or more in the **KAYAKU Vision 2025** Sustainability Action Plan. The ratio was 9.0% in FY2022.

Percentage of employees with disabilities



Although the employment rate of employees with disabilities has been maintained at a certain level, it is just short of the legally mandated 2.3% in FY2022. We will make further efforts to create and expand opportunities for people with disabilities to work and play active roles.

Number of Patents Held / Patent Applications



The number of patents held in Japan has been increasing due to the continual submission of patent applications previously. Patent applications in Japan were declining, but turned around and increased in 2021 in the Research & Development Group and each business, mainly in the functional chemicals and safety systems businesses. We will continue to aim for a continuous increase in the number of patent applications.

11-Year Summary of Consolidated Financial Data

Fiscal year	2022	2021	2020	2019
Results for the year (millions of yen)				
Net sales	¥ 198,380	¥ 184,805	¥ 173,381	¥ 175,123
Cost of sales	131,627	120,837	117,067	117,059
Selling, general and administrative expenses	45,247	42,916	41,124	40,587
Operating income	21,505	21,050	15,194	17,485
Profit before income taxes	20,972	23,700	17,523	18,141
Profit attributable to owners of parent	14,984	17,181	12,574	12,815
Amounts per share (yen)				
Profit attributable to owners of parent	¥ 89.36	¥ 101.70	¥ 73.62	¥ 74.25
Cash dividend applicable to the year	45.00	40.00	30.00	30.00
Net assets	1,532.35	1,459.06	1,332.06	1,225.71
Year-end financial position (millions of yen)				
Current assets	¥ 186,037	¥ 175,843	¥ 156,852	¥ 153,102
Current liabilities	39,049	45,760	37,491	38,800
Working capital	146,988	130,083	119,361	114,302
Property, plant and equipment	89,259	89,060	88,980	85,960
Total assets	322,858	315,459	294,535	278,496
Net assets	255,027	246,425	228,273	210,019
Year-end statistics				
Number of shares outstanding (thousands)	170,503	170,503	177,503	177,503
Dividend payout ratio (%)	50.4	39.3	40.7	40.4
Number of round-lot shareholders	16,684	13,051	13,748	12,090
Number of employees	5,782	5,703	5,664	5,847
Financial ratios				
Current ratio (times)	4.8	3.8	4.2	3.9
Equity ratio (%)	78.7	77.8	77.2	75.2
ROE (%)	6.0	7.3	5.8	6.0
ROA (%)	4.7	5.6	4.4	4.5
Sales by business segment (millions of yen)				
Functional chemicals business	¥ 81,696	¥ 77,152	¥ 72,465	¥ 71,540
Functional materials	32,301	31,068	23,759	21,073
Color materials	21,900	22,402	22,323	26,118
Digital printing materials	—	—	—	—
Color chemicals	—	—	—	—
Catalysts	9,844	5,983	10,886	6,759
Polatechno Business	17,648	17,696	15,495	—
Polatechno Group	—	—	—	17,589
Electronic materials	—	—	—	—
Pharmaceuticals business	51,711	52,083	50,441	47,774
Safety systems business	54,220	46,112	41,997	46,990
Other businesses	10,751	9,456	8,477	8,817
Agrochemicals	8,701	7,404	6,444	6,820
Other	2,050	2,051	2,032	1,997

* The closing date of accounts was changed from May 31 to March 31 beginning from FY2012. As a result, the term of consolidation for FY2012 consists of the 10 months from June 1, 2012 to March 31, 2013 for Nippon Kayaku and some of its subsidiaries.

	2018	2017	2016	2015	2014	2013	2012
¥	172,639	¥ 167,888	¥ 159,117	¥ 162,922	¥ 161,861	¥ 160,080	¥ 128,104
	109,461	102,475	95,253	96,653	94,664	90,645	73,757
	43,238	42,791	44,213	44,570	44,890	45,332	37,278
	19,939	22,615	19,646	21,713	22,301	24,090	17,066
	21,283	22,061	22,397	25,148	23,972	25,388	19,816
	14,851	15,488	15,635	17,291	15,653	16,718	12,342
¥	85.77	¥ 89.45	¥ 90.23	¥ 96.09	¥ 86.38	¥ 92.25	¥ 68.09
	30.00	30.00	30.00	30.00	25.00	25.00	20.00
	1,247.75	1,203.23	1,120.73	1,075.56	1,030.16	918.35	828.87
¥	161,958	¥ 157,814	¥ 153,602	¥ 151,170	¥ 141,282	¥ 141,843	¥ 131,553
	41,412	42,746	41,321	39,740	38,915	41,271	39,857
	120,546	115,068	112,281	111,430	102,367	100,572	91,696
	87,246	83,228	80,230	81,040	81,576	75,166	67,183
	293,571	285,600	272,791	272,679	265,126	247,592	224,705
	229,043	220,619	205,866	200,492	199,680	177,935	160,454
	182,503	182,503	182,503	182,503	182,503	182,503	182,503
	35.0	33.6	33.2	31.2	28.9	27.1	29.4
	12,437	13,048	8,629	10,815	9,257	10,174	12,516
	5,814	5,684	5,517	5,188	5,165	4,794	4,619
	3.9	3.7	3.7	3.8	3.6	3.4	3.3
	73.6	72.9	71.1	69.3	70.4	67.2	66.9
	7.0	7.7	8.2	9.2	8.9	10.6	8.7
	5.1	5.5	5.7	6.4	6.1	7.1	5.7
¥	69,688	¥ 67,664	¥ 64,029	¥ 68,788	¥ 73,558	¥ 73,610	¥ 60,320
	20,217	19,794	18,914	18,398	18,559	18,378	10,929
	22,168	21,023	20,057	21,229	—	—	—
	—	—	—	—	12,130	12,090	—
	—	—	—	—	9,909	9,536	7,195
	6,406	5,650	4,188	4,990	7,525	8,710	6,303
	—	—	—	—	—	—	—
	20,896	21,196	20,869	24,172	25,434	24,896	—
	—	—	—	—	—	—	35,895
	46,231	47,485	47,648	50,200	48,932	50,898	41,115
	47,218	43,937	38,782	35,342	30,485	27,086	18,785
	9,500	8,800	8,657	8,590	8,884	8,485	7,882
	7,460	6,735	6,572	6,519	6,696	6,245	5,771
	2,040	2,065	2,084	2,072	2,188	2,240	2,110



11-Year Summary of Consolidated Financial Data
<https://www.nipponkayaku.co.jp/english/ir/finance/summary.html>

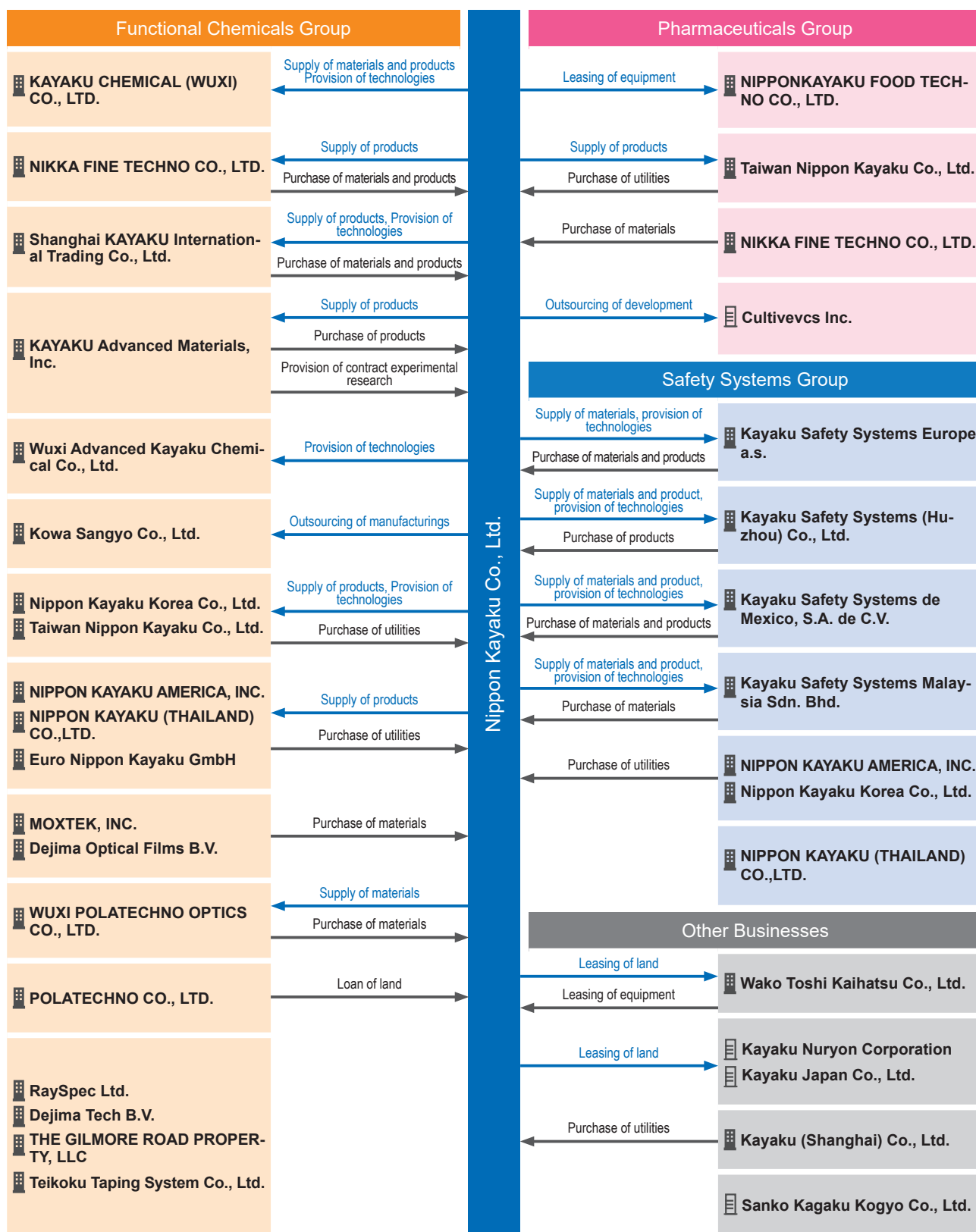
Nippon Kayaku Group Status

The Nippon Kayaku Group is comprised of Nippon Kayaku Co., Ltd., 35 subsidiaries, and 11 affiliated companies. Among them, the status of 26 consolidated subsidiaries and 4 affiliated companies (applied equity method) which are applied equity method is as described below.

Group Company Diagram (As of March 31, 2023)

Consolidated subsidiaries

Affiliated company (applied equity method)



Company Overview / Investor Information

Company Overview

Business Name	Nippon Kayaku Co., Ltd.
Representative	Atsuhiko Wakumoto, President
Foundation	June 5, 1916
Head Office Address	Meiji Yasuda Seimei Bldg., 1-1 Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-0005, Japan
Number of Employees (as of March 31, 2023)	2,391 (non-consolidated), 5,782 (consolidated)
Banks of Accounts	Bank of Tokyo-Mitsubishi UFJ, Jyoy Bank, Development Bank of Japan, The Norinchukin Bank

Investor Information (As of March 31, 2023)

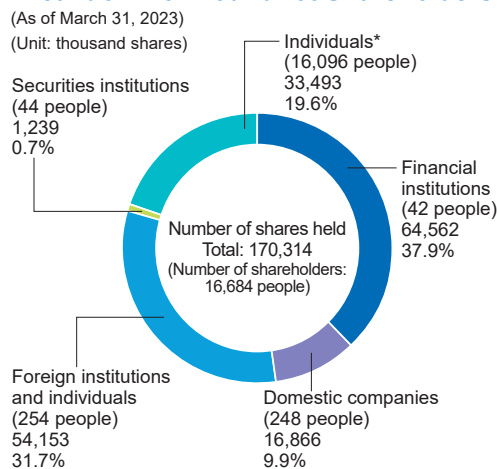
Fiscal Year	April 1 to March 31
Annual Shareholders Meeting	Normally held in June in Tokyo
Record Date	Voting rights at the Annual Shareholders Meeting: March 31 Year-end dividend: March 31 Second-quarter dividend: September 30
Stock Exchange Listing	First Section of the Tokyo Stock Exchange
Number of Common Stock	Authorized: 700,000,000 Issued: 170,503,570
Paid-in Capital:	¥14,932,922,842
Number of Shareholders:	20,047

Major Shareholders (As of March 31, 2023)

Shareholders	Number of shares held (unit: thousand)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (trust account)	22,733	13.71
NORTHERN TRUST CO. (AVFC) RE SILCHESTER INTERNATIONAL INVESTORS INTERNATIONAL VALUE EQUITY TRUST	14,209	8.57
Custody Bank of Japan, Ltd. (Trust Account)	11,763	7.10
Kayavestor Club	6,188	3.73
NORTHERN TRUST CO. (AVFC) RE U.S. TAX EXEMPTED PENSION FUNDS	5,991	3.61
National Mutual Insurance Federation of Agricultural Cooperatives	5,150	3.11
MUFG Bank, Ltd.	5,090	3.07
The Jyoy Bank, Ltd.	5,089	3.07
Meiji Yasuda Life Insurance Company	4,843	2.92
NORTHERN TRUST CO. (AVFC) SUB A/C NON TREATY	4,595	2.77

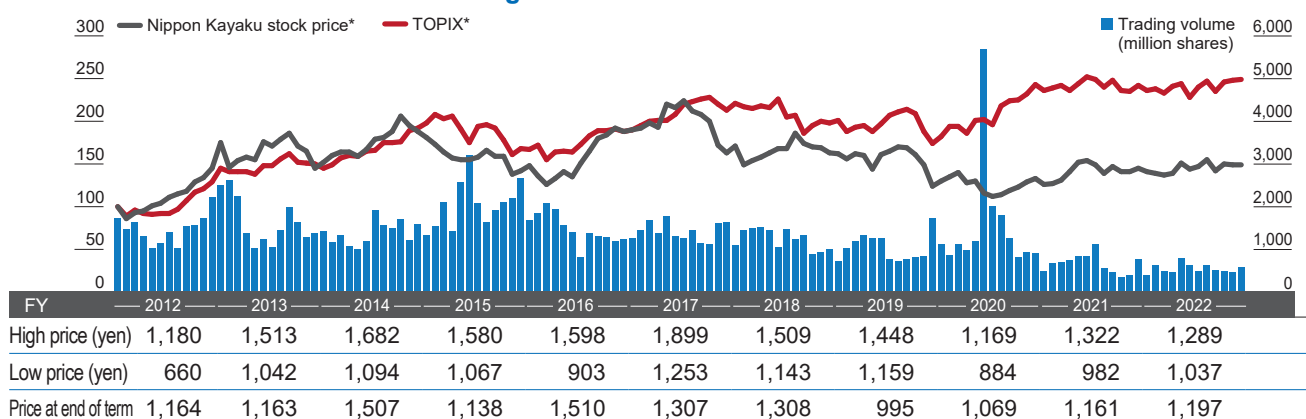
Notes: The Company owns 4,727,039 in treasury stock, but is not included among the shareholders listed above. Note that the shareholder ratio is calculated using the total number of shares, excluding treasury stock.

Breakdown of Round-lot Shareholders (As of March 31, 2023)



Notes: Figures between parentheses indicate the number of shareholders. Treasury shares are included in "Individuals."

11-Year Trend in Stock Price and Trading Volume



* The stock prices of Nippon Kayaku and the Nikkei Average have been indexed to June 2009 = 100 for purposes of comparison.



Nippon Kayaku discloses financial results, press releases, and other information to shareholders and investors. This information can be found under Investor Relations tab on our corporate website.
IR information: <https://www.nipponkayaku.co.jp/english/ir/>

Communication with Shareholders and Institutional Investors

The Nippon Kayaku Group holds financial results briefings, one-on-one meetings, IR social gatherings, plant briefings, and other events through the year. These are held to promote constructive dialog between shareholders and institutional investors, and Nippon Kayaku directors and executive directors with official posts.

The Corporate Communications Division is the contact for investor relations (IR), and communicates directly with shareholders and investors through one-on-one meetings and other means to help them increase their understanding of industry conditions, management policy, and ESG.

Contact for Nippon Kayaku Group IR activities administrative office: Corporate Communications Division

TEL 03-6731-5237

E-mail prir@nipponkayaku.co.jp

Independent Assurance Statement

In order to enhance the reliability of the information contained in the Integrated Report 2023, the Nippon Kayaku Group has received assurance from an independent third party, Sustainability Accounting Firm, Inc. for the calculation of greenhouse gas emissions and its results.



Independent Assurance Statement

August 24, 2023

Mr. Atsuhiko Wakumoto
President
Nippon Kayaku Co., Ltd.

1. Purpose

We, Sustainability Accounting Co., Ltd., have been engaged by Nippon Kayaku Co., Ltd., ("the Company") to provide limited assurance on the Greenhouse Gas (GHG) emissions during the fiscal year 2022, that were 35.5 thousand t-CO₂ for Scope1, 72.6 thousand t-CO₂ for Scope2 (market-based) and 390 thousand t-CO₂e for Scope3 (categories 1, 2, 3, 4, 5, 6, 7, 9, 12, 13). The purpose of this process is to express our conclusion on whether the GHG emissions were calculated in accordance with the Company's standards. The Company's management is responsible for calculating the GHG emissions. Our responsibility is to independently carry out a limited assurance engagement and to express our assurance conclusion.

2. Procedures Performed

We conducted our assurance engagement in accordance with International Standard on Assurance Engagement 3000 (ISAE 3000) and International Standard on Assurance Engagement 3410 (ISAE 3410). The key procedures we carried out included:

- Interviewing the Company's responsible personnel to understand the Company's standards
- Reviewing the Company's standards
- Performing cross-checks on a sample basis and performing a recalculation to determine whether the GHG emissions were calculated in accordance with the Company's standards.

3. Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that GHG emissions have not been calculated in all material respects in accordance with the Company's standards.

We have no conflict of interest relationships with the Company.

A handwritten signature in black ink, appearing to be "Takashi Fukushima", written over a horizontal line.

Takashi Fukushima
Representative Director
Sustainability Accounting Co., Ltd.

Attestation of Validity

Regarding the publication of “Nippon Kayaku Group Integrated Report 2023”

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



The Nippon Kayaku Group publishes an Integrated Report to deepen understanding of its efforts to enhance corporate value over the medium to long term among shareholders, investors, and a wide range of other stakeholders. In the “Integrated Report 2023,” our sixth issue, we have tried to provide an easy-to-understand overview of the company and its business environment, focusing on the performance of each business and the status of efforts to address materiality under **KAYAKU Vision 2025**, our four-year medium-term business plan now in its second year.

From June 2023, our group has changed from the previous 4 businesses to a new structure that includes the three business units of Mobility & Imaging, Fine Chemicals, and Life Sciences, as well as the Technology Unit, which supervises our technical divisions. In the next issue, we will proceed with operations under this new structure so that we can show you the results of all employees working together to promote sustainable management.

This report was prepared by the Corporate Communications Department in cooperation and collaboration with related departments. As the senior managing director responsible for the production of the report, I hereby state that the production process was legitimate and that the information contained in the report is accurate. I hope that this report will help you better understand the Nippon Kayaku Group’s initiatives. We will continue to place importance on dialogue with our stakeholders to improve the content of this report. We would appreciate your frank opinions and requests.

Global "sukima" ideas



Head Office:

Meiji Yasuda Seimei Bldg., 1-1, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-0005, Japan

<https://www.nipponkayaku.co.jp/english/>



Our Corporate Symbol:

This corporate symbol symbolizes Nippon Kayaku's company policies.

The space at the center represents the cosmos, world, and expanses of the Earth.

The two soaring ellipses represent creativity and courage and the two circles are the confidence between Nippon Kayaku, which aspires to extraterrestrial space, and the public.