Nippon Kayaku Group's Value Creation Process

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

Input

Six forms of capital nurturing strengths while transforming the DNA passed down since founding in 1916

Foundation for sustainable growth that meets the trust of stakeholders

Financial capital

Message from Chief Financial Officer p. 47

Highly resilient production system that stably supplies high-quality products

Manu-factured capital

Global Business Expansion p. 15

Global "sukima" ideas that meet the needs of the times

Intel-lectual capital

Research & Development p. 69

Respect for diversity and demonstration of each individual's full potential

Human capital

Human Resources and Creation of a Comfortable Workplace Environment p. 85

Further collaboration with local communities and contribution to society's overall sustainability

Social capital

Contributing to Local Communities p. 97

Thorough energy and resource conservation and emphasis on global environmental conservation

Natural capital

Environmental Initiatives p. 73

Sustainable Management (business activities)

Provision of products, technologies, and services with high added value under three business units × **Five key company-wide material issues that deepen sustainable management**

- Creation of New Business / Products
- Mitigation of Climate Change
- DX
- Business Process Re-engineering
- Work Style Reform

Mobility & Imaging Business Unit p. 53

Fine Chemicals Business Unit p. 58

Life Science Business Unit p. 63

Corporate Governance p. 99 | Compliance p. 115 | Safety p. 89 | Quality p. 95

KAYAKU spirit

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

Output

Products, technologies and services

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

Mobility



Electronics



Life Science



Environment and Energy



Outcome

Provision of economic, environmental, and social value through products and services

Contribution to stakeholders

Shareholders
- Sustainable growth
- Returning of profits



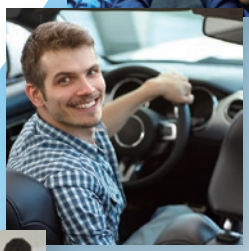
Shareholder Returns p. 50

Suppliers
- Value co-creation



Supply Chain Management p. 93

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



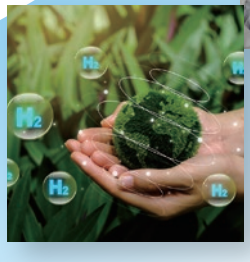
Opportunities in Each Business Area in Transitioning to a Decarbonized Economy for the 1.5°C Scenario p. 76

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



Internal Environment Improvement Policy p. 87

Environment and Society
- Contributing to a sustainable society through products
- Carbon neutrality



Mitigation of Climate Change p. 75

Six Forms of Capital Serving as the Source of Competitiveness

Financial capital

Foundation for sustainable growth that meets the trust of stakeholders



Well-balanced, mutually supporting portfolio toward sustainable growth (composition of business units)

- Maintain a well-balanced portfolio that has the Mobility & Imaging Business Unit with stable growth; the Fine Chemicals Business Unit that also covers the vibrant semiconductor market; and the Life Science Business Unit which is not easily affected by the economy

Financial soundness that serves as the foundation of trust from society

- Control equity ratio at an appropriate level of around 70% with an emphasis on financial soundness (74.2% at the end of FY2023)
- Maintain an "A" corporate rating by Rating and Investment Information, Inc. (R&I)

Cash allocation that emphasizes growth investment

- During the period of **KV25** (FY2022 to FY2025), secure funds by using corporate bonds and borrowing while considering capital costs with an assumption of 200 billion yen (maximum) for agile applications such as R&D and capital investments as well as M&A and implementations.

Returns policy that emphasizes shareholders

- During the period of **KV25**, adopt a policy that maintains annual dividends at the current level of 45 yen per share or higher, targeting a dividend payout ratio of 40% or more*
  * Except when performance fluctuates at an unexpected scale
- As part of returns policy, consider the flexible acquisition of treasury shares while taking into account the trend of retained earnings

Message from Chief Financial Officer p. 47

Manufactured capital

Highly resilient production system that stably supplies high-quality products



Global locations, including a five-region system for optimal supply of automotive safety components

- At the Mobility & Imaging Business Unit, the Safety Systems Business has five regions providing optimal supply to the entire world
- The Fine Chemicals Business Unit has production and sales sites in Europe, the United States, China, and other locations matching each product group's production, supply, and distribution

Global Business Expansion p. 15
Mobility & Imaging Business Unit p. 53

Specialized production knowledge in niche industrial fields

- Accumulate niche and specialized production knowledge
- Dry film resists (Functional Materials Business): Able to undertake processes from resist formulation to film forming
- Laminators for semiconductor manufacturing (Functional Materials Business): Contribute to higher foundry productivity, with the ability to customize hardware and software
- Dye-type polarizers (Polatechno Business): Achieve high performance through production control, from dye synthesis to stretching

Fine Chemicals Business Unit p. 58

Stable supply system of high-quality pharmaceuticals

- Appropriately enhance production capabilities and build a stable supply system centered on Takasaki Plant, which undertakes pharmaceutical manufacturing with a high level of quality assurance
- Expanded quality testing facilities and enhance quality assurance system in FY2023; plan to implement production facilities for stable manufacturing of pharmaceuticals in FY2024

Life Science Business Unit p. 63

Quality management that is always working to improve quality

- Carrying on the quality improvement spirit that led to being awarded the Deming Prize in 1963, deploy quality assurance and quality improvement activities at each business unit according to their business models, such as A3 activities (KAIZEN)—which also cover overseas group companies—and other company-wide activities

Quality Management p. 95

Intellectual capital

Global "sukima" ideas that meet the needs of the times



Global "sukima" ideas that pursue originality using technologies that stand out

- Invest 9.8% of sales as R&D expenditure to support Global "sukima" ideas
- Promote the cross-organizational project working on the company-wide material issues "Creation of New Business and Products" and accelerate R&D as the Nippon Kayaku Group

Laboratories for each business tightly linked to business strategies

- Possess five R&D organizations corresponding to the businesses
- Research & Development Division of the Safety Systems Group and the Polatechno R&D Dept., which are located close to plants for easy collaboration
- Fine Chemicals R&D Laboratories and Pharmaceutical Research Laboratories, which are consolidated at Tokyo where the R&D Planning Division and Intellectual Property Division are located
- Agrochemicals Laboratories, which has a farm for experiments in the Kashima area

Intellectual property that effectively uses information to create new knowledge and strategies

- Based on the Intellectual Property Policy and Intellectual Property Strategy, carry out reduction of risks related to intellectual property and systematic intellectual property educational activities for researchers
- Engage in integral intellectual property development that includes trademarks as well as inventions trending at more than 1,000 patents held in Japan
- Engage in active collaboration between the Intellectual Property Division and each laboratory, including the use of IP landscaping in R&D

Collaboration with external organizations, etc. Active use of open innovation

- Actively introduce and utilize external technologies through external exchanges, such as startups and academia.
- Identify and promote collaboration with startups with particularly strong technical capabilities
- Actively promote technological and human resource exchange, making use of coworking spaces for open innovation and other such means

Research & Development p. 69

In principle, the figures for FY2023 and as of the end of March 2024 are provided.

Respect for diversity and demonstration of each individual's full potential
Human capital



Diversity, Equity, and Inclusion (DE&I) that accepts diverse human resources and work styles

- Diversity: Aim to increase the percentage of female managers, to 10% or higher by FY2024; the current figure stands at 8.8%
- Work-life balance: Percentage of paid leave taken is currently 72.8% against a target of 70% or higher; work to creating an environment that is easy to take leave
- Gender equality: Rate of male employees taking childcare leave is currently 78.5% against a target of more than 50%

Employee engagement aimed at being a good, strong, energetic company

- Adopt a company environment policy that aims to create environments where employees and the management trust each other and can work energetically and with job satisfaction and passion
- Improve motivation toward work and become a company that is popular with employees by means such as a position class system that evaluates based on capabilities instead of seniority, internal application system that allows employees to apply for certain jobs based on their own intentions, and initiatives to ensure psychological safety

Development of global human resources and business leaders that lead a sustainable society

- Identify human resources who have a strong desire to work overseas, and enhance ability to drive global operations by raising the level of English conversation skills and providing training on working knowledge of English designed for each type of work
- Actively promote overseas group companies' core human resource development and local recruitment
- Conduct training on management skills for young employees and focus on developing human resources that can become candidates for frontline leaders

Corporate culture that always enhances productivity and **practices KAIZEN**

- Share the Nippon Kayaku Group's slogan of being always conscious of 3% cost reduction, and seek to establish cost awareness through A3 activities (KAIZEN) that puts this thinking into daily practice
- Conduct the annual A3 activities (KAIZEN) presentation meeting that gathers domestic and overseas group companies under one roof to invigorate information exchange and lateral deployment of A3 activities at the global level

Human Resources and Creation of a Comfortable Workplace Environment p. 85

Further collaboration with local communities and contribution to society's overall sustainability
Social capital



KAYAKU spirit, the corporate vision passed down since founding

- Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences—share across the Nippon Kayaku Group the thinking that the spirit of altruism is the most important thing through the **KAYAKU spirit**, our corporate vision
- Practice stakeholder engagement that emphasizes dialogue and bidirectional communication

Nippon Kayaku Group's Sustainable Management p. 33

Trust from customers built through a strong track record

- Mobility & Imaging Business Unit that achieves customers' requirements using comprehensive developmental capabilities, including pyrotechnic safety technology and component design
- Fine Chemicals Business Unit the properly meets the changing needs of customers through collaboration between sales and technology
- Life Science Business Unit (Pharmaceuticals Business) that responds meticulously to the approximately 18,000 inquiries received by the pharmaceutical sales information hotline

Businesses p. 51

System for cooperation with suppliers to achieve a sustainable society

- Establish Basic Procurement Policies for fair, just, and honest transactions as well as sustainable procurement
- Conduct surveys on the state of suppliers in the environmental and social aspects to confirm they do not have negative impacts
- For mitigation of climate change, plan to develop action plan with the cooperation of suppliers

Supply Chain Management p. 93

Coexistence with surrounding regions based on mutual understanding and communication

- Undertake lively communication, including festivals at plants and opening facilities to the public, to invigorate the surrounding regions and encourage understanding of Nippon Kayaku
- Carry out information exchange with local governments and active local recruitment—including at global locations—to contribute toward healthy development
- Expenditure for social contribution activities in FY2023, including contributions to local communities, was 158 million yen

Contributing to Local Communities p. 97

Thorough energy and resource conservation and emphasis on global environmental conservation
Natural capital



Mitigation of climate change with a view of the 1.5°C target of the Paris Agreement

- Agree with the recommendations of the TCFD and working toward achieving carbon neutrality in 2050
- Medium-term Environmental Targets for FY2030 with a view of the 1.5°C target of the Paris Agreement seek to reduce greenhouse gas emissions from business activities (Scope 1 and 2) by 46% compared with FY2019 levels

Mitigation of Climate Change p. 75

Countermeasures for and control of water risks coexisting with business activities

- Through analysis of climate change-related risks and opportunities, flood damage associated with typhoons, heavy rainfall and high tides has been identified as a key physical risk for several of the Nippon Kayaku Group's business locations
- Reduce risk by carrying out damage analysis and systematic countermeasures, and seek coexistence with business continuity in the event of a disaster through natural coexistence with the environment of our business locations

Countermeasures for flood risks p. 77

Consideration for biodiversity through chemical substance management, wastewater and waste reduction, etc.

- Recognize consideration for biodiversity as an important issue toward achieving a sustainable society
- Conserve the water environment through management of PRTR substances and wastewater
- Limit waste generation, with the recycling rate at 83.8% and the zero emission rate at 0.68%
- Undertake plant operations in harmony with the natural environment and active use of forest-certified paper

Consideration for Biodiversity p. 80

Products and research themes contributing to the environment aimed at global environmental conservation

- R&D targets that contribute toward achieving a sustainable society are the four areas of Mobility, Environment and Energy, Electronics, and Life Science
- Expand products contributing to the environment and undertake R&D in the four target areas, recognizing the risks and opportunities of climate change

Businesses p. 51
Mitigation of Climate Change p. 75

The Comfortable Future Society with Peace of Mind That the Nippon Kayaku Group Hopes to Realize

Four target areas in business units, research, and development that contribute to achieving a sustainable society

Mobility

The Changing Automotive Industry as well as Safety Components and Display Devices

In a once-in-a-century period of transformation brought about by CASE* technology, the automotive industry is changing rapidly.

Amid such major changes, as long as cars continue to remain running on four wheels, the Nippon Kayaku Group's automotive safety components—inflators, micro gas generators, and squibs—will continue to contribute significantly toward improving safety like before.

The use of head-up displays (HUDs) and larger display equipment are also expected in the near future due to the need to display information necessary for safe driving and for entertainment. The products of the Polatechno Business, with optical control as their core technology, are being adopted by customers for HUDs and other applications at an early stage.

* CASE: An acronym derived from the initials of four key concepts: 'C' for Connected (connectivity), 'A' for Autonomous (automation), 'S' for Shared (sharing), and 'E' for Electric (electrification)



1 Expansion of vehicle electrification



2 Spread of connected cars and autonomous driving



3 Large and more diverse in-vehicle displays

Continuing to Provide Safety and Security for New Types of Mobility

Air mobility, for which spread and progress is anticipated, is expected to transform our daily lives and business.

Industrial drones, which are also used in agriculture such as for the spraying of agrochemicals, is expected to see applications in logistics, including helping to reduce transportation time and delivery costs. Our PARASAFE® emergency parachute system for drones is recognized by customers for its performance and reliability and will contribute toward the social implementation of industrial drones.

With the prospect of serving as larger forms of air mobility, flying cars have the potential to improve traffic congestion and significantly shorten travel time. The Nippon Kayaku Group is also advancing proposals for safety components targeting flying cars, using our pyrotechnic safety technology—nurtured over many years—and the knowledge from PARASAFE®.



4 Using industrial drones



5 Emergency of flying cars

Electronics

The Nippon Kayaku Group's Functional Materials Supporting Next-generation Communications

Due to the rapid evolution of digitalization and remote communications, there is a requirement to convey more information at high speeds in various fields. Next-generation high-speed communications such as 5G and 6G achieve high-speed, high-capacity data transmission using high-frequency radio waves.

The Nippon Kayaku Group provides epoxy resins—with high electrical reliability and conforming to strict standards such as low halogen—for semiconductor encapsulation and substrates. Besides smartphones and tablets, they are used in applications such as mobile communication base stations and servers. Furthermore, in anticipation of sophisticated uses such as 5G semiconductor package encapsulation, maleimide resins with properties that further suppress signal delay and loss compared to epoxy resins were developed, launched in 2018, and are currently being evaluated and adopted. They are well received and adoption is progressing.



1 Next-generation high-speed communication using high-frequency radio waves



2 Greater use of semiconductors, such as in smart household appliances



3 Operation of mega data centers

Creating Comfortable Lifestyles Using the Power of Semiconductors

Even in healthcare, opportunities for the use of semiconductors are expected to further increase, including the use of big data gathered from medical institutions and such. In addition, there is currently vibrant demand for semiconductors for AI used in ChatGPT and image generation, which were achieved through progress in GPUs. It is expected that the semiconductor market, which was around 0.5 trillion dollars in 2020, will expand to a scale of approximately 1 trillion dollars in 2030.

Nippon Kayaku provides a wide range of products related to semiconductors, including: light-curing resins used for LCD encapsulation and such; dry film resist for MEMS manufacturing; cleaners used for cleaning and resist stripping in semiconductor manufacturing processes; and semiconductor manufacturing equipment such as precision laminators for attaching a support to silicon wafers. We will make everyone's lives richer and more comfortable.



4 Using big data for data-based health, etc.



5 Evolution of AI, such as generative AI chat services and image generation

Life Science

Healthcare is Evolving to Bring Smiles to Everyone

Healthcare continues to make progress, and there are expectation on diagnosis and treatment prediction using genetic analysis and medical AI. Surgery robots combining AI and machine technology and regenerative medicine using iPS cells have the potential to transform healthcare. In an aging society, the government will be taking the lead to promote the building of a society where people can live with peace of mind, including the spread of the community-based integrated care system.

In view of such changes in healthcare and society, the Nippon Kayaku Group will contribute to the progress of healthcare, including the provision of new pharmaceuticals fulfilling unmet needs centered on oncology. We also desire to be helpful in a society where everyone can live with peace of mind by offering a stable supply of generic drugs and biosimilars that can reduce the copayment burden of patients.



1 Progress of healthcare



2 Spread of remote diagnosis



3 A society where everyone can live with peace of mind

Continuing to Support a New Era of Agriculture

Modernization is underway, including business agriculture becoming larger in scale through farmland consolidation and corporatization as well as the spread of smart agriculture. At the same time, the agrobusiness industry is also required to deal with new issues, such as lower production volumes and quality due to global warming, and changes in the distribution and occurrence of pests.

The Nippon Kayaku Group actively takes in the changing needs of people working in agriculture. We will provide excellent agrochemicals that are friendly to the environment through research and development utilizing our formulation technology centered on our strength in insecticides for vegetables and fruit trees and soil fumigants.

We will also actively study the application of formulation technology to new agricultural materials, including biostimulants that improve crop yields and quality by enhancing plant resistance to so-called “abiotic stresses” such as drought, cold weather, hail, and wind.



4 Farmland consolidation and corporatization



5 Spread of smart agriculture

Environment and Energy

Achieving Carbon Neutrality for a Sustainable Future

To create a sustainable future where we can continue to live with peace of mind, it is necessary, as a company, to deal with issues that include climate change—which has significant impact on ecosystems and society—and the destruction of ecosystems due to excessive economic activities.

To achieve carbon neutrality by 2050, the Nippon Kayaku Group has set Medium-term Environmental Targets for reducing greenhouse gas emissions. At the same time, we support the recommendations of the TCFD, unite as one company—including our production technology, business, and purchasing divisions—to undertake initiatives, and disclose information about our climate change measures. We are also promoting business activities aimed at contributing to the preservation of biodiversity, such as efficient utilization of limited water resources through ingenuity in wastewater treatment and proper management of water quality as well as plant operation that coexists with natural flora and active use of forest-certified paper.



1 Achievement of carbon neutrality



2 Active use of renewable energy



3 Encouragement of biodiversity

Society’s Accelerating Energy Transformation

It is expected that, through companies undertaking initiatives on climate change and biodiversity and bringing changes to society, the economic effect from market expansion of products using new technologies, greater efficiency from their use, and other such efforts will be approximately 290 trillion yen in 2050.*

The Nippon Kayaku Group will aim for sustainable growth by timely grasping business opportunities in energy transformation. Besides the development of next-generation products by our Mobility & Imaging Business Unit and Fine Chemicals Business Unit, we will also work on R&D themes such as catalysts for next-generation energy devices born from open innovation led by the Technology Unit and the manufacturing of chemicals from bio raw materials.

* Source: “Green Growth Strategy Through Achieving Carbon Neutrality in 2050” formulated by Japan’s Ministry of Economy, Trade and Industry, in collaboration with other ministries and agencies



4 Use of raw materials and products with low environmental burdens



5 Appearance of next-generation energy devices

Nippon Kayaku Group's Sustainable Management

Basic Policy on Sustainable Management

Under its corporate vision, the **KAYAKU spirit**, the Nippon Kayaku Group will practice sustainable management that responds to the trust placed in it by all of its stakeholders, by ensuring transparency and fairness in management and contributing to the creation of a sustainable environment and society through its business activities. (**KAYAKU spirit:** Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences.)

The KAYAKU spirit and Sustainable Management

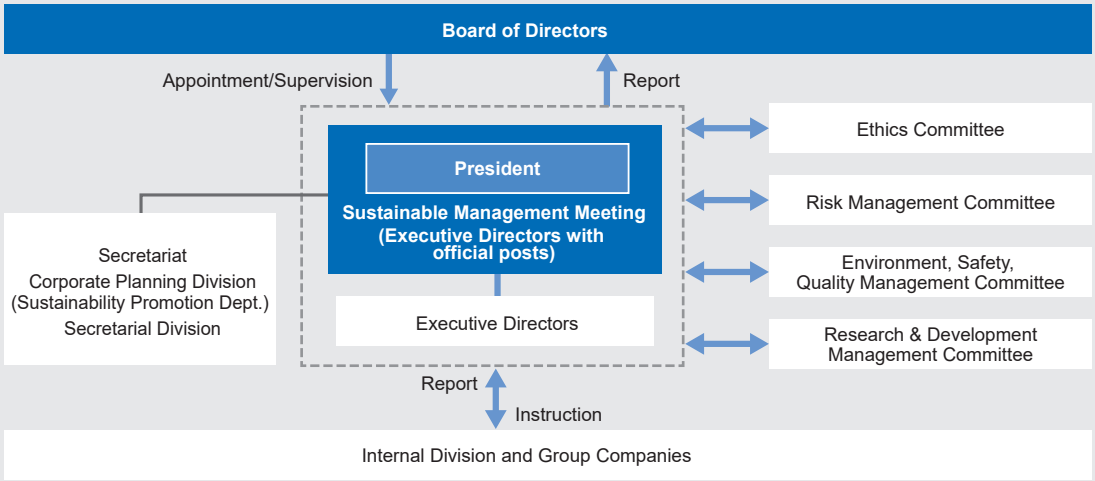
The Nippon Kayaku Group's Corporate Vision is embodied by the **KAYAKU spirit**: "continuously providing society with the best products through ceaseless progress and the combined forces of our consciences." Under the **KAYAKU spirit**, we aim to create environmental, social and economic value by engaging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

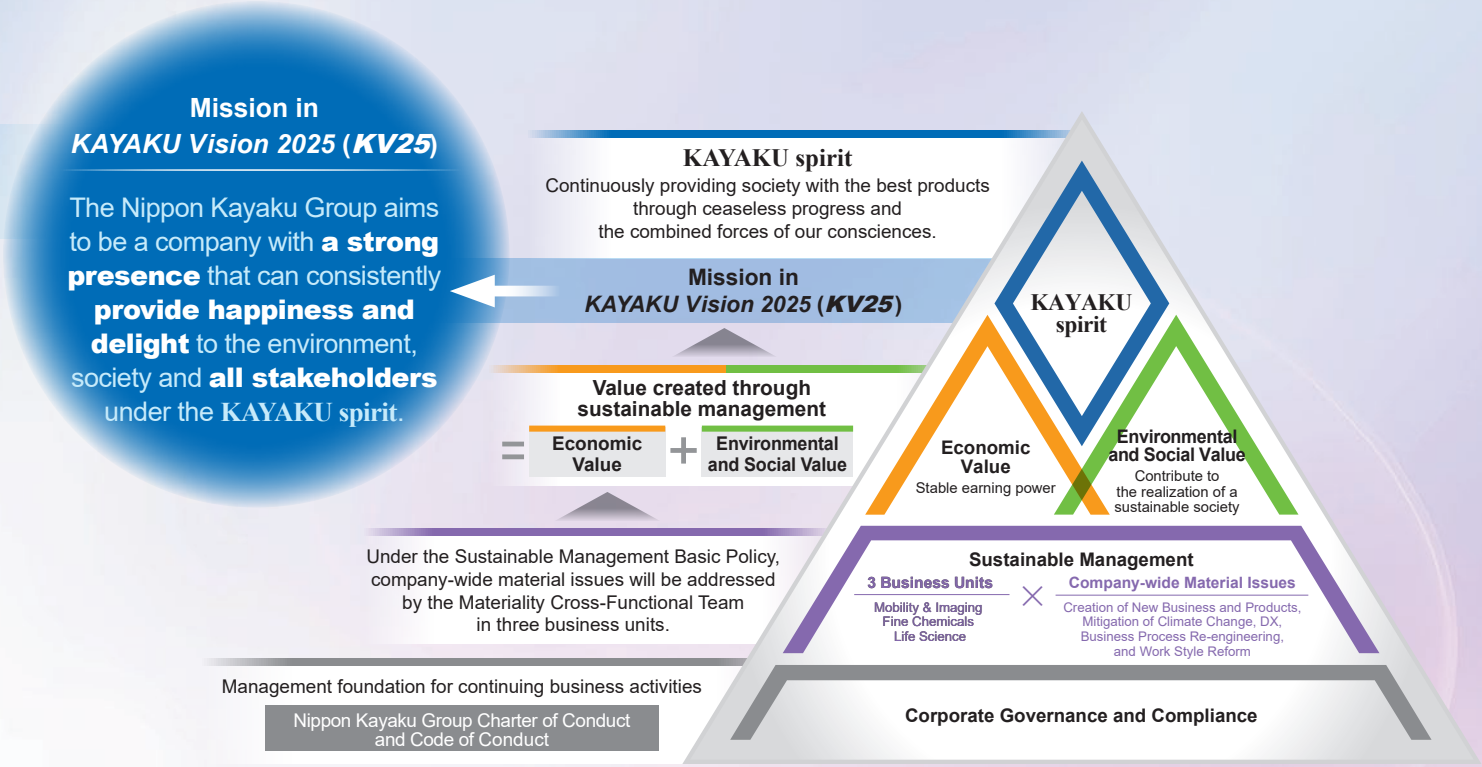
As a standard of conduct to realize the **KAYAKU spirit**, we have established a Nippon Kayaku Group Charter of Conduct and Code of Conduct. In all of our corporate activities, we respect fundamental human rights, comply with laws and regulations, engage in fair business activities and respond to the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

System

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

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



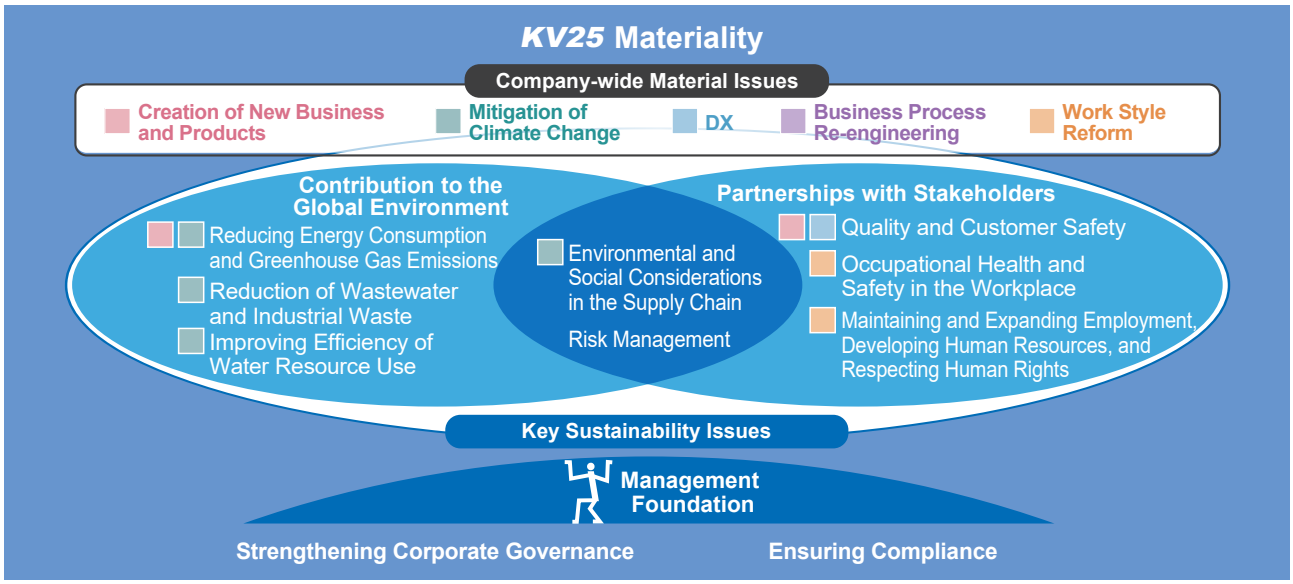


KV25 Materiality

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

We have also appropriately identified important issues faced by the Group in implementing sustainable management, from both internal and external perspectives, defined them as key sustainability issues (materiality), and formulated a Sustainability Action Plan linked to our business activities.

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



Nippon Kayaku Group's Sustainable Management

Mission in *KAYAKU Vision 2025* (*KV25*)

The Nippon Kayaku Group aims to be a company with a strong presence that can consistently provide happiness and delight to the environment, society and all stakeholders under the **KAYAKU spirit**, as its Mission in **KAYAKU Vision 2025** (**KV25**).

1 Presence

At the Nippon Kayaku Group, we will show our presence as a corporation seeking sustainable growth and strive to improve our social recognition through the fusion of technologies and our strategies in niche areas based on Global "sukima" ideas.

Strive to achieve from a long-term perspective

Mission in *KAYAKU Vision 2025* (*KV25*)

2 Provision of happiness and delight to all stakeholders

Besides continuing to provide the best products, technologies, and services through our three business units, we will work on important issues such as climate change and work style reform so that we can provide value to all stakeholders related to the Nippon Kayaku Group.

Company-wide Material Issues Initiatives

The Nippon Kayaku Group has identified five key issues that should be prioritized in company-wide cross-organizational projects, as company-wide material issues: Creation of New Business and Products, Mitigation of Climate Change, DX, Business Process Re-engineering and Work Style Reform. Our Materiality Cross-Functional Team (M-CFT), composed of members selected from multiple divisions, is working to instill awareness of initiatives addressing company-wide material issues and speed up the resolution of each issue.

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

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

Key Sustainability Issues Initiatives and KPIs

The Nippon Kayaku Group has formulated a Sustainability Action Plan linking its business activities with the identified key sustainability issues. We also utilize the SDG Compass* to link each materiality with one or more of the 17 SDGs. By implementing initiatives to achieve the KPIs in the Sustainability Action Plan, we will contribute to the achievement of the SDGs and the creation of a sustainable society.

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

Key Sustainability Issues

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



Method for Identifying Key Sustainability Issues

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

To coincide with the start of the new Medium-term Business Plan—**KAYAKU Vision 2025**—and the shift from CSR management to sustainable management, in April 2022, we changed the term "key CSR issues" to "key sustainability issues" and reviewed them in order to appropriately respond to the diversification of our business activities and various changes in social issues.

STEP 1 Recognition of themes	STEP 2 Creating point scores from internal and external opinions	STEP 3 Mapping of important issues	STEP 4 Validation and approval
Building on our previous key sustainability issues (laid down in our **KAYAKU Next Stage** key medium-term CSR issues), we have extracted themes from the GRI Standards on the demands of a diversifying society to serve as our base, and updated our issue items accordingly.	**A** Converting External Evaluations into Points: We have taken the evaluation standards of multiple international assessment bodies concerned with promoting responsible investment, as well as the SASB* required standards for separate industries, linked them to our issue items, and assigned external evaluation point scores to them. **B** Converting Internal Evaluations into Points: We have taken the key Medium-term Business Plan themes for each separate business and corporate division, linked them to our issue items, and assigned internal evaluation point scores to them. * The Sustainability Accounting Standards Board (SASB) is an American non-profit organization which determines sustainability information disclosure standards for each separate industry.	The materiality items "Strengthening Corporate Governance" and "Ensuring Compliance" are identified as the "most important issues for corporate survival." Other issues are mapped based on external and internal evaluations, which assign point-based assessments. Our resultant point-based map has had threshold levels inserted, with anything exceeding those thresholds being specified as a key sustainability issue.	With intellectual input from our sustainability specialists taken into account, our specifying methods and specification results are reviewed by our key decision-making institution, the Sustainable Management Meeting, and approved after two rounds of discussions.

Nippon Kayaku Group's Sustainable Management

Key Sustainability Issues and Sustainability Action Plan (excerpt)

The Nippon Kayaku Group's Sustainability Action Plan utilizes the SDG Compass to link each key issue (materiality) with one or more of the 17 SDGs. By managing and disclosing the progress of KPIs every year and implementing sustainability activities, the Group aims to create environmental, social and economic value, help to achieve the SDGs (i.e., to create a sustainable society) and increase corporate value.

Key sustainability issues		Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2023 Results
Most important issues for corporate survival	Ensuring Compliance	16	• 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*1	0	0
				Compliance training rate	100%	96%
				Percentage of group companies with compliance / whistleblowing hotlines	100%	83%
	Strengthening Corporate Governance		• Strengthen corporate governance of the entire group and manage in a highly transparent and sound manner	Number of times that the assessment on the effectiveness of the Board of Directors meetings is evaluated	Once per year	Once
				Number of times internal business audits are performed by the Audit Division	60 times in four years	17 times

Key sustainability issues		Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2023 Results
Most important issues	Quality and Customer Safety	16	• Enhance our quality control and quality assurance systems by continuously improving our quality management system and ensuring thorough quality-related governance • Implement quality management, improve production efficiency and reduce process abnormalities through digitalization	Number of serious complaints by customers*2	0	0
				Number of serious quality process abnormalities in processes*2	0	0
	Environmental and Social Considerations in the Supply Chain	8, 12, 13, 16	• Practice supply chain management with consideration for environmental and social aspects, based on the Sustainable Procurement Guidelines	Response rate for confirmation of consent to Sustainable Procurement Guidelines	(Non-consolidated) 90%	(Non-consolidated) 91%
				Formulation and implementation of improvement plans using questionnaires to suppliers	(Non-consolidated) Disclose progress	Ensure that there are no human rights or environmental issues with any of our business partners
	Reducing Energy Consumption and Greenhouse Gas Emissions Reduction of Wastewater and Industrial Waste Improving Efficiency of Water Resource Use	6, 7, 9, 12, 13	• Implement energy-saving and global warming countermeasures and achieve FY2030 environmental targets • Identify issues and clarify strategies for achieving carbon neutrality by FY2050	Greenhouse gas emissions (Scope 1+2)	(Targets to be achieved by FY2030) 70,598 tons or less (A reduction of 46% or more compared to FY2019)	102,704 t-CO_2
				VOC emissions	(Non-consolidated) Disclose results	(Non-consolidated) 32.9 tons
				COD emissions	(Non-consolidated) Disclose results	(Non-consolidated) 210.9 tons
				Total waste output	(Non-consolidated) Disclose results	(Non-consolidated) 20,974 tons
				Recycling rate	(Non-consolidated) 80% or higher	(Non-consolidated) 83.8%
				Zero emission rate	(Non-consolidated) 1% or less	(Non-consolidated) 0.7%
				Goal setting in line with SBT and consideration and implementation of specific measures	Disclose progress	Medium-term Environmental Targets were revised to align with the 1.5°C level
				Disclosure in line with TCFD recommendations	Disclose progress	Information Disclosed
				Develop products and technologies with consideration for environmental issues	Disclose progress	Disclose progress

Key sustainability issues		Corresponding SDGs	Action plans	Indicators (KPI)	FY2025 Targets	FY2023 Results
Important issues	Occupational Health and Safety in the Workplace	3 GOOD HEALTH AND WELL-BEING, 8 DECENT WORK AND ECONOMIC GROWTH	• Strengthen the foundation for safe operation by thoroughly enforcing basic rules on safety and health and improving equipment and work procedures • Implement health and productivity management and provide a workplace environment with a healthy work-life balance where employees can work with enthusiasm	Number of serious accidents*3	0	0
				Acquisition of certifications under the Certified Health & Productivity Management Outstanding Organizations Recognition Program (Large Enterprise category)	(Non-consolidated) Continued certification	(Non-consolidated) Continued certification
				Percentage of paid leave taken	(Non-consolidated) 70% or higher	(Non-consolidated) 72.8%
				Percentage of employees who take mental health training	(Non-consolidated) 100%	The 1st year of the 3-year plan has started as scheduled
				Percentage of employees receiving regular health checkups	(Non-consolidated) 100%	(Non-consolidated) 100%
				Ascertaining and improving employee satisfaction through questionnaire surveys	(Non-consolidated) Disclose progress	Engagement surveys were conducted to assess the current situation and identify issues
	Maintaining and Expanding Employment, Developing Human Resources, and Respecting Human Rights	5 GENDER EQUALITY, 8 DECENT WORK AND ECONOMIC GROWTH, 10 REDUCED INEQUALITIES, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS	• Promoting diversity and inclusion through the recruitment of diverse human resources, effective HR assignment and exchanges • Pass down and strengthen technical capabilities in monozukuri (manufacturing) and achieve globalization in human resources through ongoing human resource development • Engage in business operations that pay care and consideration to the human rights of employees and all other people involved in the supply chain	Percentage of female employees in management posts*4	(Non-consolidated) 10% or higher	(Non-consolidated) 8.8%
				Percentage of employees with disabilities	(Non-consolidated) Achieve legal minimum employment rate	(Non-consolidated) 1.93%
				Amount invested in education and training per employee	(Non-consolidated) Disclose results	(Non-consolidated) ¥76,565 / person
				Training hours per employee	(Non-consolidated) Disclose results	(Non-consolidated) 17.7 hours
				Number of training sessions held on human rights	Once or more per year	2 times
				Human rights due diligence: human rights impact assessment rate	(Non-consolidated) Implemented by FY2022 (Consolidated) 100% by FY2025	Human rights risk assessments were conducted for employees of the Nippon Kayaku Group, and priority risk mitigation measures were identified
	Risk Management		• Respond to various business-related risks and ensure business continuity by maintaining production systems, ensuring the proper procurement of raw materials, and strengthening measures against disasters	Implementation rate of risk control activities for business, etc., and top five risk control activities	100%	100%
				Number of BCP drills conducted	Once or more per year	3 times

*1 Number of serious accidents as judged by the Ethics Committee
*2 Losses of 10 million yen or more
*3 Accidents involving three or more people requiring time off work, or resulting in fatalities
*4 Targets for the end of FY2024

Click URL

Sustainability Action Plan
https://www.nipponkayaku.co.jp/english/sustainability/management/materiality/#h-04-02

The SDGs and the KAYAKU spirit

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

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

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

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



Stakeholder Engagement

Basic Approach

The Nippon Kayaku Group is aiming to be a company which delivers both happiness and delight to all stakeholders: our employees, customers, suppliers, shareholders, investors, and local communities. We value our conversations with stakeholders, taking advantage of various opportunities and communication tools to conduct appropriate information disclosure and two-way exchanges in order to improve our business activities. We strive to meet the expectations and demands of our stakeholders while fulfilling our social responsibilities through our business activities.

Stakeholders of the Nippon Kayaku Group



Formulation of Multi-Stakeholder Basic Policy

In corporate management, it is important to create value with diverse stakeholders, including employees, customers, suppliers, shareholders, investors, and local communities. With this in mind, we will undertake appropriate cooperation with multi-stakeholders. Regarding the profits and achievements born from collaborative value creation and productivity improvement, returns to employees and consideration for suppliers are important from the perspective that appropriate allocation to multi-stakeholders will lead to maintaining the momentum of wage raises and sustained economic development. It is based on such considerations that we formulated our Multi-Stakeholder Basic Policy.

Click URL

Multi-Stakeholder Basic Policy (Japanese)
https://www.nipponkayaku.co.jp/sustainability/pdf/management/engagement/multi_stakeholder_policy.pdf

Links with Local Communities

The Nippon Kayaku Group has signed numerous agreements with local governments and regions at its business locations. By respecting various environmental agreements and making efforts to lower our environmental burden, we are contributing to the safety and reassurance of the local communities concerned.

Key local agreements signed by the Nippon Kayaku Group

Workplace	Agreement Title	Co-signatory
Safety Head Plant (Himeji)	Memorandum on Wastewater Management	Himeji City
	Local Fire Brigade Partner	Himeji City Fire Department
Fukuyama Plant	Agreement on Pollution Control	Hiroshima Prefecture and Fukuyama City
Asa Plant	Agreement on Water Pollution Control	Yamaguchi Prefecture Fishing Cooperative
	Agreement on Environmental Safety	Sanyo-Onoda City
Tokyo Plant	Green Agreement	Adachi City
	Joint-Agreement on the Establishment of a Committee to deal with Colored Wastewater Issues	2nd Management Office, Bureau of Sewerage, Tokyo Metropolitan Government
	Agreement on Mutual Disaster Support	Adachi City Shinden Residents' Association and Shinden 1-chome Estate Residents' Association
	Agreement on Locations of Sheds Housing Small Pumps for Civilian Use	Senju Branch, Tokyo Fire Department
Takasaki Plant	Company Fire Brigade Cooperation Agreement	Takasaki District Fire Bureau
Kashima Plant	Agreement on Pollution Control	Ibaraki Prefecture, Kashima City, and Kamisu City
Tokyo R&D Administration Office	Sea Rescue Activity Cooperation Agreement Agreement with the Akabane Ward Council on Mutual Support for Disaster Prevention in Dangerous Buildings	Akabane Branch, Tokyo Fire Department

Stakeholders	Outline of Initiatives	Method of Communication
Employees	We believe that people are the nucleus of our corporate activities. Through respecting the human rights of each and every employee, and striving to provide a reassuring working environment, we aim to become a company which allows its people to really feel their own personal development amid the rewarding nature of their work.	• Talent management system • Engagement survey • Compliance awareness survey and stress check survey • Company newsletter • Compliance hotline • Agreements with labor unions
Customers	Through pursuing high product quality and supplying the best socially and environmentally conscious products, technologies and services, we strive to gain the satisfaction and trust of our valued customers: • Automobile module manufacturers and optical material users • Users of resins, dyes, and catalyst materials • Medical professionals and patients • Agrochemical manufacturers, wholesalers, and retailers; agricultural cooperatives	• Ascertaining of needs through sales activities • Refinement/improvement of products and services • Plant field trip • Publication of information online • Provision of safety guidance on agrochemical use and advice on pest control methods
Suppliers	From research and development to raw material procurement, manufacturing, sales, and distribution, we are working with all our supply chain partners to respect human rights and promote environmental conservation, workplace safety and health, legal compliance, and sustainable purchasing (including fair trade considerations).	• Information exchange through visits, web chats, and everyday business negotiation • Sustainable procurement survey • Procurement seminars
Shareholders and Investors	Having established our disclosure policy, we are presenting all shareholders and investors with timely, honest, and impartial information so that they may appropriately understand our business situation and various business initiatives.	• Financial results briefings • General meetings of shareholders (AGM) • Telephone conferences • 1-on-1 meetings • Publication of information via our website and integrated reports
Local Communities	We have business locations across the world and operate as members of each local community. In addition to social contribution activities, we actively support the development of the next-generation and engage in information exchange with local governments, contributing to the healthy and sustainable development of local communities.	• Social contribution activities (plant festivals, street cleaning) • Plant field trip • Next-generation training support • Information exchange with local governments

TOPIC Labor-management relations

Since renewing our labor agreement in 1998, Nippon Kayaku Co., Ltd. and the Nippon Kayaku Labor Union have maintained healthy relations based on mutual trust between labor and management. Under the Union Shop System, with the exception of managers and a section of contracted workers, union membership rates stand at 100%.

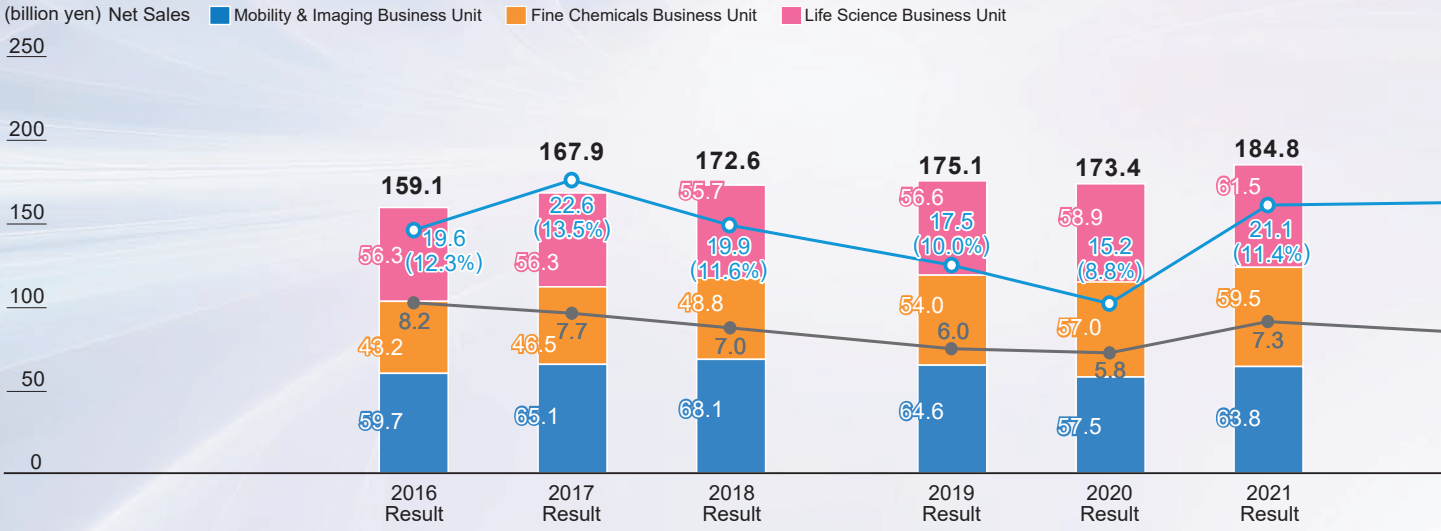
With respect to the union, the company endeavors to disclose as much information as possible, earnestly respond to matters in line with its negotiation policy and have management directly convey its policies on business management, safety and health by convening the Central Joint Labor Management Council three times a year. We also hold a Central Management Round-table Conference once a month, sharing information pertaining to the company's situation, deepening mutual understanding of issues, and discussing ways of resolving issues.

We also make efforts to promptly convey the details and outcomes of such meetings to employees in each division.

Issues concerning individual business units are discussed at each unit's annual Joint Labor Council and monthly Management Round-table Conference. Through the shared awareness of issues, relevant discussion and opinion exchanges allowed by these meetings are we aiming to deliver a more comfortable workplace.

Review of the Medium-term Business Plan and Progress of the *KAYAKU Vision 2025*

KV25 Net Sales & Operating Income Plan



Medium-Term Business Plan —Slogans and Goals

FY2016 to FY2018

Take a New Step 2016

Based on the KAYAKU spirit, continue to change in anticipation of the changes taking place

FY2019 to FY2021

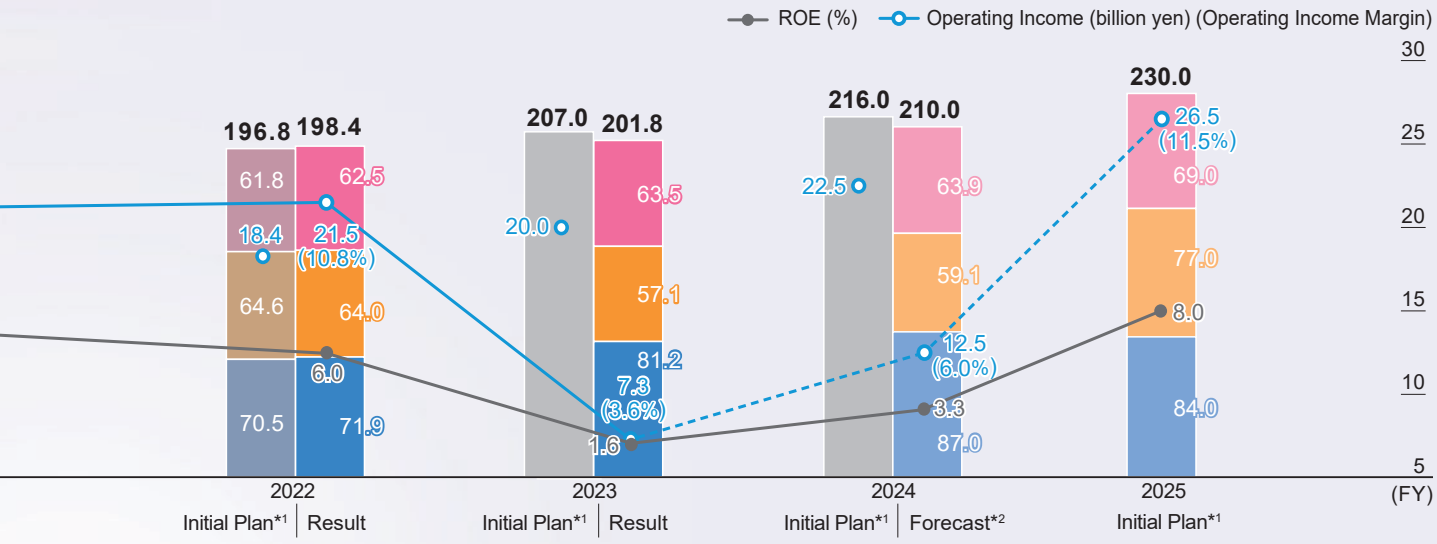
KAYAKU Next Stage

Practice CSR management and continue to provide products and services that are needed around the world

Changes in net sales and operating income as well as their key reasons

		FY2016 to FY2018	FY2019 to FY2021
Nippon Kayaku Group as a whole		**Higher sales (+9.7) Lower profit (-1.8)*3**	**Higher sales (+12.2) Higher profit (+1.1)*4**
		• Achieved record-high sales in FY2016 due to tremendous growth of the Safety Systems Group	• Trade friction between the United States and China as well as the COVID-19 pandemic had both positive and negative impact on each business; as a whole, sales and profits were lower in FY2020 but moved toward recovery in the second half of the period
Mobility & Imaging Business Unit		**Higher sales (+8.6) Lower profit (-1.1)*3**	**Lower sales (-4.3) Lower profit (-2.9)*4**
	Safety Systems Group	• Sales grew by 11.9 billion yen • Continued with capital investment for establishing a global production system	• Sluggish due to sudden reduction in automotive production caused by the COVID-19 pandemic and global semiconductor shortage, but saw signs of recovery from 2021
	Polatechno Group	• Sales of dye-type polarizers became sluggish • Sales of X-ray analyzer components held firm; acquired RaySpec Ltd. based in the United Kingdom	• Sales of dye-type polarizers remained sluggish while X-ray analyzer components held firm • Polatechno dissolved its parent-subsidiary listing and became a business division in October 2020
Fine Chemicals Business Unit		**Higher sales (+4.2) Higher profit (+3.1)*3**	**Higher sales (+10.7) Higher profit (+2.8)*4**
	Functional Materials Group	• Sales of epoxy resins for semiconductors held firm	• Sales of epoxy resins for semiconductors performed steadily
	Color Materials Group	• For inkjet inks and colorants, consumer use shrank as expected but industrial use expanded	• For inkjet inks and colorants, demand for consumer use increased during the COVID-19 pandemic while industrial use was sluggish but started to recover in FY2021
	Catalysts Group	• Acrylic acid manufacturing catalysts grew	• Held firm, performing especially steady in FY2020 and achieving sales of 10.9 billion yen
Life Science Business Unit		**Lower sales (-3.1) Lower profit (-3.5)*3**	**Higher sales (+5.8) Higher profit (+1.9)*4**
	Pharmaceuticals Group	• Sales shrank for long-listed products and such, maintained for generic drugs, and expanded for biosimilars	• Biosimilars grew tremendously from FY2019 to FY2020
	Agrochemicals Group	• Launched new insecticide FINESAVE®, contributing to business performance	• Held firm due to contribution from FINESAVE®, etc.

*3 FY2018 results compared to FY2015 *4 FY2021 results compared to FY2018 *5 FY2023 results compared to FY2021



*1 Figures of Initial Plan are based on the disclosure in the financial results presentation on May 13, 2022. *2 Figures of Forecast are based on the disclosure in the financial results presentation on May 14, 2024.

FY2022 to FY2025

KAYAKU Vision 2025 (KV25)

Promote sustainable management, and at the same time, address the five key company-wide material issues (①Creation of New Business and Products, ②Mitigation of Climate Change, ③DX, ④Business Process Re-engineering, and ⑤Work Style Reform) as an activity that leads to future growth

Higher sales (+17.0) Lower profit (-13.7)*5

- Although the Fine Chemicals Business Unit saw a decrease in sales, the increase in sales at the other two business units was even higher
- Lower profits due to the Fine Chemicals and Life Science Business Units

Higher sales (+17.4) Higher profit (+0.3)*5

- With continued market recovery since FY2022, significantly higher profits due to advantageous exchange rate
- Profits affected by increases in raw materials costs and fixed costs

- Dye-type polarizers struggled; expectations for recovery by shifting toward new applications in vehicles
- Sales of X-ray analyzer components held firm

Lower sales (-2.4) Lower profit (-4.9)*5

- From the second half of FY2022, the market for epoxy resins for semiconductors suddenly slowed down and sales remained sluggish

- For inkjet inks and colorants, demand dropped for consumer use from the special demand during the COVID-19 pandemic while industrial use shifted toward strong performance as originally expected

- Held firm, with steady performance in FY2022 and sales of 9.8 billion yen

Higher sales (+2.0) Lower profit (-8.1)*5

- Impact of on-going drug pricing revisions was covered by higher volume and there was overall growth
- For FY2023, costs of introducing new anti-cancer drugs for unmet needs led to lower profits

- Held firm due to steady overseas sales, etc.

Review of the Medium-term Business Plan and Progress of the *KAYAKU Vision 2025*

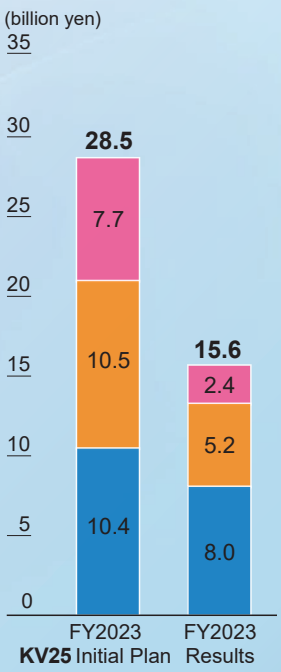
Higher Sales and Lower Profits for Overall Business Performance in FY2023

In FY2023, we achieved net sales of 201.8 billion yen, falling short of the 207 billion yen initially planned in **KV25** even though sales increased by 3.4 billion yen. Meanwhile, operating income was 7.3 billion yen, decreasing by 14.2 billion yen and significantly lower than the 20 billion yen initially planned in **KV25**. The main reason for the decrease in income was the reduction in operating income of each business unit.

As the decrease in income was extremely significant, as of the end of FY2023, the outlook for achieving the target operating income of 26.5 billion yen in FY2025—the final year of **KV25**—seems to be quite difficult. Toward FY2025, besides initiatives to improve profitability in the medium-to-long term, an urgent issue is the improvement and recovery of short-term profits at each business unit. We will aim for an operating income of a level around 20 billion yen and strive as far as possible to exceed that level.

Reasons behind business units not achieving their operating income targets or having lower income in FY2023

Business units' operating incomes in FY2023



Life Science Business Unit

Pharmaceuticals

- Overall, performance held firm, but 6 billion yen accounted as unplanned R&D expenditure in the 3rd quarter as costs of introducing new anti-cancer drugs for unmet needs

Fine Chemicals Business Unit

Increase in manufacturing costs due to soaring raw material prices in all subsegments

Functional Materials

- Reduction in production efficiency due to lower production caused by a sluggish market

Color Materials

- Impact on profits from changes in product mix accompanying changes in demand

Mobility & Imaging Business Unit

Safety Systems

- Higher product cost rate due to soaring prices of raw materials, including steel-related materials such as iron and aluminum
- Increase in fixed costs, such as labor costs, at overseas subsidiaries

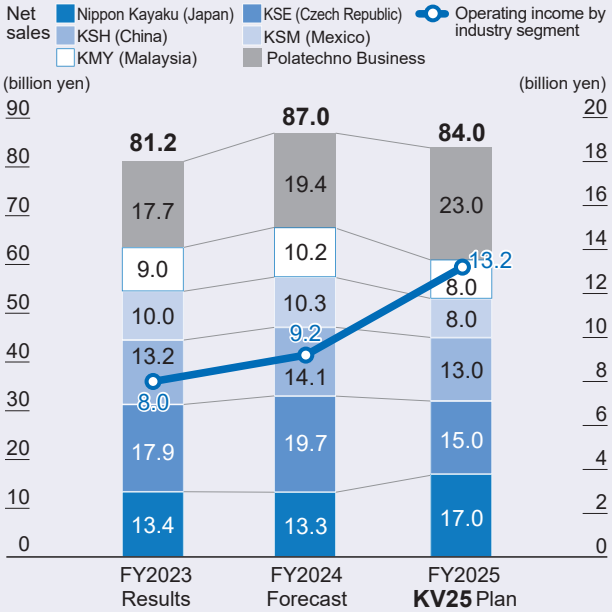
Polatechno

- Lower profits rate as dye-type polarizer products struggled

Path for Growth of Each Business Unit Toward Final Year of *KV25*

Mobility & Imaging Business Unit

Net Sales and Operating Income Trends



Path for growth

Safety Systems

- Sales and profits increased due to expanded sales in China and ASEAN—where demand for automotive safety components is expected to grow—and South Korea
- Strong performance in Japan due to recovery in automotive production

Polatechno

- For dye-type polarizers, sales expanded for vehicle applications centered on the newly developed sun-guard films for head-up displays (HUDs)
- X-ray analyzer components continued to hold firm

Areas of concern

Safety Systems

- Response to limit the impact of continued high prices of raw materials for automotive safety components

Polatechno

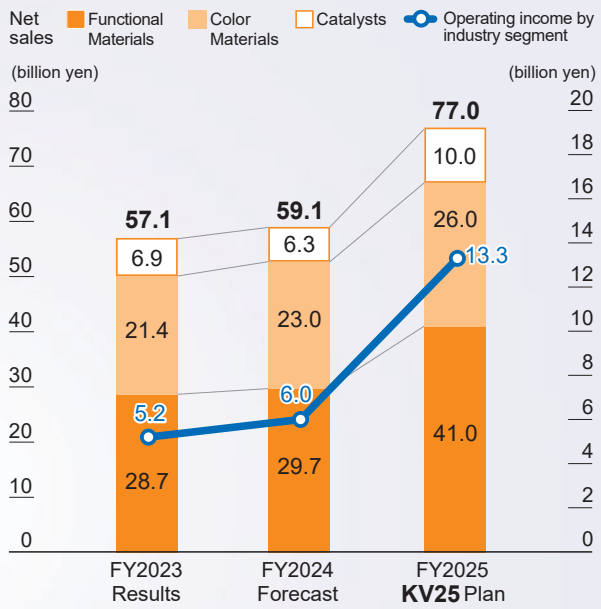
- Steady results in sales of dye-type polarizers for HUDs

Forecast toward FY2025

Automotive safety components will recover together with recovery of automotive market

Fine Chemicals Business Unit

Net Sales and Operating Income Trends



Path for growth

Functional Materials

- With the recovery of the semiconductor product market, upstream inventory is being resolved and epoxy resins for semiconductors is moving toward full-scale recovery from the second half of 2024

Color Materials

- For inkjet inks and colorants, demand for consumer use is recovering as inventory adjustments were resolved, and those for industrial use is growing due to demand recovery

Catalysts

- Sales are expected to be sluggish in FY2024, but to be steady in FY2025 due to overlap in catalyst replacement timing of acrylic acid and methacrylic acid manufacturing plants

Areas of concern

Functional Materials

- Proper response in case of further increase in raw material prices due to impact of exchange rate and such
- Recovery in epoxy resin performance from second half of 2024

Color Materials

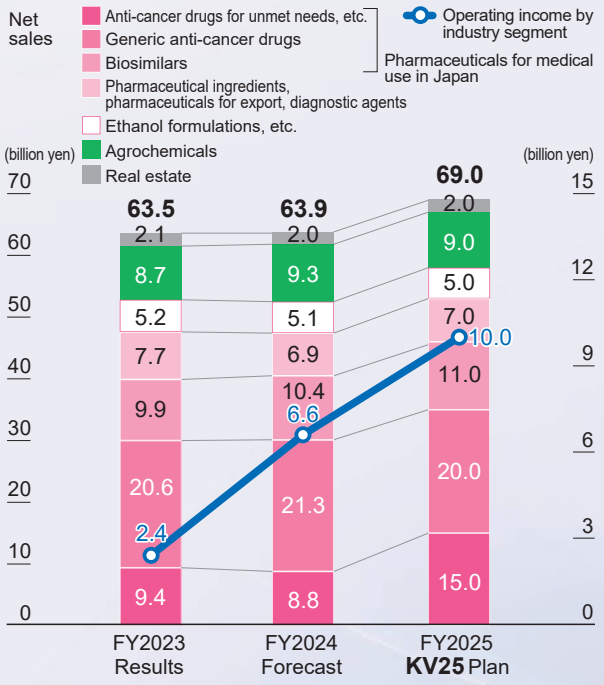
- Growth of industrial inkjet inks and dyes, which serve to drive growth

Forecast toward FY2025

Recovery in sales of semiconductor-related products in second half of FY2024 is key

Life Science Business Unit

Net Sales and Operating Income Trends



Path for growth

Pharmaceuticals

- Steadily cover negative impact of drug pricing revisions through higher volume of generic drugs and biosimilars
- Growth of anti-cancer drugs for unmet needs, such as DARVIAS®, Portrazza®, and Alaglio®

Agrochemicals

- Expansion of flometoquin-based products in Japan and overseas

Areas of concern

Pharmaceuticals

- Impact on operation income from the accounting of expenditure for pipeline expansion, such as introduction costs

Forecast toward FY2025

Smooth progress expected with no major concerns in market conditions

Review of the Medium-term Business Plan and Progress of the *KAYAKU Vision 2025*

KV25 Company-wide Management Targets

Self-evaluation through FY2023: ◎ Substantially achieved ○ Achieved △ Not achieved

Economic value (FY2025)

Net sales

Steady growth to exceed 230 billion yen in FY2025

Goals **230** billion yen

FY2023 results **201.8** billion yen

Self-evaluation ○

Net sales have been steadily growing since establishment in 1916, and the CAGR for the period of three of the most recent—including current—Medium-term Business Plan (FY2016 to FY2023) was 3.5%. Following FY2023, which saw higher sales even though affected by market conditions, we expect sales to continue to increase in FY2024 and are aiming to achieve our goals for FY2025 by growing each business.

Review of the Medium-term Business Plan and Progress of the **KAYAKU Vision 2025** p. 41-44

Operating income

Exceed record income of 24.1 billion yen

Goals **26.5** billion yen

FY2023 results **7.3** billion yen

Self-evaluation △

The difficulty in growing operating income and chronic reduction trend of operating income rate are management issues that need to be improved for the Nippon Kayaku Group. We will advance portfolio transformation to nurture product groups with high added value at each business unit.

KV25 Business portfolio p. 48

In addition, to recover from the significant decrease in income in FY2023, we will steadily implement initiatives following each business unit's path for growth toward FY2025.

Review of the Medium-term Business Plan and Progress of the **KAYAKU Vision 2025** p. 41-44

ROE

Seek to improve by increasing asset efficiency

Goals **8**% or more

FY2023 results **1.6**%

Self-evaluation △

As a profitability indicator shared with shareholders and investors, we recognize that an ROE of 8.0% or higher is the ideal for the medium-to-long term, as stated in the Ito Review. We temporarily achieved this up till 2016, but since then, there is difficulty in growing operating income and it is on a decreasing trend. In the past, the policy was to increase ROE by higher profits from the growth of each business unit. However, going forward, we will seek improvement that also incorporates financial policies such as the acquisition of treasury shares so that we can make an early recovery.

Message from Chief Financial Officer p. 47-50

ROIC

Increase asset efficiency through management with ROIC on a divisional basis

Goals **10**% or more

FY2023 results **1.5**%

Self-evaluation △

We recognize that the level of ROIC companywide that we should aim for in the medium-to-long term through operating each business with an awareness of asset efficiency is 10% or higher. The actual ROIC in FY2022, set as a management indicator, was 8.3%. In FY2023, ROIC slumped at 1.5% due to a reduction in operating income before taxes caused by lower profits of our businesses. While we expect ROIC to reverse in trend and increase from 2024, this is still not enough to reach our target. Besides improving our performance, we will unite as one company to improve ROIC through an accumulation of efforts, including financials policies and measures implemented in the daily operations of each workplace.

Message from Chief Financial Officer p. 47-50

* Calculated as Profit before income taxes divided by invested capital

Environmental and social value

Greenhouse gas emissions

Reduce by **46**% in FY2030
(Compared to FY2019)

Carbon neutrality

Achieve in FY**2050**

Mitigation of Climate Change p. 75-80

We had set reduction targets for greenhouse gas emissions toward meeting the previous 2°C target of the Paris Agreement. However, we revised our Medium-term Environmental Targets so that we can meet the 1.5°C target that can further limit the rise in global average temperature. (Revised in April 2024)

Building a digital society

Providing environmentally friendly semiconductor materials that contribute to next-generation communications and digital transformation (DX)

Fine Chemicals Business Unit p. 58-62

Creating a healthy society

Contributing to the improvement of QOL
Providing a stable supply of pharmaceuticals

Life Science Business Unit p. 63-66

Continuing to protect lives

Providing products that ensure safety and security in the mobility field

Mobility & Imaging Business Unit p. 53-57

Supporting the supply of food

Providing safe agro-products to meet global food needs

Life Science Business Unit p. 63-66

Each business unit will continue to provide the best products, technologies, and services to protect lives and health and support enriching lifestyles. At the same time, we are undertaking R&D that targets the four areas of Mobility, Environment and Energy, Electronics, and Life Science that contribute toward achieving a sustainable society, and we are achieving progress in various themes and topics.

Creating a company with a strong presence

Increasing customer satisfaction
Human rights due diligence to business partners

Quality Management p. 95-96
Respect for Human Rights p. 91-92

We are striving to improve customer satisfaction—including enhancing systems for technical services and responding to customer inquiries—according to the format of each business. We are also advancing initiatives that respect the human rights of all people involved in business activities, including human rights due diligence that also covers our suppliers.

Human resources development

Improve employee satisfaction
Promotion of diversity
(Percentage of female managers over 10%, etc.)

Human Resources and Creation of a Comfortable Workplace Environment p. 85-90

We are fostering 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. In addition, we conducted an employee engagement survey for the first time in FY2023. We will use the results and seek to become a company that is popular with employees.

Message from Chief Financial Officer



Member of the Board, Representative Executive Vice President,
In charge of Corporate Planning Division,
Corporate Communications Division,
Finance & Accounting Division, Information Systems Division,
and Purchasing Division
Yoshitsugu Ishida

The Nippon Kayaku Group leverages its strong financial capital, characterized by a well-balanced mix of three business units that support sustainable growth, a robust financial standing that maintains an "A" corporate rating from the Rating and Investment Information, Inc. (R&I), and a cash allocation strategy that prioritizes growth investments to drive transformation.
Through **KAYAKU Vision 2025** (**KV25**), the four-year Medium-term Business Plan that began in FY2022, we at the Nippon Kayaku Group will maintain our solid financial structure at a certain level, appropriately manage our resources, and flexibly respond to changes in market conditions and business risks. At time same time, we will contribute to the realization of a sustainable society by providing economic value and environmental and social value through mitigation of climate change and other measures.

Action to Implement Management That is Conscious of Cost of Capital and Stock Price

Looking over the Nippon Kayaku Group's company-wide performance over the past 11 years, it can be observed that while net sales have grown driven by increased demand, operating income margins have stagnated. We recognize that the main cause of this is a chronic decline in marginal profit rate due to a lack of new businesses and new products.

As part of our efforts to address this issue, in June 2023, we defined promising market units and reorganized our segments into three business units: -Mobility & Imaging*1, Fine Chemicals*2, and Life Science*3. We will aim to achieve the continuous creation of new businesses and new products by leveraging synergies within each business unit and actively investing in growth fields.

In addition, to earn the trust of our shareholders and investors and further increase corporate value, we have established target levels for management indicators such as ROE and ROIC, focusing on efficient business operations with an awareness of capital efficiency and on the swift creation of new businesses and new products. Furthermore, to contribute to a sustainable society, we are committed to necessary investments to address mitigation of climate change and make effective use of human capital.

Unfortunately, as of the end of June 2024, our group has been evaluated as undervalued, with a price-to-book ratio of approximately 0.8. In response to the Tokyo Stock Exchange's request for "Action to Implement Management That is Conscious of Cost of Capital and Stock Price," we have identified "strengthening earning power" and "improving capital efficiency" as priority issues. We intend to advance asset-efficient management by presenting our approach to portfolio transformation and other efforts focused on enhancing efficiency.

*1 Safety Systems Group (Automotive Safety Components), Polatechno Group (Optical films for automotive, etc.)
*2 Functional Materials Group, Color Materials Group, Catalysts Group
*3 Pharmaceuticals Group, Agrochemicals Group

Stable **PBR of 1x or more**

Strengthen earning power	**Transformation of business portfolio**	Leverage strengths in main fields and businesses, address business issues
Improve capital efficiency	**Treasury stock** **Dividends**	Decided to acquire 3 billion yen this fiscal year, with plans to cancel some treasury stock Aim for a dividend payout ratio of 40% or more in the medium to long term ➡ Maintain annual dividends of 45 yen/share or more during the **KV25** period while actively investing for the future
	Cross-shareholdings	Less than 10% of net assets (achieved during the **KV25** period)
	Invested capital	Reduce inventory and accounts receivable, and reduce cash equivalents to 45.0 billion yen or less (achieved during the **KV25** period)
Promotion of sustainable management	Addressing company-wide material issues to realize our mission • **Reducing greenhouse gas emissions** (FY2030 target: 46% or more reduction compared to FY2019) • **Promotion of active participation of diverse human resources** (promotion of human capital management)	

The desired management indicators are ROE of 8% or more and company-wide ROIC of 10% or more in the medium to long term.

Portfolio Transformation to Strengthen Earning Power

In FY2023, we reviewed our business portfolio policy to strengthen earning power and classified each product group into “earning power amelioration business,” “foundation business,” “novel and future prospects businesses,” and “important business.”

Based on this result, we will determine the fields to concentrate management resources from FY2024 onward, which is the second half of **KV25**.

In order to prevent “Earning power amelioration businesses” from occupying a large part of our portfolio, we will make it a foundation business by leveraging profit improvement and deciding whether to continue the business, and adjust it so that it accounts for 2% or less of net sales.

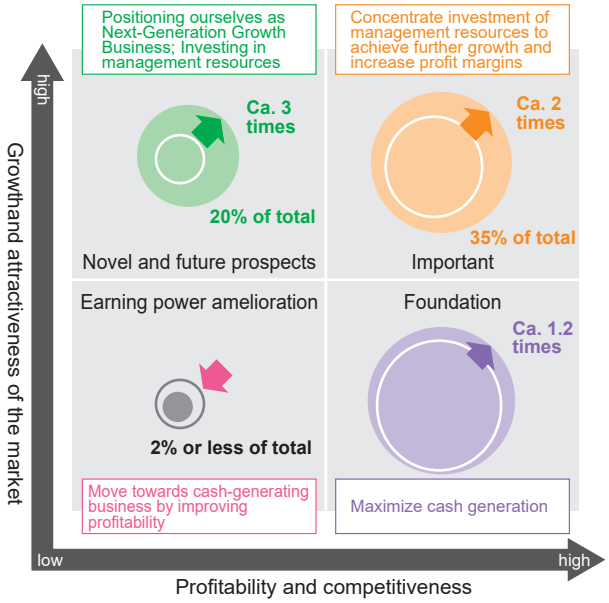
“Foundation businesses” are business that support our current performance, such as squibs and micro gas generators in the Mobility & Imaging Business Unit. We will be even more conscious of this and operate our business more efficiently, aiming to maintain or slightly increase sales while maximizing cash generation.

“Novel and future prospect businesses” are a product group that will be useful for a sustainable society in the future, such as safety devices for drones in the Mobility & Imaging Business Unit. We will consciously invest management resources such as R&D expenses and human resources to create new businesses and new products, and aim to increase it to 20% of sales by FY2030. (Approximately three times the amount in FY2023)

“Important businesses” are a product group that is just starting to grow, such as inflators in the Mobility & Imaging Business Unit, semiconductor manufacturing products in the Fine Chemicals Business Unit, and unmet needs anti-cancer drug in the Life Science Business Unit. We will concentrate the greatest portion of management resources, such as capital investment, human resources, and licensing, on these units to achieve further growth and improve profitability. We have set a goal of increasing the proportion of sales to 35% by 2030. (Approximately double the amount in FY2023)

Business portfolio transformation

Arrows indicate FY2030 targets compared to FY2023



Important	M I Inflators FC Semiconductor manufacturing products group FC Digital printing inks LS Unmet needs oncology drugs LS Biosimilars
Novel and future prospects	M I X-ray analyzer components M I Polarized film for new automotive applications M I Safety devices for drones FC New functional dyes FC Carbon neutral catalysts
Foundation	M I Squibs, micro gas generators FC Acrylic and methacrylic acid production catalysts FC Consumer inkjet colorants LS Generic anti-cancer drugs LS Insecticides

Cash Allocation to Promote Transformation for Growth

The period of **KV25**, from FY2022 to FY2025, has set a larger growth investment budget than in the previous Medium-term Business Plan, to allocate management resources toward “important businesses” and “novel and future prospect businesses” in our portfolio. Specifically, we have planned a total R&D expenses of 65.0 billion yen and a total capital expenditures of 91.0 billion yen over the four years, with a cash allocation framework with a maximum of approximately 200 billion yen, including flexible allocations for M&A and product introductions. In addition to cash and deposits and accumulated net profit, we will also utilize borrowing with a target equity ratio of around 70%.

Major uses of funds through FY2023 include expenses for a licensing agreement for Taletrectinib, a new drug candidate for lung cancer in the Life Science Business Unit (R&D expenses); capital investment to increase production capacity

Message from Chief Financial Officer

for epoxy resins for semiconductors and industrial inkjet inks in the Fine Chemicals Business Unit, and an investment in SkyDrive Inc., a company developing flying cars, within the Mobility & Imaging Business Unit (flexible allocation).

For FY2024 and beyond, we will continue to concentrate management resources on growth, with anticipated investments for the introduction of new unmet needs anti-cancer drug in the Life Science Business Unit, and for production capacity expansion in the Mobility & Imaging and Fine Chemicals Business Units.

A cash allocation of approximately **200** billion yen has been set to drive transformation toward growth during the ***KV25*** period.

R&D investment limit: **65.0** billion yen	Capital investment limit: **91.0** billion yen	Flexible allocation: Approx. **45.0** billion yen
Total amount used by FY2023: **33.1** billion yen: **51**%	Total amount used by FY2023: **41.2** billion yen: **45**%	

Major usage results up to FY2023

- License agreement cost for Taletrectinib, new drug candidate for lung cancer (LS approx. 6 billion yen)
- Expansion of facilities to increase epoxy resin production at the Asa Plant (FC 6.6 billion yen)
- Expansion of facilities to increase industrial inkjet production at the Fukuyama Plant (FC 4.3 billion yen)
- Construction of an integrated pharmaceutical quality assurance building at the Takasaki Plant (LS 3.5 billion yen)
- Underwriting cost for third-party allocation of new shares to Adrais, a company developing buparlisib, a new drug candidate for head and neck cancer (LS approx. 6 billion yen)
- Investment cost in SkyDrive Inc., a company known for flying cars (MI)

Main candidates from FY2024 onward

- Costs to introduce unmet needs anti-cancer drug candidates (LS)
- Costs to meet increased demand for semiconductor-related products such as epoxy resins (FC)
- Costs to meet increased demand for inflators and other Automotive Safety Components (MI)
- M&A and introduction costs related to the four target units of R&D: “Mobility,” “Environment and Energy,” “Electronics,” and “Life Science”

MI Mobility & Imaging Business Unit FC Fine Chemicals Business Unit LS Life Science Business Unit

Promote ROIC Management to Improve Capital Efficiency

Manage each department using ROIC to improve asset efficiency

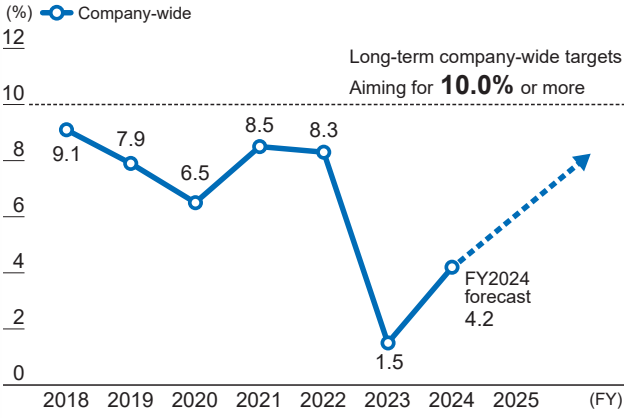
The Nippon Kayaku Group has adopted ROIC as a management indicator starting with the Medium-term Business Plan **KV25** and is monitoring it by business unit to improve asset efficiency. While ROIC may temporarily decline during periods of aggressive growth investment, we consider it a useful indicator that reflects the business and our ability to generate profits efficiently. Over the long term, we are aiming for an ROIC target of 10% or higher.

In FY2023, two major investments for the introduction of new drug development projects were made within the Life Science (pharmaceuticals) Business Unit. Of these was a one-time payment of approximately 6 billion yen recorded as R&D expenses for the license from Anheart (US, currently NuvationBio)*, and the divisional ROIC declined due to the decline in profits in the Life Science Business Unit. In addition, the decline in profits in the Fine Chemicals Business Unit also had an impact, leading to a decline in the company-wide ROIC. However, no significant, unexpected R&D expenses are anticipated in FY2024, and we expect to see a recovery in company-wide ROIC driven by overall profit growth.

Although we are still not fully in line with our long-term targets, we will aim to improve our company-wide ROIC over the medium to long term by implementing measures such as strategically reducing inventory while determining the quantity of customer requests, improving our cash conversion cycle by considering reducing accounts receivable, reducing cross-shareholdings that are not highly relevant to our business, and selling unused facilities and equipment and other unnecessary assets.

*Additionally, we acquired approximately 6 billion in shares through a third-party allotment for a licensing agreement with Adlai (Cayman Islands).

Company-wide ROIC trends



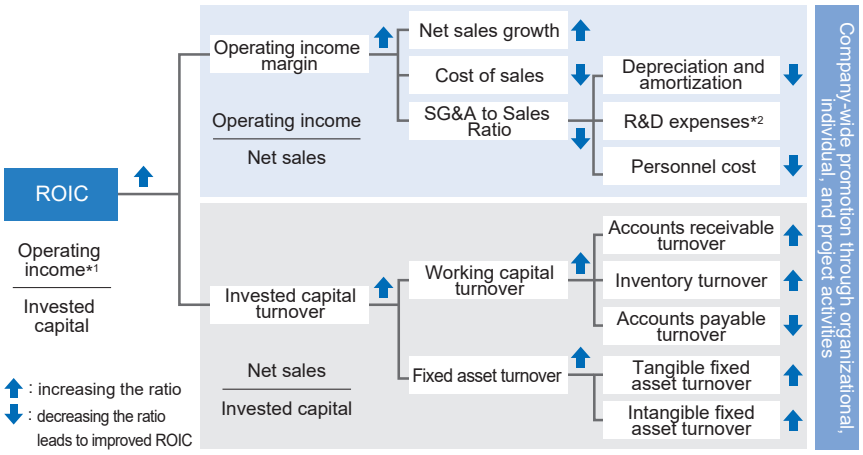
Implementing ROIC improvement activities across the company

In order to increase corporate value as a company, we need to deepen ROIC management one step further. The key to this is to spread awareness within the company that specifically leads to each person's work improving ROIC in all subdivided tasks, such as company organization, individuals, and projects.

The group determines the performance-linked bonuses for executive officers based on the achievement of ROE, etc., while using a calculation method for employee bonuses that takes ROIC into account. In addition, the group encourages all employees to practice business improvement using the ROIC tree through e-learning and other education.

Furthermore, under the catchphrase "always be conscious of 3% cost reduction," the group is working on "A3 activities (KAIZEN)", aiming to eliminate difficulty, waste, and inconsistency (referred to as the 3Ms (Muri, Muda, Mura) in Japanese) to reduce cost by improving business efficiency and productivity, and by sharing good examples of activities throughout the group, thereby striving to foster everyday cost awareness.

ROIC tree used for employee e-learning



*1 Pre-tax operating income is used to calculate company-wide ROIC.
*2 There is no arrow for the R&D expense ratio because it is not necessarily better to lower it.

Award themes for the 2023 A3 activities Presentation Conference

- Improving the efficiency of inspection work in polarizing plate production
- Improving productivity of industrial inkjet inks
- Reducing costs by shortening epoxy resin production time
- Reducing costs and improving production efficiency of semiconductor resist products



Shareholder Returns

The Nippon Kayaku Group regards returns to our shareholders as important and target a medium- to long-term dividend payout ratio of 40% or higher. Under the Medium-term Business Plan **KV25**, which spans from FY2022 to FY2025, we have maintained a dividend payout ratio of 40% or more, with plans to sustain a minimum annual dividend of 45 yen per share through FY2025 (an increase of 5 yen in FY2022).

Furthermore, we will use retained earnings to strategic investments in R&D, capital investment, product introductions, M&A, and other areas necessary for future growth, but will also flexibly acquire treasury shares as part of our profit return measures, while carefully monitoring the situation.

In FY2024, we declared interim dividends of 22.5 yen per share, with a record date of September 30, and year-end dividends of 22.5 yen per share, for total annual dividends of 45 yen per share. Additionally, from May to September 2024, we repurchased 2.4 million shares (approximately 3 billion yen) of treasury shares.

Recent acquisition of treasury shares:

November 2019 to March of the following year.	Acquisition of treasury shares	2.4 million shares (approx. 3 billion yen)
May to September 2021	Acquisition of treasury shares	2.6 million shares (approx. 3 billion yen)
February 2022	Cancellation of treasury shares	7.0 million shares (Book value basis, 8.1 billion yen)
November 2022 to March of the following year	Acquisition of treasury shares	3.0 million shares (approx. 3 billion yen)
May to September 2024	**Acquisition of treasury shares**	2.4 million shares (approx. 3 billion yen)

Target dividend payout ratio of **40%** or more
Maintain a minimum of **45 yen/share** until FY2025

